

**THE IMPACT OF INVENTORY MANAGEMENT ON ORGANISATIONAL  
EFFECTIVENESS AT UGANDA BATTERIES LIMITED**

**BY**

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**A RESEARCH REPORT SUBMITTED TO THE COLLEGE OF ECONOMICS AND  
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## DECLARATION

I, Murungi Zhubedha hereby declare that to the best of my knowledge and effort this is my original work and has never been presented to any other institution for any award.

Signature Mubie .....

(Student)

Date 21/09/2018 .....

## APPROVAL

This is to certify that this research proposal has been prepared under my supervision and is now ready for submission to the University for Examination.

Signature: ..... Mulimira ..... Date: ..... 24/09/2018 .....

Mr Mulimira Emmanuel  
.....  
(Academic Supervisor)

## **DEDICATION**

Whole heartedly, i dedicate this report to my dear parents who have enabled me to succeed through campus; you gave me the best investment in the world.

## **ACKNOWLEDGEMENT**

First and foremost, i thank the Almighty God for giving me life and strength to carry out this research. I acknowledge my supervisor for the work he has done to help me finish this project given the problems and the limited time I had.

To all the friends and family members who have helped me throughout this research, I thank you very much and pray that god rewards you kindly.

In particular, I appreciate the staff of Uganda Batteries Ltd and thank you for helping me access the respondents and may god reward the work of your hands.

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## **ABSTRACT**

This study focused on the impact of inventory management on organization effectiveness. The study was guided by the following research objectives which were to identify inventory management practices employed by organizations, to examine the problems encountered in the use of Inventory Management Techniques and to establish the relationship between inventory management and organization effectiveness. The study used Uganda batteries Ltd as a case study; the study used 60 respondents from whom data was collected. The researcher used questionnaires in collecting primary data. The key findings of this study were that company used various technique and systems to ensure inventory management and these have greatly enhanced its effectiveness in a number of ways as earlier mentioned. For instance, economic order quantity system has facilitated automation in addition to the manual method of handling stock though the disadvantages was that this method was too slow and exhaustive since it involved double handling of stock.

## **CHAPTER ONE**

### **1.0 Introduction**

This chapter presents the background to the study, statement of the problem, purpose of the study, research objectives, research questions, scope of the study, and justification of the study.

### **1.1 Background**

Inventory management has become one of the important issues that have to be handled with a lot of care in modern organizations. Inventory management helps to ensure that the organization is supplied with all necessary materials required to run a smooth production process (Lewis, 1998). Inventory management is very essential to firms that invest heavily in materials. Most service organizations invest huge sums of money in terms of supplies (Citman, 1997). The relation for most service firms holding high amounts of Inventory is that they enjoy quantity discounts, eliminates stock out, meet customers' demand, ensure company's image and even check price changes (Al-Omiri, M. (2011).

Most manufacturing organizations continuously emphasize the need for running an efficient inventory system, which ensures that the organization maintain the quantities of materials that minimizes costs, through controlled inventory movement and recording. Given the benefits of holding stock of materials, there is also costs associated with holding large amounts of materials that include storage charges, opportunity costs of funds tied up in materials, lighting, security costs, insurance charges, (Kakulu 2000).

Basing on the above facts, it becomes evident that the performance position of the firm will largely depend on the firm level of investment in supplies, (Cosker, 2002).

In Uganda, Uganda Batteries has experienced excessive inventory costs that have greatly constrained its performance (Income statement 2014). The increased cost of production has even made it to phase off certain activities.

Owing to the nature of the operation, keeping inventory is inevitable. The biggest challenge to this organization has been in designing inventory management systems that minimizes cost of production.

Several efforts like keeping proper records of inventory, ensuring that there is stable supply of materials through forming strategic alliances with the suppliers and others, have yielded less in reducing the costs as the biggest constraint into its profitability (Notes to the accounts 2014). In addition, net profits fell from 1782301190 Ugshs in 2014 to 106909146 Ugshs in 2015. This represents a 40% decrease in profitability and according to management was due to increased inventory costs that emerged out of overstocking inventory and other operational challenges at the time.

Uganda Batteries Limited further encountered some delivery challenges for some time due to mechanical breakdown for some time that caused a big loss to the company (Majera, 2016). Further, from 2016 to 2018, inventory costs increased from 8% to approximately 20%, leading to drastic reduction in net profit from 4% to 10% as shown below.

Year	2016 (m)	2017	2018
Inventory costs	3764	4074 m	4876 m
%age change	-	8.2%	19.7%
Net profit	1112	1160	1044
%age change	-	4.4	-10

**Source.** Uganda Batteries' income statement.

This therefore has created great management concern to this organization and this forms the basis for this study.

## **1.2 Statement of the problem.**

Inventory management in modern organization is geared towards improving financial performance. For instance, inventory management strengthens alliances with suppliers leading to production of high quality, reasonably priced goods and services and keeping proper records of inventory among others. Despite the above efforts, Uganda Batteries' organizations effectiveness has not improved. This is evident in the increased costs of inventory from 8% to approximately 20%, from 2016 to 2018 leading to drastic fall in the organization effectiveness (Uganda Batteries Internal Annual Report, 2016). This is further reaffirmed by the 2014 net profits fall from 1782301190 Ugshs to 106909146 Ugshs in 2015, which represents a 40% decrease in profitability and according to management was due to increased inventory costs that emerged out of overstocking inventory and other operational challenges. This trend has compelled the researcher to carry out an investigation on the impact of inventory management on organization effectiveness case of Uganda Batteries Limited.

## **1.3 General objective.**

The main objective of this study is to establish the impact of inventory management on organization effectiveness.

## **1.4 Specific objectives of the study.**

The study was guided by the following research objectives.

- i. To identify inventory management practices employed by organizations.
- ii. To examine the problems encountered in the use of Inventory Management Techniques.
- iii. To establish the relationship between inventory management and organization effectiveness

## **1.5 Research questions**

The study aimed at answering the following questions.

- i. What are inventory management practices employed by organizations?

- ii. What are the problems encountered in the use of Inventory Management Techniques?
- iii. What is the relationship between inventory management and organization effectiveness?

## **1.6 Scope of the study**

The study was confined to inventory management practices in organizations, financial performance of organizations and factors affect financial performance in organizations.

### **1.6.1 Geographical scope**

The study was conducted at Uganda Batteries Limited's headquarters located in industrial Area, on Mulwana road, Nakawa division, Kampala District.

### **1.6.3 Sampling Scope**

A sample of employees currently working in Uganda Batteries Limited was sampled as it was difficult to include every member of the organization.

### **1.6.4 Period Scope**

The research study was based on inventory management and organization effectiveness. The study covered a period of 2years. This was from 2017 to 2018.

## **1.7 Justification of the study**

The findings of the study will be important in the following ways,

- i. To the organizations, the result of this study will benefit organizations that keep huge amount of inventories to hold just what is necessary so as to avoid the carrying costs.

- ii. The study findings will enable the management of Uganda Batteries Limited Ltd to get in-depth insights of the benefits of management strategies, procedures, and practices to avoid making losses. This will stimulate the desire of reviewing company policies.
- iii. The study will inspire and arouse other researchers' curiosity to conduct further research on inventory management and financial performance.
- iv. To future researchers, future researchers will use the study findings as reference to their work.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter covers the literature concerning inventory management systems employed in manufacturing organizations, factors affecting financial performance and the relationship between inventory management and organization effectiveness of manufacturing organizations.

#### **2.2 Inventory management**

According to Vollmann, T. E. (2011), 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.

#### **2.3 Types of inventory control system**

Economic order quantity (EOQ); ordering quantity which minimizes the balance of costs between inventory holding costs and re-order costs. Minimum stock; stock allowance cover errors in forecasting the lead-time. Maximum stock; a stock level selected as the maximum desirable which is used as an indicator to show when stocks of risen too



high.Re-order level, the level of stock at which a further replenishment order is placed.Replenishment quantity, their quantity of the replacement orders.

#### **2.4 Techniques of inventory management.**

Inventory management techniques are basically formulas and models that are established by firms on the basis of the need of the raw material and availability of the raw material

#### **2.5 Economic order quantity (EOQ)**

When the order is placed, it's instantaneously received. There is no time lag between placing the order and receiving the inventory. The ordering costs per order are known and constant. Carrying cost per inventory is also known and constant. Other assumptions are that lead time is known, stock outs never occur and that there are only two costs (variable costs), ordering and carrying costs.

In determining Economic Order Quantity (EOQ) mode31, certain equations have been developed and before that, certain variables need to be defined as below:-

Ordering Quantity, annual demand, ordering cost for order per annum, carrying cost for one item per annum, average stock. The order cost which makes total cost (carrying and ordering cost) at a minimum is obtained by differentiating with respect to Q and equating the derivative to Zero (Muhlemon, D. (2010), Under this approach, to avoid problems of excessive unnecessary costs, a firm must determine the optimal quantity to purchase, each time an order is placed.

#### **2.6 ABC Analysis**

The analytical approach tends to measure the significance of each item of inventories in terms of its value (Pandey, 1997). A good ABC analysis leads to a better control over

materials, hence a reduction in costs associated with inventories (Jordan, 1997). Materials are classified according to their importance of the space they occupy. Large organization usually stock and keep track off several types of materials. Controlling these materials usually cost a lot of money.

The purpose of ABC Analysis is dividing all the firm's stock items into 3 groups that is A, B and C. The A group items are the big investment items and use over 70% of the funds invested in inventory. They account for almost 10% of all inventory items. An item should get full record keeping treatments. The B group typically represents about 20% of the funds invested in inventory and comprises almost about 20% of items in inventory. The C group items almost 10% of the investment and comprise about 70% of items in inventory thus accounting for the great bulky inventory items (Harris, T. (2007).

## **2.7 Just-in-Time System**

Just in system is a workflow firm's technique to allow rapid high quality flexible production while minimizing stock levels and manufacturing wastes. The goals of just in times system is manufacturing efficiently (Gitman, 1997).in practice, this means producing products only needed by a customer and in a quantity that the customers want. This shortens the lead times and virtually eliminates work in progress (WIP) and materials in stored (Jordan, 1997). The system also renders the elegant Economic Order Quantity Model virtually useless as it causes ordering to decline towards zero. The optimum inventory level therefore becomes virtually zero inventory level (Hadi, V. (2010). Under just in time, the company should be able all in Raw materials as late possible to minimize Raw Material inventory and should have a short manufacturing

cycle so as to minimize work in progress (WIP) inventory and therefore avoid inventory costs (Lyssons, K. (2005).

## **2.8 Importance of Inventory Control**

Stock piling a quantity of goods now in anticipation of future use requires an investment in organizations capital resources. It would be ideal if supply and demand could always be so coordinated that no inventories would be needed (Ballou, 1987). Because it is either impractical or impossible to know future demand with certainty and because the availability of supplies can be quarantined at any given moment, inventories are accumulated to ensure availability of goods and to minimize the overall cost of producing and distributing the goods. Therefore, a well-managed inventory yields the following important (Ballou, 1987).

### **(ii) Encourage production economics**

Products of mines, agricultural products, crude oil are examples of such goods. Purchase may be made in advance of need because of anticipated price increase. This creates an inventory that the logistician must manage

### **(v) Protect against demand and lead – time uncertainties**

In most cases, the level of demand on a logistics system and the time required for re-supply cannot be known for sure. To assure product availability additional amount of stock (safety stock) are maintained. Safety stock is in addition to the regular stock to meet production and market place needs.

### **Hedge against contingencies**

Labor strike, fire and floods are just a few of the contingencies that can befall a company. Maintain back up inventories is one way in which normal supplies can be maintained for a period of time. It is clear that maintaining inventories offers a number of benefits, but the costs are high and have risen dramatically with interest rates on money. For the logistician, the challenge is one of the minimizing the investment in inventories while balancing the efficiency needs of production and logistics with promotional needs of marketing. The high cost of capital has made this a vital business problem.

### **2.9 Importance of analyzing investments in inventories**

Inventories are necessary for operations, while operations are necessary for performance, so the goal in here becomes finding the right level of inventories, investment for a given firm, a proper balance between the costs associated with too much inventories and those incurred when the firm has too little

The manner in which a firm inventory is managed can have a direct effect on the value of a firm. Bodit, Compsey and Eugene (2005) argue that any procedures that allow a firm to achieve a given efficiency level with a lower inventory investment will increase the rate of operation, and, hence increase the firm's value. These scholars however add that, actions to reduce inventory investment can also lead to costs because of stock-outs and costly slowdowns from suppliers. Managers, therefore, need to maintain inventories at specific levels so as to balance the benefits of reducing the level of investment against the cost associated with lowering inventories.

According to Puxty (2003), an analysis of inventories is very important for any organization, such that in the event of liquidity, problems especially during recessions, and periods of high interests, these inventories can be reduced. This is because high stock levels are a frequent cause of business failure.

Daft (2004), illustrates that there is a big relationship between inventory management and the organization's efficiency. He further adds that inventory cost and therefore money is a very recognized productive asset. Most businesses strive to keep inventories at relatively low levels, and this is a sign of management effectiveness, since it releases funds, which would otherwise have been tied up in inventory stock, to be used in other ventures.

#### **2.10 Models used in inventory management**

There are a number of approaches used in inventory management. The major aim of these models is to arrive at the desired level of inventory to be maintained, which will not alter production these models however vary from one firm to another. The economic order quantity (EOQ) approach. The economic order quantity (EOQ) approach is most used approach in attaining the goals of inventory management. The approach uses the EOQ model to determine the optimum amount that minimizes the costs of inventory while ensuring liquidity to the business Kakuru (2002). In the same vein, Pandey (2003) argued that one of major inventory management problems to be resolved is the amount of inventory to be added when inventory is replenished.

### **2.11 Re-order Point (ROP) Model:**

In an examination of the re-order point, Pandey (2003) argues that the problem of how much to order, is solved by determining the economic orders quantity yet the answer should be sought to the second problem of when to order. The re-order point, is that inventory level to which an order should be placed for inventory level of which an order should be place for replenish the inventory. In order to determine the re-order under certainty, the lead-time, average usage and the economic order quantity must be known. Normally, lead-time is the time taken in replenishing inventory after the order has been placed.

By certainty, use means that usage and lead-time do not fluctuate. The re-order point under such a situation is simply the inventory leave, which will be maintained for consumption during the lead-time. Van Home (2005).Inventory management has been further explained by the system used in the control of inventories. These systems range from simple ones to extremely complex systems.Brigham and Gapenski (1997) illustrated one simple control procedure as the re-line method where items are stocked in a bin, a red line drawn around the inside of the bin at the level of the re-order point, and the inventory clerk places an order when the red line shows.Compsey and Brigham (2005) agreed with the point noted and in addition, they pointed out another method, the two-bin method for this method, these authors argued that inventory items are stocked in two bins , and when the working bin is empty, an order is placed and inventory is drawn from the second bin.They also noted that there procedures work well for items such as Bolts in a manufacturing process and for many Terms in retail businesses.Larger companies employ computerized inventory control systems the computer starts with an inventory count in

memory. As withdrawals are made, they are recorded by the computer, and the inventory balance is revised. When the reorder point is reached, the computer automatically places an order, and when the order is received, the recorded balance is increased (body 2005 and Eugene 2007).

## **2.12 Organizational effectiveness**

Organizational effectiveness is the concept of how effective an organization is in achieving the outcomes the organization intends to produce (Amitia 2004).

The idea of organizational effectiveness is especially important for non-profit organizations as most people who donate money to non-profit organizations and charities are interested in knowing whether the organization is effective in accomplishing its goals.

According to Richard et al. (2009) organizational effectiveness captures organizational performance plus the plethora of internal performance outcomes normally associated with more efficient or effective operations and other external measures that relate to considerations that are broader than those simply associated with economic valuation (either by shareholders, managers, or customers), such as Richard et al. (2009):

Measuring Organizational Performance:

An organization's effectiveness is also dependent on its communicative competence and ethics. The relationship between these three is simultaneous. Ethics is a foundation found within organizational effectiveness. An organization must exemplify respect, honesty, integrity and equity to allow communicative competence with the participating members. Along with ethics and communicative competence, members in that particular group can finally achieve their intended goals.

Charity Foundations and other sources of grant money or other types of funds are interested in organizational effectiveness of those people who seek funds from the foundations. Foundations always have more requests for funds or funding business proposals and treat funding as an investment using the same care as a venture capitalist would in picking a company in which to invest.

Organizational effectiveness is an abstract concept and is basically impossible to measure. Instead of measuring organizational effectiveness, the organization determines proxy measures which will be used to represent effectiveness. Proxy measures used may include such things as number of people served, types and sizes of population segments served, and the demand within those segments for the services the organization supplies.

#### **Problems encountered in the use of Inventory Management Techniques.**

According to Lyson (2003), high indirect expenses may lead to low profitability hence leading to low operating efficiency in the organization.

According to M.C Cosker, (2000), high levels of investment in inventories could lead to high liquidity position at the expense of profitability.

Kraljic, (1999) asserts that, the profit impact of a given supply / demand item can affect; the volume purchased; percentage of total purchase cost and the impact on product quality or business growth. Kraljic suggests that an evaluation of such impacts can enable managers at the appropriate level to prioritize what materials and allied supply considerations require immediate attention.

#### **High Taxes:**

According to Ross (2003), the government imposes high taxes on organizations without consulting from the stakeholders of which the tax after taxes is significantly reduced.



These taxes significantly negatively affect the performance of these businesses when using profitability to measure effectiveness

#### **Failure to use external advice**

External advisors are people who can assist the business in times of difficulty unfortunately their services are never at use or being used. These external consultants are lawyers, business consultants and other professional people who would offer technical advice based on objective analysis rather than feelings. (Monczka et al 2005)

#### **Inadequate funding:**

According to Balunywa (2006) many business fail due to poor financial activities. They fail to keep a tight reign between debtors. These businesses do not have trained personnel to properly control the business, no proper reports are produced and there is no cash flow planning. Even when there are profits, the business can remain cash poor yet control and reporting are very crucial for management of funds in and out of the business.

#### **Lack of adequate business plan:**

Murphy (2002) asserts that business lack clear attainable goals, even those with plans there is the failure to share communicate and enforce the business plan. As a result, many businesses are managed on a profitability principle thus making it had to assess the business process.

### **Inability to change with the changing business needs:**

There is a tendency of most business owners to copy other people's businesses since they have been successful. However, in the long run the market becomes congested and the returns of the business reduce because the business owners lack the creativity to study the market and produce according to the needs of the society (Balunywa 2006).

### **Costs of inventories**

Given the need for inventory management there will always be cost associated with supplies. The challenge will always be how to minimize these costs.

### **Ordering costs**

Pandey (1997) describes ordering costs as those costs that are incurred in acquiring raw material. They are costs involved in placing and receiving an order, bill paying, clerical and administrative costs and they decrease as the size increases due to economics of scale (Kakuru, 2000).

According to Lucey (1986), the four decision systems for inventory management can be classified with the help of two criteria. The resulting classification, comprising four classes as will be indicated.

The first criteria is inventory focus, divided into two classes; - local or integral systems as well as MRP systems both manage local supplies levels, i.e. the supplies on hand (and on order) in a stock point. In contrast, BSC systems and LRP systems manage integral inventory levels i.e. inventory on hand (and on order) in a stock point plus the entire inventory present in downstream stock points and processes.

The second criterion is time focus, also divided into two classes; - instantaneous or time-phased. In SIC and BSC systems the time focus is instantaneous that is to say only the

current inventory levels are managed. However, in both MRP systems and LRP systems the planning is time-phased. These systems deal with management of current and future inventory levels. (Render, 1998).

Freeman, (1990) describes profitability as the ability of a business entity to generate net income. Potential investors closely analyze a firm's current and prospective profitability since they affect dividends and earnings.

Paul. D. Larson, (2001) wrote that profit is the most important measure of the firm's performance. In the free market economy, profit is the guide for allocating resources efficiently.

#### **Profitability in relation to investment**

According to Lyson (2003), high indirect expenses may lead to low profitability hence leading to low operating efficiency while M.C. Cosker, (2000), observes that high levels of investment in inventories could lead to high liquidity position at the expenses of profitability.

#### **2.14 The relationship between inventory management and organization effectiveness.**

Distressed inventory is inventory whose potential to be sold at a normal cost has or will soon pass. In certain industries it could also mean that the stock is or will soon be impossible to sell. Examples of distressed inventory include products that have reached its expiry date, or has reached a date in advance of expiry at which the planned market will no longer purchase it, defective batteries or out of fashion, and old batteries. It also includes products or consumer-electronic equipment that are obsolescent or discontinued and whose manufacturer is unable to support. Distressed inventory poses a big cost to an

organization and more than often eats into the company's profits, thus grossly affecting the organizations financial performance(Lyson , 2003),.

A policy decision to increase inventory can harm a manufacturing managers' performance evaluation. Increasing inventory requires increased production, which means that processes must operate at higher rates. When (not if) something goes wrong, the process takes longer and uses more than the standard labor time. The manager appears responsible for the excess, even though s/he has no control over the production requirement or the problem. In adverse economic times, firms use the same efficiencies to downsize, right size, or otherwise reduce their labor force. Workers laid off under those circumstances have even less control over excess inventory and cost efficiencies than their managers. This therefore implies that inventory management decisions held up by organizations greatly influence their level of financial efficiency(Forgh et al, 1993).

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter presents the methodology against which the study was conducted. The chapter begins with the research design, type of data, sources of data, data collection methods, data analysis method, data presentation and the limitations of the whole study.

#### **3.1 Research Design.**

This study employed an analytical and descriptive research design. This was because under some instances the researcher was involved in analyzing and describing different views of different authors in the literature. This was done in order to extract meaning full information from the study.

#### **3.2 Study Population**

The study covered a total population of 80 people from Uganda Batteries Ltd which comprised of production department, middle and top management respectively. All these understood issues regarding the study.

#### **3.3 Sample Procedure and Size**

The population of the study had three distinct categories. Therefore, stratified sampling was used. Thereafter, simple random sampling was used to select the final respondents from each category. The total sample size was sixty (60) respondents.

**Table.1 showing the Population & Sample size structures,**

<b>Nature of the respondents</b>	<b>Population</b>
Production Department	32
Middle management	20
Top Management	8
<b>Total</b>	<b>60</b>

**Source: Primary Data**

### **3.4 Type of Data**

The study employed both primary and secondary data. Secondary data is existing data. While primary data was first hand data got from the field.

### **3.5 Sources of Data**

Primary data was obtained from Uganda Batteries Limited's headquarters located in industrial Area, on Mulwana road, Nakawa division, Kampala District. Secondary data was got from sources like, text books, journals, articles, internet magazines, newspapers, presentations, concerning the subject matter of the study and these were consulted at length, to extract the information required in answering the research questions.

### **3.6 Data Collection Method**

Data was collected through the use of the questionnaire, the interview schedule and the documentary review method. The researcher reviewed different document with an objective of capturing data concerning the study objectives.

### **3.7 Data collection instruments**

The researcher used the following data collection instruments.

### **3.7.1 Questionnaires**

The researcher used self administered questionnaires. The questions were objective and a few unstructured types. This tool targeted some of the employees of Uganda Batteries Limited. The questionnaire was designed in line with the topic and research objectives. This tool was advantageous in that, it collected detailed and accurate information compared to other tools. It was also cheaper to administer.

### **3.7.2 Interview schedule**

The researcher interviewed top management of Uganda Batteries Ltd using the interview schedule. All the questions there in were unstructured. This was used to tap some vital information unsolicited from the questionnaire so that comprehensive data was collected.

## **3.8 Type of Data**

The study used both primary and secondary data.

### **3.8.1 Primary Data**

This data was obtained from Uganda Batteries Ltd staff. The information will be obtained by use of self-administered questionnaires and interviews schedule.

### **3.8.2 Secondary Data**

This is already existing data and was obtained from secondary data sources like journals, textbooks magazines, internal reports and newspapers, minutes, internal and external suppliers' reports. These helped to disclose information, which the interviews and questionnaires had missed.

### **3.9 Data Analysis**

Data analysis was carried out through comparing and contrasting of views of different authors on the subject matter and analysis of data from the field. From that the researcher made conclusions concerning the study objectives.

### **3.10 Data Presentation**

Data was presented by use of Microsoft Word, Excel. The findings were presented according to what was revealed from secondary data analysis complemented by field findings.

### **3.11 Expected Limitations of the Study.**

The researcher faced the following constraints

#### **Limited Source of Information,**

There was scarcity of data as this area of the study was not widely researched. However, the researcher used the internet to get enough information.

#### **Limited Time**

Since this study was conducted at the same time when lectures were going on, there was limited time, however, the researcher budgeted her time properly to see to it that, she finishes in time.

#### **Limited Financial Resources**

The study required financial resources to carryout typing, printing and moving looking for information, these resources were not readily available, since the researcher is a student. However, the researcher tried to solicit for funds from relatives and friends to enable her finish the work in time.



## **CHAPTER FOUR**

### **PRESENTATION AND DISCUSSION OF THE FINDINGS**

#### **4.0 INTRODUCTION**

This chapter presents the findings on inventory management and organizations effectiveness. The data was obtained from Uganda batteries limited. The objectives of the study were; to identify inventory management practices employed by organizations, to examine problems encountered in the use of Inventory Management Techniques and to establish the relationship between inventory management and financial performance. The presentation follows the order of the objectives.

#### **4.1 BACKGROUND INFORMATION**

In a bid to come up with the background information of the respondents, the respondents were presented with different options pertaining to key issues like the response rate, sex, marital status, duration in organizational service, educational level and the time the organization had spent in existence. The respondents were asked to tick the most appropriate option. The results are presented in the tables below

##### **4.1.1 Response Rate.**

Out of a total number of 60 respondents that received the self-administered questionnaires, 52 respondents answered and returned the questionnaire to the of the researcher. This gave a positive response rate of 86.7% and a non-response rate of 13.3%. This was a good representative sample of the targeted population and helped the research to arrive at the right conclusions.

### Sex of the Respondent.

**Table 2: Showing the sex of respondents**

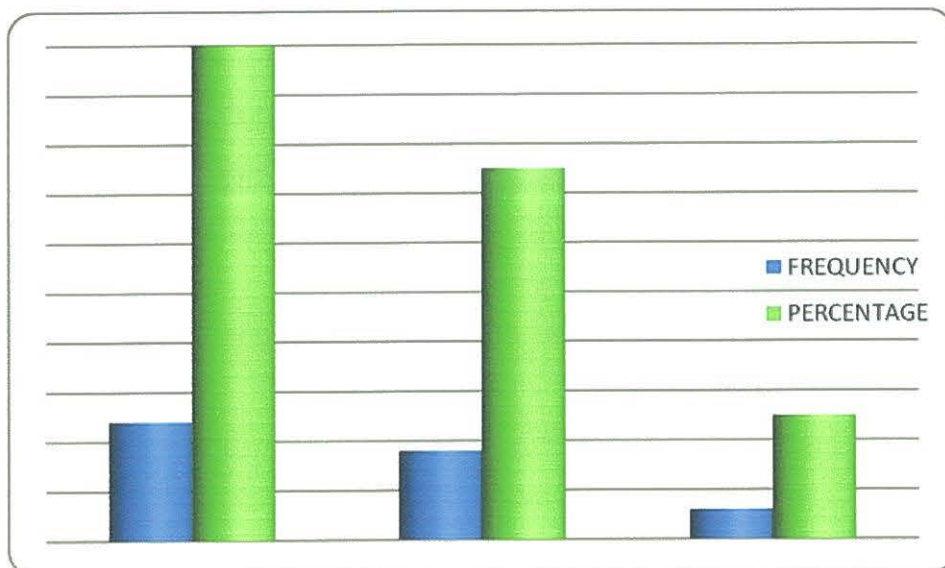
Sex	Frequency	Percentage
Male	21	40.4
Female	31	59.6
Total	52	100

**Source: primary data.**

The table above indicates that, 40.4% of the respondents were males while 59.6% of the respondents were females. This implies that majority of the respondents were females and hence the organization had more committed staff as ladies tend to show more commitment than men.

### 4.1.3 Marital Status

**Graph 1. Showing the marital status of respondents**



**Source: Primary data.**

From the graph above, 48.2% of the respondents were singles; 40.3% of the respondents were married and 11.5% of the respondents were divorced. This implies that majority of the respondents were singles hence fresh graduates from school while a considerable proportion of

the respondents were responsible long serving staff, thus this category comprised of the married people.

#### 4.1.4 Duration in Organizational service

**Table 3: Showing the duration in Organizational service of respondents**

Response	Frequency	Percentage
1-2 years	20	38.5
3-5 years	15	28.5
6 and above	17	33
Total	52	100

**Source: Primary data**

From the table above, 38.5% of the respondents had spent 1-2 years in the service of the organization, 28.5% of the respondents had spent in the organization 3-5 years; 33% of the respondents had spent in the organization 6 years. This implies that majority of the respondents had spent some considerable period of time with the organization and hence their responses could be relied upon.

#### **Educational level of the respondents**

**Table 4: Showing the duration in Organizational service of respondents**

<b>Educational level</b>	<b>Frequency</b>	<b>Percentages</b>
Primary	3	11.1
Secondary	7	25.9
Tertiary	6	22.2
University	11	40.7
<b>Total</b>	<b>52</b>	<b>100</b>

**Source: Primary Data**

From the table above, 38.5% of the respondents were primary leavers; 28.5% of the respondents were secondary leavers; 33% of the respondents were graduates from tertiary institutions and 40.7% of the respondents were university graduates. This implies that Uganda Batteries Limited employed a cross section of people from all walks of life.

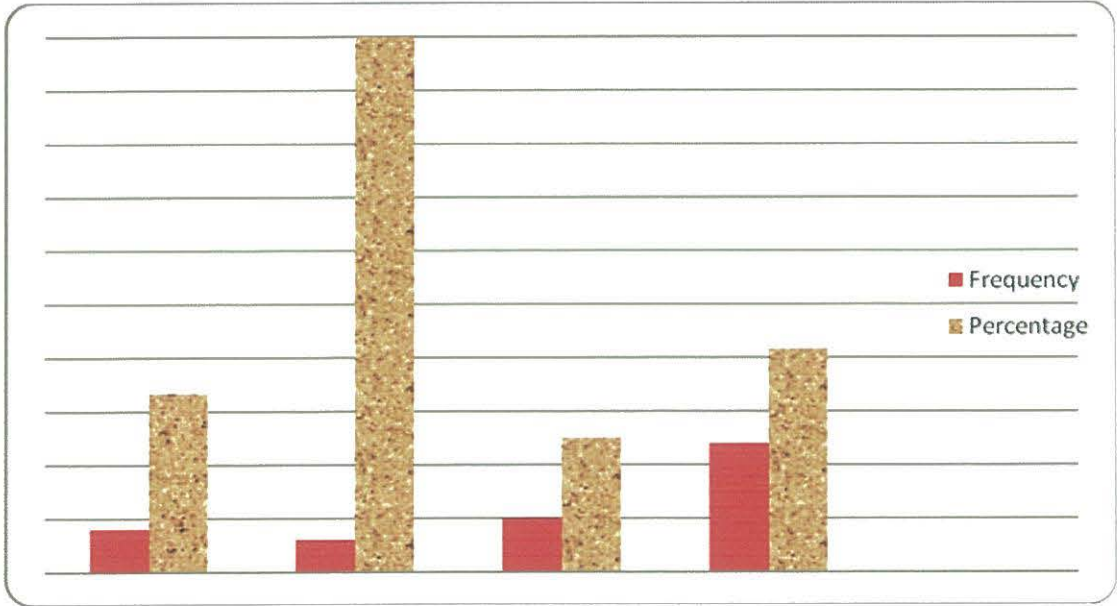
**4.2 Inventory management practices employed by organizations**

From the researcher findings on inventory management were found to be superior management tool over stock by optimizing inventory stocking levels for excellent profit maximization. Basing on the study carried out in Uganda Batteries Limited it was found that the company practiced inventory management techniques departments in order to minimize the total cost of stock.

**4.2.1 Inventory Management Techniques.**

The researcher asked the respondents if the company uses any techniques to control stock. The following graph shows the findings collected.

**A Graph 2: Showing the inventory management techniques used by the company**



**Source: Primary data**

From the graph above, 50% of the respondents noted that Just In Time was used by the company, 20.8% of the respondents noted that record system was in use, 16.7% of the respondents noted that Economic Order Quantity is often used by the company and 12.5% of the respondents noted that ABC analysis was used less because it involves some computations.

#### 4.2.2 Effectiveness of the Inventory Management System.

**Table 5: showing the extent to which the use of inventory management system has improved the organizations effectiveness.**

RESPONSE	FREQUENCY	PERCENTAGE
Excellent	25	48.1
Good	15	28.8
Poor	12	23.1
Total	52	100

**Source:** primary data

The researcher also asked the respondents the extent to which the uses of inventory management system have improved the company's performance. The table above therefore shows their response. This means that to a great extent inventory management affects performance of Uganda Batteries Limited.

#### 4.3 Problem encountered in the use of inventory Management techniques

The researcher asked the respondents in relation to the above inventory management techniques, to state the problem they encountered in the use of stock control techniques, thus the table below represents their response:-

**Table: Showing the problems encountered in the use of Inventory Management Techniques.**

Response	Frequency	Percentage
High Taxes:	16	31.2
Failure to use external advice	14	26.9
Inadequate funding:	10	19.2
Lack of adequate business plan:	12	23.1
TOTAL	52	100

**Source:** primary data

According to the data collected from the company, 23.1% of the respondents observed that although there are good reason to carry out inventory management techniques, a number of potential obstacles associated with inventory management existed in form of poor planning, 26.9% of the respondents noted the problem of delays, 19.2% of the respondents noted the problem of Uncertainty of demand forecast, 23.1% of the respondents noted the problem of Poor purchasing procedures. However to avoid stock out and related costs, it was noted that there was need for control that can best be achieved by maintaining safety stock to act as a buffer to ensure continuous smooth operation as suggested by Van Horne,1995.

#### 4.4 Findings on financial performance.

According to the findings, the researcher noted that sufficient profit must be earned to sustain the operations of the business to be able to expand and grow.

The researcher, basing on the research carried out in Uganda Batteries Limited found out that the company preferred to use net profit margin because it shows how net profit are derived from sales and also indicates how well the business has managed its operating expenses.

The respondents were asked on how often they evaluate their profitability in the company and below is their response shown by table

**Table 6: Showing how often the organization effectiveness is evaluated.**

Response	Frequency	Percentage
Daily	1	1.9
Weekly	13	25
Monthly	17	32.7
Annually	21	40.4
Total	52	100

**Source: primary data**

From the table above, 1.9% of the respondents said that Uganda Batteries evaluates its effectiveness daily, 25% of the respondents noted that their organization's performance is evaluated, 32.7% of the respondents noted that their organization's effectiveness is evaluated monthly and 40.4% of the respondents noted that their organization's effectiveness is evaluated annually. This generally implies that Uganda Batteries Limited always endeavors to carry out periodic evaluations of its financial performance

**Table: showing other factors that affect company effectiveness.**

Other factors	Frequency	Percentage
Level of competition	16	30.8
High cost of production	9	17.3
Economic environment	14	26.9
Employee motivation	12	23.1
Others	2	3.8
<b>Total</b>	<b>52</b>	<b>100</b>

**Source: Primary data.**

From the table above, 30.8% of the respondents noted the factor that affect company effectiveness as Level of competition, 17.3% of the respondents noted the factor that affect financial performance as High cost of production, 26.9% of the respondents noted Economic environment as yet another factor that affect company effectiveness, 23.1% of the respondents noted employee motivation as yet another factor that affect company effectiveness and 3.8% of the respondents noted other factors. This implies that company effectiveness is affected by numerous factors.

#### **4.5. Relationship between inventory management and organization effectiveness.**

The researcher found out that inventory management has influenced organization performance exists according to the research carried out in Uganda Batteries Limited. It was noted by the researcher that the stock figure has a direct impact on reporting the solvency of the company in the balance sheet.

The researcher noted that inventory is a factor in determining the cost of goods sold. Thus the stock figure has a direct impact on reported profitability of Uganda Batteries Limited. Therefore the researcher emphasizes that there is a strong relationship between inventory management and profitability in firms.



**Table 8: showing the findings on reasons for inventory management as a tool of enhancing company effectiveness.**

Reasons for stock control	Frequency	Percentage
Customer loyalty	10	19.2
Minimizes costs	11	21.5
Avoiding stock out	12	23
Quantity discount	14	26.9
Others	1	1.9
Total	52	100

**Source: primary data.**

From the table above, 26.9% of the respondents noted that Customer loyalty affects a company's effectiveness, 23% of the respondents noted that avoiding stock out affects a company's effectiveness, 21.5% of the respondents noted that minimizes costs, 1.9% of the respondents noted that Quantity discount affects a company's effectiveness. This implies that inventory management is a tool of enhancing company performance.

#### **4.6 The Summary of Findings on How Inventory Management has influenced organization effectiveness.**

Majority of the respondents showed confidence in taking inventory management techniques as the major drivers of organizational effectiveness. Besides other factors such as Customer loyalty Minimizes costs Avoiding stock out Quantity discount among others, 16.5% stated that the company took inventory management due to the reason above as has been supported by Renshaw (2002) Macro and David (2006).

## **CHAPTER FIVE**

### **CONCLUSIONS, SUMMARY, RECOMMENDATIONS AND SUGGESTIONS.**

#### **5.0 Introduction**

This chapter seeks to come up with a clear stand on the purpose and objectives of the study. This chapter provides the summary of findings, conclusions, recommendations and suggestions on the study inventory management and financial performance.

#### **5.1 Summary of findings**

The research was conducted to investigate the relationship between inventory management and organization effectiveness in Uganda. The study was conducted at Uganda Batteries Limited headquarters located at Mulwana Road industrial area, Kampala.

The company used various techniques and systems to ensure inventory management and these have greatly enhanced its effectiveness in a number of ways as earlier mentioned. The inventory management techniques used by the company have also facilitated and enhanced the possibility of automating the company operations especially in the stores and ware house operations.

For instance, economic order quantity system has facilitated automation in addition to the manual method of handling stock though the disadvantages of it was that this method was too slow and exhaustive since it involved double handling of stock.

The company also faced the problem of variances in stock levels, these slowed down company financial performance. The company's procurement and accounting employees also complained that they were faced with problems in accounting for stock as an important way of ensuring effective inventory management. However, the company's employees agreed that the following factors amongst the procurement staff and company departments in general, if at all implemented by the company would result to effective inventory management which in the long run enhanced financial performance. These amongst others included customer loyalty minimizes costs avoiding stock out quantity discount

For the findings therefore, the researcher proved that control has the following impacts on company financial performance, added value to the company's products and enhanced company's making.

The company was able to support its production system by effecting objectives such as reliability, speed ,flexibility as well as minimum costs ensured real control of company resources, helped the company to determine the point at which the combination of order costs and stock carrying costs were at least leveled, helped the company to safe guard itself against uncertainties, facilities automation of its store, purchasing and warehouse operations, provides faster feedback information on products within the company and between the company and its suppliers' ensures reduced setup costs to the point that economic order quantity equals zero, in addition to just-in time system which involves a relentless process of improvements especially in the company's production process thereby efficiently enhancing company financial performance.

## **5.2 Conclusion**

Inventory management is increasingly being employed by many organizations in the entire world and it's growing at an increasing rate which delivers benefits that may be desired or targeted if proper choice of techniques is made, however there are many challenges associated with Inventory management which firms need to consider before taking up the Inventory management decision.

The results indicate a positive relationship between the two variables. The review and analysis also shows that Inventory management alone cannot lead to organization effectiveness, other factors like production control, selling and distribution, storage of the stock should also be considered.

In light of the above, the study concluded that Inventory management leads to improved profitability in firms.

## **5.3 Recommendations**

Basing on the findings from the field, the literature review and the conclusion, the following recommendations are made.

Firms should use ABC analysis as a stock control technique because it will facilitate the firm in analyzing each stock, according to cost and frequency of usage. This technique is flexible and offers the highest degree of control on those items that are valued highest, thus it helps minimize costs and maintains high profit margin.

Firms should invest in training of their employees so as to develop their skills and provide them with the basic knowledge pertaining to inventory management so as to avoid poor quality delivery and damages arising from court cases.

Employees should be given specific duties to perform for instance in the stores, the person concerned with the receipt of stock should be different from the stock issuer in the company.

The company procurement personnel should also put more emphasis on drafting better stock specifications such that wrong and late deliveries are avoided or minimized.

Most of the inventory replenishment system for the low value class such as C items should be automated with computer programs. On the other hand, class A items that require the attention of a responsible executive since decisions about them are crucial and significance to the success of the company.

For purposes of effective Inventory management, there is need to emphasize and implement customer loyalty since it minimizes cost, avoids stock out, a quantity discount and continuous monitoring of processes for compliance with the set company goals and objectives.

#### **5.4 Areas for further research**

Reflecting on the findings of the study and the conclusions, further research may be carried out in any one of the following areas below;

Inventory management and Service delivery

Inventory management and organizational performance

Inventory management and cost reduction

Inventory management and customer satisfaction

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**APPENDIX I**  
**QUESTIONNAIRE**

I'm Murungi Zhubedha student of Kampala International University pursuing a Bachelors degree of Supplies and procurement and carrying out a study entitled "Impact of Inventory management and organization effectiveness, a Case study of Uganda Batteries Limited". You are kindly requested to answer the following questions as you have been selected to be part of the sample that is going to participate in this research study. Please answer accurately by filling in /ticking the appropriate answer in the space provided. The information obtained will be used purely for academic purposes and treated with utmost confidentiality.

Thank you.

**PERSONAL DATA**

1.1 Sex

Male ☐

Female ☐

1.2 Marital status

Single ☐

Married ☐

Divorced ☐

1.3 How long have you served in the company?

1-2 years ☐

2-5 years ☐

5 and above ☐

1.4 Educational level

Primary ☐

Secondary ☐

Tertiary ☐

University

1.5 How long has the company been in existence?

2-4 years  5-7years

8-10 years  11 years and above

## SECTION B: INVENTORY MANAGEMENT PRACTICES

2.1 Do you have any inventory management system in place?

Agree

Disagree

Not sure

2.2 What inventory management approaches do you use?

Economic order quantity

Just-in-time

ABC analysis

Record system

Materials requirements planning

2.3 How effective is the inventory management approaches used?

Excellent

Good

Poor

Inadequate funding

2.4 What are the problems encountered in the use of the inventory management techniques?

High Taxes

Failure to use external advice

Uncertainty in demand forecast

Lack of adequate business plan



## SECTION C: FACTORS AFFECTING FINANCIAL PERFORMANCE IN ORGANIZATIONS

3.1 Does inventory management affect Financial Performance of Uganda Batteries Limited?

Strongly agree ☐ agree ☐ no option ☐

Disagree ☐ strongly disagree ☐

3.2 How often is company Financial Performance Evaluated?

Daily ☐ weekly ☐ monthly ☐ annually ☐

3.3 What factors affect Financial Performance of your company?

Competition ☐

High cost of production ☐

Economic environment ☐

Employee motivation ☐

Taxation ☐

3.4 What strategies has your company taken to counteract the above factors?

Build a strong corporate image ☐

Built supplier relations to lower costs ☐

Carrying out periodic forecasting ☐

Coming up with new innovations ☐

**SECTION D: RELATIONSHIP BETWEEN INVENTORY MANAGEMENT AND ORGANIZATIONAL EFFECTIVENESS.**

4.1 How has inventory management enhanced company Financial Performance?

Customer loyalty ☐

Minimizes costs ☐

Avoids stock outs ☐

Quantity discount ☐

Effective service delivery ☐

4.2 What strategies has your company taken to ensure sound Financial Performance?

Adoption of Total Quality Management ☐

Trained staff in cost reduction techniques ☐

Resorted to Just In Time procedure ☐

Outsourcing of some services ☐