RELATIONSHIP BETWEEN INNOVATION STRATEGIES AND COMPETITIVE ADVANTAGE IN THE LOGISTICS FIRMS IN MOMBASA COUNTY, KENYA

BY

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DECLARATION

This research project is my original work and has not been submitted for award of a degree in any other University.

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This research project has been submitted for examination with my approval as the Supervisor.

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DEDICATION

This project is dedicated to my loving wife Faith for her support and encouragement during the entire MBA study, to my daughter Kayla for her reassuring smile that encouraged me even in difficult times. I also dedicate it to my extended family for support and encouragement throughout the study.

ABSTRACT

Any organization that is keen on competing in the dynamic markets must create a special edge that allows it to derive a competitive advantage over rivals. One way of gaining superiority over rivals is through innovation. Innovation as a strategy involves creating new ideas, processes and ways of doing things that improves current goods and services or bringing into new, products and services. Innovation in firms is necessary in order to defend their existing competitive position and competitive advantages to be gained. Logistics firms located in Mombasa County are not exceptional in this regard. The study sought to establish the innovation strategies used by logistics firms in Mombasa County and if any relationship existed between those innovation strategies and competitive advantage of the Logistics firms. A cross sectional descriptive survey design was used and a five point Likert scale questionnaires developed to collect primary data from respondents. The population was 876 logistics firms and sample size was 60. Regression analysis was used in the data analysis. 44 logistic firms responded giving a response rate of 73%. Results obtained indicated that Logistic firms in Mombasa County utilized innovation strategies namely; product innovation strategies, process innovation strategies, market innovation and organizational innovation strategies. Overall, it was shown that innovation strategies influence competitive advantage in Logistic firms in Mombasa County, Kenya. Product innovation strategy had a positive and significant effect (5% significance level) on competitive advantage since one unit increase in innovation strategy increased competitive advantage by 0.359 units. Similarly, one unit increase in market innovation strategy increased competitive advantage by 0.126 units. When process innovation strategy increased by one unit, competitive advantage decreased by 0.061 units. Finally when organization innovation strategy increased by one unit, competitive advantage increased by 0.081 units. The study concludes that product innovation is critical in enhancing competitive advantage of logistic firms in Mombasa County as an increase in product innovation leads to a significant increase in competitive advantage and therefore, competitive advantage level variability decisions should take into account implications of innovation strategies for logistic firms.

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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Organizations exist in dynamic markets that have changing technology and to survive in that competitive environment they innovate. Innovation is the means or way of translating an idea, skill or invention through; adopting new operating practices, offering of new products and services: technological, organizational, or market oriented; or creation of new skills and competencies (Schumpeter 2000). The innovation ability is very important factor increasingly viewed in developing and sustaining competitive advantage (Tidd, et al 2001). Modern businesses including logistics firms are increasingly engaging in constant competition with rivals with a goal to survive on the market and must therefore formulate well aligned innovation strategies in order to meet customer demands and a significant form of growth. These innovation strategies will assist the organization to have a unique advantage which Porter (1980) calls competitive advantage.

This study was anchored on three main theories resource based view theory, knowledge based and dynamic capability theory. Resource based theory puts into recognition the fundamental importance of organizational resources that are internally owned by the firms as determinants of the firm's strategy and its performance (Barney & Clark, 2007). The internal organizational resources consist of all assets and capabilities, firms' attributes, organizational processes, information, that are controlled by the firm and that allow it to envision and implement innovation in order to be efficient and effective. The knowledge based theory notes that a learning organization is created and generation of knowledge is fostered and fundamental basis for sustainable competitive advantage should be exploitation in an economy that information base is increasing (Ma, 1999). Dynamic capability theory emphasizes on ability of a firm to renew competencies so as to renew competencies so as to allow adaptation to changing business environment and firm's ability to use those competences to serve the needs of the environment (Teece at al, 1997).

Kenya's logistics industry is poised for major changes as a result of the innovation strategies to achieve sustainable competitive advantage. High competition in business has also brought a need for logistics through movement of products and inputs across

continents and countries to satisfy needs of markets that are nearby as well as serve those that are far flung. As a global village therefore, there is need to have a particular line of processes or methods of offering logistic services that is quite unique in the competitive market. This calls for sustainability of that particular competitive advantage in order to remain viable on the market. There is no doubt that logistics has very high stakes with the business community ready to shift loyalties at the slightest opportunity arising on the market (Sago, 2005).

1.1.1 Innovation Strategies

Innovation as a strategy consists of implementation of a new product (good or service) or improvement of existing business practices such as the marketing method, organizational culture, workplace organization practices or external relations with customers (Pavitt, 2006). Innovations can stem from use of new technologies or processes from other fields, or from new ways of doing business or marketing products and services. Pilo, Taskinen and Salkari (2007,) stated that, "there is no one single innovation process that could be replicated from one organization to another". Organizations need innovation management to develop the process of innovation, innovation strategy definition, and most importantly, creation of an innovation culture.

In order to stay competitive, the organizations across all industries embracing of innovation must be trully and fully: innovation policies, strategies, processes creation and, they need to establish a creative culture within the organization which is the most important consideration. Zhuang*et al.,* (1999) classified innovation as an invention, improvement of existing service/product or process improvement and better implementation of ideas developed elsewhere. Innovation by invention allows or enables differentiation of firm's products or services from rivals, therefore playing a critical role in the firms' superiority and gaining competitive advantage. Most firms' innovation strategies are in improving the existing product or process and better adoption of ideas developed elsewhere.

Adriopoulos and Dawson (2009), argue that innovation strategies can take many forms but they summarized types of innovation strategies into four as follows: process innovation, product/service innovation, organisational innovation and market innovation.

1.1.2 Competitive Advantage

Competitive advantage is described as position of superiority or uniqueness of a firm over its rivals or competitors, derived from its products/ services, processes or ways of doing business. A firm must establish how well to perform its functions to bring that uniqueness or superiority in relation to competition. The superiority or distinction to the customer should be valuable and should be perceived by him as such. According to Porter (1980), competitive advantage is seen as the ability which is gained from attributes and resources and allows the firm to perform at a better level than others in the same industry. He postulated that decision must be made by a firm whether to attempt to gain competitive advantage by lowering the cost of production than for its competitors or goods and services differentiation and sell them at a premium price. Porter (1985) defined competitive advantage as the position whereby a strategy that creates value is implemented by a firm and that which any potential or current competitors are not simultaneously implementing.

The "resource based view" (RBV) is the most widely used theory in explaining sources of competitive advantage. The two main sources of sustainable competitive advantage, according to this theory are assets and capabilities. Assets are the resource owned by a firm, and capabilities are the competences that keep assets together and enable them to be used appropriately for the benefit of the firm. Capabilities are different from assets because they are so deeply embedded in the organisation as routines and practices and therefore cannot be traded or imitated unlike assets like plant and equipment are tangible, and has a monetary value (Day, 1993).

Competitive advantage occurs when an attribute or combination of attributes in an organization are acquired or developed that allows the organization to outperform its competitors. In a service oriented business, competitive edge is well achieved through innovation strategies which are value creating and their implementation is simultaneous by any current or potential player. Clulow et al. (2003), reckons that innovation strategies that are successfully implemented will lift superior performance of a firm by outperforming of current players by facilitating the firm with competitive advantage. Using innovativeness and value addition to have competitive advantage, the business strategy of a firm has to be formulated in a way that there is optimal manipulation of the resources it controls. Over time, companies have invested

considerable time and effort in developing innovative products and services that work for their consumers. They often consider adopting innovative strategic tools to address the challenge of improving service quality, increasing productivity and competitive advantage (Kamakura et al., 2003).

1.1.3 Logistics Firms in Kenya

Kenya plays a critical role in international trade within East Africa region as a gateway for imports and exports. The bulk of trade in and out of Uganda, Rwanda and South Sudan countries is carried across Kenya from and to Mombasa port, the country's main port. Managed and operated by the Kenya Ports Authority, the port is a crucial hub for international trade in the East and Central African region.

Logistics industry in Kenya is well diversified and includes firms specializing in transport, sea and airfreight, customs clearance, freight forwarding, warehousing, project cargo logistics and part logistics. Main players include SDV Transami, DHL Global, Agility Logistics, Andy Forwarders, Sivicom Liners, Buzeki enterprises, Multiple Hauliers and Siginon group among others (Siginon Report, 2012).

The Kenya International Freight and Warehousing Association is the industry body. Development and regulation of the sector is overseen by the Ministry of Transport. The World Bank's Logistics Performance Index places Kenya 122nd overall out of 155 countries, with a score of 2.43, 45.9% of the highest performer, Singapore. The logistics market is also heavily involved in selling cargo space to shipping lines based on commission as well as selling to exporters for non -nominated volumes. In some instances the market players are targeting almost exclusively clearing agent via commission and lower costs. Similarly, there is hard selling to solicit business in Mombasa and Nairobi with importers in which the main weapons are free storage periods, commissions plus rebates. The Siginon market share currently stands at approximately 4% as at May 2011 while market leaders, Bollore, DHL Global, Andy Forwarders, Agility, control over 50% of the logistic market share (Federation of Freight Forwarders, 2012).

1.2 Research Problem

Innovation is a process whereby ideas and knowledge that are new are transformed into new products and services. Innovation is carried out in firms to have competitive advantage over rivals and enable firms achieve a superior position over competitors. A firm may take a proactive or reactive innovation approach to competition. A market leader will use innovation strategies to differentiate its products or services from rivals. A struggling business firm will try to innovate to increase its products/services, market share and get some profits as a way of survival. To gain a strategic market position relative to its competitors a proactive approach may also be taken, for example by developing and then trying to enforce higher technical standards for the products it produces (OECD, 2005). Through creation of competitive innovation strategy, a competitive advantage is achieved that is aligned with currents in the firm's industry and suitable to the firm's resources and capabilities (Porter, 2006).

Logistics industry in Kenya is highly competitive and individual logistic firms need to think of how best to serve their customers, how to uniquely maintain their products and services, markets to serve and processes value addition to remain competitive. Firms in the logistics business partner with their customers in order to have better innovation strategies. Leal (2012) posits that a proper functional system is ensured by innovation strategies that are efficient. This efficiency is achieved through joining and coordination of the operations of different forms of transport as a basis for ensuring efficient transport service to customers.

Clulow et al. (2003) reckons that through successful implementation of innovation strategies, a firm will outperform current or potential players and that superior performances leads to the firms' with competitive advantage. Ren et al. (2010) through market innovation sought to develop an approach that Chinese firms can use as a springboard to identify sources of sustainable competitive advantage. Market Innovation was found as a significant source of competitive advantage for Chinese firms that operated in dynamic and competitive economic environment. Livohi (2012) on innovative strategies in Logistics industry posits that to achieve and maintain competitive advantage firms can explore innovative technologies and strategies in the current business environment that is characterized by ever increasing competition and economy globalization. Wafula (2011) carried out a study on organizational

innovation and competitive advantage among Health Focused Non-Governmental Organizations in Nairobi Kenya and concluded that those organizations that possess higher ratings in extent of innovation activities also subsequently tended to possess a greater competitive advantage than their counterparts. Research on innovation strategies and competitive advantage in Kenya's logistics industry is scarce. This study sought to address this gap by answering the following question: What is the relationship between innovation strategies and competitive advantage in the Logistics Firms in Mombasa County, Kenya?

1.3 Research Objectives

(i) To establish the innovation strategies used by Logistics Firms in Mombasa County, Kenya

(ii) To establish the relationship between innovation strategies and competitive advantage in Logistics firms in Mombasa County, Kenya.

1.4 Value of the Study

This study will assist Logistics firms in knowing innovation strategies available and how well the strategies can be harnessed and managed to ensure competitiveness of individual firms. Potential investors in logistics industry will also find the study valuable because it will offer an insight of how various logistic firms have employed innovation strategies to have competitive advantage over their competitors.

Regulatory authorities and policy makers such as the Kenya Bureau of Statistics (KEBS), Kenya Revenue Authority (KRA) and Kenya National Bureau of Statistics (KNBS) among others will find the study very relevant and informative on innovation strategies in logistic firms and therefore better understanding of the industry.

To the body of knowledge and field of scholars the study will finally contribute in dealing with innovation strategies and competitive advantage both in corporate and private organisations. The findings, conclusions and recommendations will be used as a basis for scholars to empirically or theoretically study the topics thus enriching the field of research.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

In this chapter relevant literature information about the topic of study is discussed. The theoretical foundation of the study begins this chapter, followed by empirical review of the literature and summary of the literature review concludes.

2.2 Theoretical Foundation of the Study

The study was discussed by three theories which included Resource based view theory, Knowledge based theory and Dynamic capability theory.

2.2.1 Resource Based View Theory

Resource Based Theory examines the critical role of a firm's internal organizational resources in influencing the firm's strategy and performance (Barney & Clark, 2007). Internal resources of an organisation consists of all its assets, capacities, competences, capabilities, firm attributes, organizational processes, information, knowledge etc , that the firm controls and that enable it to develop and implement strategies that will improve its efficiency and effectiveness. The resource based view puts into recognition that a firm's tangible and intangible resources are important determinants of performance, emphasising on the intangible skills that keeps physical organizational resources in place (Alavi and Leidner, 2011). Competitive advantage originated from the ownership of strategic resources which are rare, of significant value, that cannot be imitated, and cannot be easily substituted (Barney, 1991)

Firms' resources and capabilities provide profit and organizational value according to the Resource Based View (Wernerfelt, 1984; Barney, 1991; Grant, 1996). Barney (1991) proposes that particular and unique resource bases characterize organizations which also occur as heterogenous entities. An explanation by firms for heterogenous competition based is presented in this view, assuming that competitors that are close greatly differ in their resources and capabilities, which determine their capability to generate profit (Amit & Shoemaker, 1993). An organisation is a mixture of unique competencies and capabilities that determines strategic direction and growth options, when perspective of resource based view is strategically considered in the firm (Dierickx & Cool, 1989; Barney, 1991). This theory is based on the premise that firm's internal resources influence performance and therefore their competitive advantage.

Most firms will not have the capability to access or possess resources that satisfy conditions by Barney's (1991) in the modern business world. Moreover, even if resources were to be accessed appropriately their utilization by firms may not be capable in the right combination. In this context, there is difficulty in determination the relationship accurately between high profits, SCA and resources available. The effectiveness of a material resource is dependant completely on who uses it; this is suggested by the resource based view as the inference (Renet, 2010). Oliver (1997), nevertheless, asserts that both institutional capital and resources are essential in creating an SCA. Enterprise development and maintenance of firms' sources of competitive advantage is understood through the resource based view of the firm.

2.2.2 Knowledge Based Theory

The knowledge based which is an extension of the resource base view theory, proposes that the main determinants of performance difference are heterogeneous knowledge bases in the firms that allows them to create and apply knowledge (Decarolis & Deeds, 1999). Amin and Cohendet (2004) argue that knowledge is an important basis of competitive advantage that knowledge is seen as different in various firms and as heterogeneous resource that in different manifestations firms are able to value it.

For superior performance an organizations ability to defend, take advantage of and apply knowledge that it creates is necessary (Cameli & Tishler, 2004). Knowledge when combined with other resources and competences such as contextual factors gives a strategic strategy and direction to the firm (Prieto & Revilla, 2006). Grant who shared a similar view (1996) argues that existence of firms was because in integration and application of knowledge that is specialized they are much better than how it's done in markets .The current study looks at acquisition, application and sharing knowledge as components of knowledge management and how it can be created and applied within the organizational context.

The knowledge based theory notes that in an increasingly economy that is based by information a fundamental basis for sustainable competitive advantage ,a learning organization can be created and fostering knowledge generated and exploited (Ma, 1999).Yu (2002), Leonard and Sensiper (1998), Lubit (2001) among others as

main proponents of this theory, propose that firm's sources of SCA comes from the knowledge that is found in the firm as well as the capacity of people to use that knowledge. Lubit (2001) observed having access to resources and markets is not enough to have a special edge, rather competitive advantage is more been found in knowing how things are done, the key to superior performance and core competencies are knowledge and intellectual capital.

Ren (2010) argued that where SCA can be derived there's identification of three general resources: the distinct market environment that the firm operates, the firm's resources that are available and can be allocated, and the firm's processes that can be innovated continuously. Jiang (2002) observed that continuous innovation of a resource even in constrained environment provides a unique and inherent factor that offers the ability for all firms to have and maintain a sustainable competitive advantage in the three sources.

Possession of capabilities to adapt to operations is necessary for firms that want to obtain SCA in the dynamic markets they operate. Before a current competitive advantage declines, development of new forms of competitive advantage is important to ensure consistent and continuous process of innovation. Hence, a competitive advantage must be conceived and developed by firm's managers as if it was on continuum.

2.2.3 Dynamic Capability Theory

Dynamic as a term refers to the level to which competencies can be renewed for adaptation to changing of business environment (Teece et al, 1997). Capabilities emphasis on the important role that strategic management plays in suitable adaptation, adoption and adjustment of organizational skills ,both internal and external, resources and competences so that such capabilities are in sync with the changing dynamic business environment (Poulis, Poulis & Jackson, 2013). Hence, capacity of the firm to renew their resources in line with changes in its environment is focussed by dynamic capability approach (Poulis et al., 2013). This theory is an related to resource based view and dynamic capabilities are frequently positioned which puts into suggestion that firm processes can be used to develop, adopt, and utilise resources to suit the markets therefore creating a change (Eisenhardt & Martin, 2000).

Eisenhardt and Martin (2000) considered that similarities across firms are shown by dynamic capabilities that are specific. Capabilities that are dynamic can change in different markets, in both unstable and stable markets although they are required in all markets. Teece et al (1997) posits that dynamic capabilities are particular to each firms and therefore such capabilities are particularly useful to those firms and may not be the case elsewhere. While pointing out that the characteristics of dynamic capabilities are peculiar to individual firms (Eisenhardt and Martin, 2000) explains that in stable markets, these capabilities are stable and can be observed as routines. In unstable markets or those rate of change is high the dynamic capabilities will be keep of changing very fast and therefore no longer a routine that managers can rely on. Prigogine and Stengers (1984) explain that such processes can scatter in various directions and therefore require much effort to be contained to the form or structure that was initially intended for. Therefore posits that how well an organization handles capabilities that are dynamic within the changing market environment, will lead to better performance. Dynamic capability theory recognizes the importance of containing competitive advantage from firm's capability by renewing capabilities even in the changing markets. This competitive advantage depends results from how well a firm renews its capabilities internally rather than from outside the firm (Eisenhardt and Martin, 2000)

2.3 Innovation Strategies

Adriopoulos and Dawson (2009) argue that innovation can take many forms but they categorized innovation strategies into four as follows: product/ service innovation strategy, process innovation strategy, market innovation strategy and organisational innovation strategy.

2.3.1 Product Innovation

Product innovation involves bringing into the same markets a new service or goods with the aim of making known your new product to end users or improving the characteristics of the current goods or services already in the market, so that their intended use by customers, quality or association is improved compared to the existing products. This can be done through use new technologies, better material components, make the products have better features and characteristics than existing ones. Product innovation arises from shortening product cycles that arises from changing customer demands and advanced technologies. Product innovation is done

through examining what is currently in the market, identifying the markets needs pertaining to the products required and therefore introducing new products or improving existing ones to meet those needs. Technological advanced plays a key role in product innovation by helping in promoting new features that responds into changing customer demands and increased competition in the world. Understanding the specific customer demands, latest technologies, capacity of suppliers and having strong internal firm relations will lead to a successful product innovation (Adriopoulos, Dawson, 2009).

Product innovation refers to bringing into new and placing into the markets of a product or service that is new, or improving on existing services or products. Kirill (2011) defines product innovation as the creation of a new product, changing the design of existing products, or using different material or components in the manufacture of goods already in the markets. Therefore product innovation as a strategy is two forms: developing new products, and on improving the existing services or products. The complete process of creating a new product or service to the market is described by new products development. There process of bringing a new product or service involves market research and analysis that's brings the idea of a new product or improvement of existing one. After the idea is generated, a product design is done and innovation is then considered for the existing product. Product innovation strategy is a an obvious method commonly used to extend a product's life and most important when improving existing products or when the sales of products are on the decline and therefore providing the most obvious means for firms rejuvenation and revenue generation.

2.3.2 Process Innovation

Davenport (1993) puts into definition process innovation as a mixture of structure for doing expected job with an aim of having to clear and better results. Process innovation requires a look into the overall business objective and considering whether the current way of doing things is satisfactory in achieving objectives and if not, having an improvement or new order of doing things to ensure objectives are accomplished. Process improvement can distinguish process innovation, where a lower level of change is sought. Process innovation as a strategy is defined by performing job in a different new way while process improvement is doing the same business process but in a manner that increases efficiency and effectiveness. Business

process reengineering and quality function deployments are embraced by product innovation (Cumming, 1998). Any person who continuously works on improving the processes leads to better performances and cost reduction from efficient and effective processes. This better process results in better ways of doing business and reduction in costs of products that is then passed on to end users.

In the support of any product or service that is offered to the markets, process innovation is important to a firm. Process innovation management is a challenging activity in person especially in of services, which rely on personal interactions to achieve bring out the best results (Johne and Storey, 1998). To achieve process innovation successfully, inquiry into present process is important, then equipping the firm with the right environment and capacity to innovate and making sure that customer' needs drives the process innovation (Fitfield, 1998).

2.3.3 Market Innovation

Market innovation puts into concern mix of targets improvement and how chosen markets are served in the best way (Mitchell, 1996). Identification of better (new) potential markets is the main purpose; and better (new) ways to serve market that are targeted. It is also referred to as marketing method implementation involving improved changes in product itself, packaging of the products, placement of the products and product pricing strategy. End result of market innovation as a strategy is to meet customer' needs in a better manner, to have new product markets, or to enable the firm's products to have a better market position so to increase sales volume and therefore firms' income. Market innovation is related to the firms' pricing strategies, product offers, product design properties, product placements and/or promotion activities.

Through skilful market segmentation identification of market innovation of potential markets is achieved (Walker et al, 1996). Division is involved in Market segmentation, whereby a potential market that is complete is divided into parts which are smaller and more manageable so that those markets are better served therefore increasing on organization presence and profitability. Market segmentation that is incomplete will result in the firm failing to optimally position its specific products to the appropriate or target customers and therefore losing revenue and market share.

2.3.4 Organizational Innovation

Organisation innovation is the establishment of an organizational culture that is new or improved in terms of better business practices, how work place is organised and improved external and internal relations. Organizational innovation is achieved by efficient and effective administrative efforts, better employee's relations, better work and work place satisfaction that are achieved through better working environment and competitive remuneration. Employees are an integral part of a company's success or failure. An employee poses intricate knowledge and skills that result into competitive advantage of the firms. Improving the tacit knowledge through trainings and mentorship is considered as an organizational innovation strategy that is critical for a firm's success.

Organisation innovations may include practices for knowledge coding so as to have databases of best practices and other tacit knowledge, training programs for developing the skills of the employees or programs that promotes relationship between various stakeholders. Therefore organizational innovations are critically related to any administrative efforts geared towards better organizational practices, ways of doing thing, how they operate internally and externally and how well they relate with employees and other stakeholders so as to enhance team work, organisational information sharing, and coordination of various firms' activities, collaboration with other partners, and developing a learning culture within the organization. Organisation innovation strategies differ in various firms and there are substantial differences in the literature in this field (Andersson, et al., 2012). Some firms are persistent innovators; some firms innovate intermittently, while others are non-innovators.

2.4 Innovation as a Basis for Competitive Advantage

Schumpeter (1934) had long acknowledged innovation as a critical basis for a competitive advantage that is sustained. A new definition was provided by the economist as combination of factors of production that are new and conditions of production by entrepreneurs. Schumpeter identified new combinations which include creating new products or features being brought to a product, through production processes that are new, new markets promotion, raw materials sources or semi-finished products supply should be controlled, and implementation of organizational structures that are new (Ren et al ., 2010).

Bastic and Leskovar-Spacapan (2006) indicated that in the literature five innovation models can be found. The development of innovation models has been such that every successive higher model that was developed had all the characteristics of the previously one but had at least one new characteristic added to it. Examination of these innovation models showed that latest technology and technological knowledge and customers' needs, in-house functional co-operation and collaboration of organization and its environment such as strategic alliances as factors that influence innovativeness of an organization.

For R&D output technology push was the first generation model that assumes that the market is a ready sink. The greater the size of Research and Development, the greater the potential of the firm to produce products, whose market demand is already there. In the second generation model, customer needs were the driving factor in the innovation process ; hence the model was referred to market pull model. In the third generation model, called coupling model the innovation process was a net of communication paths that were complex, both inside and outside the firm, linking together the various functions within the firm, market place and to the broader scientific and technological community.

The fourth generation model referred as the integration model was made of a high level of functional integration and simultaneous activities. Systems integration and networking process was the fifth generation model whereby the innovation process was similar to networking processes that included increasing strategic alliances numbers and R&D collaborative relationships. Supply chain management awareness was increased and networking between SMEs and large firms was increased, as well as that between SMEs themselves (Bastic and Leskovar-Spacapan, 2006).

2.5 Empirical Review on Innovation Strategies and Competitive Advantage

A competitive advantage arises when an organization develops an attribute or a special edge that allows it to perform better than competitors. Barney (1991) sought to survey firm's resources and its link to competitive advantage. Barney examined the link between resources of the firm and sustained competitive advantage building on the premise that strategic resources are heterogeneously distributed across firms and over time these differences are stable. He argued that those resources must have value, rareness, imitability, and substitutability for them to bring about competitive

advantage. He also did examine the ability of several firm resources to generate sustained competitive advantage. He concluded that not all of a firm's resources led to sustainable competitive advantage but rather, the resources of the firm must possess the attributes of value, rareness, not easily substituted and not imitated if an SCA is to be achieved.

Jiao et al. (2011) sought to put in summary the building mechanism for dynamic capabilities after a theoretical model for innovation strategy and dynamic capabilities building. Their study considered environmental dynamism as a moderating variable. In prediction of dynamic capabilities they also found that the interaction term between innovation strategy and environmental dynamism is insignificant .In conclusion they stated that innovation strategy can build and upgrade dynamic capabilities in both stable and rapidly changing environments.

Weerawardena and Coote (2001) sought to examine entrepreneurship role in organizational innovation based competitive strategy. Through potential marketing and entrepreneurship interface, role of entrepreneurship in the innovation based competitive strategy was examined and refined and tested as indicators of entrepreneurship, innovation of the organization and its competitive advantage. They found that firms in entrepreneurship sought both technological and non - technological innovations, and those innovations gave them sustained competitive advantage.

2.6 Summary of Literature Review

It was suggested by most authors that innovation is whereby a new process, technology or technique is adopted in the environment for any organization to remain relevant, from time to time it ought to innovate. Lees, (1992) denotes that innovation is not an end in itself, there should be proper organizational structure in any organization that allows and support the innovation. Innovation as a strategy is effective when internal employees are part of it, are able to train or go through it and be part of the changes. Organizational culture should be created by organizations whereby employees are encouraged to suggest ideas that are new and relevant and which implementation in them can take place. In the organization since introduction of ideas which are good can come from any management level, methods of communication should be put in place for all employees to enable innovation.

By developing a section that deals with product research and development, organizations will have a competitive edge over its competitors while others firms should create innovation department. (Kay, 2009) describes innovation as an important element in strategy and level of performance in firms. High, scarce products that are value added introduction can reap super-normal profits in an individual firm. Firm are allowed by innovation to develop new products or services. Some organizations innovate more on technology and others focus more on providing better quality customer care, new and unique products or services to existing markets or introducing new market strategies. Logistics Industry in Kenya remains highly competitive and logistic firms are adopting suitable innovative strategies to have a competitive advantage over rivals.

CHAPTER THREE: RESEARCH METODOLOGY

3.1 Introduction

In this chapter the research methodology for the study was examined. The study research design, population, sampling technique and sample size, data collection procedure and data analysis was discussed.

3.2 Research Design

Cross sectional descriptive survey was used as the research design. Cross sectional descriptive survey is a survey design that is undertaken across a sample of a population when the population is large. The purpose is to describe the population. Since the population of the study was large this design was chosen and the research was to be carried across logistics firms in Mombasa County. Current information on innovation strategies used by various logistics firms in Mombasa County was gathered and analyzed to establish if there is any relationship between innovation strategies they employ and their competitive advantages within the Logistics industry.

3.3 Population of the Study

All the logistics firms in Mombasa County were used in the population of the research study. According to National Transport and Safety Authority department, under the Ministry of Transport, there are 876 logistics firms registered to operate in Mombasa County as at 31st December 2015 (Appendix 2). These firms are diverse in their scope of operations/services; some dealing in transport, Sea and Airfreight, Customs clearance, Freight forwarding, Warehousing, Project cargo logistics and some in part logistics. Some are locally owned, others foreign owned, while some has local & foreign ownership. The markets they serve in logistics are diverse i.e. local, regional or international/global markets.

3.4 Sampling Technique and Sample size

The study sample size was sixty (60) respondents. This sample size was justified because the population was huge and such a sample was sufficient to address the research problem. Mugenda and Mugenda (2003) indicate that a population sample of more than 30 is sufficient sample for studies.

The researcher used purposive sampling found in non-probability sampling techniques to select respondents for interviews and administration of questionnaires.

This was supported by Sekaran (2003), who points out that purposive sampling technique allows the researcher to select respondents he believes has information to help resolve the field problem being studied.

3.5 Data Collection Procedure

The study used primary data. Primary data was used because the researcher sought to gather current information directly from respondents on innovation strategies been used by individual logistic firms and their effect on competitiveness.

Primary data was collected using closed ended questionnaires. Closed ended questionnaires were chosen because they can be well structured, easier and quicker for respondents to answer in addressing the research question. They are also easier to code and statistically analyze.

A five point Likert Scale was used in collecting data. The questionnaire was in two parts; First part covered the profile of logistic firms including their size, age, ownership, markets and their products/services. The second part focused on capturing various innovation strategies in use across logistics firms and competitiveness of individual logistic firms within the industry. For the improvement of the response rate and data quality gathered, the researcher administered the questionnaires to the respondents by drop and pick later once completed accordingly.

Target respondents were the Branch managers, human resource managers and operations managers since they were well placed to give current information regarding innovation strategies of their firms and were well aware of their firm's competitiveness in the industry. They form the top management of the firms, possessing the knowledge, expertise and experience of innovation strategies they have been using to remain competitive.

3.6 Data Analysis

To avoid errors editing and coding of the questionnaires was done for completeness and accuracy after data collection. Tools of analysis of descriptive statistics included Tables, and Mean ratings which were used in the representation of response rate and information on the variables under study. Analysis of the closed ended questions was done using correlation analysis for the identification of the relationship among the study; a mathematical procedure given within a study is used (child, 2006). Pearson correlation analysis was used for analysis of this study to establish existence of any

relationship between innovation strategies and competitive advantage of logistics firms in Mombasa County. Pearson correlation analysis assisted in summarizing data so that relationships and patterns can be easily understood and interpreted.

The Following Regression model was used:

$Y = a + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \varepsilon$

Where;

Y = Competitive advantage

a = Constant/ intercept

β_1, β_2, β_3, β_4, are Coefficient of innovation strategies

X1= Product Innovation

X2= Process Innovation

X3= Market Innovation

X4= Organisational Innovation

ε = Error term

CHAPTER FOUR: FINDINGS AND DISCUSSION

4.1 Introduction

The data analysis, findings and interpretations of the research study are detailed in this chapter. The innovation strategies used by Logistic firms in Mombasa County were sought to be studied and establish if any relationship existed between those innovation strategies and competitive advantage of the Logistic firms. To achieve these objectives, a five point Likert scale questionnaires were developed and used to collect primary data from respondents that included the Branch managers, Human resource managers and Operational managers. From a sample of 60 logistics firms in Mombasa County, firms which responded were only 44 giving a 73% response rate.

4.2 Profile of Respondent Firms.

In this section the results of the profile of respondent was presented by logistic firms that took part in the survey. Of significance was the ownership of the firms, their years in operation, size of the firms, their range of operations and market orientation.

Ownership of the logistic firm influenced their resources, capabilities and strategies used to remain competitive. Years in operation was significant because it implied the experience gained over time and stability of those firms. Markets served were local, regional and global firms and showed the level of penetration of logistic firms in the global arena. The composition of the firm in terms ownership, scope of services, years in operation and markets served had a bearing on the different innovation strategies used by Logistics firms in Mombasa County to remain competitive.

Results obtained were tabulated and discussed in the tables below;

Table 4.1: Ownership of logistics firms

Ownership	Frequency	Percent
Locally	35	79.5
Foreign	5	11.4
Both	4	9.1
Total	44	100.0

Table 4.1 above shows that 80% of the firms were locally owned, 11% were foreign owned, and 9% had both foreign and local owners. Thus, most of the logistics firms in

the study were locally owned. This showed that the Logistic industry was conducive for local investors and therefore competition in the industry was high.

Table 4.2: Years in operation of Logistic firms

Age	Frequency	Percent
1-10 years	34	77.3
11-20 years	4	9.1
>20 years	6	13.6
Total	44	100.0

Table 4.2 shows the year in operation of logistics firms surveyed in the study. This data was important to understand the stability of the companies and whether the years in operation had an impact on the kind of strategies employed.

The results show that 77% of the firms were aged between 1 and 10 years, 9% were aged between 11 and 20 years, and 14% were aged over 20 years. Most of the firms were therefore young. This implied that most logistic firms have not been operation for long and therefore the logistic industry has attracted more firms in the recent past.

Table 4.3: Size of logistic firms

Number	Frequency	Percent
5-19 employees	29	65.9
20-99 employees	8	18.2
>100 employees	7	15.9
Total	44	100.0

Table 4.3 shows the size of the logistics firms surveyed according to the number of employees. 66% of the firms had 5-19 employees, 18% had 20-99 employees while 16% of the firms had over 100 employees. This also confirms that most of the logistics firms surveyed were small in terms of the number of staff employed.

Table 4.4: Range of services offered

Services offered	Frequency	Percent
Transport	10	22.7
Sea and air freight	5	11.4
Customs Clearance	8	18.2
Freight Forwarding	7	15.9
Warehousing	9	20.5
Project Cargo Logistic	5	11.4
Total	44	100.0

Table 4.4 shows the range of services offered by the logistics firms. From the results, it can be observed that 23% were in transport, 21% were in warehousing, 18% were in customs clearance, 16% were in freight forwarding, and 11% were in Sea & air freight while another 11% was in Project Cargo logistics. These results indicated that although many logistic firms offered different services, most of firms surveyed had transport as one of the services rendered while a few firms were into project cargo logistics.

Table 4.5: Market orientation

Market	Frequency	Percent
Local	19	43.2
Regional	12	27.3
Global	13	29.5
Total	44	100.0

Table 4.5 shows the markets served by the logistics firms. The results show that 43% of the firms served the local markets, 34% served the regional market, and 23% served the global market. Most of these firms, therefore, serve the local market.

4.3 Innovation strategies used by Logistic firms in Mombasa County

Logistics firms surveyed in Mombasa County employed product innovation strategies, market innovation strategies, process innovation strategies and organizational innovation strategies.

4.3.1 Product innovation strategies

Logistic firms surveyed in Mombasa County identified with production innovation as one of their strategies of attracting and retaining customers developed new products and improved the existing products/services. Logistics firms such as Bollore (K) ltd, Mitchel Cotts Ltd, Andy forwarders ltd, Freight Forwarders Ltd, and Multiple Hauliers ltd among others had diversified their range of services to include transport, warehousing, freight forwarding and project cargo logistics in addition to customs clearance. Others such as Signon Freight logistics had rebranded their motor vehicle fleet as a way of re-inventing/improving their existing products/services.

Production innovation strategies employed were market driven arising from changing customers' demands and increased competition in the Logistic industry. Warehousing facilities such as Cargill (k) ltd, Chai warehousing among others had improved their handling facilities and embraced latest technological systems in their operations.

4.3.2 Market innovation strategies

Market innovation deals with improvement of target markets and the manner in which chosen markets can be best served (Mitchell, 1996). From the data collected, Market segmentation was evident in most logistic firms in Mombasa County as markets served were segmented into local, regional and global markets.

Appropriate pricing of product/services and free storage days were used in opening up new markets and attracting new clients. Most warehousing logistic firms offered 30days for customs clearance period, before attracting demurrage (storage) costs. Advertisements and promotion techniques such as discounts and waivers were some of the marketing strategies employed.

4.3.3 Process innovation strategies

Speed in delivery of service was found to be critical in logistic industry and therefore most logistic firms surveyed were on continuous improvement of their processes to enhance efficiency and effectiveness.

Latest Information and communication technology systems were been utilised in management of resources and processes. Most customs clearance firms had automated processes in clearance of goods. Warehousing logistic firms had stock management systems that greatly improved their operations. Transport logistic firms such as Signon group, Sivicom liners ltd had introduced new trucks and rebranded all their fleet to effectively deliver logistic services to their customers.

4.3.4 Organizational innovation strategies

Organizational innovation is the creation and actual realization of a new or improved firm's business practices, organization of the work place and better internal and external relations that brings about better and superior performance of the firm. Logistic firms surveyed were found to have embraced teamwork, trust, integrity and professionalism as core values in facilitating trade. Administrative efforts of promoting information sharing, learning, and coordination between different departments were used**.**

Renewed human resource management systems where all employees are treated as partners in the firm were observed. Collaboration between logistic firms and government agencies such as KPA, KRA, Security agents and KEBs was evident with monthly stakeholders meetings been held with an aim of better service delivery.

4.4 Relationship between innovation strategies and competitive advantage

Data collected from logistics firms in Mombasa County was analysed to establish whether any relationship existed between innovation strategies and competitive advantage of the firms. Data analysis was done using Pearson correlation analysis and regression analysis.

4.4.1 Correlation analysis of innovation strategies and competitive advantage

Statistical relationship between various innovation strategies and competitive advantage was analysed using Pearson Correlation coefficients (r). The purpose for this was to establish the overall relationship between innovation strategies and competitive advantage. Also, establish whether there is serial correlation between the innovation strategies i.e. product innovation strategy, process innovation strategy, market innovation strategy and organization innovation strategy. Using SPSS software program, the correlation results were tabulated as shown below;

Table 4.6: Correlations of innovation strategies and competitive advantage

	Product	Market	Process	Organisation	C.A
Product	1	.703**	.733**	.326*	.631**
Market	.703**	1	.715**	.197	.551**
Process	.733**	.715**	1	.468**	.482**
Organisation	.326*	.197	.468**	1	.262
C.A	.631**	.551**	.482**	.262	1

**. Correlation is significant at the 0.01 level (2-tailed); *. Correlation is significant at the 0.05 level (2-tailed).

From above table 4.6, when product innovation strategy was correlated against itself, it gave a positive relationship of r =1. Similar results were obtained on market, process and organisation innovation strategies. There existed a positive relationship between Product innovation Strategy and Market innovation strategy (r = .703), a positive relationship between Product innovation Strategy and Process innovation strategy (r = 0.733), a positive relationship between Product innovation strategy and Organization innovation strategy (r= 0.326). There are, therefore some serial correlation between the innovation strategies

There was an existence of a positive relationship between competitive advantage and product innovation strategy (r = 0.631), Market innovation strategy (r = 0.551), Process innovation strategy (r = 0.482) and Organisation innovation strategy (r = 0.262). These results indicated that there existed a relationship between innovation strategies and competitive advantage.

4.4.2 Regression Analysis of innovation strategies against competitive advantage

A regression analysis was conducted on Competitive advantage against Innovation strategies. This was done to establish the numeric relationship between innovation strategies and competitiveness in form of a regression model. The regression equation was as follows:

$$Y = a + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \varepsilon$$

Where;

Y =Competitive advantage

a = Constant/Intercept

X1= Product Innovation strategy

X2= Market Innovation strategy

X3= Process Innovation strategy

X4= Organisational Innovation strategy

β_1, β_2, β_3, β_4, are Coefficient of innovation strategies

ε = Error term

Using the SPSS software program, the following regression coefficients were obtained and tabulated below;

Table 4.7: Coefficients of Regression model

	Co-efficients	Standard Error	T-statistic	Significance
Intercept	1.710	.503	3.399	.002
Product	.359	.138	2.609	.013
Market	.126	.090	1.397	.170
Process	-.061	.104	-.590	.558
Organisation	.081	.108	.749	.459

Table 4.7 depicts the numerical relationship between the competitive advantage and the innovation strategies in the following resultant equation:

The results show that product innovation had a positive and significant effect on competitiveness (β = 0.359, p < .05). From above equation it meant that when product innovation increases by one unit, competitiveness increases by 0359 units. This means that an increase in product innovation leads to an increase in competitiveness. Further, market innovation had a positive effect on competitiveness (β = 0.126, p > .05) but the effect was insignificant. The study also found that process innovation increases has a negative effect on competiveness (β = -.061, p > .05). Finally, the results showed that organization innovation had a positive effect on competitiveness increases (β = 0.081, p > .05).

Testing whether the coefficient of competitiveness is equal to zero at 5% level of significance yields a p-value of (0.002 < 0.05), which was significant. Also product innovation yielded a p-value of (0.013< 0.05), which was significant. On the contrary, market innovation, process innovation, and organization innovation had p-values (0.170, 0.558 and 0.459> 0.05), which was not significant.

4.4.3 Test of Significance

Test of significance as a statistical tool was used to shows whether researcher was right in finding that a relationship existed between innovation strategies and competitive advantage. Of significance was the R square value which indicated how well the model explained the competitiveness of Logistic firms in Mombasa County.

Table 4.8: Model summary of innovation strategies on competitive advantage

Measure	Statistic
Multiple R	0.656
R Square	0.431
Adjusted R Square	0.372
Standard Error	0.37469

Table 4.8 indicates that innovation strategies influenced 43.1 % of variations in competitive advantage as indicated by the R square statistic 0.431.

ANOVA as a statistical tool was used to analyse the differences or variances among and between innovation strategies and competitive advantage. The purpose was to show suitability of the model using the F statistic.

Table 4.9: ANOVA for innovation strategies on competitive advantage

	Df	*SS*	*MS*	*F*	Significance F
Regression	4	4.140	1.035	7.371	.000
Residual	39	5.475	.140		
Total	43	9.615			

From Table 4.9, the F statistic of 7.37 was significant at 5% level. This shows that the model used was fit to explain the relationship between the innovation strategies and competitive advantage.

Significance F on table 4.9 demonstrates the usefulness of the overall regression model at a 5% level of significance. Since the p-value of the F test is less than alpha (0 < .05) it was concluded that there was a significant relationship between the innovation strategies and competitive advantage.

4.5 Discussion of Findings

From the data collected it was observed that logistic firms in Mombasa County used various innovation strategies to meet their customers' demands. This included; product innovation strategies, market innovation strategies, process innovation strategies and organizational innovation strategies.

Product innovation strategy in Logistics firms was achieved through introducing a service that was new or significantly improved regarding its characteristics or intended uses. Logistic firms dealing with transport service such as Multiple hauliers ltd, Signon freight ltd, Buzeki Hauliers ltd, Bollore ltd, Transway Transporters ltd among others had introduced state of the art trucks that ensured safety and reliability in their services. Some firms such as Signon freight ltd re-branded their fleet and offices as a way of re-inventing themselves.

Most logistic firms surveyed were found offering more than one service. This was been done as strategy to offer complete logistical solutions to their clients. Urgent Cargo Ltd, Mitchell Cotts ltd, Andy forwarders ltd among others offered a wide range of services including customs clearance, freight forwarding, and transport and warehousing services together. Other logistic firms partnered to offer a wide range of services. These forms of innovation strategies were market driven and ensured customer loyalty and satisfaction. It also increased sales revenues and therefore overall profits of the firms.

Market innovation strategies in Logistic firms arose through market positioning and segmentation. Markets served include local, regional and global markets. Since the logistic industry in Kenya is vibrant and highly competitive, logistic firms surveyed were found to use pricing, advertising, discounts and waivers as a way of attracting and maintaining customers. Most logistic firms such as Freight Forwarders (K) ltd, Bollore (K) ltd, Mitchell Cotts ltd, Mutiple Hauliers ltd among others have opened offices in neighbouring countries like Uganda and Rwanda with aim of regional markets penetration.

Automation of processes in the Logistic industry has greatly improved efficiency in service delivery. Customs clearance for instance has been enhanced through use of computer software systems (Kra Simba system, Kentrade, Orbus etc.) that have improved payment and customs clearance of cargo through easier access by all stakeholders. Warehousing firms had introduced better stock management systems. Such process innovation strategies have assisted individual logistic firms to be competitive. Cost of doing business has reduced and therefore higher profits and return on investments. Customers have also benefitted from faster delivery of services due to process innovation strategies. Organizational innovation in logistic firms was achieved through use of improved business practices. Logistic firms were found to have their business practices through information sharing, all inclusive administrative efforts, seamless coordination of activities and continuous capacity building.

Correlation analysis and regression analysis was used to analyse collected data. Pearson correlation was done to establish the overall relationship between innovation strategies and competitive advantage. Also, establish whether there is serial correlation between the innovation strategies. From table 4.6, a positive relationship existed between innovation strategies and competitive advantage as depicted by Pearson correlation coefficient r. There also existed some serial correlations between the innovation strategies. These result therefore indicated that innovation strategies significantly influence competitive advantage of Logistic firms in Mombasa County.

Regression analysis gave a numerical relationship between innovation strategies and competitive advantage in form of regression model below;

$$Competitive\ Advantage = 1.710 + 0.359X_1 + 0.126X_2 - 0.061X_3 + 0.081X_4$$

From the above equation it meant that when product innovation strategy increases by one unit, competitiveness increases by 0.359 units. When market innovation strategy increases by one unit, competitiveness increases by 0.126 units. When process innovation strategy increases by one unit, competitiveness decreases by -0.061 units. Finally when organization innovation strategy increases by one unit, competitiveness increases by 0.081 units. Overall, it was shown that innovation strategies influence competitiveness and therefore a relationship exists between innovation strategies and competitive advantage of Logistics firms in Mombasa County.

The view by most logistic firms surveyed that innovation strategies significantly influence competitive advantage agrees with resource based theory, knowledge based theory and dynamic capability theory. Competitive advantage occurs when an attribute or combination of attributes in an organization are acquired or developed that allows the organization to outperform its competitors. (Porter 1991) elaborated that competitive advantage grew out of the value a firm is able to create for its customers by proving goods and services at lower prices than competitors or providing uniqueness that is largely achieved through innovation.

Barney (1991) sought to survey firm's resources and its link to competitive advantage. He argued that those resources must have value, rareness, imitability, and substitutability for them to bring about competitive advantage. Clulow et al. (2003), reckons that innovation strategies that are successfully implemented will lift superior performance of a firm by outperforming of current players by facilitating the firm with competitive advantage. For superior performance an organizations ability to defend, take advantage of and apply knowledge that it creates is necessary (Cameli & Tishler, 2004). Knowledge when combined with other resources and competences such as contextual factors gives a strategic strategy and direction to the firm (Prieto & Revilla, 2006). Knowledge base is a source of competitive advantage and innovation as a knowledge has to be renewed in line with changes in environment, as focused by dynamic capability approach (Poulis et al., 2013).

(Kay, 2009) describes innovation as an important element in strategy and level of performance in firms. High, scarce products that are value added introduction can reap super-normal profits in an individual firm. Firm are allowed by innovation to develop new products or services. Some organizations innovate more on technology and others focus more on providing better quality customer care, new and unique products or services to existing markets or introducing new market strategies. Logistics Industry in Kenya remains highly competitive and logistic firms are adopting suitable innovative strategies such as product innovation strategy, process innovation strategy, market innovation strategy and organisation innovation strategy to have a competitive advantage over rivals.

CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarized the analysis in chapter four and underlined the key findings. It also drew conclusions and implications from the finding. Limitations of the study and suggestions for further studies were outlined.

5.2 Summary of Findings

This study was conducted with the aim of establishing the innovation strategies used by logistic firms in Mombasa County and also establish the relationship between those innovation strategies and competitive advantage of the logistic firms. The study found out that innovation strategies used by logistic firms in Mombasa County included product innovation strategies, market innovation strategies, process innovation strategies and organization innovation strategies. Product innovation strategies involved introducing a new service or improvement of the service pertaining to its characteristics or intended uses. This form of innovation was evident in most logistic firms surveyed because they had introduced new logistical services or improved those that existed. Market innovation strategies in Logistic firms arose through market positioning and segmentation which was done through competitive pricing of services, advertising, discounts and waivers. Process innovation was achieved through automation of processes and systems. Organizational innovation in logistic firms was achieved through use of improved business practices. Logistic firms were found to have their business practices through information sharing, all inclusive administrative efforts, seamless coordination of activities and continuous capacity building

To establish the relationship between innovation strategies and competitive advantage correlation and regression analysis was done in Logistics firms in Mombasa County. Results obtained indicated that a positive relationship existed between competitive advantage and Product innovation strategy ($r = 0.631$), Market innovation strategy ($r = 0.551$), Process innovation strategy ($r = 0.482$) and Organisation innovation strategy ($r = 0.262$). These results indicated that there existed a relationship between innovation strategies and competitive advantage.

A regression analysis was conducted on competitive advantage against Product innovation strategy, Market innovation strategy, Process innovation strategy and Organization innovation strategy. The following regression model was obtained.

$$Competitive\ Advantage = 1.710 + 0.359X_1 + 0.126X_2 - 0.061X_3 + 0.081X_4$$

The study found that the model explained 43% of the variance in competitiveness. The F statistic was significant at 5% level suggesting that the model was fit to explain the relationship. From the regression model, product innovation had a positive and significant effect on competitiveness (β = 0.359, p < .05). Further, market innovation had a positive effect on competitiveness (β = 0.126, p > .05) but the effect was insignificant. Process innovation increases has a negative effect on competiveness (β = -.061, p > .05). This relationship was insignificant at 5% level. Finally, the results showed that organization innovation had a positive but insignificant effect on competitiveness (β = 0.081, p > .05).

5.3 Conclusion

The results indicated that logistics firms in Mombasa County utilise innovation strategies such as product innovation strategy, market innovation strategy, process innovation strategy and organizational innovation strategy. This study found that the causal relationship between innovation and competition was significant at the 5% level. Overall a positive relationship existed between innovation strategies employed and the firms' competitive advantage. This therefore implies that the innovation strategies significantly influence competitive advantage of the logistics firms in Mombasa County. The study concludes that product innovation is critical in enhancing competitiveness of logistics firms in Mombasa as an increase in product innovation leads to a significant increase in competitiveness. Therefore, competitive advantage level variability decisions should take into account implications of innovation strategies for logistic firms.

5.4 Limitations of the study

The study was unable to obtain data for all the 60 firms in the population, managing to obtain complete data from 44 firms. This was occasioned mainly by the fact that the business models of some key industries may not involve some of the study variables. This study also only used four forms of innovation strategies whereas there may be other possible innovation strategies that the study may not have factored in.

Finally, this study is based on competitive advantage, product innovation, market innovation, process innovation, and organization innovation data for the respective 44 firms and thus interpretations deviating from the findings of this research may occur if period is outside the study period or if regression variables are not study variables.

5.5 Suggestions for Further Studies

Further investigation may be done to establish the effect of other innovation surrogates. This is because the study only considered product innovation, process innovation, market innovation and organizational innovation as the innovation strategies utilised by Logistics firms in Mombasa County and therefore further research can be done to establish more innovation surrogates. In addition, further inquiry may be done into why the studied innovation surrogates exhibited the specified relationships and coefficient magnitude against competition. Finally, an investigation may be done to establish the key factors that constitute the residuals in this study

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APPENDIX 1: QUESTIONNAIRE

Part One: General Information

1. Name of the Company.....
2. Year the Company was established.....
3. Respondents Position/Title.....
4. What is your organization's area of specialization?
5. What is the Ownership of the firm?

   Locally owned ( )

   Foreign owned ( )

   Both Local and Foreign owned ( )

6. How long has the firm been in Operation?

   1- 10 years ( )

   11 – 20 years ( )

   Over 20 years ( )

7. How many branches does your firm have in Kenya?

   1 - 5 ( )
   Over 5 ( )

8. What size category does your firm belong in?
   Small [5-19 employees] ( )
   Medium [20-99 employees] ( )
   Large [100+ employees] ( )

9. What is the scope of service for the firm
   1) Transport
   2) Sea and Air freight
   3) Customs Clearance
   4) Freight Forwarding
   5) Warehousing
   6) Project Cargo Logistics
   7) Part Logistics (Kindly indicate which party)

10. What markets does your organisation serve?
    Local markets ( )
    Regional markets ( )
    Global markets ( )
    Others (specify) ( )

Part Two: Innovation strategies and Competitive advantage

(A) Innovation strategies

11. The following are some of the **product innovation** activities that firms engage in to enhance their competitiveness. To what extent do you agree or disagree that these activities are carried out in your organisation? (Key: 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly agree)

Product Innovation	**1**	**2**	**3**	**4**	**5**
The company offers a wide range of services					
We have a shorter duration of obtaining a product/service					
Our products/services are of satisfactory quality					
We offer market driven products and services					
We identify the needs of prospective customers					

12. The following statements relate to some of the **market innovation** activities that firms engage in as a way of enhancing their competitiveness. Kindly rate the extent to which you agree that these activities are true for your organisation's current practices. (Key: 1=Not at all 2=To a small extent 3=To some extent 4=To a large extent 5=To a very large extent)

Market Innovation Activities	**1**	**2**	**3**	**4**	**5**
We renew our product promotion techniques for the current and/or new products.					
We renew our distribution channels without changing the logistics processes related to the delivery of the product.					
We renew our product pricing techniques for the pricing of the current and/or new products.					
We renew our general market management activities					

13. The following statements relate to some activities related to **process innovation**. Kindly rate the extent to which you agree that these activities are undertaken by your organisation currently. (1=Not at all 2=To a small extent 3=To some extent 4=To a large extent 5=To a very large extent)

Process Innovation	**1**	**2**	**3**	**4**	**5**
We determine and eliminate non value adding activities in delivery related processes					
We strive to decrease variable cost and/or increasing delivery speed					

in delivery related logistics processes.					
We determine and eliminate non value adding activities in production processes					
The firm has introduced new machinery and equipment					
The firm has made changes in production process					
The firm uses information and communication technologies					
The firm uses new communication technologies					
The firm uses new management practices					

14. The following statements relate to **organisational innovation** activities that are usually undertaken by firms to enhance their competitiveness. Kindly state the extent to which you agree that these statements are true as regards your firm's activities. (1=Strongly disagree 2=Disagree 3=Neutral 4=Strongly agree 5= Strongly agree)

Organization Innovation	**1**	**2**	**3**	**4**	**5**
The firm has renewed the organization structure to facilitate teamwork					
The firm has renewed the production and quality management systems					
The firm has renewed the organization structure to facilitate coordination between different functions such as marketing and finance					
The firm has renewed the routines, procedures and processes employed to execute firm activities in innovative manner.					
The firm has renewed the human resources management system					
The firm has renewed the supply chain management system					

(B) Competitive Indicators

15. To what extent do you agree that your firm is rated better than your peers in the industry on the following parameters? (Key: 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly agree)

Statement	**1**	**2**	**3**	**4**	**5**
Market Leadership					
Cost Leadership					
Superior Customer Service					
Innovative products/Processes					

16. To what extent do you agree that your firm is rated better than your peers in the industry in terms of competitiveness as far as the following statements are concerned? (Key: 1-More worse than competitors, 2-Worse, 3-Fine, 4-Better and 5-Much better than competitors)

Customer satisfaction indicators	**1**	**2**	**3**	**4**	**5**
The clients are always proud of our products and services					
The firm delivers products and services that meet customer requirements and expectation					
The customers commend our exemplary product quality					
Customer loyalty Indicators	**1**	**2**	**3**	**4**	**5**
Clients have a low switching cost of products to competitors					
Customers are loyal even when there is a price change					
Our customers always come back for more purchase					

17. Please rate your performance relative to your peers in the industry as far as the following performance measures are concerned.

Indicators	**Best**	**Better**	**Good**	**Same**	**Worse**
The sales revenues of the firm					
Shareholder return and Profits					
Return on Investment					
Overall Profits of the firm					
Cost of doing business					

Thank you for your time and co-operation

APPENDIX2: LIST OF LOGISTICS FIRMS

1) BOLLORE
2) SIVICOM LINERS LTD
3) HEAVY INDUSTRY LOGISTICS LTD
4) FILIKEN TRANSIT FORWADERS LTD
5) KAYDEE CONSTRUCTION COMPANT LTD
6) LYSON LOGISTICS LTD
7) SPECTACULAR GROUP OF COMPANIES
8) SIGINON FREIGHT LTD
9) PRINCIPAL FORWARDERS LTD
10) WIGGLESWORTH EXPORTERS LTD
11) LIMUTI HOLDINGS LTD
12) PANAL FREIGHTER LTD
13) FY SIMBA SHIPPING AGENTS
14) SAHEL FREIGHTERS LTD
15) WILLMON FREIGHT AGENCIES
16) CIPRO LOGISTICS
17) HABO AGENCIES LTD
18) UFANISI FREIGHTER (K) LTD
19) KENLLOYD LOGISTICS LTD
20) BUZEKI HAULIERS LTD
21) MARA SHABBA (K) LTD
22) INTERFREIGHT EAST AFRICA LTD
23) ANDY FORWARDERS SERVICES LTD
24) FREIGHTCARE LOGISTICS LTD
25) AGILITY LOGISTICS
26) MULTIPLE HAULIERS LTD
27) FREIGHT FORWARDERS LTD
28) WATTEAH TECHNOLOGIES LTD
29) NORTH RIFT FARMERS LTD
30) KSD LOGISTICS LTD
31) POINTVON SOLUTIONS LTD
32) EPZ TRANSPORTERS LTD
33) RIFF MAX COMPANY LTD

34) AMAXDY (EA) COMPANY LTD
35) ASG TRANSPORTERS LTD
36) LIGHTERZ TRANSPORT LTD
37) KINGORANI LOGISTICS LTD
38) WAT ENERGY LTD
39) CREAMI TRANSPORTERS LTD
40) LABSAN TRANSPORTERS LTD
41) ALINSON COMPANY LTD
42) MITCHELL COTTS LTD
43) ALINTON SUPPLY COMPANY LTD
44) CHAI WAREHOUSING LTD
45) SALIM & SONS LTD
46) ELTOY LOGISTICS LTD
47) HIGHWAY CARRIERS LTD
48) CLEANTECH ENTERPRISES LTD
49) FRANATO ENTERPRISES LTD
50) TRANSWAY TRANSPORTERS COMPANY LTD
51) TURBO LOGISTICS MSA LTD
52) KASSAM HAULIERS COMPANY LTD
53) DAHAM TRANSPORTERS LTD
54) KAY LOGISTICS LTD
55) EXPRESS KENYA LTD
56) A TO Z TRANSPORTERS LTD
57) STARLIGHT LOGISTICS LTD
58) ALNASOOR & SONS LTD
59) ALIBHAI TRANSPORT LTD
60) FREIGHTWELL EXPRESS LIMITED