THE ROLE OF INVENTORY MANAGEMENT TOWARDS THE SUCCESS OF AN ORGANIZATION

(ACASE STUDY: CONTINENTAL MACHINERY (U) LTD)

BY

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A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT OF A BACHELOR OF SUPPLIES AND PROCUREMENT MANAGEMENT DEGREE OF KAMPALA INTERNATIONAL UNIVERSITY
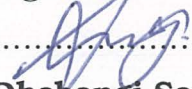
FACULTY OF BUSINESS AND MANAGEMENT

MARCH 2010

DECLARATION

I Dhabangi Samson, here by declares that this research project is from my own findings. No any other work to the best of my knowledge has been submitted either in part or part or full to any academic intuition on this topic for any award requirement or publication, theories, ideas and materials obtained from existing literature and other sources have been dully acknowledge.

Signature   Date:

....09../.03../.2010................

Dhabangi Samson.

RESERCHER

APPROVAL

This Research work has been under my supervision and is ready for submission to the School of Business and Management, Kampala International University in partial fulfillment for the award of supplies and procurement management (BSP) of Kampala International University.

Supervisor

Signature

....

Mr. Michael Ruteganda A.C.I.S

09/03/10

....

Date

DEDICATTION

This research project work is wholly dedicated to all those who tirelessly financed my education through University, my father Christopher Dhabangi, mum Lucy Dhabangi and my brothers, Banonya Emmanuel, Walter Wales and Dhabangi Daniel, for their determined overall support they have bestowed on me all through in my life. May God bless you in all their Endeavors.

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ABSTRACT

The study was conducted in Continental Machinery (U) Ltd, with the main purpose of investigating the role of inventory management towards the success of an organization. The study aimed at achieving the following objectives;

- To evaluate the influence of inventory monitoring and inventory information management towards the success of an organization at Continental Machinery (U) Ltd.

- To examine how inventory information management affects the key drivers of the success of an organization.

- To examine how inventory monitoring affects service delivery to Continental Machinery (U) Ltd.

The procedures used during data collection included questionnaires, interviews, and library research relevant materials. Data was analyzed by the use of descriptive methods of percentage distributions and frequency distribution. The findings were presented in tables, interpreted and discussed where possible.

The major findings of this study was that the inventory management has a positive impact the success of the organization that was shown by improvement in their income levels as well as their living standards, as reflected by the data collected in the field.

The study made a number of recommendations that included, holding excessive inventory appear as a simple solution to fulfilling customer demands at any given time.

However inventories that are super abundant will result in capital being unnecessarily tied up resulting in loss of opportunity, excessive storage costs, risk of obsolesce, additional labour costs, inventory deterioration, and increase in insurance premiums and general crease in over heads to include depreciation and security costs.

LIST OF TABLE

LIST OF DIAGRAMS

Diagrams;

CHAPTER ONE

1.0 Introduction

This chapter will presents the background of the study, the statement of the problem, the purpose of the study and its objectives. The chapter wills precede with the research questions, the significance of the study and ends with the scope of the study.

1.1 Background

Inventory is an American accounting term for the value or quantity of raw

Materials, components, assemblies, consumables, work in progress (WIP) and

Finished stock that are kept or stored for use as the need arises. The term will be also

Applied to;

• A detailed list of goods or articles in a given place, or

• A stock taking.

The concept of inventory management will be to a greater extent contributed to better performance, profitability and the success of any business organization **(Baily 2002).**

Inventory will be defined by many scholars as the tangible materials assets of a company except fixed assets. It will comprises of any fixed product or merchandise ready for sale, any parts and materials to be incorporated into production or carrying out the business.

Inventory management will cover a wide variety of activities. These activities will vary from organization to organization. Inventory management therefore calls for human judgment, experience and expertise which will aim to meet demand economically. There will be further indication unless stock is controlled or managed at an acceptable minimum level, that is, economic order quantity,

Service or production will be disrupted since there would be insufficient inventory to keep production continuous. Customers would be disappointed and will loose since their demand would not be fulfilled by the organization.

According to **Muhieman Oakland** and **Lockyer (1992)**, materials are frequently stored whether raw, partly finished or completely finished and the cost associated with this can be high.

Inventory control will be concerned with systematic location, storage and recording of materials in such a manner as to finish the desired degree of service to operating departments at the lowest cost which leads to the success of an organization.

By definition inventory will assets that are included for sale, are in process of being produced for sale or are to be used in producing goods. For many public entitles, inventory represents a large (if not the largest) portion of assets and, as such, makes up an important part of the balance sheet. It is therefore crucial for inventors who are analyzing stocks to understand how inventory will be valued. The following equations will express how a company's inventory will be determined.

Beginning inventory + Net purchases - cost of goods sold (COGS) ending inventory. This will means that one takes what the company has in the beginning, adds what has been purchased, subtracts what has been sold and the result will be what is **remaining (Ballou, 2000).**

To manage inventory there will be need for costing it and there are many ways of costing inventory as presented by many scholars. Ballard (2000) cites three inventory costing methods that a company can use to determine the cost of inventory and argues that they impact directly on the balance sheet, income statement and statement of cash flow.

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• First- in first — out (FIFO): This method will assume that the first unit making its way into inventory will be the first one sold.

• Last - in, first — out (LIFO); this method will assume that the last unit making its way into inventory will be sold first. The older inventory will be therefore left over at the end of the accounting period.

• Average cost; this method will take the weighted average of all units available for sale during the accounting period and then uses that average cost to determine the value of cost of goods sold (COGS) and ending inventory.

Chandra (2001) cites the following as advantages of the three methods;

• FIFO gives a better indication of value of ending inventory (on the balance sheet), but it will also increases net income because inventory that might be several years old will be used to value the cost of goods sold.

• LIFO will be not a good indicator of ending inventory value because the left over inventory might be extremely old and perhaps obsolete. This results in valuation that will be much lower than the current prices. LIFO results in lower net income because cost of goods sold will be higher.

• Average cost produces results that are some where in the middle between FIFO and LIFO

Inventory control; this area of inventory management will involve receiving of purchased goods, storage, stock movement, cycle counting, order processing and dispatching to customers **(Krejewski and Ritzman, 1991)** it will take care of knowledge of service hours, ware house study operations, operating procedures, frequent inventory verification, all for cost control and customer service mobilization.

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It will be done using the Pareto rule or ABC analysis, which involves the categorization of all stock. Close examination of an inventory list will often reveal that, for any given inventory, a small number of stock accounts for the majority of inventory costs. The Pareto analysis classifies inventory using the 80 — 20 rule where 80 percent of the investment of sales value will be held in 20 percent of the inventory. ABC analysis stems from theory of Pareto by classifying the inventory into class A, B or C according to the vale of annual usage. The ABC analysis will be most frequently used for item aggregation because of its simple implementation procedure. The turn over value of all products will be determined and ranked in descending order. Then the cumulative turn over relative to the ranking order and the percentage of calculative turn over are calculated. The percentage range of the product will be then calculated by dividing the ranking number of the parts by the total number of products.

To manage inventory it will call for one to consider certain factors such as depreciation, rate of scrap, man power, opportunity cost, time, financial implications among others.

In most developing countries like East African, organizations haven't paid much attention to the effective and efficient role of inventory management. Organizations still think traditionally about inventory management as the study of store and loading and off loading of cargos in an organization.

Background of the case study

Thus investigating the role of inventory management towards the success of an organization using **Continental Machinery (U) Ltd** which is based in Uganda it used to focus on Uganda and the greats lakes region and east Africa but due to the high demand for high quality machines and matching after sales services with the support of services inc in USA, Hibing, Minnesota their counterparts with the 50 years of expertise in business supply and servicing. Continental Machinery (U) Ltd. laid a great emphasis on providing of customized machinery and other heavy duty

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equipments like in **Mining**; loaders, dozers and trucks. **Logging**; skidders, log loaders and trailers. **Quarry Underground Mining and Dredging**; crushers rock drillers, compressors. **Transportation;** dumpers, trailers and tankers. **Agriculture and Industries;** harvesters, arm tractors, planter tillers disc plows and compressors. **Road Building and Construction**; Graders, distribution equipment and paving products.etc

The main objectives of increasing supplies by continental machinery (U) will to be pursued along side prudential inventory management.

1.2 Statement of the problem

Inventory in organization faces a number of problems which affects the level of performance as evidenced in the **Sebutinde Report (2000)** that recommended sacking of all officials in the Uganda police procurement unit for mismanagement of inventory and turn over, implying that in many organizations inventory management and control practices should be adhered to.

Continental Machinery (U) Ltd introduced a new inventory management policy to source and supply of machinery and will gain in the success of the organization.

Although it has been successful in running its activities, it will be noted that the ineffectiveness and inefficiency of inventory management can affect the company to the big extent towards the success of the organization. Hence prompting an investigation on the role of inventory management towards the success of an organization.

1.3 Purpose of the study

The purpose of the study will be to establish the role of inventory management towards the success of an organization.

1.4 Objectives of the study

The study will be guided by the following objectives;

- To evaluate the influence of inventory monitoring and inventory information management towards the success of an organization like Continental Machinery (U) Ltd.

- To examine how inventory information management affects the key drivers towards the success of an organization.

- To examine how inventory monitoring affects service delivery to Continental Machinery (U) Ltd

1.5 Research Questions

- What will be the effect of inventory monitoring and inventory information management towards the success of an organization like Continental Machinery (U) Ltd.

- What effect will inventory information management affects the key drivers towards the success of an organization

- How will inventory monitoring affects service delivery to Continental Machinery (U) Ltd

1.6 Significance of the study

This research will high light inventory management practices that can guarantee the success of an organization with these in place, researchers, the management of Continental Machinery (U) Ltd and policy workers will be availed with useful data to fill gaps in the relationships between inventory management and the success of an organization. The study offers an opportunity for the researcher to reconcile classroom theory with practice.

1.7 Scope of the study

1.7.1 Geographical scope

The study will be conducted in. Continental Machinery (U) Ltd a sales and leasing corporation at Fufa House, Wakaliga road where the head offices are located conveniently and in safe place.

1.7.2 Period scope

The period to be investigated will be from September 2009 to February 2010 using a cross sectional survey.

1.8 Conceptual framework

The conceptual framework will help to define the topic of research through the explanation of the variables with in the research topic.

We will have independent variables which will influence, predict and control the dependent variables.

We will also have the intervening variables which some times work with the independent variable to influence the dependant variable.

For the purpose of this research the independent variable will be inventory management and the dependent variable will be the success of the organization. The intervening variables will include; information technology, JIT Replenishment, Electronic commerce, Vendor managed inventory, staff training and skills.

Therefore this will lead us to the topic as stated. **THE ROLE OF INVENTORY MANAGEMENT TOWARDS THE SUCCESS OF AN ORGANIZATION.** This will be illustrated using a diagram as shown below:-

THE CONCEPTUAL MODEL
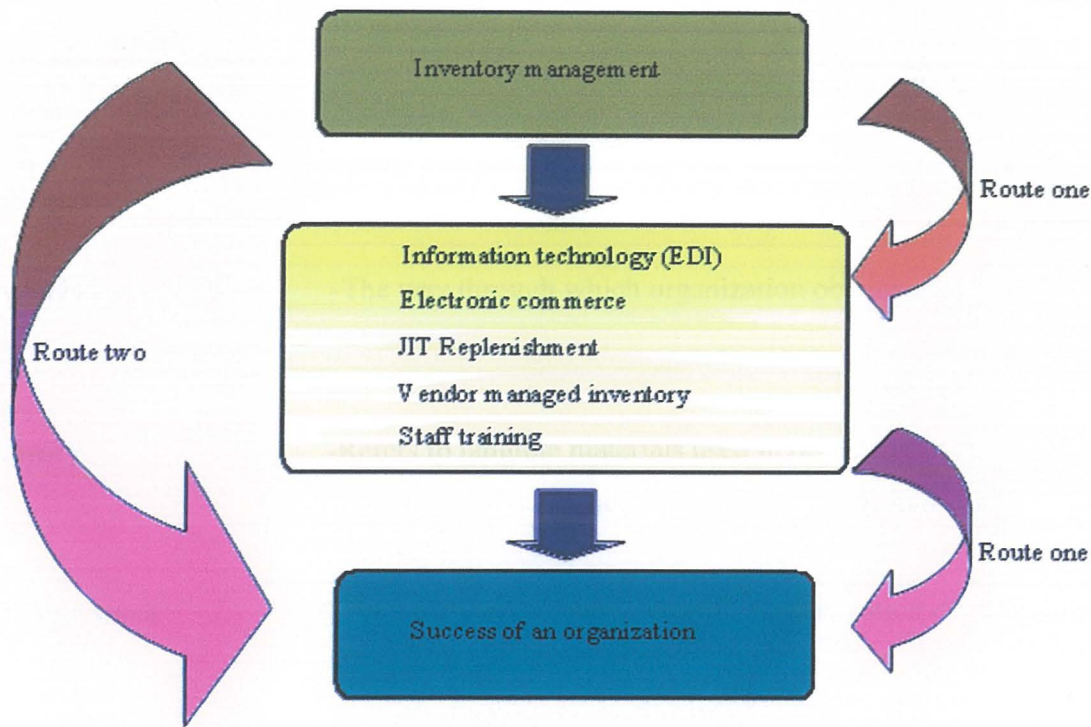
Route one   -Independent variables working through intervening
                                   Variables to influence dependant variables.

Route two   - Independent variables directly influence the dependent
                                   variables.

Operational definition of terms and acronyms

Inventory management - refers to the techniques used to ensure that stocks of raw materials or other supplies, WIP and finished goods are kept at levels which provide maximum service level at minimum costs.

Procurement   - Will be defined as means by which a company obtain,

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter will present the views of scholars on the subject inventory management practices and the success of an organization. The variables of inventory monitoring and inventory information management are high lighted as well as those of the success of an organization.

The chapter ends with the relationship between inventory management practices and the success of an organization and a conclusion.

2.1 Inventory management practices

The purpose of literature review will be to show what other researchers, authors and scholars have done over the study. What has been said over the study by giving light to the entire scope of the study. For example according to **Hsu-Hua and Kleiner (2001),** inventory management comprised of two major activities which are inventory planning and control. They explain that the purpose of inventory management that will help finish the desired degree of service to operating departments at the lowest cost which leads to the success of an organization. Inventory control involves managing the inventory that will be already in the ware house to help knowing what products are in stock, their quantities, cost and location. Inventory planning involves determining when to order items, how much to order, fore casting demand and stock replenishment, identifying the most effective sources of supply, inventory information management and monitoring.

2.2 Components and definitions of inventory management practices

While inventory management practices are varied, **Ballard (2000)** stresses that monitoring and inventory information management is core. By definition inventory will be assets that are included for sale, are in process of being produced for sale or are to be used in producing goods. For many public entities, inventory presents a large (if not the largest) portion of assets and as such makes up an important part of the balance sheet. It will therefore crucial for inventors who are analyzing stocks to understand how inventory will be valued. The following equation expresses how a company's inventory will be determined.

Beginning inventory + Net purchases — cost of goods sold (COGS) = ending inventory. This wiill mean that one takes what the company has in the beginning, adds what has been purchased, subtracts what has been sold and the result will be what is remaining **(Ballou, 2000).**

To manage inventory there will be need for costing it and there are many ways of costing inventory as presented by many scholars. Ballard (2000) cites three inventory - costing methods that a company can use to determine the cost of inventory and argues that they impact directly on the balance sheet, income statement and statement of cash flow.

- First — in, first — out (FIFO) - this method will assume that the first unit making its way into inventory will be the one sold.

- Last — in, first - out (LIFO) this method will assume that the last unit making its way into inventory will be sold first. The order inventory will be therefore left over at the end of the accounting period.

- Average cost- this method will be take the weighted average of all units available for sale during the accounting period and then will use that average cost to determine the value of cost of goods sold (COGS) and ending inventory.

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Chandra (2001) cites the following as advantages of the three methods;

- FIFO gives a better indication of value of ending inventory (on the balance sheet), but it will also increases net income because inventory that might be several years old will be used to value the cost of goods sold.

- LIFO will not be a good indicator of ending inventory value because the left over inventory might be extremely old and perhaps obsolete. This will result in a valuation that will much lower than the current prices. LIFO will results in lower net income because cost of goods sold will be higher.

- Average cost produces results that are some where in the middle between FIFO and LIFO.

The choice of a method to used will therefore dependent on how an entity wishes to reflect their inventory in its books of accounts.

2.2.1 Inventory control

Inventory control will be concerned with systematic location, storage and recording of materials in such a manner as to finish the desired degree of service to operating departments at the lowest costs.

The area of inventory management will involve receiving of purchased goods, storage, stock movement, cycle counting, order processing and dispatching to customers **(Krejewski and Ritzman, 1999)** it will take care of knowledge of service hours, ware house study operation, operating procedures, frequent inventory verification, all for cost control and customer service mobilization.

It can be done using the Pareto Rule or ABC analysis which involves the categorization of all stock. Close examination of an inventory list often reveals,

that, for any given inventory, a small number of stock will account for the majority of inventory costs. The Pareto analysis classifies inventory using the 80 — 20 rule where 80 percent of the investment of sales value will be held in 20 percent of the inventory. ABC analysis stems from theory of Pareto by classifying the inventory into class A, B or C. according to the value of annual usage. The ABC analysis will be most frequently used for item aggregation because of its simple implementation procedure. The turn over value of all products that will be determined and ranked in descending order. Then the cumulative turn over relative to the ranking order and the percentage of calculative turn over are calculated. The percentage range of the product will then be calculated by dividing the ranking number of the parts by the total number of products.

2.2.2 Inventory monitoring

It will be noted, according to **Ritzman (1999),** that efficient inventory monitoring system will assure accurate economic order quantities for stock, making the demand forecast more reliable. The author will explain that the better the monitoring system, the easier it will to detect items running out of stock and stock obsolescence, which in turn promotes just in-time ordering and delivery.

The importance of monitoring is further stated by **Watts, Hahn and Sohn (1999).** The authors point out that it will focus on the environmental variables, decision rules and performance measures. Environmental variables include demand, cost, lead time, classification of customer requirements and management policies. They argue that decision rules should be made about order quantity, reorder point, economic order quantity and safety stock level. Performance measures, on the other hand, should include turn over rate, stock out frequency inventory to sales ratios and total inventory investment.

A carefully designed monitoring system will be required as the system may not be capable of detecting and reacting to changes in its operating environment. The proponents of this view, **Watts et al, (1999)** add that performance deviations should be noted from two sources, performance deviations due to system fitness and deviations due to operational causes.

NaIor (1996) observes that the best inventory systems monitoring the process rather than just the stock. According to him, monitoring takes place after every action, thus highlighting errors immediately using methods coupled with their documents such as stock cards, bin cards, materials requisition forms among others.

Both **Ballard (2000) and Tersin Ct al (1994)** observes that monitoring involves the day to day follow up and evaluation of the key performance indicators of inventory control costs.

An effective inventory monitoring system empowers management with the right information to reduce inventory in times of specific decline and increase it in times of high demand **(Neville, Rush and Sadd, 1998).**

Monitoring of inventory will be about knowing, at all times, every thing that needs to be known about the stock to ensure the effective management of the ware house and reliable feedback of data for the management of business. It means knowing about the progress of goods and materials as they are processed through the ware house.

2.2.3 Inventory information management

According to **Narasimhan (2000)** inventory management can be threatened when the physical inventory management quantities do not match what will be displayed by the information system.

This will be because the information system must be able to display accurate quantities for each to avoid wrong sales promises to customers leaving items unsold yet they are in system or wrong procurement decision due to wrong physical stock data.

Class et at (1997) present three — life cycle stages pertinent to inventory information management as collection, storage and retrieval of information. They add that the purpose of such an information system should be to establish what information will be held or should be held, by an organization to support inventory management activities.

In their view, an information system should analyze gaps in order for it to understand what information it will hold and where it needs to improve in order to meet business needs. Information rationalization should be supported on basis of content to identify redundancies, under utilized stock and conflicting information.

The variables include the systematic processing, analysis and feed back of information that determines the accuracy and timely decision on the key data of inventory planning.

The key ingredients according to **Everett and Ebert (1994)** include accurate out puts ensuring actual representation of system data.

Information must be bench marked, captured consistently and measured correctly. **Raz and Tam (2003)** note that the indicators of good inventory information Management will include timely and accurate outputs reports on inventory turn over and customer service level among others and should provide warnings for stock outs and over stocking, which are evidence of poor information management.

2.3 Success of an organization

'What is success, the way to it, and your right to be successful?" it will be about you and how you can become a success. In this article, I will be especially concerned with the compelling vision and objectives of the American society of exercise physiologists (ASEP). I take the view that success is just minutes away from fulfillment by joining the

society. I won't pretend that you can't succeed in other organizations of course anything is possible. The truth will be that I want you to consider membership in the society of exercise physiologists.

Through hard work and dedication to ASEP's vision, members of the society are working due to achieve the extraordinary. They are working together to design and secure the future for all exercise physiologists. But, before you read any further, stop and tell yourself;

• It will be O.K for you to want your own organization.

• It will be O.K for you to think as an exercise physiologist

• It will be O.K for you to look out for your self.

• It will be   O.K for you to believe that sports medicine is not exercise physiology

• It will be O.K for you to recognize the need to professionalize.

• It will be O.K for you to want to succeed as an exercise physiologist.

It will be O.K to be an exercise physiologist! You don't have to apologize to anyone. You don't have to feel quality about what will be logical. You have the right to your feelings even though others may tell you that success can't be realized outside of sports medicine. Success begins, therefore, first with your instincts to follow logical thinking. Then, the best way to succeed will be to begin with a reasonable plan for realizing your hopes and expectations. The process will be journeys which will not an adventure with surprises on every front. It will begin with the first step, however small even if your goals should change along the way. At least, take the step and become part of history.

I do not personally think it will be necessary to be mean or unethical to be successful. Certainly, many successful people are mean, closed minded, and unethical. When their views are too one sided, they set the stage for infighting along the way. The result, unfortunately a lost opportunity to build into existing organizations new ideas and possibilities. For the members who are determined to succeed, the lack of understanding from top down serves to bring them together with greater motivation and desire.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

Bailey defines research methodology as the philosophy of the research process, which includes the assumption and values that serves as rationale for research and standard or criteria the researcher use for interpreting data and reaching to conclusion. The research methodology mainly looked into details to the research design procedures and techniques and research instrument that were used during the study. The research also briefly transverse through the units that made up the sample, area of study, as well as their characteristics, study population, and sampling techniques and procedures that were adopted for data analysis and limitation that in one way or another affected the study.

31 Research design

In the research, the study involved the techniques that were employed in the process of data collection. The research used a number of methods to gather the data among them, questionnaire, revising the existing documents and interviews. The major source of primary data compilation was questionnaires. The researcher also involved a number of people in the research by interviewing them inform of discussion, these included officers from supply chain department and quality. The researcher visited Continental Machinery (U) Ltd and distributed questionnaire. The researcher put more emphasis on the role of inventory management toward the success of an organization. The researcher also obtained secondary data from the internet, books, journals and presentations papers in search of literature and other researches done on the success of inventory control in the entire supply chain management.

3.2 Population of the study

The study was conducted in Continental Machinery (U) Ltd and a total of 100 respondents was selected form the population. This comprised of the employees in inventory management department like procurement and stores plus other departments that are engaged in the running of the organization's activities because they have the

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general knowledge on how materials are handled and managed plus the satisfaction they derive when inventory is managed.

3.3 Sample size and sample selection techniques

The researcher reached substantial number of forty respondents from Continental Machinery (U) Ltd its supplier and some different customers who were drawn form different groups of the study population. The sample was deemed to be suitable and ideal for this study given the size of Continental Machinery staff population, its customers and suppliers who are spread across the country which is relatively difficult to reach as the study was exclusively carried Fufa House, Wakaliga Road Kampala Uganda.

3.4 Sample Technique In order to get realistic and more suitable sample, and the researcher to acquire reliable information that could represent the entire population, the study adopted two sampling techniques; simple random and purposive sampling technique.

3.5 Sampling Random Technique

This was a technique used by the researcher where by each member of population had an equal chance of being selected. The researcher decided to use this method in order to avoid biasness in the process of selecting the respondents from the group of possible respondents

3.5.1 Purposive Sampling Technique

This was a sampling technique that allowed the researcher to use cases that had the required information with respect to the objectives of the study, cases of the subjects were therefore hand picked because they were informative or they possessed the required characteristics.

3.6 Data Collection Method

In this study the researcher used self administered questionnaire, personal interviews, observation and documentary review.

3.6.1 Questionnaire

This method assisted the researcher to solicit quantitative and qualitative data. The questionnaire consists of both open ended and closed ended questions. Open ended questions incorporated in the study gave the respondents the freedom to respond to questionnaires depending on the way they treated the issues being investigated not to limited to the researcher's way of understanding the topic of interest.

The questionnaire were self administered, they were designed so that to get information regarding demographic factors such as age, sex, and marital status in order to simplify the coding of statistical data. As a strategy to avoid irrelevance and create support between the researcher and respondent, the questionnaire will be submitted earlier that gave the respondent enough time to comprehend and fill them.

3.6.2 Interview

The method was used to collect data from the respondent through physical engagement of the researcher. The respondent was to be interviewed to the level of inventory management of an organization. Face to face interviews were used to assist the researcher obtain data through verbal and no-verbal communication like body language and posture.

3.6.3 Documentary Review

This method was involved in reaching documents related to the role of inventory management on the success of an organization and supply chain of Continental Machinery (U) Ltd. They also provided valuable information on as due the requirement.

3.6.4 Observation

The researcher physically visited Continental Machinery (U) Ltd several times in the process of gathering facts, and observes what was going on within the organization. This had helped the researcher to verify that facts collected using other methods and also capture some more information that could have been ignored. The researcher had to observe the activities on the level of inventory management towards the success of the organization. Finally the finding had to be recorded. The data collected through Observation was highly reliable because the researcher had to see what was exactly happening and what was being done on the ground.

3.7 Techniques for data analysis

Data that was obtained from the field was mostly difficult to translate and interpret as it was in raw form however, such data must be cleaned, coded, keys punched into computer's keyboards and analyzed. The researcher used both computer programs such as Ms Word, Ms excel as well as technical method to analyze data collected in this case simple statistics with aid of hand calculator, frequency tables were used in the analysis which helped in understanding the concept and drawing conclusions from the final findings.

3.8 Limitation of the study

They were issues that in one way or another influenced the researcher. These limitations are divided into two; financial and time limitations.

3.8.1 Time constraints

The researcher encountered time constraint which to a certain extent obstructed the smooth and efficient execution of the study. Since this was based on the fact that the researcher was conducting the research simultaneously with his studies and therefore it was hard to meet expected time schedule.

3.8.2 Financial constraints

The researcher had encountered with financial constraint and to some extent influenced his research process, in the course of conducting the research. It had happened because the researcher was privately sponsored individual-with limited resource and limited opportunities to fund the process

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.0 Introduction

After the data had been collected it required undergoing processing, analysis and tabulating the data systematically according to the outlined questions for the purpose of developing an effective analysis. The information was analyzed basing on the research specific variables which were-:

a) To evaluate the influence of inventory monitoring and inventory information management towards the success of the organization at Continental Machinery (U) Ltd.

b) To examine how the inventory information management affected the key drivers of the success of an organization.

c) To examine how the inventory monitoring affected the service delivery to Continental Machinery's customers.

Data analysis is the working out of certain measures along with probing for patterns of dealing that exists among data groups. This process involved in the following -:

1. Editing

In this stage the researcher was examined, the collected row data to determine errors and omissions to correct them where possible, the author scrutinized the accomplished questionnaires and schedules with an aim of ensuring that the data was perfect, dependable with other facts gathered uniformly entered and have been well arranged to facilitate coding and tabulation.

2. Coding

In coding the researcher assigned numerals to answer so that responses would be in limited numbers of categories or classes it was very obligatory as it helped the researcher to carry out effective analysis and through it several replies were reduced in to a small

number of classes which contained the single information required for analysis especially information gathered through personal interviews with respondents.

3. Classification

After coding the data the researcher arranged it in groups or classes according to other resemblance and affiliation and gave expansion to the unit attribute that may exist amongst a diversity of individuals. This mostly applied when the researcher had fathered data from personal interviews basis with respondents.

4. Tabulation

The researcher summarized that raw facts and displayed them in the form of statistical tables for further analysis. It was crucial because it brought out clearly the data collected and it was very easy to understand.

During the research, the researcher tabulated the data collected. The data was analyzed in tables in order to make the analysis and interpretation easer.

The data collected was presented using pie bar graph..

4.1 Analytical tools and methods used.

The author tabulated the data collected systematically; the data was arranged in rows and columns for simple analysis and interpretation. The data presented in bar graph.

The bar graphs were used to represent the data marking the role of inventory management towards the success of Continental Machinery (U) Ltd in regard to various variables.

4.2 Findings of the study

4.2.1 Kind of inventory method used in organization

According to the data the researcher collected 40% of the respondents said their organization uses ABC analysis, 30% said their organization uses Just in Time (ill) 20% said that their organization used economic order quantity, while 10% of the intended respondent gave on reply.

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For those who said their organization used ABC analysis as the kind of inventory method because of the following reasons;

First class 'A' items merit close day-to-day control because of their budgetary importance.

Secondly class 'B' was the set of items that was intermediate between class A and class 'B'. They should be regularly reviewed but are not as closely controlled as class 'A' items.

Thirdly class 'C' items were those items that could account for only small proportion of spending.

For those who said that their organization used Just In Time (JIT) as the kind of inventory method is because of the following reasons-:

First it involved part costs low scrap costs, low inventory carrying costs,

Secondly it involved quality fast detection and correction of unsatisfactory quality and. ultimately, higher quality of purchased parts.

Thirdly, it involved productivity reduced rework, reduced inspection, reduced parts-related delays.

For those who said their organization used economic order quantity was due to the following reasons;

First economic order quantity (EOQ) could be used to determine what items fited in to the JIT model and what level of JIT is economically advantageous to the particular organization.

Table I: Table showing the kind of inventory methods used in

Kind of inventory method used	No-of responses	% no of responses
ABC Analysis	16	40
Just in time (JIT)	12	30
Economic order quantity (EQT)	8	20
No reply	4	10
Total	**40**	**100**

Source: primary data, January 2008

Figure 2:   Kind of inventory methods used
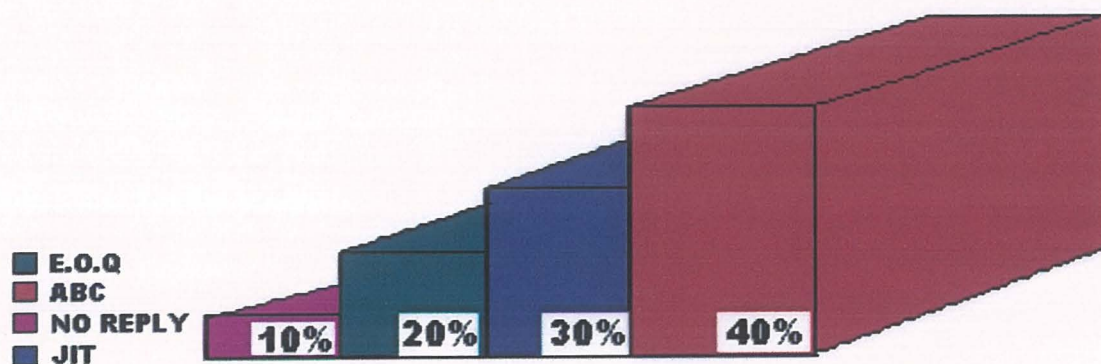
Source primary data, January 2008

Number of times on inquiry about inventory.

According to the data taken by the researcher, 60% of the respondents said more

times.

While 20% of the respondents said they had just taken two times on inquiry about

inventory, lastly 1 0% of the intended respondents did not reply,

Table 2showing the distribution in number of times on inquiry about

No. of times on inquiry	No. of responses	% no of responses
1	4	10
2	8	20
3-10	24	60
No reply	4	10
Total	**40**	**100**

Source: primary data, January 2008.

Figure 3:   Number of times on inquiry about inventory,
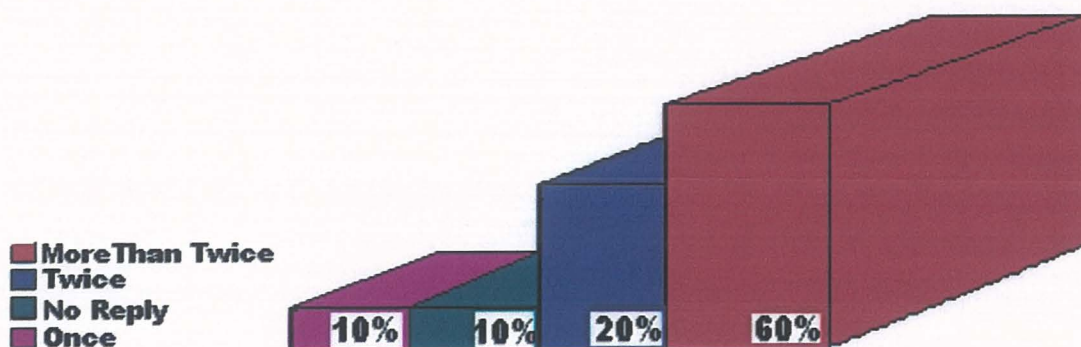
Source primary data, January 2010

4.2.3 Problems encountered in inquiry about inventory

According to the data that was collected by the researcher,60% of the respondents replied they encountered problems in inquiry about inventory, the attributed this to the following reasons;

First annual demand was a forecast, so it was unlikely to be an exact figure,

Secondly, order costs are assumed to be constant, but these may change due to use me introduction of e-purchasing.

Thirdly the interest rate was assumed to be constant, but in practice, interest rates frequently change.

Cost per item were likely to change in the course of a year, so we have to decide whether to use average cost, replacement cost, actual cost or anticipated future cost in the equation,

According to the data collected by the researcher, 30% of the respondents replied that they did not encounter problems in inquiry about inventory, they attributed. This to the following reasons;

First they attributed this to smooth seasonal or cyclical demand.

Secondly they attributed this to protect against lead time uncertainties, such as where suppliers' replenishment and lead times are not known with. Certainty, in such eases an investment in safety stocks in necessary if customer service was to be maintained at acceptable levels, 10% of the intended respondents gave no reply.

Showing the ease of inquiry about inventory.

TabIe3: Showing the ease of inquiry about inventory.

Ease of iniquity about inventory	No. of responses	% no of responses
Difficulty in inquiry	24	60
Ease in inquiry	12	30
No reply	4	10
Total	**40**	**100**

Figure 4, Ease of inquiry about inventory.

Easy
Difficult
No Reply
10%
30%
60%
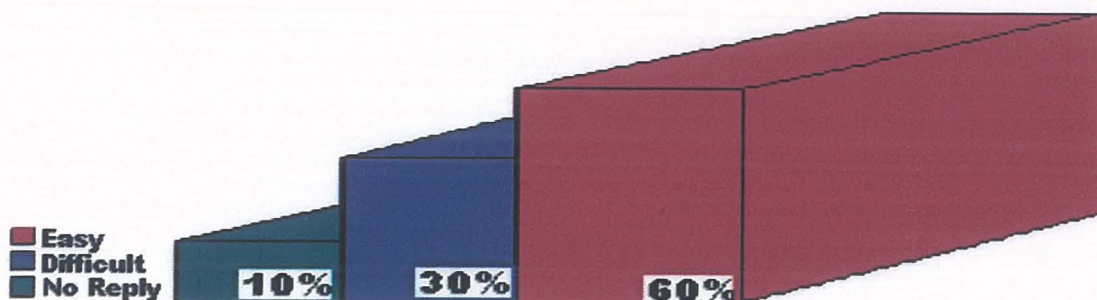
Source: primary data, January 2010

4.2.4 Contribution of inventory management to the success of an org.

To collect data to the contribution of inventory management to the success of an Organization the researcher sub-divided it on two major categories,

4.2.4.1 Effect of inventory management on the income variables.

These are those issues that the organization stands an advantages or a disadvantage position in its income levels due to the impacts of inventory management.

40% of the respondents replied that inventory management had a fairy high to a great extent positive impact on the organization income, the reason that inventory ontrol offered improved the organization business opportunities; this led to an increase in sale turn over. More business profits thus an improvement in cash flows. This has led to more saving and a higher rental income.

However 15% of the respondents replied that inventory management had a milled impact on the on the organization income variables this they stated was attributed to the poor business sales, low savings, a decline in cash flows and low rental income. According to personal level interview most revealed that the reason for this was not of much on

inventory management but on macro-economic objectives like inflation and high business competition that has affected the market share.

10% of the intended respondents did not give a replay concerning the impacts o f income on the organization.

Table 4: Showing the extent of inventory impact on organization's income

Extent of inventory impact on income	No-of responses	% no of responses
Great Extent	16	40
Fairly high	10	25
Mild impact	6	15
No reply	4	10

Source: primary data, January 2010

Figure 5: Impact of the inventory management on the organization income
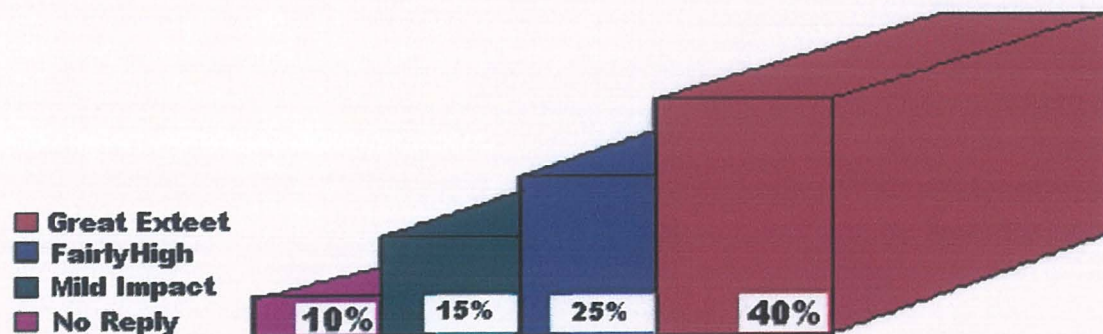
Source: primary data January 2010

4.2.4.2 Impact of the inventory management on the organization consumption variables.

By the term consumption variables the researcher meant those issues that concern persons wellbeing which emphasized basic issues like proper shelter, food and health that enhance better welfare.

According to the data collected by the researcher 40% of the respondents indicated the inventory management assisted either excellently or fairly in improving personal welfare in that they could afford better medical care, good housing ions as well as improved security.

According to personal interview with some of the respondents, they replied that the improvement in basic needs was attributed to the inventory management.

According to the data collected by the researcher 10% of the respondents indicated that basic needs and welfare declined or showed a negative impact on the organization but on a personal interview basis to some, they revealed that such a decline was attributed mainly to rising inflation in the country and not so much on the inventory management itself.

I 0%of the intended respondents did not reply.

Table 5: Table showing the impact of inventory on the organization's consumption variables

Extent of inventory impact on organization consumption	No-of responses	% no of responses
Great Extent	16	40
Fairly high	10	25
Mild impact	6	15
Negative impact	4	10
No reply	4	10
Total	**40**	**100**

Source primary data January 2010

Figure 6: Impact of the inventory management on the organization's consumption

Great Extent
Faily High
Mild Impact
Negative Impact
No Reply

10% 10% 15% 25% 40%
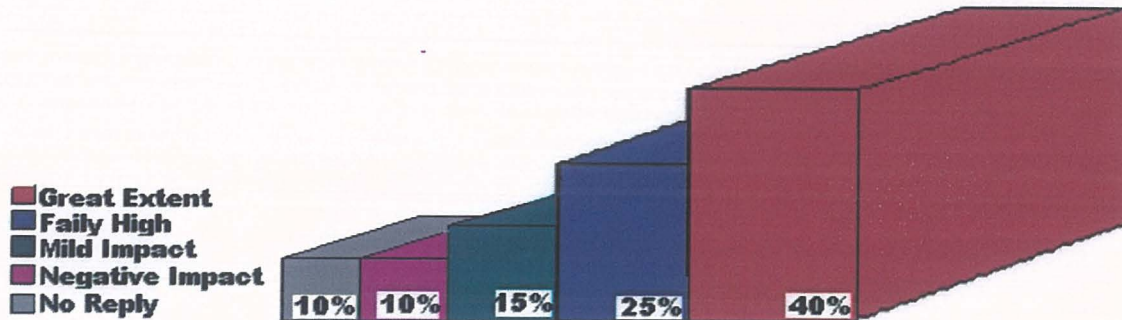
Source primary data, January 2010

4.2.5 Reasons that make organizations keep inventory According to the data collected by the researcher 70% of the respondents, attributed the organization wanting to reduce the risk of supplier failure or uncertainty-safety and buffer stocks are held to provide some protection against such contingencies as strikes, transport breakdowns due to floods or snow, crop failures, wars and simulate factors. While 15% attributed the organization to wanting to meet unexpected demands or demands for customization of products as with agile production. 5% attributed other minor reasons, other than those in the questionnaire, while 10% offered on reply to the researcher.

Table 6:   **Illustrating the reasons as to why organization keep inventory**

Reasons for keeping the inventory	No-of responses	% no of responses
To reduce the risk of supplier failure or uncertainty-safety and buffer stocks are held to provide some protection	28	70
To meet unexpected demands or demands for customization of products as with agile production	6	15
Other reasons	2	5
No reply	4	10
Total	**40**	**100**

Source: primary data, January 2010

Figure 7: Reasons to why organizations keep inventory

- Risk of Suppliers
- Unexpected Demand
- No Reply
- Other Reasons

5%   10%   15%   70%
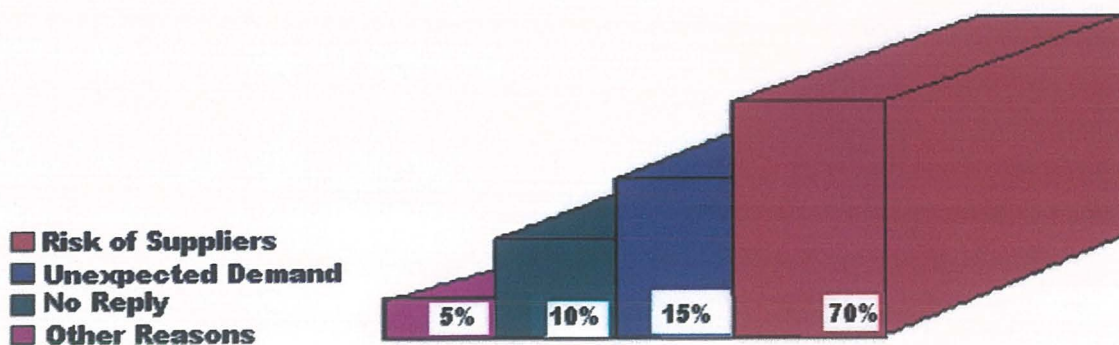
Source: primary data, January 2010

Challenges faced by the organization in inventory management

According to the data collected by the researcher 65% of the respondents attributed that the main challenge in inventory management was cause of personal for instance additional labour costs, inventory deterioration, increase in insurance premiums and general increase in over heads to include deprecation and costs. While 25% of the respondents attributed the inventory management main challenge, for instance they pointed on issues like capital being

tied up, resulting in loss of opportunity and excessive storage costs. 10% of the intended respondents failed to reply on the questionnaire.

Table7: Showing the challenges faced by the organization in inventory management

challenge	No-of responses	% no. of responses
Personal challenges	26	65
Inventory management	10	25
No reply	4	10
Total	**40**	**100**

Figure 8: Challenges Laced by the organization in inventory management

■ **Personel Challenges**
■ **Inventory mgt**
■ **No Reply**

10%   25%   65%
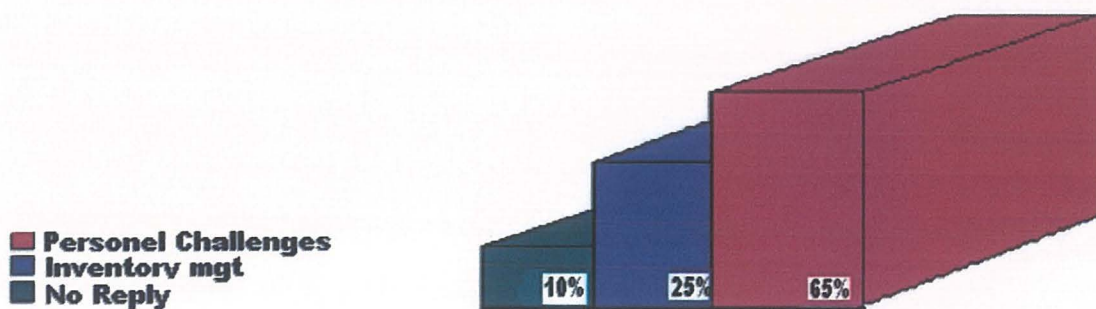
Source Primary data, January 2010,

CHAPTER FIVE
RECOMMENDATION AND CONCLUSION

Introduction

The researcher in this chapter came up with comments and conclusions based on the findings in the previous chapter and finally proposes recommendations on the role of inventory management towards the success of an organization.

Comments and conclusions

cording to the findings in the previous chapter, inventory management since its inception has caused a positive impact on the organization's welfare, this has been holy proved by the findings in that a higher percentage of the correspondents attributed a positive impact on the organization's welfare in terms of an increase in sales turn over and more business profits thus an improvement in cash flows.

In carrying out the research, the researcher noted that much of the negative impact the organization's welfare was attributed to effects beyond control of inventory management. Such effects include poor business sales, low savings, a decline in cash flows and low rental income

From the analysis, the researcher deduced that good inventory management has

Continental Machinery (U) Ltd to hold stocks at an optimum level, attaining a situation where stocks are replenished constantly and in quantities that are neither excessive nor inadequate. In finance, this was commonly referred to as inventory control. Minimizing the cost of inventory holding will increase profitability.

The researcher noted that however, inventory control cost can not be entirely with. The major issue with most businesses is how much stock should

they carry? Too little would have resulted in loss of sales whereas too much will inflate the cost of holding inventory.

Low levels of inventory holding are difficult to manage but were kept, the cost of inventory holding to a minimum. Businesses that tend to buy against demand run the risk of losing sales as customers are not always prepared to wait for their purchase and certainly this was true with fast moving consumer goods; this has was deduced after the analysis of the findings in the previous chapter.

Lost sales means lost profitability, and the benefit of keeping the cost of inventory holding to a minimum is wiped out as sales decline on account of stock not being available at a time when it is required, this has been among the most hindrance on the role of inventory management towards the success of an organization. This has been deduced after the analysis of the findings in the previous chapter.

Recommendations

According to the findings and conclusions of the study, the researcher found it necessary that the following recommendations be of much importance;

Continuously running out of inventory resulted in loss of customers could prove to be fatal in the long run. Customers who had been turned down on account of inventory not being readily available are hardly likely to return for future purchase.

Companies engaged in the provision of specialist goods, however, by their trade, they are immune to loss of business on account of unavailability.

In comparison, business that were engaged in the provision of fast moving consumer goods undoubtedly lost sales on out of stock inventory lines.

Holding excessive inventory would appear as a simple solution to fulfilling customer demands at any given time. However, inventories that are superabundant will result in capital being unnecessarily tied up, resulting in loss of opportunity, excessive storage costs, risk of obsolescence, additional labour costs, inventory deterioration, increase in insurance premiums and general increase in over heads to include depreciation and security costs.

Inventory holding and keeping the cost of inventory holding to a minimum while ensuring zero tolerance to loss of sales, was a complex exercise that involved the use of mathematical models. Inventory control software applications were widely used in inventory control. Some are costly but proved to be valuable tool in the management of inventory efficiency.

The art of balancing inventory holding against anticipated demand was unique for each business depending on the type of goods, type of business, annual estimated demands, seasonal demand and reorder lead time.
Whatever the business, whether in manufacturing, retail or services inventory, control played a pivotal role in improving the bottom lines.

Areas for further research
- Further researches have to be conducted in the areas of economics of inventory. The economics of inventory management and stock control are determined by an analysis of the costs incurred in obtaining and carrying inventories.
- Research on the impact of inventory performance measures towards the success of an organization.
- Research to investigate safety stocks and service levels.

ORGANIZATIONAL STRUCTURE OF CONTINETAL MACHINERY (U) LTD)

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                        ┌─────────────────────┐
                        │      Director       │
                        └─────────┬───────────┘
          ┌───────────────────────┼───────────────────────┐
          │                       │                       │
┌─────────────────┐   ┌─────────────────────────┐   ┌──────────────────────┐
│  ting manager   │   │  Human resource manager │   │ Procurement manager  │
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         │                         │                           │
         ▼                         ▼                           ▼
    ┌───────────────────────────────────────────────────────────────┐
    │                         Subordinates                          │
    └───────────────────────────────────────────────────────────────┘
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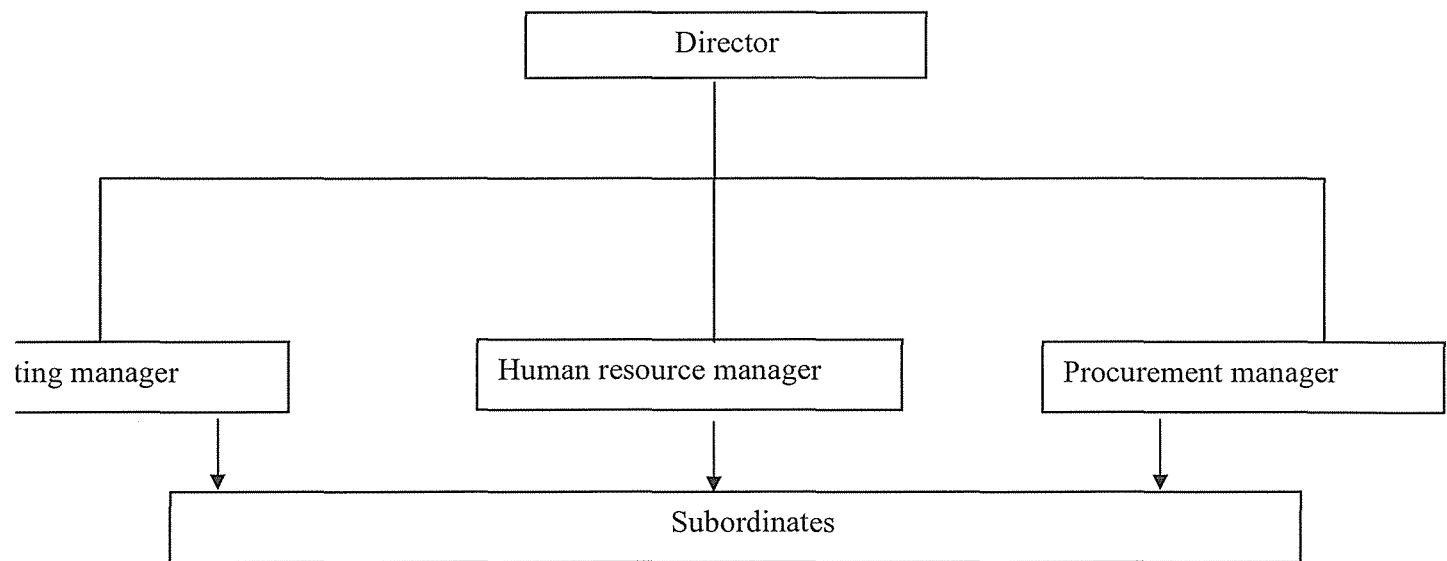
APPENDIX A

THE LETTER OF INTRODUCTION TO CONDUCT THE STUDY AT CON TINENTAL MACHINERY (U) LTD

The Managing Director,
Director of Human Resource and Administration
Continental Machinery (u) LTD
Fufa House,Wakakiga road
P.O.Box 70691 Kampala-Uganda.

December 8, 2009

Dhabangi Samson
Kampala International University
P.0.Box, 20000 Kampala-Uganda

Dear sir /Madam

RE: REQUEST TO CONDUCT RESEARCH IN YOUR ORGANISATION

I am an under graduate student at Kampala International University pursuing a Bachelors of supplies and procurement Management (BSP). As a partial fulfillment of my course am to carry out a research study and present it as a dissertation.

I would like therefore to request you to grant me the opportunity to conduct my research using Continental Machinery Uganda as a case study in my research on the study of inventory management on towards the success of an organization.

I will be grateful if the request is granted

Thank you for your time and kind response

Yours sincerely
DHABANGI SAMSON

CONTINENTAL MACHINERY
SALES & LEASING CORPORATION (U) LTD.

Fufa House, Wakaliga Road. P.O. Box 70691 Kampala (U)
Tel : +256 414 270110
Fax : +256 414 270108

10TH December, 2009

Our Ref: CMSL-10129

MR. Dhabangi. Samson,
Kampala International University
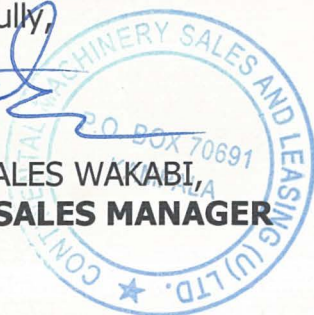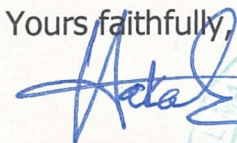P.O.BOX 20000, KAMPALA,
UGANDA.

Dear Sir,

RE: LETTER OF ACCEPTANCE TO DO RESEARCH IN CONTINENTAL MACHINERY CORP. (U) LTD.

Pursuant to the request to do research, we pleased to inform you that your schedules have been accepted under the theme of; **"INVENTORY MANAGEMENT, THE SUCCESS OF AN ORGANISATION"**.

Please report to manager of procurement who will help you access the data you will require for your research work and other necessary modalities.

Kindly accord them the necessary assistance and cooperation.

Yours faithfully,

WALTER WALES WAKABI,
GENERAL SALES MANAGER

CC. CEO,
CC. Parts manager

Directors : Sando T. Johnson ** Alonzo J. Thomson** Richard E. Prebich ** Vincent Kimera *, **American * Ugandan

APPENDIX C

KAMPALA INTERNATTIONAL UNIVERSITY SCHOOL OF BUSSINESS AND MANAGEMT

QUESTINAIR SHEDULE

Dear respondent

I Dhabangi Samson, student of Kampala International university pursuing Bachelor of Supplies and Procurement Management is carrying out a research on THE ROLE OF INVENTORY MANAGEMENT TOWARDS THE SUCCESS OF AN ORGANISATION, A CASE STUDY OF CONTINENTAL MACHINERY (U) LTD
Please help to fill the questionnaire, the information you will be used for purely academic purposes and confidentiality and honest hoping that the findings of the study will be of interest to your organization and shall facilitate the accomplishment of my studies,

Thank you for your assistance
Tick the appropriate box according to you and where applicable provide information on the space provided.

SECTION 1

1.1 Which department do you work in this organization?
    a. Procurement ☐
    b. Accounts ☐
    c. Marketing ☐
    d. Human resource ☐
    e. Others, please specify..............................

1.2 What position do you hold in this organization?
    a. Top manager ☐
    b. Middle manager ☐
    c. Operational staff ☐
    d. Others, please specify................................

1.3 Sex
    a. Male ☐
    b. Female ☐

1.4 How long have you worked in this organization
    a. 1 year ☐
    b. 2 years ☐
    d. Others, please specify...................................

SECTION 2
2.0 THE ROLE OF INVENTORY MANAGEMENT
Do you understand the term inventory management?
- a. Strongly agree ☐
- b. Not aware ☐

2.2 Do you have methods of managing inventory?

- a. Agree ☐
- b. Disagree ☐

2.3) Inventory management contributes towards the success of an organization

- a. Agree ☐
- b. Disagree ☐

2.4) What major type of inventory do you have in your organization?

- a. Raw materials ☐
- b. Finished products ☐
- c. Semi finished products ☐
- d. Components and parts ☐

2.5 Does inventory management contribute to the return on investment?

- a.. Agree ☐
- b.. Disagree ☐

2.6 Mention some of the methods of inventory management

- a. Establishment of inventory levels ☐
- b. Just in time (JIT) ☐
- c. ABC analysis ☐
- d. Economic order quantity ☐

2.7 what are the problems involved with inventory management?

- a. High costs of holding stock ☐
- b. Deterioration of inventory ☐
- c. High scrap/obsolescence ☐
- d. Poor storage facilities and lack of space ☐

THANK YOU FOR TOUR TIME

40

THE INTERVIEW GUIDE

Introduction of my self

State the purpose of my visit

Explaining the importance of the research study

    a. what department in the organization do you like

    b. what is your position in the organization

    c. how long have you served in this company

    d. are you aware of inventory management activities

    e. what kind of inventory is more prone to inventory management

    f. what are the basic importance of inventory management

    g. what are the challenges that hinder

THANK YOU FOR YOUR TIME

ESTIMATED BUDGET FOR THE DISSERTATION

PARTICULARS	QUANTITY	UNIT COST Ug,Shs.	AMOUNT Ug.Shs.
Pens and books			4,000
Flash disk(SONY)2GB	1	2500	2,500
Reams of p/copying papers	2	8000	16,000
Sub-Total			*22,500*
Travel and Communication			
Airtime Cards			30,000
Travels (Lump sum)			90,000
Meals			20,000
Sub-Total			*14,000*
Data Collection			
Emails/Internet			10,000
Questionnaires	30	500	15,000
Sub- Total			*25,000*
Typing & Printing			
Proposal	1 copy	30,000	30,000
Research report	1 copy	60,000	60,000
Sub-Total			*90,000*
Consultation			
Editing & Data analysis	1 copy	35,000	35,000
Miscellaneous		30,000	30,000
Sub-Total			*65,000*
Photocopying & Printing			
Research report(p/copy)	2 copies	10000	20,000
Research repot(binding)	3 copies	10000	30,000
Sub-Total			*50,000*
GRAND TOTAL			*266,000*

Source: **Walter Wales (Brother)**

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