

# Inventory Management Techniques and Its Contribution on Better Management of Manufacturing Companies in RWANDA Case Study: SULFO RWANDA Ltd

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**Abstract:** The aim of this study is to highlight or determine the contribution of inventory management techniques on better management of manufacturing companies. Study was done in SULFO RWANDA Ltd ,located in KIGALI CITY in Rwanda.. The purposive sampling method was used to target only people who are capable to deliver relevant information; the total population was 14 respondents. The study was guided by the general objectives which were analyzing inventory Management techniques and finds possible solutions to overcome high costs involved in improper management of inventory in manufacturing companies. The study covered one of manufacturing companies in Rwanda that deal in manufacturing of goods. The data collected were analyzed and interpreted where corresponding ticks were given and tables drawn to give clear information. Findings indicated that techniques adopted have a significant Impact on the company's performance and profit. The result also portrays the advantages of inventory management in cost reduction. Having analyzed and interpreted the result, the researcher gave recommendations and suggestions which can help the concerned people to improve on the inventory management. From the study, it was found that inventory management is advantageous to the company in a sense that it has a great impact particularly in working capital by increasing revenues. It was found that inventory management is advantageous to the customers because it meets the demands of customers which may be uneven.

**Key words:** Inventory, inventory management, inventory management techniques, SULFO RWANDA, manufacturing companies.

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## 1. Introduction

Today's business environment is very challenging for all companies. Doing much with less while increasing quality is the main the goal. There are numerous ways to accomplish this, but the key and usually "hidden" method is to reduce company inventory [1]. The Inventory Management' means the overseeing and controlling of the ordering, storage and use of components that a company used in the production of the items it sold as well as the overseeing and controlling of quantities of finished products for sale. A business's inventory is one of its major assets and represents an investment that is tied up until the item is sold or used in the production of an

item that is sold. It also costs money to store, track and insure inventory. Inventories that are mismanaged can create significant financial problems for a business, whether the mismanagement results in an inventory glut or an inventory shortage [2].Successful inventory management involves creating a purchasing plan that was ensured that items are available when they are needed (but that neither too much nor too little is purchased) and keeping track of existing inventory and its use.

The inventories need not be viewed as idle assets rather these are an integral part of farmers operations big, they become strain on the resources; however if they are too small a firm

may lose the sales. Therefore the firm must have an optimum level of inventories. There are numerous opportunities to reduce the company's inventory costs while improving inventory customer service. This was resulted in an enhanced and more efficient/effective (cost) manufacturing/merchandising/maintenance operation. Estimated inventory cost savings have the potential of being reduced by 25+% over from current expenditures. A coordinated inventory reduction program must be implemented in order for the company to realize these cost savings. Numerous companies have adapted and embraced these inventory cost savings initiatives and have realized major inventory cost savings. The word inventory simply means the goods and services that businesses hold in store. There are, however, several different categories or types of inventory. The first is called materials and components. This usually consists of the essential items needed to create or make a finished product, such as gears for a bicycle, microchips for a computer, or screens and tubes for a television set. The second type of inventory is called WIP, or work in progress inventory. This refers to items that are partially completed, but are not the entire finished product[2]. They are on their way to becoming whole items but are not quite there yet. The third and most common form of inventory is called finished goods. These are the final products that are ready to be purchased by customers and consumers. Finished goods can range from cakes to furniture to vehicles. Most people think of the finished goods as being part of an inventory store, but the parts that create them are held accountable in inventory as well[2]. The word 'inventory' can refer to both the total amount of goods and the act of counting them. Many companies take an inventory of their supplies on a regular basis in order to avoid running out of popular items. Others take an inventory to insure the number of items ordered matches the actual number of items counted physically. Shortages or overages after an inventory can indicate a problem with theft (called 'shrinkage' in retail circles) or inaccurate accounting practices [3].

Inventory is the total amount of goods and/or materials contained in a store or factory at any given time. Store owners need to know the precise number of items on their shelves and storage areas in order to place orders or control losses. Factory managers need to know how many units of their products are available for customer orders. All of these businesses rely on an inventory count to provide answers [4]. There's many different ways that companies handle their inventory. Overall it depends on what kind of business it is. For example, a food manufacturer who makes canned fruit may take into account every single piece of that can in its inventory. The materials used to make the can, the labels, the fruit, and the sugary filling could all be part of the overall analysis of inventory. Keeping track of inventory can be a complex process. The term for watching inventory is called logistics. Logistics is a detailed process by which all inventory is tracked and logged. Several different people are involved in logistics. This can include everything from the owner of the company to the transportation company that delivers the goods to the manufacturing plant. By using complex systems such as barcode integration, every piece of inventory from the smallest

parts to the largest finished product can be tracked and observed. You may wonder why companies keep such a close eye on their inventory. The answer is really simple: the bottom line. Without inventory control, millions of dollars could be lost each year just because there was no accountability for everything involved in making a product [6]. Of course, inventory is also important on the checks and balances side. Accountants keep an eye on inventory counts in order to be sure that fraud or embezzlement is not occurring. This also serves as a backup to check and be sure that everything is in its place and nothing out of the ordinary is taking place. There have actually been books written on how to reconcile inventory, keep accurate store counts, reasons that errors occur, tools to use to help make sure inventory is on time and in its place, and much more (<http://www.accuracybook.com/>). Once you learn about the various forms of inventory and the importance of making sure it is logged properly, the process of tracking it should be fairly streamlined and simple, giving your business a cost-effective and competitive edge. So, the goal of inventory management is to minimize the total costs of investment in inventory. Due to the fact that inventory is a reversible investment, which continually fluctuates in size, inventory decisions usually concentrate on determining its optimal level. Good inventory management is one that represents high inventory turnover, and minimizes overall costs in inventory management[5]. It's evident from the reasons mentioned above that inventory management affects the better management of the company.

## **1.2 .Problem statement**

Manufacturing companies operating in Rwanda should contribute too much on Rwanda economic growth despite of problems encountered in inventory management.

There is a problem of determining appropriate inventory level that should be kept to make sure that customer needs are met and production process is not interrupted. Striking a balance between overstocking and running out of store has been a challenging aspect in many manufacturing organizations. Inventory management has a direct impact on working capital management. Store out has its own disadvantages like over stocking has its own. "Organizations that capitalize on inventory and procurement functions as means of achieving competitive advantages can directly enhance an organization's competitiveness often resulting in increased profitability and increased market responsiveness [8]. A lot of costs are incurred due to improper control of inventories and Rwanda's geographical location. All these increase the prices of commodities manufactured in Rwanda compared to those manufactured elsewhere on the market. Because of the large size of inventories maintained by the firm, a considerable amount of funds is committed to them. It is therefore imperative to manage inventories effectively and efficiently in order to avoid unnecessary investment. In the context of the inventory management, many organizations in Rwanda have not discovered the secret behind professional inventory management and its contribution to the performance of manufacturing companies and other organizations. Many companies in Rwanda are facing a very big dilemma, to maintain a large size of inventory for efficient, production and

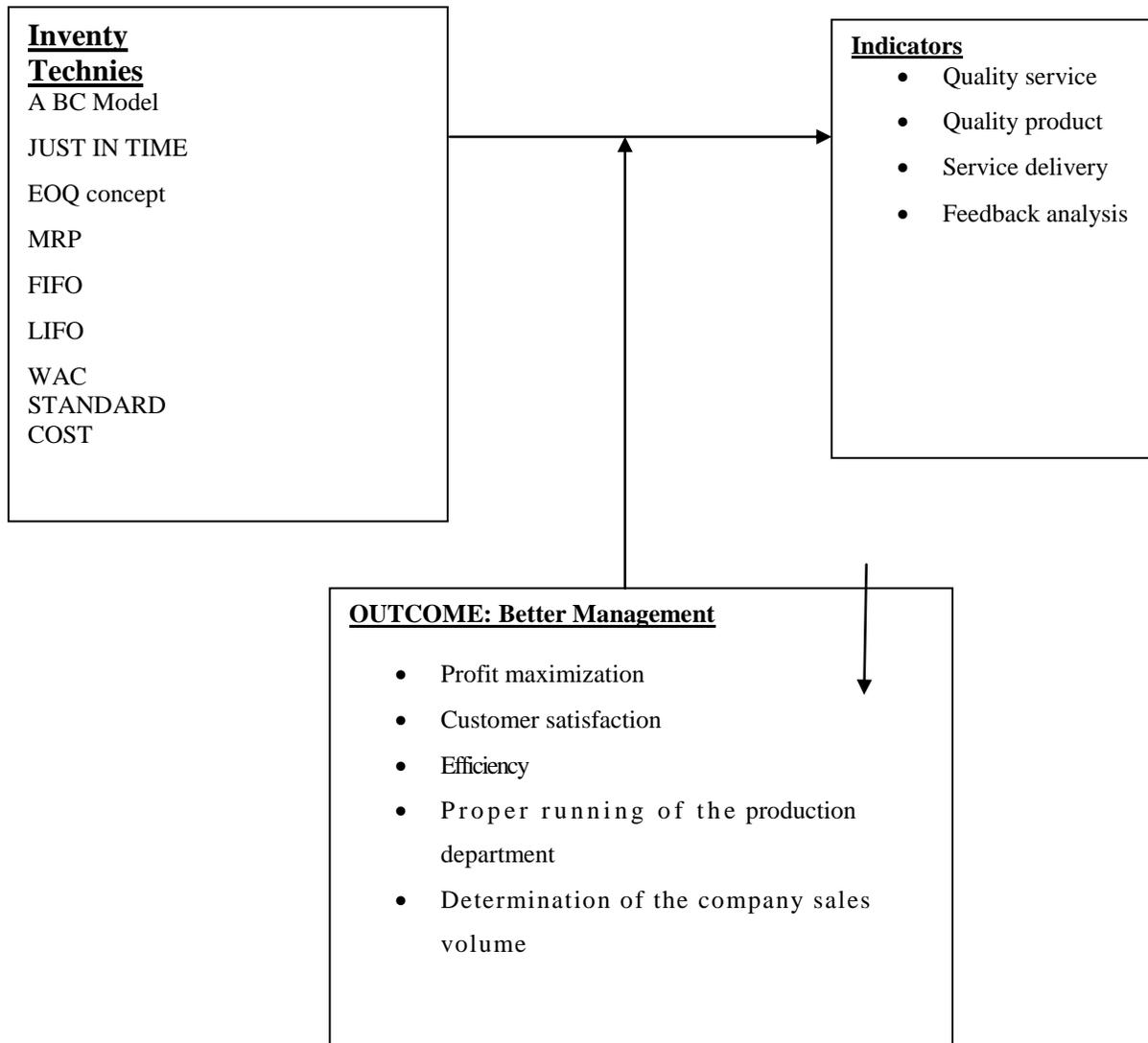
sales operations, to maintain a minimum investment in inventories and to maximize profitability. It should be noted that so many manufacturing companies in Rwanda fail due to

**1.3. Conceptual framework of study**

A conceptual framework is an analytical tool with several variations and contexts. It is used to make conceptual distinctions and organize ideas. Strong conceptual frameworks capture something real and do this in a way that is easy to remember and apply [9].

The figure below shows the design of conceptual framework

mismanagement of inventories. It was on this reason that we decided to investigate the inventory management techniques on better management of manufacturing companies LIFO, FIFO, WAC and can be measured by quality of service or product, feedback analysis, customer retention and service delivery. Therefore these inventory techniques contribute to the better management throughout profit maximization, company efficiency, proper running of production department, controlling the closing



**Figure 1:** Conceptual Framework

**Source:** Researcher (2014)

The inventory management techniques include ABC model, just in time, EOQ model, material requirement planning,

balance which affect the result and determination of sales volume.

## 2. Materials and method

### 2.1. Description of the study area



Figure 3: The map of Rwanda

#### 2.1.1. Presentation of SULFO RWANDA Ltd

##### a. History of SULFO RWANDA Ltd

SULFO RWANDA Industries began with humble roots as a small family-run business started by Tajdin Hussein Jaffer and his wife Khatun in 1962. They specialized in a small-scale soap making production at first, but through periods of diversification, modernization, expansion and consolidation, SULFO has become one of the most diversified manufacturing and distribution companies in East and Central Africa, not to mention one of Rwanda's first independent businesses.

Nowadays, SULFO has also become one of Rwanda's most recognizable brands. "We are a household name," says H. Dharmarajan, managing director of SULFO RWANDA Industries.

And it doesn't stop there. With over 700 people employed with the company, many of which have been working there for over 10 years, SULFO is considered one of the top job providers in Rwanda.

##### b. Location of SULFO RWANDA Ltd

SULFO Rwanda Industries is located in the heart of Kigali, the beautiful, mist clad capital of Rwanda. Being a mountainous country Rwanda is known as "the land of a thousand hills" and eventually SULFO with all the diversification and enviable products line, has become "the pride of the land of a thousand hills "

##### c. Products and Services of SULFO RWANDA Ltd

With its head office in Kigali, SULFO RWANDA Industries is one of the region's leading manufacturers and distributors of Fast Moving Consumer Goods (FMCG).

The company boasts a vast portfolio of over 150 items, which comprises of everything from laundry soaps, powder and liquid detergent, cosmetics and lotions, gels, talcum powder, hair dye, confectionary goods, packaged drinking water, corrugated boxes and many more.

These products are manufactured under various household brand names, like Claire, Black Pearl, Tembo, Makasi, Sante, Malaika, Nina, Inyeneri, Safari, Dawa, Claire, LYS, Black Pearl, Source de Nil, Cherie, Canadian Pure, Super, etc.

### 2.2. sampling methods, sample size determination and data collection methods

For the purpose of data collection, a field survey was conducted in SULFO RWANDA Ltd during August to September 2014 from a purpose sample of 14 employees of SULFO RWANDA Ltd who are working in production unit in warehouse and stock; through self-administered questionnaire. Beside the field survey, the documentary method was used in collecting data.

### 2.3. Techniques of inventory management

There are a number of other lot-sizing techniques available in addition to EOQ. These include the fixed-order quantity, fixed-order-interval model, the single-period model, and part-period balancing.

If these tool, methods and techniques are fully implemented, major material cost savings can be realized with a potential of reducing material costs by 25+% over current expenditures. This can lead to increased market competitiveness, increased sales and increased company profits which can enhance the company stake holder's value.

These methods, tool and techniques can be applied to other organizations of the company and if applied and exploited to their maximum, can yield the same major cost savings results [10].

### 2.4. Fixed-order-quantity model

The economic order quantity, known as EOQ, represents the most favorable quantity to be ordered each time fresh orders are placed. The quantity to be ordered is called economic order quantity because the purchase of this size of material is most economical. It is helpful to determine in advance as to how much should one buy when the stock level reaches the re-order level. If large quantities are purchased, the carrying costs would be large. On the other hand, if small quantities are purchased at frequent intervals the ordering costs would be high. The economic order quantity is fixed at such a level as to minimize the cost of ordering and carrying the stock. It is the size of the order which produces the lowest cost of material ordered. While determining the economic order quantity, the following three cost factors are taken into consideration:(i) The cost of the material;(ii) The inventory carrying cost;(iii) The ordering cost. Carrying costs are the costs of holding the inventory in the stores. These are: Rent for the storage space; Salaries and wages of the employees engaged in store keeping

department; Loss due to pilferage and deterioration; Insurance charges; Stationery used in the stores .Ordering costs are the costs of placing orders for the purchase of materials. These are: Salaries and wages of the employees engaged in purchasing department; Stationary, postage, telephone expenses, etc. of the purchasing department. While placing orders for purchasing materials, the total cost to be incurred is kept in view. As discussed earlier, if an order is placed for a large quantity at a time, the ordering cost is less but the carrying cost would be more. Determination of Economic Order Quantity: The economic order quantity is determined by using the following formula:

$$EOQ = \sqrt{\frac{2 \cdot A \cdot C_p}{C_h}}$$

Where, EOQ = Economic order quantity. A = Annual consumption or usage of material in units. Cp = Cost of placing one order including the cost of receiving the goods.Ch = Cost of Holding one unit of inventory for one year.

**2.5. Fixed-order-interval model**

The fixed-order-interval (FOI) model is used when orders must be placed at fixed time intervals (weekly, twice a month, etc.): The timing of orders is set. The question, then, at each order point, is how much to order. Fixed-interval ordering systems are widely used by retail businesses. If demand is variable, the order size was tended to vary from cycle to cycle. This is quite different from an EOQ approach in which the order size generally remains fixed from cycle to cycle, while the length of the cycle varies (shorter if demand is above average and longer if demand is below average).

**2.6. Determination of various levels of materials**

The store-keeper plays an important role in deciding upon the various levels materials. In order to ensure that the optimum quantity of materials is purchased stocked neither less nor more, the store keeper applies scientific techniques of material management. Fixing of certain levels for each item of materials in one of techniques [11].These levels are not permanent but require revision according to the change in the factors which determine these levels.

**2.7. Re-order Level**

This level is that level of material at which it is necessary to initiate purchase requisition for fresh supplies. This is normally the point lying between the maximum and the minimum levels. Fresh orders must be placed before the actual stocks touch the minimum level.This level is fixed in such a manner that the quantity of materials represented by the difference between the re-order level and the minimum level was sufficient to meet the requirement of production till such time as the order materializes and materials are delivered. The following factors are taken into account for fixing the Re-order level: Rate of consumption of material; Lead time, i.e.,

time required to receive the delivery of fresh purchase; Re-order quantity; Minimum level; Re-order level can be calculated by applying the following formula:

**Re-order level= Minimum level + consumption during period required to get fresh delivery**

Another formula for Re-order level is:

**Re-order level = Maximum consumption x Maximum Re-order Period**

**3. Results and discussion**

The inventory control methods.Most companies have a never-ending goal to find the best method to control one of their largest assets; their inventory. Many different methods of inventory control exist as it is shown by the table 1.

**Table 1:** Inventory control in SULFO RWANDA Ltd

<i>Methods</i>	<i>Number of respondents</i>	<i>Percentages</i>
Computerized	6	42.8
Manual	4	28.6
Both	4	28.6
<i>Total</i>	<i>14</i>	<i>100</i>

**Source:** Field survey data, August, 2014

Table 1 shows that SULFO Rwanda LTD use both manual and computerized methods to control their inventories. The most of respondents means 46.8% revealed that the company use computerized method , 28.6% said that company uses manual method and 28.6% said that company mixes the both methods but especially the computerized system helps the organization to find easily the re-order level and avoids stock out. This helps organization to keep operations running efficiently and reduces stock out costs.

**Implication of using computerized system**

Most inventory management applications gives organization a structured method of accounting for all incoming and outgoing inventory within their facilities.

Organization saves a significant amount in cost associated with manual inventory counts, administration errors, and reduction in inventory

Computer allows to detect the reorder point of fresh supplies and it avoids keeping idles inventory which can cause losses to the firm. These losses include deterioration of materials, theft, and obsolescence. All these contribute to efficiency of operations and increase profit to the company.

### 3.2. Leading time

The lead time between the placement of an order and delivery is one of factors which influence the customer satisfaction. The table 2 shows the leading time in SULFO RWANDA Ltd.

**Table 2:** The lead time in SULFO RWANDA Ltd.

<i>Time</i>	<i>Number</i>	<i>of Percentages</i>
	<i>respondents</i>	
One week	4	28.6
A month	10	71.4
Any other	0	0
<b>Total</b>	<b>14</b>	<b>100</b>

**Source:** Field survey data, August, 2014

Table 2 indicates that necessary lead time to get supplies varied but 71.4 % responded that no longer than one month and 28.6% said that it takes one week. But it depends on production requirements. It should not be too long to avoid short of raw materials for the production, hence improve performance of the company.

### 3.4. The assessment of lead time

This question asked by researcher to know different opinions on lead time in order to provide the suggestion at the end of this research.

**Table 3.:** Showing the assessment of the lead time

<i>Time</i>	<i>Number</i>	<i>of Percentages</i>
	<i>respondents</i>	
Adequate	4	28.6
Inadequate	10	71.4
<b>Total</b>	<b>14</b>	<b>100</b>

**Source:** Field survey data, August, 2014

the table 3 shows that the lead time for the company is inadequate as revealed by 71.4 of respondents ,and 28.6 % of respondents said that it is adequate form this issue of inadequate lead time affects the smooth running of production process, hence reduces company’s production capacity and the level of sales reduces accompanied by reduction in profit.

#### **Implication to company’s performance**

If it is too long, the company may risk facing stock out problems. So, the company should balance between daily requirement for production and necessary lead time to avoid stock out.

### 3.5. The determination of reorders level

The Reorder level (or reorder point) is the inventory level at which a company would place a new order or start a new

manufacturing run. The table 4 shows the reorder level in SULFO RWANDA Ltd.

**Table 1:** The reorder level SULFO RWANDA Ltd.

<i>Level</i>	<i>Number</i>	<i>of Percentages</i>
	<i>respondents</i>	
Stock is finished	2	14.3
At a given level of inventory	8	57.1
After a specified time	4	28.6
<b>Total</b>	<b>14</b>	<b>100</b>

**Source:** Field survey data, August, 2014

The table 4 indicates that new stock is replaced at a given level of inventory based on needs forecasts, to avoid shortage of goods and interruption in production as it was revealed by 57.1 % of respondents . The 28.6% of respondents said it is done at a specified time and 14.3% revealed that it is done when the stock is out this enhances production process and reduces costs associated to keeping large idle stock.

**Table5 :** The factors cause the stock out

<i>Factors</i>	<i>Number</i>	<i>of Percentages</i>
	<i>respondents</i>	
Inefficient supplies	3	21.4
Delays in funds release	3	21.4
Inefficient inventory control	2	14.3
Technical problems	6	42.9
<b>Total</b>	<b>14</b>	<b>100</b>

**Source:** Field survey data, August, 2014

The 42.9% of respondents revealed that major factors to cause stock out are technical problems, and these affect negatively production and sales activities and 21.4% revealed that the stock out caused by inefficient supplies and 21.4% of respondents said that the stock out caused by delays in funds release and represent 14.3 % of respondents said that the above issue caused by inefficient inventory control.

It is especially due to factors beyond the control of the company. When the source of supplies face with the problem, stock out in the firm present a considerable loss for the firm. For example, refineries problems for the source of fuel can present a considerable loss to the company. This can lead to loss of good will of the company.

### 3.5 The production capacity of the company

The Productive capacity is the maximum possible output of a company. This influence the performance of an organization. The researcher asked this question for verifying if the company uses it total production capacity or not. Below were the responses of respondents.

**Table6:** Showing the production capacity of the company

<i>Variable</i>	<i>Number of respondents</i>	<i>Percentages</i>
Produce at full capacity	6	42.9
Don't produce at its fully capacity	8	57.1
<i>Total</i>	<i>14</i>	<i>100</i>

**Source:** Field survey data, August, 2014

The table above show that 57.1% of respondents revealed that the company does not produce at full capacity due to factors stated below in Table 7 and 42.9% of respondents disagreed that the company produces to it fully capacity

### 3.7. The factors cause unfurl capacity of production

There many pitfalls which influence the company for not producing at full capacity. The researcher asked this question for knowing exactly the significant factors which hinder the organization to produce at it full capacity. The below were the responses from respondents.

**Table 2:** Showing the factors cause unfurl capacity of production

<i>Factors</i>	<i>Number of respondents</i>	<i>Percentages</i>
Limited production capacity	2	14.2
Lack of store facilities	6	42.9
Problems of acquiring raw materials	6	42.9
<i>Total</i>	<i>14</i>	<i>100</i>

**Source:** Field survey data, August, 2014

The table 7 indicates that all factors affecting production at full capacity, 14.2% of respondents revealed that the full production cause by limited production capacity, 42.9 % of

respondents said that affected by lack of store facilities and 42.9% of respondents revealed that the full production affected by problems of acquiring of raw materials but some additional comment has been provided by Director of Finance and Administration.

He said, Market is small and many importers are available.

#### **Financial implication**

This implies that the company is not capable selling all its production and stock turnover becomes low. If stock does not sell, holding costs increase hence reduces company's profit

#### **4.2.12. The inventory management costs**

The cost of holding goods in stock is very important in inventory management.. The table 8 shows the costs incurred in inventory management of SULFO RWAND Ltd

**Table 8 :** The costs incurred in inventory management of SULFO RWAND Ltd.

<i>Costs</i>	<i>Number of respondents</i>	<i>Percentages</i>
Ordering	4	28.6
Carrying	7	50
Stock out	2	14.3
Any other	1	7.1
<b>Total</b>	<b>14</b>	<b>100</b>

**Source:** Field survey data, August, 2014

From the table 8 , 50% of respondents strongly confirmed that company incurs mainly carrying inventory related costs, 28.6% of respondents said that the company incurs ordering cost and 14.3% stock out costs and 7.1% any other costs.

These costs include costs of storage i.e. the rent for the space occupied; cost of financing i.e. the firm has to pay interests on borrowings made for the purchaser of materials or goods.

These costs can be minimized by controlling the frequency of placing orders and reduce losses resulting from deterioration, theft, administration costs, obsolescence and enhances company's profit.

### 3.8. The challenges faced in inventory management

There are many challenges in inventory management system. The responses from respondents were interpreted in the table 9.

**Table 9:** Showing the challenges faced in inventory management

Challenges	Number of respondents	Percentages
Insufficient storage space	8	57.1
Unqualified staff	4	28.6
Inadequate inventory system	2	14.3
<b>Total</b>	<b>14</b>	<b>100</b>

**Source:** Field survey data, August, 2014

From the table 9 the figure shows that 57.1% of respondents revealed that the major problem faced by the company is lack of sufficient storage space which affects production process. The 28.6% of respondents said that the company inventory management challenged by unqualified staff and finally 14.3% declared the challenge of inadequate inventory system. By conclusion we have seen that the biggest challenge faced by the company is insufficient storage space as confirmed by 57.1% of respondents above.

### 3.9. The interviews discussions

Some findings have been collected through interview with all staff of finance department. the table 10 explains the answers of respondents in schedule interview that we used while conducting this research.

**Table 10:** The views of respondents

Questions	Number of respondents	Percentages
To ensure that there is no theft of materials from stock	14	100%
2. The information needed in management of stock to enjoy competitive advantages	13	93%
1. The recalculation of safety stock levels	11	79%
2. The profitability of use the inventory control techniques for your company	10	71%
3. The techniques can be used to reduce inventory costs.	13	93%

**Source:** Field survey data, August, 2014

1. For the issue of theft of materials from stock. The 100% of respondents agreed that the company established the control measures for preventing the theft. At evening when employees go home, they must pass to gate and security guards check out to ensure that they do not go home with company's assets.
2. About the information needed to enjoy competitive advantages. Most of respondents which represent 93% revealed that the company's management now needs information on the effect of products mix decisions on overall profit and therefore needed accurate product cost information.
3. On the recalculation of safety stock levels. All respondents mean 79% confirmed that determining appropriate inventory level is one of the most important and most challenging tasks faced by their company. If they carry too much inventory, they tie up money in working capital; if they don't carry enough inventories, they face stock outs. Fortunately, the cycle stock portion of the inventory equation is straightforward for the company.
4. On benefit of use of the inventory control technique for the company. From field information, the 71% of

respondents agreed that a mismanaged inventory can lead to an unnecessary increase in the working capital. The excess funds could have been fruitfully directed to fuel the company's growth initiatives or research and development efforts.

From field information, the 71% of respondents confirmed that the effective inventory management would lead to low storage costs, which will in turn lead to an increase in the company's profits. Storage space is expensive; if they are able to manage their inventory well and able to reduce the amount of goods that they need to store, then they will require less space, which will in turn lead to low warehouse rental costs.

It helps them to satisfy their customers by providing them with the products they need in the swiftest manner.

5. About techniques that can be used to reduce inventory costs. From field information, the 93% of respondents agreed that the organization needs help taking money out of inventory, there are strategies revealed by respondents that employed today that provide payoff.

Some of the techniques used by SULFO RWANDA Ltd - The company estimate reserves accurately: Accurate estimating of reserves avoids year-end surprises. Estimates should be based on a realistic view of both inventory accuracy and the viability

of product sale. -The company reduces order transaction costs: In the office, they use the computer to generate purchase orders to reduce expediting, and historical vendor performance to prioritize expediting to lower purchasing costs.

#### 4. Summary of findings

The findings showed that the most preferred inventory management techniques in SULFO RWANDA Ltd are weighted average cost (WAC) and First in first out (FIFO). This shows that the company strives to minimize ordering and carrying cost by determining the optimal level in inventory management. The majority of participants (57.1%) confirmed that stock level for various items are maintained ordinarily maximum level to avoid shortage, stock out, production disruption and satisfy demand; There are also costs incurred for holding inventory especially carrying costs as said by 50% of the respondents, and the company should seek for how to minimize them so as to maximize profit as one of company's objective; Methods to report ending inventory are also used. WAC and FIFO are equally commonly used (both at 35.7%) as stock valuation methods. Therefore, improper pricing of inventory can lead to over or under statement of company's profit. Respondent educational level is enough (70.4% of the staff are bachelor degree holders) to be able to use advanced skills in inventory management; Major challenge faced while managing inventory is lack of sufficient storage space to accommodate huge quantities of inventories as affirmed by 57.1% of respondents; Stock taking also is done on monthly basis, as said by 57.1% of the respondents, to ensure state and availability materials in stock; The majority of the respondent, 57.1% agreed that company sometimes does not operate at full capacity due to that market is small and importers are too many; It was found that Company also experiences stock out due to technical problems, and this was confirmed by 42.9% of participants; Respondents gender we found that there is not gender bias in company. Through field information, 64.3% of the respondents were male and 35.7% were female. Therefore it employs a gender balanced workforce; for experience of employees, basing on the results obtained 85.7% of the respondents were experienced in their jobs more than 3years. This is a pillar of success for the company ;The majority of the respondents, 78.6% were between the ages of 21-45, this confirming that the company is interested in employing young employees who are highly productive and efficient; To control inventory, it was found that company uses computerized and manual systems; For stocks kept by the company 100% of respondents revealed that the company has raw material , Work in process and finished goods stocks

The findings showed that inventory management had significant relationship on better management as shown by the positive correlation coefficient between inventory management system and use of techniques . This revealed that proper inventory management techniques such as Weighted Average Cost and First in First Out may lead to customer satisfaction especially when an order is placed and delivered on time as expected by the customers and helps the organizations to cut down costs incurred by an organization. It

can therefore be concluded that inventory management practices are related to performance of an organization.

#### 5. Conclusion and Suggestions

There are techniques used at SULFO RWANDA Ltd responsible for management information system which helps to make serious decisions on inventory, inventory requirement points, and over stock brands for the fast moving products, recoding of all the purchased and issued inventories to the production department of the Company, issue of inventories from the store that were previously purchased to the production department and arrangement of some company inventories according to the order of their importance. The techniques play an important function on the performance of organization. This is because proper inventory management techniques was established to maintain proper running of the production department, controls quality of the company products out of the production department, control time management reduction on labour with its associated costs for improved performance of the Company operations, helping the Company production department to perform well, increase on the company profits, help in the assessment of taxes and help in the process of determining the company sales volume for understanding of the company performance and derive towards better performance of the Company. Moreover the kind of relationship between inventory management techniques and management of organization can either be positive or negative depending on how the techniques of inventory management are used and how it is applied.

Based on lead time, it should be reduced to avoid possible disruption of production because findings show that lead time is more than a month. At least limit yourself to one week.

To determine re-order level after specified time may not be good because the time may mature while stock is still full, without enough space to accommodate new supplies.

To solve technical problems in stock management, use of contemporary IT will solve this problem quickly.

Smallness problem of the market can be resolved by entering on Easter African Market and improving the quality of the products for being more competitive on market

To detect error and fraud early in inventory management, stock taking should be done at least weekly because people go home with materials for personal use, etc.

Hiring or constructing more warehouses to minimize risks associated with insufficient storage space.

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## Author's profile

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