Role of Inventory Management on Competitive Advantage among Manufacturing Firms in Kenya: A Case Study of Unga Group Limited

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Abstract

The main objective of the study was to investigate the role of inventory management on the competitive advantage of manufacturing firms in Kenya, with reference to Unga Group Limited. Specifically, the study assessed the extent to which information technology is used in inventory management in Unga Group Limited, determine how inventory lead time, inventory control and inventory control practices affect competitive advantage of Unga group limited. The study adopted a descriptive research design to support and meet the research objectives. The target population was all the 289 employees working at Unga Group Limited headquarters who directly deal with inventory management. Stratified sampling and simple random sampling techniques were employed in the selection of 30 respondents. The study used both primary and secondary data. Primary data was collected using self-administered questionnaires consisting of closed ended and open-ended questions. The data collected was analyzed by descriptive statistics using a statistical package for analysis (SPSS). The study revealed that information technology, inventory control systems, inventory lead time and inventory control practices are important factors in attainment of competitive advantage of manufacturing firms in Kenya. The study recommended that the firm should embrace inventory control systems and information technology so as to improve and enhance competitive advantage. This study also recommended a similar research on other industries to ascertain whether the findings of the study are universal.

Keywords: Inventory Management, Information Technology, Inventory Lead Time, Inventory Control Systems, Inventory Control Practices, Competitive Advantage.

Introduction

Today's customer demands improved products with shorter and more precise deliveries at a lower cost (Srinivasan, 2012). In order to respond to these demands manufacturing companies have to be competitive in several dimensions, such as cost efficiency, quality,

delivery time and process flexibility (Olhager, 2013). According to Porter (1980) there are three different competitive strategies for manufacturing companies to choose from. They are differentiation, cost leadership and focus. These strategies are based on combinations of cost, time, service and quality. Manufacturing companies can use one of these strategies to achieve a competitive advantage (Lysons & Farrington, 2012). Miltenburg (2005) states that when a manufacturing company can defend and attract customers it has competitive advantage, which today is crucial for manufacturing companies' survival (Mescon & Thill, 2006).

Effective inventory management provide opportunities to create sustainable competitive advantage and enhance the competitive position of companies. This entails reduction in cost of holding stocks by maintaining just enough inventories, in the right place and the right time and cost to make the right amount of needed products. High levels of inventory held in stock affect adversely the procurement performance out of the capital being held which affects cash flow leading to reduced efficiency, effectiveness and distorted functionality. Inventories are the stock of products a company holds to further its production and sales (Pandy, 2003). Stock can come in various forms such as raw materials, work–in–progress, finished goods and goods ready for sale (Levis, 2009). Inventory represents an important decision variable at all stages of product manufacturing, distribution and sales, in addition to being a major portion of total current assets of many organizations. Inventory often represents as much as 40% of total capital of industrial organizations (Moore, Lee and Taylor, 2003). It many represent 33% of company assets and as much as 90% of working capital, (Sawaya Jr. and Giauque, 2006). Since inventory constitutes a major segment of total investment, it is crucial that good inventory management be practiced to ensure organizational growth and profitability.

Inventory management is vital in the control of materials and goods that have to be held (or stored) for later use in the case of production or later exchange activities in the case of services. Inventory management refers to a science based art of ensuring that just enough inventory stock is held by an organization to meet demand (Jay & Barry, 2006). It is required at different locations within multiple locations of a supply network, to protect the regular and planned course of production against the random disturbance of running out of the materials or goods. Inventory management also concerns fine lines between the replenishment lead time, carrying costs, asset management, inventory forecasting, valuation of inventory, future inventory price forecasting, physical inventory, inventory visibility, available space for inventory, quality management, replenishment, returns ,defective goods and demand forecasting. The principal goal of inventory management involves having to balance the conflicting economics of not wanting to hold too much stock. Thereby having to tie up capital so as to guide against the incurring of costs such as storage, spoilage, pilferage and obsolescence and, the desire to make items or goods available when and where required (quality and quantity wise) so as to avert the cost of not meeting such requirement. Inventory problems of too great or too small quantities on hand can cause business failures. If a manufacturer experiences stock-out of a critical inventory item, production halts could result. Essentially, inventory management involves planning and control. Where planning aspect involves looking ahead in terms of the determination in advance: (i) What quantity of items to order; and (ii) How often (periodicity) do we order for them to maintain the overall source-store sink coordination in an economically efficient way? (ii) How often (periodicity) do we order for them to maintain the overall stock coordination in an economically efficient way?. The control aspect, which is often described as stock control involves following the procedure, set up at the planning stage to achieve the above objective. This may include monitoring stock levels periodically or continuously and deciding what to do on the basis of information that is

gathered and adequately processed. Effort must be made by the management of any organization to strike an optimum investment in inventory since it costs much money to tie down capital in excess inventory.

A company, which neglects inventory management, runs the risk of production bottlenecks and subsequently unable to maintain the minimum investment it requires to maximized profit. Inventories that are inefficiently managed may apart from affecting sales create an irreparable loss in market for companies operating in highly competitive industry. Invariably, a company must neither keep excess inventories to avoid an unnecessary tying down of funds as well as loss in fund due to pilferage, spoilage and obsolescence nor maintain too low inventories so as to meet production and sales demand as at when needed. The role of inventory management is to coordinate the actions of all business segments, particularly sales, marketing and production, so that the appropriate level of stock is maintained to satisfy customers' demands. The goal of inventory management is to balance supply and demand as closely as possible in order to keep customers satisfied and drive profits. The processes and controls of effective inventory management are critical to any successful business. Since it is rarely the case that any business has the luxury of unlimited capital, inventory management involves important decisions about what to buy or produce, how much to buy or produce and when to buy or produce within the capital limits. These are "value decisions." Excessive inventory investments can tie up capital that may be put to better use within other areas of the business. On the other hand, insufficient inventory investment can lead to inventory shortages and a failure to satisfy customer demand. A balance must be struck and maintained. According to Lysons (2006), inventory control enhances profitability by reducing costs associated with storage and handling of materials. Inventory control is means by which materials of the right quality and quantity are made available as when required with due regards to the economy of shortages, ordering cost, purchase price and working capital. Inventory control determines the extent of stock holding of materials. It equally makes it possible for material manager to carryout accurate and efficient operation of the manufacturing organization through decoupling of individual segment of the total operation and it entails the process of assessing of stock into the store house and the issue of stock. Materials control has to do with standard control on the ordering size, ordering time, and the quantities of raw materials left in the store at a given time. For profitability and cost reduction, manager must therefore, maintain an optimum level of stock at all time. Too much stock and too little stock must be avoided.

According to Buffa & Salin (1987) there are several reasons for keeping inventory. Inventories can be held to improve production scheduling, to smoothen production in the face of fluctuating sales, to minimize stock out costs, to speculate on or hedge against price movements, to reduce purchasing costs by buying in quantity, to shorten delivery lags, and so on. A company can only realize substantial savings by using a rational procedure for inventory control. Inventory control is typically a key aspect of almost every manufacturing and/or distribution operation business. The ultimate success of these businesses is often dependent on its ability to provide customers with the right goods, at the right place, at the right time. Failure to have the right goods in the right place at the right time often leads to lost sales and profits and, even worse, to lost customers.

A reliable inventory system implies higher confidence of customers and their attendant continuous patronage. Inventory management systems are mostly applied in manufacture settings, where its viability and potential economic value are duly attained. Inventory is kept to meet reliability of operations, flexibility in production scheduling, change in raw material,

delivery time an change in economic purchase order size (Inyama, 2006). An inventory system provides the operating policies and organizational structure for maintaining and controlling goods to be stocked. A proficient management of inventory system requires an appropriate way of making decisions about how much to order and when to order and a means of keeping track of items in inventory. Decision on inventory in any organization depends on facts about on-hand stock level, demand information with regards to the forecasted quantity, lead time and lead time variation, inventory holding costs, ordering cost and shortage cost.

Installation of a proper inventory control system in any organization is of paramount necessity. Inventory is the availability of any stock or resources used in an organization. An inventory system is the set of policies that controls and monitor inventory level and determine what level should be maintained, how large orders should be made and when stock should be replenished. Inventory control is the supervision of the storage, supply and accessibility of items to ensure an adequate supply without excessive oversupply (Miller, 2010). Inventory control means availability of materials whenever and wherever required by stocking adequate number and kind of stocks. The sum total of those related activities essential for the procurement, storage, sales, disposal or use of material can be referred to as inventory management. Inventory managers have to stock-up when required and utilize available storage space resourcefully, so that available storage space is not exceeded. Maintaining accountability of inventory assets is there responsibility. They have to meet the set budget and decide upon what to order, how to order and when to order so that stock is available on time and at the optimum cost (Benedict & Margeridis, 1999).

Inventory constitute one of the largest and most tangible investment of any retailer or manufacturing organization. Intelligent inventory management strategies can not only help boost profit but they can mean the difference between a business thriving or barely surviving. Holding inventories at the lowest possible cost and giving the objectives to ensure uninterrupted supplies for on-going operations is the aim of inventory management. When making decisions on inventory, management has to find a compromise between the different cost component, such as the cost of supplying inventory, inventory holding cost and cost resulting from sufficient inventories (Zipkin, 2000). According to Miller (2010), inventory control is the activity which organizes the availability of item to the customers. It coordinates the purchasing, manufacturing and distribution functions to meet the marketing needs.

Kotler (2002), asserts that inventory management refers to all the activities involved in developing and managing the inventory levels of raw materials, semi-finished materials (working-progress) and finished good so that adequate supplies are available and the costs of over or under stocks are low. Inventory management is primarily about specifying the size and placement of stocked goods. Inventory management is required at different locations within a facility or within multiple locations of a supply network to protect the regular and planned course of production against the random disturbance of running out of materials or goods. The scope of inventory management also concerns the fine lines between replenishment lead time, carrying costs of inventory, asset management, inventory forecasting, inventory valuation, inventory visibility, future inventory price forecasting, physical inventory, available physical space for inventory, quality management, replenishment, returns and defective goods and demand forecasting. Balancing these competing requirements leads to optimal inventory levels, which is an on-going process as the business needs shift and react to the wider environment (Ghosh & Kumar, 2003).

Ogbo (2011) posits that the major objective of inventory management and control is to inform managers how much of a good to re-order, when to reorder the good, how frequently orders

should be placed and what the appropriate safety stock is, for minimizing stock-outs. Thus, the overall goal on inventory is to have what is needed, and to minimize the number of times one is out of stock. Inventory management is an ongoing process that relies on inputs from forecasts and product pricing, and should be executable within the cost structure of the business under an overall plan. Inventory control involves three inventory forms of the flow cycle: Basic Stock - The exact quantity of an item required to satisfy a demand forecast. Seasonal Stock - A quantity build-up in anticipation of predictable increases in demand that occur at certain times in the year. Safety Stock - A quantity in addition to basic inventory that serves as a buffer against uncertainty. Inventory control is the ability to supply goods and services at the right time with the right quality and quantity. It is a reliable means in which businesses are been managed to ensure customers are satisfied and organizations remain in operation via minimization of losses.

Statement of the Problem

Manufacturing firms facing problems in their replenishment processes force upstream suppliers to build excessive stock (Battini *et al.,* 2009). To be able to compete in today's global market, manufacturing firms need to have control over their inventory levels (Yuanjie, 2013). The more inventory manufacturing firms keep the more exposed they are to uncertainty costs associated with holding them. High inventory levels can lead to scrap, outdated products, increased inventory carrying costs and warehousing costs (Jonsson & Mattsson, 2011).

Challenges of inventory management and control have been around for a very long time especially in area of discrepancies, theft, fraud, obsolescence, deterioration and breakages. Organizations at times do not control their inventory holding, resulting in under stocking and causing the organizations to stay off production, thereby resulting to organizational ineffectiveness creating relationship problems between inventory management and organizational productivity, profitability and effectiveness. Too much inventory consumes physical space, creates financial burden, and increases possibility of damage, spoilage and loss.

If manufacturing companies have low levels of stock it may lead to delivery problems and production stoppages (Miltenburg, 2005). On the other hand manufacturing companies strive to have the lowest level of inventory possible but still be able to respond to customer demands (Pong & Mitchell, 2012). If customer demands are not met, manufacturing companies may lose money due to lost sales. Therefore, it is important for manufacturing firms to have control over their inventory levels (Pong & Mitchell, 2012).

Every year organizations prepare and implement one type of economic policy/budget whereby a large sum of money is spent on acquisition of materials without making an adequate planned effort to provide for inventory facilities. These lapses coupled with improper stock control system and lack of trained personnel account for the ineffectiveness of inventory function in both public and private sector. Unga Group Limited does not exist in isolation. The same problem as faced by other organizations both public and private is what Unga Group Limited is facing. More so, being a private organization which is grounded on the principles of profit maximization, the neglect as well as the improper care, control and management of stock can be more terrible than required.

However, most of the local studies such as Pauline *et al.* (2013), Kimaiyo & Ochiri, (2014) and Tyan & Wee (2003); Rogers (2005) and Kihara (2013) focused on inventory management and organizational performance. No known study has specifically addressed the role of inventory management on competitive advantage among the manufacturing firms in Kenya. It is against this background that this research intends to bridge the knowledge gap and explore the role

of inventory management on competitive advantage among the manufacturing firms in Kenya with specific reference to Unga group limited.

Objectives of the study
General Objective

The general objective of the study was to investigate the role of inventory management on competitive advantage of Unga Group Limited.

Specific Objectives

The specific objectives of the study was;

1. To assess the extent to which information technology is used in inventory management in Unga group limited
2. To determine how inventory lead time affects competitive advantage of Unga Group Limited.
3. To examine how inventory control systems affects competitive advantage of Unga Group Limited.
4. To determine the effect of inventory control practices on competitive advantage of Unga Group Limited.

Research Questions

The study aims to answer the following research questions;

1. To what extent has Unga Group Limited applied information technology in inventory management?.
2. How does inventory lead time affect competitive advantage of Unga Group Limited?.
3. How does inventory control systems affect competitive advantage of Unga Group Limited?.
4. What is the effect of inventory control practices on competitive advantage of Unga Group Limited?.

Theoretical Framework
Adaptive Structuration Theory

Structuration theory was first proposed by Anthony Giddens in his constitution of the society in 1984, which was an attempt to reconcile social systems and the micro/macro perspective of organizational structure. Desanctis & Poole (1994) borrowed from Giddens in order to propose Adaptive Structuration theory and the rise of group decision support systems. Adaptive Structuration theory provides the model whereby the interaction between advancing information technologies, social structures, and human interaction is described, and which social structures, rules, and resources provided by information technology as the basis for human activity. Adaptive Structuration theory is a viable approach in studying how information technology affects inventory management because it examines the change from distinct perspectives.

Adaptive Structuration theory is relevant in today's inventory management practice due to the expanding influence that advancing technologies have had with regard to the human-interaction aspect of Adaptive Structuration theory and its implication on socio-biologically inspired Structuration in security software applications(Ramakrishna,2005). Adaptive Structuration theory presents specific advances in information technology that are driving organizational changes in the areas of business alignment, information technology planning, and development show that Adaptive Structuration theory is being used as a driving force of effective management within organizations. The study uses the theory to investigate how complexity of inventory management is influenced by Information Technology (Ramakrishna,

2005). In conclusion Adaptive Structuration theory's appropriation process might be a good model to analyze the utilization and penetration of new technologies in organizations.

The Relationship Marketing Theory

This theory is used in the various fields such as supply chain management, international marketing, relationships, networks, databases, information as well as in transactional analysis (Jraisat, 2010). This theory offers various dimensions such as commitment and cooperation that are useful in studying the various relationships that exists between different phenomenon that are related to the relationship between the buyer and the seller especially in aspects of information sharing (Wilson, 1995). The relationship marketing theory explains the various buyer-supplier relationships and its information sharing (Toften & Olsen, 2003) as well as offers explanation of the various streams in the said relationships, the various dimensions in the relationship as well as the rationale or the justification for the relationship such as the structure and the process of the relationship.

Deterministic Inventory Model

The most common deterministic inventory model is Economic Order Quantity (EOQ). This is a mathematical model developed within the scope of operations management to determine the optimal inventory level. As Ross *et al.*, (2008) observed, the Economic Order Quantity (EOQ) model is an approach of determining the optimal inventory level that takes into account the inventory carrying costs, stock-out costs and total costs which are helpful in the determination of the appropriate inventory levels to hold. EOQ is the level of inventory that minimizes total inventory holding costs and ordering costs.

The framework used to determine this order quantity is also known as Wilson EOQ Model or Wilson Formula. The model was developed by F. W. Harris in 1913, but R. H. Wilson, a consultant who applied it extensively, is given credit for his in-depth analysis (William, 2007). EOQ only applies when demand for a product is constant over the year and that each new order is delivered in full when the inventory reaches zero. There is a fixed cost charged for each order placed, regardless of the number of units ordered. There is also a holding or storage cost for each unit held in storage (William, 2007).

EOQ is used to determine the optimal number of units of the product to order so that to minimize the total cost associated with the purchase, delivery and storage of the product The required parameters to the solution are the total demand for the year, the purchase cost for each item, the fixed cost to place the order and the storage cost for each item per year. Note that the number of times an order is placed also affects the total cost; however, this number can be determined from the other parameters (Heikkila, 2002). EOQ assumes that, the ordering cost is constant, the rate of demand is constant, the lead time is fixed, the purchase price of the item is constant i.e. no discount is available, the replenishment is made instantaneously, the whole batch is delivered at once. EOQ is the quantity to order, so that ordering cost plus carrying cost finds its minimum.

Resource-Based View Theory

The RBV theory is one of the fundamental principles for the competitive advantage of a firm. The RBV of the firm posits that a firm's internal processes create a resource bundle which can become the means of creating and sustaining a competitive advantage (Bates & Flynn, 1995). The RBV literature considers a firm as a collection of heterogeneous resources, or factors of production or as bundles of resources including all inputs that allow a firm to operate and implement its strategies (Barney *et. al.,* 1991). A company achieves a competitive advantage when it has key resources (these can be physical resources, human resources or

organizational resources) that its competitors do not have (Barney, 1991). Developing and maintaining this competitive advantage depends on whether the firm is able to identify, develop, deploy, and protect the internal resources (Barney, 1991).

In the context of the resource-based view, a firm might lose its competitive advantage if important inventory management skills are scarce or are getting lost as they are not easily duplicated or substituted. Inventory management skills are valuable as they help providing supply strategies for future needs and developing supply management strategies to support company strategies (Carr & Pearson, 2002). As purchasing professionals interact with other functions within a complex social network, purchasing skills are difficult to replicate (Eltantawy, 2005). The two assumptions for RBV theory are (1) resources and capabilities are heterogeneously distributed among firms; and (2) resources and capabilities are imperfectly mobile, which make firms' differences remain stable over time (Barney 1991). Every firm is different (heterogeneous) from other firms in terms of the resources and capabilities a firm possesses or accesses. These differences differentiates one firm from another and a firm's success is due to its firm-specific resources.

Conceptual Framework

A conceptual framework is a structure of concepts and or theories which are put together as a map for the study and it shows the relationship of research variables (Mugenda & Mugenda, 2008). The conceptual framework is used to explain the relationship between the independent variables and the dependent variable. The aspects of information technology, inventory control systems, inventory lead time and inventory control practices form the independent variables while competitive advantage forms the dependent variable. This relationship is diagrammatically shown in Figure 2.1 below.
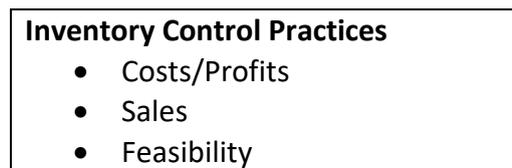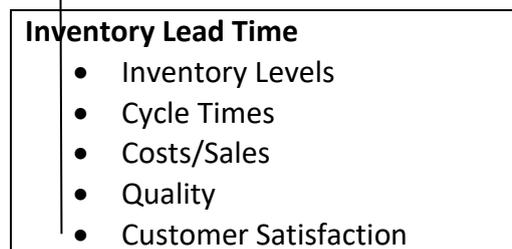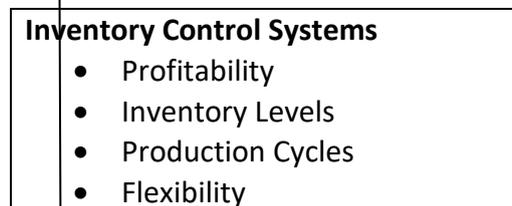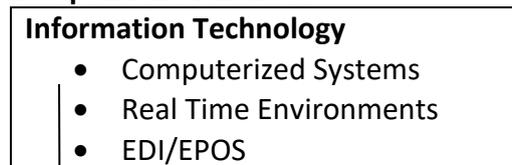
Independent Variables   **Dependent Variable**

Information Technology
- Computerized Systems
- Real Time Environments
- EDI/EPOS

Inventory Control Systems
- Profitability
- Inventory Levels
- Production Cycles
- Flexibility

Competitive Advantage
- Price
- Quality
- Delivery Dependability
- Time to Market
- Product Innovation

Inventory Lead Time
- Inventory Levels
- Cycle Times
- Costs/Sales
- Quality
- Customer Satisfaction

Inventory Control Practices
- Costs/Profits
- Sales
- Feasibility

Figure: 2.1 Conceptual Framework

Research Methodology

The study adopted a descriptive research design. According to Mugenda & Mugenda (2003), a descriptive research design determines and reports the way things are. Creswell (2003) asserts that a descriptive research design is used when data is collected to describe persons, organizations, settings or phenomena. Descriptive design was ideal as the study was carried out in a limited geographical scope and hence is logistically easier and simpler to conduct considering the limitations of the study (Mugenda, 2008).

A population is considered to be any group of people, events, or items that are of interest to the researchers that they wish to investigate (Kothari, 2008). Target population refers to a universal set of study of all members of real or hypothetical set of people, events or objects to which an investigator wishes to generalize the result (Borg & Gall, 2009). The target population of this study comprised of all the 289 Management staff of Unga Group Limited.

The sampling frame for any probability sample is a complete list of all the cases in the population from which a sample is drawn (Saunders *et al.,* 2007). The purpose of sampling was to gain an understanding about some features or attributes of the whole population based on the characteristics of the sample. A sample is a smaller and more accessible sub set of the population that adequately represents the overall group, thus enabling one to give an accurate (within acceptable limits) picture of the population as a whole, with respect to the particular aspects of interests of the study. A sample of responding staff was drawn from 289 possible respondents.

Stratified sampling technique was used to select the sample. According to Oso (2009), Stratified sampling technique produce estimates of overall population parameters with greater precision and ensures a more representative sample is derived from a relatively homogeneous population. Stratification aims to reduce standard error by providing some control over variance. The study grouped the population into three strata i.e. top, middle and low management levels. From each stratum the study used simple random sampling to select 30 respondents.

Stratified random sampling technique was used since the population of interest was not homogeneous and could be sub-divided into groups or strata to obtain a representative sample. Statistically, in order for generalization to take place, a sample of at least 30 elements (respondents) must exist (Cooper and Schindler, 2003). According to Mugenda & Mugenda, (2003), when carrying out a descriptive study, 10% of the population yields an adequate sample. This study selected 10% from each level which was thus regarded as sufficient or adequate. Ten percent of the population produced a more representative sample size of 30 respondents out the 289 staff of Unga Group Limited.

Primary data was gathered using both open and closed ended questionnaires administered to the 30 respondents who were picked for the purpose of analysis. Secondary data was obtained from the existing materials such as, financial reports, journals, empirical researches in the area and other relevant articles that related to the topic. Descriptive statistics in the form of frequencies and percentages was used for analysis in this study. Statistical Package for Social sciences (SPSS) computer software was used to present the data in the form of frequency tables and percentages.

Results And Discussion
Information Technology
The analysis of the study showed that there was high use of information technology in inventory management at Unga group limited. As illustrated in table 4.6 below, the respondents agreed that Unga Group limited uses Electronic Point of sale (EPOS) and Electronic Data Interchange Technology (EDI) as shown by a mean scores of 4.03 and 4.14 respectively.

The respondents also agreed that Computers at Unga Group limited are linked with those of the suppliers in a Real Time environment and that the firm has computerized all inventory management systems as shown by a mean score of 3.66 and 2.93 respectively. However, the standard deviation of 1.111 and 1.163 respectively implies high variations in the responses. This trend is in agreement with those found in the literature. Computers can aid in stock control by setting stock control levels and calculating the amount of stocks to hold and dispatch.

Table 1.
Information Technology response means and standard deviations

Statement on effect of Information Technology	Mean	Std. Deviation
Unga Group limited firm uses Electronic Point of sale (EPOS)	4.03	.823
Unga Group limited uses Electronic Data Interchange Technology (EDI)	4.14	.789
Computers at Unga Group limited are linked with those of the suppliers in a Real Time environment	3.66	1.111
Unga Group limited has computerized all inventory management systems	2.93	1.163

Inventory Control Systems

The study sought to determine the effect of inventory control system on competitive advantage of manufacturing firms. The respondents agreed that inventory control systems was an important factor of attaining competitive advantage. As illustrated in table 4.7 below, the mean responses with the highest effects included: enhanced timely deliveries (4.14) reduced production costs (4.12), increased product quality 4.28, decreased production cycle times 4.10, reduced wastages 3.62, reduced stock levels 4.17 and increased profitability 4.24. The effects of inventory control system with means higher than 3.5 implies that the respondents "Agree" that inventory control systems leads to a high competitive advantage. This trend is in agreement with those found in the available literature. The respondents agreed that inventory control systems was an important factor of attaining competitive advantage.

Table 2.
Inventory Control Systems response means and standard deviations

Statement on effect of Inventory Control Systems	Mean	Std. Deviation
Inventory control system has enhanced timely deliveries	4.14	.875
Inventory control system has reduced production costs	4.21	.861
Inventory control system has increased product quality	4.28	.797
Inventory control system has decreased production cycle time	4.10	.939
Inventory control system has reduced wastages	3.62	.862
Inventory control system has reduced stock levels	4.17	.848
Inventory control system has increased profitability	4.24	.786

Inventory Lead Time

The study sought to determine the effect of inventory lead time on competitive advantage of manufacturing firms. The respondents agreed that inventory lead time was considered a very significant factor in attaining competitive advantage.

As illustrated in table 4.8 below, the mean responses on the effects were as follows: increased profitability (4.07), reduced materials cost (3.90), shorter production cycle times (4.28), improved product quality (4.41), increased customer satisfaction (4.34) reduced production costs (4.12), reduced obsolescence and surplus (4.48), increased sales 4.45 and reduced inventories 4.31. Stevenson (2001) asserts that that the main purpose of lead time is to actually enable the organization to acquire competitive advantages while delivering the right product at the correct place and at the right time hence satisfying the ultimate customer.

Table 3.
Inventory Lead Time response means and standard deviations

Statement on effect of Inventory Lead Time	Mean	Std. Deviation
Inventory lead time has increased profitability	4.07	.704
Inventory lead time has reduced materials cost	3.90	.489
Inventory lead time has led to shorter production cycle times	4.28	.841
Inventory lead time has led to improved product quality	4.41	.733
Inventory lead time has increased customer satisfaction	4.34	.897
Inventory lead time has reduced obsolescence and surplus	4.48	.986
Inventory lead time has increased sales	4.45	.686
Inventory lead time has reduced inventories	4.31	.712

Inventory Control Practices

The study sought to determine the effect of inventory control practices on competitive advantage of manufacturing firms. As illustrated in table 4.9 below, the respondents agreed that stock control practice has minimized costs as shown by a mean of 3.72. The respondents also agreed that regular inventory turnover has realized larger profits, a point of sale system of tracking inventory on hand creates profitability, the stock control system is economically feasible, Stock control practice leads to continuous production of goods and services thus improving sales, Stock control practice increases the volume of sales by ensuring there are sufficient goods available, stock control increases the volume of sales and effective management of materials and items leads to profitability as shown by mean scores of 3.66, 3.83,4.38,4.31, 4.24 and 4.21 respectively.

The respondents disagreed that Stock control practice has negatively affected the prices of goods and services rendered to customers and Cost of inventory is reduced by purchasing the right quantity of materials at the right place and price as shown by mean scores of 2.38 and 2.34 respectively. This indicated that respondents agreed that stock control practice has a positive effect on the profit margin of manufacturing firms, considering the clustered mean of 3.67 (from the decision rule and mean response of 3.0 and above should be regarded as positive).

Table 4.
Inventory Control Practices response means and standard deviation

Statement on effect of Inventory Control Practices	Mean	Std. Deviation
Stock control practice has minimized cost	3.72	.996
Regular inventory turnover has realized larger profits	3.66	.614
A point of sale system of tracking inventory on hand creates profitability	3.83	.602
The stock control system is economically feasible	4.38	.775
Stock control practice leads to continuous production of goods and services thus improving sales	4.31	.806
Stock control practice increases the volume of sales by ensuring there are sufficient goods available	4.24	.830
Stock control practice has negatively affected the prices of goods and services rendered to customers	2.38	.820
Cost of inventory is reduced by purchasing the right quantity of materials at the right place and price	2.34	.974
Effective management of materials and items has led to the profitability of your establishment	4.21	.726

Competitive Advantage.

The study also aimed at establishing the respondents' level of agreement with statements related to Competitive advantage of manufacturing firms in Kenya. As illustrated in table 4.10 below, the respondents agreed that the firm offers high quality products and services to its customers as shown by mean score of 4.07.

The respondents also agreed that the firm offers highly reliable products and services, provides dependable delivery, provides customized products and services, the firm is always the first in the market to introduce new products and services and that the firm has fast product development as shown by mean scores of 4.24, 4.28, 3.93, 3.55 and 3.62 respectively. The respondents disagreed that the firm is not able to compete based on quality and that it rarely delivers customer orders on time as shown by mean scores of 1.90 and 1.97 respectively.

Table 5.
Competitive Advantage response means and standard deviations

Statement on competitive advantage	Mean	Std. Deviation
The firm offers high quality products and services to its customers	4.07	.884
The firm is not able to compete based on quality	1.90	.772
The firm offers highly reliable products and services to its customers	4.24	.830
The firm rarely delivers customer orders on time	1.97	.731
The firm provides dependable delivery	4.28	.528
The firm provides customized products and services	3.93	.923
The firm is always the first in the market to introduce new products and services	3.55	.686
The firm has fast product development	3.62	.622

Conclusions

The study concludes that Unga Group Limited embraces Information Technology in inventory management as a competitive tool as shown by an overall mean of 3.69. The firm uses Electronic Point of sale (EPOS) and Electronic Data Interchange Technology (EDI) in its inventory management activities. The study also concludes that the firm's computers are linked with those of the suppliers in a Real Time environment although with varied responses. The firm at a lesser extent has computerized all its inventory management systems.

The study concludes that Unga Group Limited has attained much through inventory control systems. Inventory control system has enhanced timely deliveries, reduced production costs, increased product quality, decreased production cycle time, reduced wastages, reduced stock levels and increased profitability as shown by a general mean of 4.12. The ratings showed that inventory control systems played a vital role in attaining competitive advantage, and as such, organizations must ensure that inventory control system be highly involved in inventory management activities.

From the findings, the study concludes that inventory lead time is a very important competitive tool. Inventory lead time showed how the organization acquired competitive advantages as it delivers the right product at the right place and within the shortest time possible. As shown by an overall mean of 4.28, lead time has increased profitability, reduced materials cost, reduced production cycle times, improved product quality, increased customer satisfaction, reduced obsolescence and surplus, increased sales and reduced inventories. Dimitrios, (2008) asserts that Cycle-time reduction almost always means reduced costs, reduced inventory levels, improved production predictability, increased customer service, and better quality. To reduce cycle time, manufacturers need to streamline every aspect of their operations, especially the order-to-delivery process. The study further concludes that inventory control practices affects competitive advantage of Unga Group Limited as shown by an overall mean of 3.67. This is in line with Tasli (2011) who asserts that inventory management reduces unnecessary costs and increases revenue in a business and Kent (2002), effective stock control increases the profit making of an organization.

The study concludes that inventory management affects competitive advantage of manufacturing firms in Kenya. As shown by an overall mean of 4.28, the firm offers high quality products and services to its customers, highly reliable products and services, provides

dependable delivery, provides customized products and services, provides customized products and services, the firm is always the first in the market to introduce new products and services and that the firm has fast product development. The study further concludes that the firm is able to compete based on quality and that it delivers customer orders on time. Competitive advantage comprises capabilities that allow an organization to differentiate itself from its competitors and is an outcome of critical management decisions Li *et al.*, (2006). The literature review has identified price/cost, quality, delivery, and flexibility as important competitive capabilities.

Recommendations
In reference to the findings and conclusion, the study recommends that the firm should embrace inventory control systems and information technology so as to improve and enhance competitive advantage. Unga Group Limited should develop a policy framework for faster implementation of the best inventory management practices like JIT and MRP. The firm should invest in modern information technology in inventory management as this will reduce inventory costs and improve returns, improve information sharing and hasten orders from suppliers hence shortening the lead time. In order to attain competitive advantage in the industry, firm should increase resource allocation to staff training, research and development in inventory management so as to develop the necessary skills, update their knowledge, and further enhance New Product Development.

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