

ST.MARY`S UNIVERSITY

BUSINESS FACULTY  
DEPARTMENT OF ACCOUNTING

ASSESSMENT OF INVENTORY  
MANAGEMENT SYSTEM IN THE CASE OF  
KK PRIVATE LIMITED COMPANY

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JUNE, 2014  
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**AN ASSESSMENT OF INVENTORY MANAGEMENT SYSTEM IN THE  
CASE OF KK PRIVATE LIMITED COMPANY**

**BY  
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## **ACRONYMS**

**FIFO:** First in first out

**LIFO:** Last in first out

**VED:** Vital, Essential & Desirable

**EOQ:** Economic Order Quantity



# **Chapter One**

## **1. Introduction**

### **1.1 Background of the study**

Inventory management encompasses the planning, organizing, and control activities that focus on the flow of materials inventory in to, through and from the organization. Even though business organizations differ in size and complexity, in the types of items they carry, in the costs associated with operating the system, and in the nature of the information available to decision makers at any given point in time; it requires a proper inventory management system. Essentially, the role of inventory has grown with advances in production technology which enable to tool up for the manufacture of new products or accelerate the rate of innovation & invention. (Girma Desalegn 1987: PP 23)

Inventory management is a science primarily about specifying the shape and percentage of stocked goods. It is required at different locations within a facility or within many locations of a supply network to precede the regular and planned course of production and stock of materials. (Girma Desalegn 1987: PP 23)

The scope of inventory management concerns the fine lines between replenishment lead time, carrying costs of inventory, asset management, inventory forecasting, inventory valuation, inventory visibility, future inventory price forecasting, physical inventory, available physical space for inventory, quality management, replenishment, returns and defective goods, and demand forecasting. Balancing these competing requirements leads to optimal inventory levels, which is an on-going process as the business needs shift and react to the wider environment.

Inventory management involves a retailer seeking to acquire and maintain a proper merchandise assortment while ordering, shipping, handling, and related costs are kept in check. It also involves systems and processes that identify inventory requirements, set targets, provide replenishment techniques, report actual and projected inventory status and handle all

functions related to the tracking and management of material. This would include the monitoring of material moved into and out of stockroom locations and the reconciling of the inventory balances. It also may include ABC analysis, lot tracking, cycle counting support, etc. Management of the inventories, with the primary objective of determining/controlling stock levels within the physical distribution system, functions to balance the need for product availability against the need for minimizing stock holding and handling costs. (Girma Desalegn 1987: PP 35)

It is obvious that, the ultimate goal of the company is to satisfy the costumers according to their needs. For these activities, the company must engage a proper flow of inventory. In order to facilitate the flow of inventory a good management system must be adopted. (Datta A.K. 1997 PP 56)

More over the goal of managing inventory is to minimize the cost of the operation. These costs include interest on capital tied up in inventory Stocks, expenses on storage, insurance and taxes, and losses due to deterioration & obsolescence. (Nigel Slack, stuart Chamber, Robert Johnson, Alan Betts 2006: PP 76)

Generally, to cope up the problems of inventory management, the researcher will try to investigate the inventory management system in KK Private limited Company.

KK private limited company was established in 1992 G.C by young visionary Ketema Kebede with a paid up capital of birr five million. He started out as a distributor of imported, domestically manufactured textile products as well as an exporter of agricultural commodities. ([www.kkplc.com](http://www.kkplc.com))

The company currently has two blanket factories and one acrylic yarn dyeing plant. It is also engaged in the import and distribution of heavy duty machinerics and equipment for mining, construction, road making, quarrying, stone crushing, and many others.

In addition to the business activities mentioned above KK PLC had, in the year 2009 entered in to the export of coffee, oilseeds, pulses, cereals and spices. Again just after two years of entering in to the export business, the company engaged its self in to the business of transit and forward business. Today, within all its departments, totally there are about 500 employees working. ([www.kkplc.com](http://www.kkplc.com))

The company has been heavily engaged in real estate business during the last three years. It has secured various important locations through lease from the regional government for the construction of warehouse, apartment, offices, supermarkets and market centers.

## **1.2 Statement of the problem**

It is obvious that manufacturing business companies are all very complex, mainly because of the huge number of items they handle. Inventory Request, order, receipts, withdrawals, transfer, transaction and many other inventory management activities require thousands of small decisions that affect inventory management levels.

Poor customer service is one of the ultimate results of the shortages that occur when inventories are wrong. The cost associated with poor customer service cannot be stated in terms of money.

Unnecessary inventory investment results from incorrect purchase plans made by the material planners when inventories are understated.

Reduced production efficiency is the adverse effect. An inventory inaccuracy causes emergency orders that are less efficient to place with vendors and less efficient for production. Extra material handling, unnecessary machine setups, unnecessary overtime payments are occurred. KK Private limited company uses LIFO method of inventory costing for shebele and chewberenda warehouses. Whereas FIFO method of inventory costing method is used for chemicals found at factory warehouse. At the factory level there happens obsolesce and deterioration of chemical liquids.

In most business companies inventory management in various functional areas is not strong enough to achieve the desired objective. Specifically in KK PLC, at the factory warehouse, there is presence of damage and break of chemical holding plastics. These results in leaking of raw chemicals and other raw materials. Within the company of KK PLC there are two types of inventory methods used at three warehouses. At shebele and chewberenda warehouse LIFO Method is used. At factory warehouse, FIFO method of inventory is used.

As the preliminary investigation indicates, the reason for obsolescence and deterioration is the method of inventory costing methods used at the factory warehouse. In addition to this problem, there is shortage of demanded dyeing chemicals at peak market season. As the preliminary investigation shows, this happens due to wrong purchasing plans by the purchasing department. Therefore, this research paper presents its findings on the challenges of inventory management system in the case of KK Private limited company.

### **1.3 Research Questions**

There are so many questions that can be raised for assessing the inventory management system of KK Private Limited company. For the purpose of being precise, the researchers have focused on the following main research questions that possibly can address problems stated out above.

1. What is the firm's international standard inventory management systems?
2. What approaches does the company use to protect unnecessary inventory costs like deterioration, obsolescence, unusual man-made & natural phenomenal, extra order, opportunity cost of all the money in inventory?
3. How relevant are the methods of inventory management system to solve the overall problem under the company inventory flow?
4. How smooth is the interdepartmental relationship of the company to provide consistent customer service?

### **1.4 Objective of the Study**

#### **1.4.1 General objective**

The general and broad objective of this research is to investigate the inventory management system of KK private limited company.

#### **1.4.2 Specific objective**

From the main broad objective a number of other specific guiding objectives that come include the following.

- To take an analysis of international standards that the company use to manage its inventory.

- To see approaches the company use to protect unnecessary inventory costs
- To explore how relevant the methods of inventory management system the company use to solve the overall problem under the company inventory flow
- To see how smooth is the interdepartmental relationship of the company to provide consistent customer service.

### **1.5 significance of the study**

It is well known that the study will make theoretical and practical contribution to the body of knowledge related to education with particular emphasis on the following listed significances.

- ✓ Once after this research is made and if KK PLC considers recommendations of the researchers, it will help the managements to overcome inventory management problems.
- ✓ Other related departments like commercial department of the company will have a clear image on the problems related to inventory shortage at times there is high market demand.
- ✓ Moreover, this research study can be used as a secondary source for other researchers who want to conduct further study on topics related to inventory management systems.
- ✓ The significance goes to the researchers as the researchers will get experience to conduct more senior research in the future.
- ✓ Customers, basically acrylic yarn and blanket customers will be benefited when the inventory management problems are solved.

### **1.6 Scope of the Study**

The area of this research paper is only on the inventory management system of KK Private Limited Company.

The research disregards activities like checking and approving purchase request, purchasing activities and other type of payments. It focuses only on inventories that are kept at main warehouse of the company.

KK Private limited company performs lots of business activities. Due to shortage of manpower, the researchers only focus on the acrylic yarn and blanket business.

In order to include recent data, the researchers conduct their study for the year starting from 2011 G.C since inventory shortage problems started occurring at the time there is peak market demand.

### **1.7 Limitation of the Study**

The researchers will try to look in detail the inventory management of KK PLC. The outcome of the research may be more or less productive. However, due to lack of adequate time, limited number of manpower, lack of genuine and volunteer's respondent, lack of experience of researchers and shortage of related literatures, it will becomes out of reach of researchers to provide detailed information and may not reliably address all the issues raised under the statement of the problem section.

The end findings of this research only works for the acrylic yarn and blanket inventories.

### **1.8 Research design and Methodology**

#### **1.8.1 Research design**

For the purpose of describing characteristics of population and phenomenon regarding inventory management system of KK PLC, descriptive research methodology is used.

#### **1.8.2 The population and area of the study**

The population, from which representative sample have been taken includes customers, supply department, purchase department, inventory controller, warehouse manager, commercial sector head, marketing manager, market researcher, sales supervisor and salespeople of acrylic yarn and blanket.

The area of the study basically covers customers and employees of KK private limited company

	Respondents	population	No. of representative
1	Customer	8	4
2	Supply department	8	2
3	Purchase department	5	1
4	Inventory controller	6	4
5	Warehouse manager	2	2
6	Commercial sector head	1	1
7	Marketing manager	1	1
8	Market researcher	1	1
9	Sales supervisor	2	1
10	Salespeople	6	3
	<b>Total Respondents</b>	<b>40</b>	<b>20</b>

### **1.8.3 Sampling method**

Based on the subdivisions in the population, the researchers used stratified random sampling technique to select employees from the population that are found in different subdivision and level of position.

As there are individuals that work on valuable positions and due to reason that there are limited number of managers within the company who are able to give the researchers valuable information and data, the researchers used purposive non probability sampling technique to include customers from the overall population for the purpose of calculating valuable information and data.

### **1.8.4 Sample size**

As a sample size, the researchers took two considerations. The first consideration is employees of the company of which sixteen (16) is selected. The second consideration of the researchers is customers of the company of which four (4) is selected. Totally, the researchers sample size is twenty (20).

### **1.8.5 Types of Data collected**

Data that the researchers collected regarding the inventory management system basically includes primary and secondary data. Primary data is collected from primary sources like employees and customers of the company.

Secondary data is gathered through collection of bin cards, stock card, tags, invoices brochure, and websites of the company.

### **1.8.6 Methods of data collection**

The method that the researchers used basically includes designed questionnaires, interviews and observation which is utilized for collection of primary data.

In addition to designed questionnaires and interviews, the researcher consulted different secondary data available in the company.

### **1.8.7 Data analysis methods**

Data collected through descriptive research design in relation to the inventory management system is analyzed qualitatively to show the characters and behavior of the problem faced by customer of the company.

Form the quantitative data analysis technique, simple percentage analysis technique is used to analyze the general characteristics of population.

## **1.9 organizations of the study**

This study is organized with four basic chapters. The first chapter deals with parts that include background of the study, statement of the problem, research questions, objective of the study, and scope of the study, significance of the study, and research and methodology.

Chapter two of the study deals with the literature review of inventory management concept.

Chapter three of the study talks about data presentation, analysis and interpretation. The last, chapter four of this study talks about the summary, conclusion and recommendation.



## **Chapter Two**

### **Literature Review**

#### **2.1 Definition and Meaning of inventory**

Inventory can be defined as “Items held to ensure smooth plant operation, improve customer service, attain lot-size economies, or overcome timing or distance difference between operations. Overall objective (as with any investment): to improve company’s return on investment. (Datta A.K.: 1981:PP.191)

It can also be defined as “any physical item used in the operation management system” (Nigel Slack, Stuart Chamber, Robert Johnson, Alan Betts 1994: P.281)

#### **2.2 Nature of Inventory**

Inventory consists of goods held for sales to customers, partially completed goods, material and supplies to be used in production. Inventory items are acquired and sold continuously by a merchandising enterprise; or acquired, placed in production, converted to a finished product, and sold by a manufacturing enterprise. The sale of finished product is the primary source of revenue for most non-service business enterprise.

Every enterprise inventory for month running of its activities it serves as a link between production and distribution processes. There is generally, a time lag between the recognition of a need and its fulfillments. The greater the time-lag is the higher the requirements for inventory. The unforeseen fluctuations in demand and supply of goods also necessitate the need for inventory. It also provides a cushion for future price fluctuations.

The investment in inventories constitutes the most significant part of current assets/working capital in most of the undertakings. Thus, it is very essential to have proper control and management of inventory. The purpose of inventory management is to ensure availability of materials in sufficient quantity as and when required and also minimize investment in inventories. (Kumar N, Mittal R 2002: PP235)

## 2.3 Forms of Inventory

The five commonly recognized forms of inventory are:

- (a) Raw materials, purchased parts, and packaging;
- (b) Work-in process
- (c) Consumables goods
- (d) Finished goods; and
- (e) Spares

**A) Raw Material:** Raw material form a major input into the organization. They are required to carry out production activities uninterruptedly. The quantity of raw materials required will be determined by the rate of consumption and the time required for replenishing the supplies. The factors like the availability of raw materials and government regulations, etc. too affect the stock of raw materials. (Everette, Adam, Jr. Ronald J.Ebert, 2001 PP: 290)

**B) Work- in – progress:** The work – in – progress is that stage of stocks which are in between raw materials and finished goods. The raw materials enter the process of manufacture but they are yet to attain a final shape of finished goods. The quantum of work – in – progress depends upon the time taken in the manufacturing process. The greater the time taken in manufacturing, the more will be the amount of work in progress. (Everette, Adam, Jr. Ronald J.Ebert, 2001 PP: 290)

**C) Consumables:** These are the materials which are needed to smooth the process of production. These materials do not directly enter production but they act as catalysts, etc. consumables may be classified according to their consumption and criticality. Generally, consumable stores do not create any supply problem and form a small part of production cost. There can be instances where these materials may account for much value than the raw materials. The fuel oil may form a substantial part of cost. (Everette, Adam, Jr. Ronald J.Ebert, 2001 PP: 290)

**D) Finished goods:** These are the goods which are ready for the consumers. The stock of finished goods provides a buffer between production and market. The purpose of maintaining

inventory is to ensure proper supply of goods to customers. In some concerns the production is undertaken in order basis, in these concerns there will not be a need for finished goods. The need for finished goods inventory will be more when production is undertaken in general without waiting for specific orders. (Everette, Adam, Jr. Ronald J.Ebert, 2001 PP:292)

**E) Spares:** Spares also form a part of inventory. The Consumption pattern of raw materials, consumables, finished goods are different from that of spares. The stocking policies of spare are different from industry to industry. Some industries like transport will require more spares than the other concerns. The costly spare parts like engines, maintenance spares etc. are not discarded after use, rather they are kept in ready positions for further use. All decisions about spares are based on the financial cost of inventory on such spares and the costs that may arise due to their non-availability. (Everette, Adam, Jr. Ronald J.Ebert,2001 PP:292)

## **2.4 Purposes of Inventory**

Inventories exist for many purposes including:

- ✓ To provide and maintain good customer service.
- ✓ To smooth the flow of goods through the construction process.
- ✓ To provide protection against the uncertainties of supply and demand.
- ✓ To obtain a reasonable utilization of people and equipment.

Although holding inventories involves blocking of a firm's funds and the costs of storage and handling, every business enterprise has to maintain a certain level of inventories of facilitate uninterrupted production and smooth running of businesses. In the absence of inventories a firm will have to make purchases as soon as it receives orders. It will mean loss of time and business. A firm also needs to maintain inventories to reduce ordering costs and avail quantity discounts. Generally speaking, there are three main purposes or motives of holding inventories.

- (i) The transaction motive which facilitates continuous production and timely execution of sales order.
- (ii) The precautionary motive which necessitates the holding of inventories for meeting the unpredictable changes in demand and supplies of materials.

- (iii) The speculative motive which induces to keep inventories for taking advantage of price fluctuations, saving in re-ordering costs and quantity discounts, etc. (Dobler, Donald W. and David N, Burt 1996:PP.225)

## 2.5 Inventory management

The inventory management system is concerned with the activity of planning and controlling of inventories. There are two general types of inventory.

### 1. Dependent demand inventory

### 2. Independent demand inventory

**1) Dependent demand inventory:** is made up of inventory items that are consumed within an organization to produce a finished product.

**2) Independent demand inventory:** comprises inventory items consumed by customer's external to the organization.

The investment in inventory is very high in most of the undertakings engaged in manufacturing, whole sale and retail trade. The amount of investment is sometimes more in inventory than in other assets. It is necessary for every management to give proper attention to inventory management a proper planning of purchasing, handling, storing and according should form a part of inventory management. An efficient system of inventory management will determine (a) what to purchase (b) how much to purchase (c) from where to purchase (d) where to store, etc...

There are conflicting interests of different departmental heads over the issue of inventory. The finance manager will try to invest less in inventory because for him it is an idle investment, whereas production manager will emphasis to acquire more and more inventory as he does not want any interruption in production due to shortage of inventory. The purpose of inventory management is to keep the stocks in such a way that neither there is over- stocking under –

stocking. The over – stocking will mean a reduction of liquidity and starving of other production process; under – stocking, on the other hand, will result in stoppage of work. The investments in inventory should be kept in reasonable limits. (Chunawalla S.A 2001: PP 225)

## **2.6 Objectives of inventory management**

The main objectives of inventory management are operational and financial. The operational objectives mean that the materials and spares should be available in sufficient quantity so that work is not disrupted for want of inventory. The financial objective means that investment in inventories should not remain idle and minimum working capital should be locked in it. The following are objectives of inventory management:

- (1) To ensure continuous supply of materials, spares and finished goods so that production should not suffer at any time and the customers demand should also be met.
- (2) To keep material cost under control so that they contribute in reducing cost of production and overall costs.
- (3) To eliminate duplication in ordering or replenishing stocks. This is possible with the help of centralizing purchases;
- (4) To minimize losses through deterioration, pilferage, wastages and damages.
- (5) To design proper organization for inventory management. Clear cut accountability should be fixed at various levels of the organization. (Chunawalla S.A 2001: PP 225)

## **2.7 Tools and techniques of inventory management**

Effective inventory management requires an effective control system for inventories. A proper inventory control not only helps in solving the acute problem of liquidity but also increases profits and causes substantial reduction in the working capital of the concern. The following are the important tools and techniques of inventory management and control:

1. determination of Stock Levels:
2. Determination of Safety Stocks:
3. Selecting a proper System of Ordering for Inventory
4. Determination of Economic Order Quantity.

5. A.B.C. Analysis:
6. V. E. D Analysis:
7. Inventory Turnover Ratios
8. Aging Schedule of Inventories
9. Classification and Codification of Inventories
10. preparation of Inventory Reports

### **2.7.1 Determination of Stock Levels**

Carrying of too much and too little of inventories is detrimental to the firm. If the inventory level is too little, the firm will face frequent stock-outs involving heavy ordering cost and if the inventory level is too high it will be unnecessary tie-up of capital. Therefore, an efficient inventory management requires that a firm should maintain an optimum level of inventory where inventory costs are the minimum and at the same time there is no stock-out which may result in loss of sale or stoppage of production. Various stock levels are discussed as such. (Kulkarni PV, stayaprasad BG2004 PP 22-21)

#### **(a) Minimum Level**

This represents the quantity which must be maintained hand at all times. If stocks are less than the minimum level then the work will stop due to shortage of materials. Factors such as lead time, rate of consumption & nature of material are taken into account while fixing minimum stock level:

#### **(b) Re-ordering Level**

When the quantity of materials reaches at a certain figure then fresh order sent to get materials again. The order is sent before the materials reach minimum stock level. Re-ordering level or ordering level is fixed between minimum level and maximum level. The rate of consumption, numbers of days require to replenish the stocks, and maximum quantity of materials required on a day is taken into account while fixing re-ordering level.

#### **(c) Maximum Level**

It is the quantity of materials beyond which a firm should not exceed its stocks. If the quantity exceeds maximum level limit then it will be overstocking. A firm should avoid overstocking because it will result in high material costs. Overstocking will mean blocking of more working

capital, more space for storing the materials, more wastage of materials and more chances of losses from obsolescence. (Kulkarni PV, stayaprasad BG2004 PP 22-21)

#### **(d) Danger Level**

It is the level beyond which materials should not fall in any case. If danger level arises then immediate steps should be taken to replenish the stocks even if more cost is incurred in arranging the materials. If materials are not arranged immediately there is a possibility of stoppage of work.

#### **2.7.2 Determination of Safety Stocks**

Safety stock is a buffer to meet some unanticipated increase in usage. The usage of inventory cannot be perfectly forecasted. It fluctuates over a period of time. The demand for materials may fluctuate and delivery of inventory may also be delayed and in such a situation the firm can face a problem of stock-out. The stock-out can prove costly by affecting the smooth working of the concern. In order to protect against the stock out arising - outs and the carrying costs. The stock-outs of raw materials cause production disruption resulting into higher cost of production. Similarly, the stock-outs of raw materials cause production disruption resulting into higher cost of production. Similarly, the stock-outs of finished goods result into the failure of the firm in competition as the firm cannot provide proper customer service. If a firm maintains low level of safety frequent stock-outs will occur resulting in to the larger opportunity costs. On the other hand, the larger quantities of safety stocks involve higher carrying costs. (Management Acc. Principles & practice: 1992: PP 22)

#### **2.7.3 Order Systems of Inventory**

The basic problem of inventory is to decide the re-order point. This point indicates when an order should be placed. There-order point is determined with the help of these things: (a) average consumption rate, (b) duration of lead time, (c) economic order quantity, when the inventory is depleted to lead time consumption, the order should be place. There are three prevalent systems of ordering and concern can choose any one of these:

- (a) Fixed order quantity system generally known as economic order quantity (EOQ) system;
- (b) Fixed period order system or periodic re-ordering system or periodic review system;
- (c) Single order and scheduled part delivery system.

#### **2.7.4 Economic Order Quantity (EOQ)**

A decision about how much to order has great significance in inventory management. The quantity to be purchased should neither be small nor big because costs of buying and carrying materials are very high. Economic order quantity is the size of the lot to be purchased which is economically viable. This is the quantity of materials which can be purchased at minimum costs. Generally, economic order quantity is the point at which inventory carrying costs are equal to order costs. In determining economic order quantity it is assumed that cost of managing inventory is made up solely of two parts i.e., ordering costs and carrying costs. (Dobler, Donald W. and David N, Burt 1996: PP 22)

#### **2.7.5 VED Analysis**

The VED analysis (Vital, Essential & Desirable) is used generally for spare parts. The requirements and urgency of spare parts is different from that of materials.

#### **2.7.6 Inventory Turnover Ratios**

Inventory turnover ratios are calculated to indicate whether inventories have been used efficiently or not. The purpose is to ensure the blocking of only required minimum funds in inventory. The inventory turnover Ratio also known as stock velocity is normally calculated as sales/average inventory or cost of goods sold/ average inventory cost. Inventory conversion period may also be calculated to find the average time taken for clearing the stocks. (Dobler, Donald W. and David N, Burt 1996: PP 22)

#### **2.7.7 Aging schedule of Inventories**

Classification of inventories according to the period (age) of their holding also helps in identifying slow moving inventories there by helping in effective control and management of inventories. (Dobler, Donald W. and David N, Burt 1996: PP 22)

#### **2.7.8 Classification and Codification of Inventories**



For a proper recording and control of inventory, a proper classification of various types of items is essential. The inventories should first be classified and then code numbers should be assigned for their identification.

The inventories may be classified either according to their nature or according to use. The coding may be done alphabetically or numerically. The classification and coding of inventories enables the introduction of mechanized accounting. It also helps in maintaining secrecy of description. It also helps the prompt issue of stores. (Dobler, Donald W. and David N, Burt 1996: PP 22.28)

## **2.8 Company-wide implications of inventory control**

Successful companies take great care to protect their inventory elements of good internal control over inventory include,

1. Physically control over inventory at least once each year regardless of Inventory account system is used
2. Store inventory to protect it against theft damage and decay
3. Given access to inventory only to personnel who do not have access to the accounting records
4. Keeping perpetual inventory records for high unit-cost merchandise
5. Keeping enough environments on hand to prevent shortage situations, which lead to cost sales?

### **2.8.1 Typical Internal Controls for Inventory**

Controls over inventory emphasize the flow and cost of inventory in the system since management needs to know who has what inventory, and what purpose, at each stage of processing.

### **2.8.2 Performance Reviews**

- ✓ Standard costs are developed based on an in-depth analysis of product design, resource needs and the production process. .
- ✓ Cost accounting variances are monitored and resolved on a timely basis.
- ✓ Slow – moving inventory is monitored and reliability is periodically assessed.
- ✓ Waste, scrap and by-products are monitored for disposal.

### **2.8.3 Information Processing Controls-Proper Authorization procedures**

- ✓ Changes to master files are authorized
- ✓ The movement/ transformation of inventory is properly authorized (including new acquisitions, materials placed in process and sales)
- ✓ Standard costs are properly authorized.
- ✓ Dispositions of obsolete inventory are properly authorized and recorded.
- ✓ Dispositions of waste, scrap and by-products are properly authorized.

### **2.8.4 Use of Adequate Documents and Records**

- ✓ Master inventory files are maintained.
- ✓ Adequate perpetual records are maintained.
- ✓ A comprehensive chart of accounts for production-related activity is maintained.
- ✓ Renumbered transfer/work documents are used to account for conversion of Materials into finished goods and related movement through the production process.
- ✓ An effective cost accounting system is in place to track costs by product (including materials, labor and overhead costs.)
- ✓ The movement/transformation of inventory is captured in the accounting records (including new acquisitions, materials placed in process and sales).
- ✓ Dispositions of waste, scrap and by-products are properly accounted for.

### **2.8.5 Independent verification of Employee Responsibilities**

- ✓ Perpetual records are periodically reconciled with general ledger activity.
- ✓ Perpetual inventory are periodically reconciled to physical counts.
- ✓ Standard cost calculations and overhead allocations are periodically reviewed for reasonableness and compared to actual results.
- ✓ Actual versus applied overhead is periodically reconciled and adjusted as needed.

### **2.8.6 Physical Controls**

- ✓ Access to inventory assets, documents and records is strictly controlled and limited to authorized persons.

### **2.8.7 Segregation of Duties**

- ✓ Receiving, manufacturing warehousing and delivery activities are properly segregated.

- ✓ Accounting for inventory is properly segregated from handling of inventory.
- ✓ Standard cost estimates are developed independently of other accounting functions.  
(Yednkachew Tesma , 1989 :PP 83)

## **2.9 Types of inventory systems**

An inventory system is a structure for controlling the level of inventory by determining how much to order (the level of replenished) and when to order inventory. There are two types of inventory system.

1. Perpetual Inventory System
2. Periodic inventory system

The primary difference between the two systems is that in a perpetual system an order is placed for the same constant amount whenever the inventory on hand decreases to a certain level. While in a periodic system an order is placed for a variable amount after an established passage time.

### **2.9.1 Perpetual Inventory Systems**

Perpetual inventory system, alternatively referred to as a continuous system, and a fixed-order quantity system, a continual record of the inventory level for every item is maintained, whenever the inventory on hand decreases to a predetermined level, referred to as the recorder point, a new order is placed to replenish the stock of inventory carrying, ordering, and shortage costs. This fixed-order amount is called the economic order quantity.

A positive feature of a continuous system is that the inventory level is closely and continuously monitored so that management always knows the inventory status. This is especially advantageous for critical inventory items such as replacement parts or raw materials and supplies. However, the cost of maintaining a continual record of the amount of inventory on hand can also be a disadvantage of this type of system.

### **2.9.2 Periodic Inventory System**

In a periodic inventory system, also referred to as a fixed-time period system and a periodic review system, the inventory on hand is counted at specific time interval, for example, every week or at the end of each month. After the amount of inventory in stock is determined, an order is placed for an amount that will bring inventory back up a desired level. In this system the inventory level is not monitored at all during the time interval between orders, so it has the advantage of requiring little or no record keeping. However, it also has disadvantage of less direct control. This typically results in larger inventory levels for a periodic inventory system than in a continuous system to guard against unexpected stock outs early in the fixed periodic order is made. ( Kulkarni PV, stayaprasad BG,2004 PP: 117/18)

### **3.0 Main types of inventory cost**

The relevance of cost elements in a given situation depends on the decisions to be made. Many costs remain fixed when the order size only one item is doubled, but the same costs may well become variable consideration. The main types of inventory costs are:

1. Carrying costs
2. Stock out costs
3. Ordering or purchase costs
- 4 Setup costs

**3.0.1 CARRYING COSTS:** These include handling charges; the cost of storage facilities or warehouse rentals; the cost of equipment to handle inventory; storage labor, and operation costs; insurance premiums; breakage; pilferage; obsolescence; taxes; and investment or opportunity costs. In short, any cost associated with having, as opposed to not having, inventory is included.

**3.0.2 STOCKOUT COST:** These are the costs of not having the required parts or materials on hand when and where they are needed. They include lost contribution on lost sales (both present and future) change over costs necessitated by the shortage, substitution of less suitable or more expensive parts or materials, rescheduling and expediting costs, labor and machine idle time, and so on.

**3.0.3 ORDERING OR PURCHASE COSTS:** These include the managerial, clerical, material, telephone, mailing, fax, e-mail, accounting, transportation, inspection, and receiving costs associated with a purchase or production order.

**3.0.4 SETUP COSTS:** These refer to all the costs of setting up a production run. Setup costs may be substantial. They include such learning- related factors as early spoilage and low production output until standard rates are achieved as well as the more common considerations, such as setup employees' wages and other costs, machine downtime, extra tool wear, parts (and equipment) damaged during setup, and so on.

### **3.0.5 Lead Time**

The time interval needed to complete a portion or all of the activities in a replenishing cycle. It includes the time identify a replenishment requirement, process the order, and receive the item in stock, ready for use. (Dobler, Donalds W. and David N,Burt (1996): PP. 202)

## **3.1 inventory costing method**

When finished goods are sold, the firm must assign a cost of goods sold. The cost of goods sold appears on the income statement as an expense for the period, and the balance sheet inventory account is reduced by a like amount. Eugene F. and Louis C. (1996) stated that there are four inventory costing methods that include: Specific identification, First-in, first-out (FIFO), Last-in, first-out (LIFO) and Weighted average.

### **1. Specific Identification**

Under specific identification a unique cost is attached to each item in inventory. Then, when an item is sold the inventory value is reduced by the specific amount. This method is used only when the items are high cost and move relatively slowly, such as would be the case for an automobile dealer.

### **2. First-in, First-out (FIFO)**

In the FIFO method, the units sold during a given period are assumed to be the first units that were placed in inventory. As a result, the cost of goods sold is based on the cost of the older inventory items. And the remaining inventory consists of the cost of the older inventory items, and the remaining inventory consists of the newer goods. Note that this is purely an accounting

convention-the actual physical units sold could be either the earlier or the later units placed in inventory, Or some combination.

### **3. Last-In, First-Out (LIFO)**

LIFO is the opposite of FIFO. The cost of goods sold is based on the last units placed in inventory. While the remaining inventory consists of the first goods placed in inventory.

### **4. Weighted Average**

The weighted average method involves the computation of the weighted average unit cost of goods available for sale from inventory, and this average cost is then applied to the goods sold to determine the cost of goods sold. This method results in a cost of goods sold and an ending inventory value that falls somewhere between the ones obtained by the FIFO and LIFO methods.

## CHAPTER THREE

### 3. DATA PRESENTATION, ANALYSIS AND INTERPRETATION

#### 3.1 Data Analysis

In this section attempts have been made to assess the inventory management activities by using the primary data collected from questionnaires and interviews. Totally 20(twenty) questionnaires were distributed to employees and customers of KK Private Limited Company. Out of the twenty questionnaires 16 (sixteen) of them distributed to employees of KK private limited company and 4(four) of them were distributed to customers of KK PLC. Of the 16(sixteen of them were collected but of the 4(four) only 2(two) of them were collected. Accordingly, the analysis and findings of this paper are based on the number of the respondents of the questionnaires and interviews conducted with Supply Dep. Head, Supervisors, Storekeepers, Purchase warehouse manager, Inventory controllers and customers

#### PART 1 CHARACTERISTIC OF RESPONDENTS

Table1: Sex, Educational Background and Year of Service of the respondents (Employee)

1. SEX	NUMBER	%
Male	10	62%
Female	6	38%
Total	16	100%
2. Age		
Under 25	2	12%
26 -35	7	44%
36 – 45	6	38%
46 – 50	1	6%
51 – 60		
Total	16	100
2. EDUCATION		
Certificate	1	6%

Diploma	10	63%
Degree(BA/BSC)	5	31%
MA & above		
Total	16	100%
<b>3. YEARS OF SERVICE</b>		
Less than 1	1	6%
1 – 5	10	63%
6 – 10	4	25%
10 Years and above	1	6%
Total	16	100%

**Source: Questionnaire**

The above table shows, 10(62%) of the respondents are male and the rest 6(38%) are female respondents. From this analysis one can infer that there is big sex variation between male and female respondents. Concerning age background, 2(12) of the respondents are under the age of 25. Majority of respondents 7(44%) are found between the age of 26-35. 6(38%) of the respondents are found between the age of 36-45. The remaining 1(6%) is at the age of 46-50. This data analysis indicates that 82% of the respondents are at their productive age.

Regarding educational background, 1(6%) of respondents is educated at certificate level and the majority 10(63%) are diploma holders. Remaining 5(31%) of respondents are degree holders. From this analysis the student researchers deduce that 94% of the respondents are in a position to undertake their work directives.

Concerning years of service 1(6%) is a fresh employee who worked for less than one year and 10(63%) of the respondents have served their company from 1- 5 years. 4(25%) of the respondents have worked from 6 – 10 years. The remaining 1(6%) of the respondents replied that they have worked 10 years and above. This data shows that 94% of the respondents have worked for longer period of time by which they are more experienced and familiar with guide line of inventory management activities.



## PART 2: ANALYSIS OF DATA RELATED TO INVENTORY MANAGEMENT SYSTEM

Table 2 Attitude of employees towards the methods of inventory management system

Question No.	Item	Yes	No	total
10	The company have procedure in the store that follow record the inventory	16	0	16
		100%	0	100%
11	The company have major product type sold in the respective department	16	0	16
		100%	0	100%
12	The company have proper procedure to ensure that only authorized employee may remove items or goods from stocks	16	0	16
		100%	0	100%
13	There is access to stock restricted to authorized person only	16	0	16
		100%	0	100%
14	There is segregation of duties among custody of stock and record keep of stocks	16	0	16
		100%	0	100%
15	The company takes cutoff at the end of the period	16	0	16
		100%	0	100%
16	Stocks are regularly reconciled against actual physical existence	16	0	16
		100%	0	100%
17	The physical counting procedure takes place by an independent person	16	0	16
		100%	0	100%
18	There is material difference, damage, obsolesce & slow moving reported to the management	16%	0	
		100%	0	100%

### Source: Questionnaire

As shown above, table 2 is designed to know the attitude of employees towards the methods of inventory management system. Accordingly item 1 of the above table is designed to investigate whether the company has procedure in the store that follows record the inventory or not. Accordingly, 16(100%) of the respondents replied that the company has procedure in the store that follows to record the inventory. From the analysis, one can deduce that the company has procedure in the store that follows to record the inventory.

Item 2 of the same table is designed to investigate whether the company has major product type sold in the respective departments. Accordingly, 16(100%) of the respondents replied that the company has major types of product sold in their respective department. here respondents indicated that Acrylic yarn and Blanket is the major product type sold in the department. From this analysis, the student researchers infer that the company has major types of product sold in their respective department which basically includes acrylic yarn and blanket.

Item 3 of the same table is designed to take a look whether the company has proper procedure to ensure that only authorized employee may remove items or goods from stock. Accordingly, all respondents 16(100%) replied that the company has proper procedure to ensure that only authorized employee may remove items or goods from stock. From the analysis, one can infer that the company has proper procedure where only authorized employees may remove items which results in accurate management of removing items from and to store.

Item 4 of the same table is designed to investigate if there is access to stock restricted to authorized person only in the company. Accordingly, 16(100%) of the respondents replied that the company have created access to stock restricted to authorized person only which implies that managements have employed strong inventory control system.

Item 5 of the above table is designed to investigate whether, there is segregation of duties among custody of stock and record keeping stocks. Accordingly, all respondents replied that the company segregates duties among custody of stock and record keeping stocks. From the analysis the student researchers infers that the company segregates duties among custody b/n warehouse managers, stock controller, and supervisors where works flows from one point to the other.

Item 6 of the same table is designed to investigate whether the company takes cutoff at the end of the period. Accordingly, all respondents 16(100%) replied that the company takes cutoff at the end each fiscal months. This analysis tells that the company strongly follows document work against practical work at the end of each month.

Item 7 of the same table is designed to investigate whether the company`s stock is regularly reconciled against actual physical existence. Accordingly, all respondents 16(100%) replied that the company`s stock is regularly reconciled against actual physical existence. From this analysis

the student researchers deduce that reconciliation of stock against actual physical existence is done every week and at the end of each month.

Item 8 of the above table is formulated to see whether physical counting procedure takes place by an independent person. Accordingly all respondents 16(100%) replied that physical counting procedure takes place by an independent person. From this analysis the student researchers infer that at the end of each month physical counting procedure takes place by an independent person especially personnel from finance department.

The last item of the same table is designed to investigate if there is material difference, damage, obsolesce & slow moving reported to management. Accordingly, the whole respondents replied that there is material difference, damage, obsolesce & slow moving reported to management. From this analysis one can deduce that the company's management is well informed about material difference, damage, obsolesce & slow moving items which helps the company to manage inventories in the most economical way. (Part 2, table 2: attitude of employees towards methods of inventory management system)

### **PART 3 ANALYSIS OF DATA RELATED TO INVENTORY MANAGEMENT SYSTEM**

Table 3 Attitude of employees towards the methods of inventory management system

Question No.	Item	Item	No.	Percentage
8	Company's inventory system	Perpetual system	16	100%
		Periodic System	15	94%
9	Company's inventory method	FIFO Method	15	94%
		LIFO Method	15	94%
19	Types of inventory the company holds	Raw material	7	44%
		Work in process	6	38%
		Finished products	14	88%
		Maintenance, repair & operating inventories	7	44%
20		Avoid over & under investment in inventory	6	38%
		Produce the right quality and	9	56%

	Objective of inventory control in the company	quantity of goods at the right time & reasonable price		
		Give best service to customers	10	63%
		Minimize wastage	2	13%
		Optimize level of inventory	4	25%
		Purchase economically	2	13%
21	Type of inventory counting method	Periodic inventory counting	16	100%
		Perpetual inventory counting	16	100%
		Surprise inventory counting		
22	Types of inventory analysis the company uses	ABC analysis		
		XYZ analysis		
		FSN analysis		
		VED analysis	16	100%
23	Kinds of inventory record system the company uses	Manual record system	16	100%
		Computerized	16	100%
24	Company`s stock level	Minimum	16	100%
		Maximum		
		Safe stock		

**Source: Questionnaire**

Based on the above table, 16(100%) of the respondents replied that KK private limited company uses perpetual inventory system. At the same time 15(94%) of the respondents replied that the company uses periodic inventory system. From this analysis one can deduce that the company uses both perpetual and periodic inventory system.

Item 2 of the same table is designed to know which type of inventory method the company uses. Accordingly, 15(94%) of the respondents replied that KK private limited company uses FIFO inventory method. The same number 15(94%) replied that KK private limited company uses LIFO inventory method. From this analysis, the student researchers infer that significant number 94% of the respondent uses both FIFO & LIFO method of inventory. At the same time the data implies that the company uses different inventory method for different type of

product item. (Part 3, table 3: attitude of employees towards methods of inventory management system)

Item 3 of the same table is designed to investigate types of inventory the company holds. Correspondingly, 14(88%) of the respondents replied that the company holds finished products primarily than others. Raw material & Maintenance repair and operating inventories are the next most that the company holds as an inventory. The rest 6(38%) of the respondents replied that work in process is the third most that the company holds as an inventory. From this analysis; one can deduce that most of respondents who replied this questionnaire are working around warehouse that are responsible for managing finished product inventories.

Item 4 of the above table is designed to see the objective of inventory control in the company. Correspondingly, 10(63%) of the respondents replied that giving best customers service is the first most important objective inventory control in the company.

The next most important inventory control objective replied by 9(56%) is producing the right quality and quantity of goods at the right time & reasonable price. 6(38%) of respondents replied that avoiding over & under investment in inventory is the next important objective of inventory in the company. 4(25%) of respondents replied that optimizing level of inventory is also the other important objective of inventory control in KK private limited company. Minimizing wastage & purchasing economically is the two equally voted as the objective of inventory control in the company.

From the above analysis, the student researchers infers that significant number of respondents rate giving best customers service & producing the right quality and quantity of goods at the right time & reasonable price are the primary inventory control objective in the company which bears positive impression on customers and managements towards the company.

Item 5 of the same table is designed to investigate types of inventory counting method of KK private limited company. Accordingly, 100% of the respondents replied that the company uses periodic inventory counting to count its inventory. At the same time this respondents replied that the company uses perpetual inventory counting. None of them replied the company use surprising inventory counting. From this analysis, one can deduce that KK private limited company uses both periodic and perpetual inventory counting methods to count its inventory

every day and at the end of the month. (Part 3, table 3: attitude of employees towards methods of inventory management system)

Item 6 of the same table is designed to investigate types of inventory analysis the company use. Correspondingly, 100% of the respondents replied that the company uses VED (vital, essential & desirable) inventory analysis method. From this analysis one can deuce that the company only uses VED analysis method which bears the company do not use other methods of inventory analysis methods.

Item 7 of the above table is designed to investigate kinds of inventory record system KK private limited company uses. Accordingly, the whole respondent 100% replied that the company replied that the company uses both manual record system and computerized system to record its inventory activity. From this analysis the student researchers infer that the company uses an alternative way of inventory recoding methods which creates the check and balance of inventory record activity.

The last item of the same table is designed to investigate the company`s stock level. Accordingly, the whole respondents replied that the company`s stock is usually minimum. From this analysis, the student researcher infers that 100% of the respondents rate company`s stock level minimum which bears negative impact on customers service in addition to overall inventory management problem. (Part 3, table 3: attitude of employees towards methods of inventory management system)

#### **PART 4 CHARACTERISTIC OF RESPONDENTS**

Table 4: Sex, Educational Background and Year of Service of the respondents (customers).

<b>1. SEX</b>	<b>NUMBER</b>	<b>%</b>
Male	2	100%
Female		
Total	2	100%
<b>2. Age</b>		
Under 25		
26 -35		
36 – 45	2	100%

46 – 50		
51 – 60		
Total	2	100
<b>2. EDUCATION</b>		
Certificate	1	50%
Diploma		
Degree(BA/BSC)		
MA & above		
Total		50%
<b>3. YEARS OF SERVICE</b>		
Less than 1		%
1 – 5		%
6 – 10	1	50%
10 Years and above	1	50%
Total		100%

**Source: Questionnaire**

As shown on the above table, two of the customers who responded to our questionnaire are both male. Regarding age background both customers are at the age between 36- 45 which imply that both customers have better inventory issue related to the products they purchase from the KK private limited company. Concerning educational level, one customer only replied that he is educated at certificate level. This data indicates that customers more of performs their work by experiences they developed through years. Regarding years of services one respondent replied that they have worked 6 -10 years and the other customer replied that they have worked for the year 10 & above. This data implies that customers have acquired the necessary experience regarding their work. (Part 4, table 4: Sex Educational background and years service of respondents)

Table 5: Attitude of customers towards inventory management system of KK private limited company.

Question No.	Item	Yes	No	Total
7	The company has adequate supply for all purchase requisitions		2	100%
8	Inventory type assures supply of market demands		2	100%
10	The company make the necessary follow up whenever there is delay in supply		2	100%
11	Warehouse location is suitable for customers shop	2		100%

**Source: Questionnaire**

The above table shows that both customers 2(100%) replied that the company has no adequate supply for all purchase requisitions. From this analysis, the student researchers infers that the company does not have adequate supply for all purchase requisitions which bears negative impact on customers satisfaction on the company's service.

Item 2 of the same table is designed to investigate whether inventory type of the company assures supply of market demand or not. Accordingly, both customers 2(100%) replied that inventory type of the company does not assure supply of market demand. This data analysis shows that there is problem in the side of the supply department and purchasing department who do not make the constant and the necessary supply to the production and finally to the market as a whole.

Item 3 of the same table is designed to investigate whether the company makes the necessary follow up or not whenever there is delay in supply. Correspondingly, both customers 2(100%) replied that the company do not make the necessary and timely follow up whenever there is delay in supply. From this data analysis, one can deduce that KK private limited company even if have an objective of giving its customers best service, the company do not make the necessary and timely follow up whenever there is delay in supply.

The last item of the above table is designed to see if warehouse location of the company is suitable for customer's shop. Accordingly, both customers 2(100%) replied that the warehouse location of the company is suitable for customers shop. From this analysis, one can deduce that



with suitability of the warehouse, the company has assured shorter delivery time of its supply. (Table 5: attitude of Customers towards methods of inventory management system of KK PLC)

Regarding consistency of product quality, customers replied that the company`s product quality is relatively constant from one market season to another market season. Regarding the company taking comment of product quality from customers, both customer 2(100%) replied that the company sometimes only takes the necessary product quality from customers. From this analysis, the student researchers infer that taking product quality comment only sometimes creates gap on managing overall inventory from raw material to finished products.

***Interview conducted with store manager and commercial sector head is analyzed below.***

For the question what their position is, one replied that he is store manager and the other replied that he is commercial sector head.

For question what the company's inventory objective is, they replied that the main objective of inventory management is to hold an average stock level to serve customers according to the market season and to avoid unnecessary inventory investment. For question how the company forecast inventory need and who is responsible to forecast, the respondents replied that the company usually forecasts its inventory need based on previous year's season demand history. Unlike other types of products, acrylic yarn's and blanket's demand doesn't easily change. The season at which acrylic yarn and blanket is demanded is more fixed. As a result, store managers, incorporation with marketing managers and commercial sector head, forecasts inventory need based on previous year's demand history.

Regarding types of inventory management system the company use, they replied that a company's inventory management system is more or less described by its inventory control and component system the company use. Accordingly the company's inventory control system includes LIFO, FIFO, perpetual inventory system, periodic inventory system and VED inventory analysis. More of the company's inventory management system is said to be good except the problem on purchasing and purchasing plan.

Concerning major procedure by which only authorized employee remove items or goods from stock, managers replied that the company have employed clear procedure by which only authorized employee remove goods from stock. Accordingly employee with the position of stock controller and stock manager are the two responsible bodies at three warehouses for removing items from stock. Whenever the stock controller receives an order from the sales office, he verifies the item type to be removed or loaded through the approval of store manager. For question how segregation of duties among custody of stock and record keeping, managers replied that the case of store or warehouse duties are seriously and clearly segregated among custody of stocks and record keeping. Each work is separated from the other

and they do have respective manpower that will carry out the works. At the three warehouses, stock controllers are responsible to verify customer's item to be loaded. At the same time, the stock controller is responsible to balance each day's stock level. The store manager is responsible to verify if the ordered item is available or not. In addition to this the store manager is responsible to direct the activity of each employee. In such a way duties are segregated among custody of stocks and record keeping.

For question how much level of stock the company holds, the managers replied that the company holds maximum stock for those which the market does not demand. As a result unnecessary investment has resulted. The company holds minimum level of stock for which the market highly demands. The reason behind for this is, purchasing problem which resulted from improper purchasing plan.

Regarding inventory analysis system the company uses, managers replied that KK private limited company use the VED inventory analysis method to analyze its inventory. The company uses this inventory analysis method for those raw material used in the production of acrylic yarn and blanket. In addition to VED analysis method, the company also uses ABC inventory analysis method even if it's not used so frequently for those raw materials (chemicals)

Concerning how physical counting procedure, physical counting is conducted at the end of each fiscal months by independent finance personnel. Also stuffs from finance department reconcile inventory record against physical existing stocks through counting each piece. The managers additionally suggested that the overall inventory management is said to be good but the main problem arises from purchasing problem which originates from unplanned & improper purchasing an. Usually purchasing is made without consulting the marketing department and the commercial sector. This is resulting in the production of unwanted product which the market does not demand. (Interview conducted with store manager and commercial sector head)

## CHAPTER FOUR

### SUMMARY, CONCLUSION AND RECOMMENDATION

#### 4.1 Summary

The overall objective of this study is to address the inventory management system of KK private limited company and to find out the problems related with inventory management system.

The method used to prepare this research is stratified random sampling technique and purposive non probability sampling technique to pick subjects from the population and used primary and secondary data obtained through questionnaire, interview analysis and written documents from the company's manual & report.

The method in analyzing and presenting data the researchers used qualitative and quantitative data analysis methods. From quantitative data analysis method, simple percentage is used.

The research analysis can be summarized as follows.

- From the forty (40) population size, the researchers selected twenty (20) samples from different department.
- 16(100%) of the respondents replied that the company has procedure in the store that follows to record the inventory.
- 16(100%) of the respondents replied that the company has major types of product sold in their respective department. here respondents indicated that Acrylic yarn and Blanket is the major product type sold in the department.
- All respondents 16(100%) replied that the company has proper procedure to ensure that only authorized employee may remove items or goods from stock.
- 16(100%) of the respondents replied that the company have created access to stock restricted to authorized person only which implies that managements have employed strong inventory control system.
- The company segregates duties among custody between warehouse managers, stock controller, and supervisors where works flows from one point to the other.

- All respondents 16(100%) replied that the company takes cutoff at the end each fiscal months. At the same time the company's stock is regularly reconciled against actual physical existence.
- Reconciliation of stock against actual physical existence is done every week and at the end of each month.
- 16(100%) replied that at the end of each month physical counting procedure takes place by an independent person especially personnel from finance department.
- The whole respondents replied that there is material difference, damage, obsolesce & slow moving reported to management.
- Regarding inventory system, the company uses both perpetual and periodic inventory system.
- Concerning inventory costing method, significant number 94% of the respondent replied the company uses both FIFO & LIFO method of inventory where the company uses different inventory method for different type of product item.
- Regarding inventory type, the company holds raw material, work in process, finished product, maintenance, repair & operating inventories.
- The prime objective of inventory control in the company is to give best service to customers. Avoiding over and under investment in inventory is also the other objective of inventory control in the company
- Regarding inventory counting method, the company uses both periodic and perpetual inventory counting methods to count its inventory every day and at the end of the month.
- The company uses VED inventory analysis.
- The company's inventory recording system is both manual and computerized.
- The company's stock level these days is minimum.
- The company has no adequate supply for all purchase requisitions.
- Regarding follow up in supply, KK private limited company does not make the necessary follow up whenever there is delay in supply.
- According to customers report ware house location is suitable for customers shop.

## **4.2 Conclusion**

It is obvious that textile producing companies are very complex due to huge number of inventory they handle. Even if textile companies handle huge number of inventory level, it should be managed properly. Accordingly, the overall inventory management of KK private limited company is concluded below.

- The company has procedure in the store that follows to record the inventory. Acrylic yarn and Blanket is the major product type sold in the department.
- Regarding removing of item from store, the company has proper procedure where only authorized employees may remove items which results in accurate management of removing items from and to store.
- Regarding access to restricted to authorized person, the company have created access to stock restricted to authorized person only which implies that managements have employed strong inventory control system.
- The company segregates duties among custody b/n warehouse managers, stock controller, and supervisors where works flows from one point to the other.
- Concerning taking cut off, the company takes cutoff at the end each fiscal month that infers the KK PLC strongly follows document work against practical work at the end of each month.
- Regarding reconciliation, reconciliation of stock against actual physical existence in the company is done every week and at the end of each month. At the end of each month physical counting procedure takes place by an independent person especially personnel from finance department.
- Concerning the type of inventory system, the company uses both perpetual and periodic inventory system. At the same time the company uses FIFO & LIFO inventory method for different type of product item.
- The company`s main inventory objective is giving best customer service. Concerning kinds of inventory record system, the company uses both manual and computerized recording system.

- Regarding inventory counting method, the company uses both perpetual and periodic inventory system where inventory counting is done seriously.
- Regarding inventory analysis method used in the company, VED (vital, essential & desirable) inventory analysis method is used which bears the company does not use other methods of inventory analysis methods.
- Concerning level of stock, KK PLC holds minimum level of inventory which is actually affecting the delivery of the market according to the demand.
- Concerning, adequacy of supply for all purchase requisition, the company does not have adequate supply for all purchase requisitions which bears negative impact on customer's satisfaction on the company's service.
- Regarding, inventory type assures supply of market, there is problem in the side of the supply department and purchasing department who do not make the constant and the necessary supply to the production and finally to the market as a whole.
- Concerning follow up whenever there is delay in supply, KK private limited company even if have an objective of giving its customers best service, the company does not make the necessary and timely follow up whenever there is delay in supply.
- Regarding suitability of warehouse location, with suitability of the warehouse, the company has assured shorter delivery time of its supply.

#### **4.3 Recommendation**

- Regarding, access to stock restricted to authorized person only, procedure in the store that follows record the inventory and procedure to ensure only authorized employee remove items from store in the company is said to be satisfactory and the student researcher recommends the company to keep it up.
- Concerning segregation of duties among custody of stock and record keeping, taking of cutoff at the end of period and reconciliation of stocks against actual physical existence, is said to be satisfactory and students researchers recommends it positively.
- Physical counting procedure takes place by an independent person especially personnel from finance department which assures the presence of check and balance of activities.

- There is the presence of material difference, damage, obsolescing & slow moving reported to the management bodies of the company. The student researchers appreciate the reporting of material damage, obsolesce and slow moving of material but at the same time, the student researchers recommend the management especially those personnel at inventory control to seriously follow and control to prevent the damage & obsolesce of material especially raw material like dyeing chemicals at the factory.
- From response of respondents, the company only uses VED (vital, essential & desirable) inventory analysis. According to the recommendation of student researchers, the company must also adopt A-B-C inventory analysis in order to track costs by product including material, labor and overhead cost. In addition to this the company must also adopt it for adopting a selective approach for material control.
- The other point the student researcher recommended is the company's stock level. As shown earlier, the company holds minimum level of stock. According to the literature review, minimum stock level especially if stocks are less than the minimum level, then work will stop due to shortage of materials. As a result, the student researcher recommend the company especially those working on supplies department to fix minimum stock level by considering lead time, rate of consumption and nature of material.
- The company has no adequate supply for all purchase requisitions especially when ever there is high market demand. Due to this, the company is losing market opportunities that resulted from poor purchasing plan. So the student researchers recommends the company to review its purchasing plan through discussion with marketing department and store managers who are more familiar with information of market demand. Other ways the problem of inadequate supply will deep rooted.
- Follow up whenever there is delay in supply is the other point recommended. Correspondingly, the student researchers recommend the company to make the necessary follow up whenever there is delay in supply. Other ways, the company won't be able to understand gaps in its inventory management.



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# APPENDICES

Appendix A **ST. Mary`s University**  
**Faculty of Business**  
**Department of Accounting**  
**Questionnaire to be filled by Employee of KK Private limited company**

Dear Participant,

This questionnaire is prepared by student researchers, prospective graduate of the year 2014, in the field accounting to collect information for the partial fulfillment of a senior essay and the main objective of this questionnaire is to evaluate or make an assessment of inventory management system in the case of KK private limited company. You are kindly requested to fill this questionnaire honestly and with due because of correctness of the answer will have paramount importance for the outcome of the research.

Instruction

- It is not necessary to write your name
- For alternative response please tick "v" in the box provided
- Thank you in advance for your cooperation!

**Part one**

1. Sex Male  Female

2. Age \_\_\_\_\_  
Under 25  26-35  36-45  46-50  51- 60

3. Department: \_\_\_\_\_

4. Educational level

Certificate  Diploma

BA/BSC  MA and above  Other (if any) \_\_\_\_\_

5. Location of work: \_\_\_\_\_

6. Position \_\_\_\_\_

7. Year of service

Less than 1 year  1-5  6-10  10 & above

**Part Two: Questions details**

8. what is your company`s inventory system

Perpetual system

Periodic system

If any other, specify \_\_\_\_\_

9. Which type of inventory method does the company use?

FIFO Method

LIFO Method

Light average method

If any other, specify \_\_\_\_\_

10. Do you have procedures in the store management that should follow to record the inventory?

Yes

No

If Yes \_\_\_\_\_

11. Do you have major product type sold in your department?

Yes

No

If you answer is yes please specify

12. Are there proper procedures to ensure that only authorized employee may remove items or goods from stock?

YES

NO

If NO, why \_\_\_\_\_

13. Is there any access to stock restricted to authorized personnel only?

YES

NO

If NO, why \_\_\_\_\_

14. Is there segregation of duties among custody of stock and record keeping stocks?

YES

NO

If NO, why \_\_\_\_\_

15. Do you take cutoff at the end of the period?

YES

NO

If NO, why \_\_\_\_\_

16. Are stock records regularly reconciled against actual physical existence?

YES

NO

If NO, why \_\_\_\_\_

17. Does the physical counting procedures take place by an independent person?

YES

NO

If NO, why \_\_\_\_\_

18. Is there material difference, damages, obsolescence & slow moving reported to the management?

YES

NO

If NO, why \_\_\_\_\_

19. What type of inventories does your company have?

Raw material

Work in process

Finished products

Maintenance, repair & operating inventories

20. What is the objective of inventory control in the case of KK PLC?

Avoid over & under investment in inventory

Produce the right quality and quantity of goods at the right time & reasonable price

Give best service to customer

Minimize wastage

Optimize level of inventory

Purchase economically

List out, if your company have another objective of inventory management other than the above mentioned

---

21. How does inventory taking (counting) made at KK PLC?

Periodic inventory counting  perpetual counting

Surprise inventory counting

List out if your organization have other alternative than the above mentioned

---

22. Which type of inventory analysis system does the company use?

ABC analysis

XYZ analysis

FSN analysis

VED analysis

List out if your company have another kinds of inventory analysis than the above mentioned

---

23. What kind of inventory record system does the company use?

Manual record system

Computerized system

24. How much is the company's stock (raw chemicals, acrylic yarn and blanket) level?

Minimum

Maximum

Safe stock

**Questionnaire to be filled by Customer of KK private limited company**

The general objective of this questionnaire is to assess the inventory management system of KK Private Limited Company. We assure you that your responses are used only for academic analysis of the study.

**Part one**

1. Sex      Male       Female
2. Age \_\_\_\_\_  
Under 25     26-35     36-45     46-50     51- 60
3. Department: \_\_\_\_\_
4. Educational level  
Certificate       Diploma   
BA/BSC       MA and above     Other (if any) \_\_\_\_\_
5. Location of work \_\_\_\_\_
6. Position    salesperson       Manager     Staff
7. Product type you purchase from the company \_\_\_\_\_
6. Year of service  
Less than 1 year     1-5     6-10     10 & above

**Part Two**

7. Is there an adequate supply for all your purchase requisition?  
Yes     No
8. Does all the inventory type assure supply of market demand?  
Yes     No
9. How constant is the product quality from one market season to another market season?  
Highly constant     relatively constant     low constant



10. Does the company make the necessary follow up whenever there is delay in supply?

Yes  No

11. Is the warehouse location suitable for your shop (selling center)?

Yes  No

12. How often the company takes the necessary product quality comment from customers.

Most of the time  Sometimes  Always  Not at all

13. What do you think are the major challenges of inventory management system in the company?

---

---

14. What strategies do you suggest to improve these challenges?

---

---

15. Any additional information or comments?

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## Appendix C

**St.Mary's University**  
**Business faculty**  
**Department of Accounting**

Interview held with the KK privet limited company

### **Interview check list for company manager**

This Interview is developed by final year accounting degree program student of st.mary's university for partial fulfillment and senior paper. We are very thanking full your cooperation and Genuine answer for the questions here under for the reason that the final result of the research would benefit both the company and its customer.

Your kindly, willingness and accurate feedback in answer the question will be helps to accomplish the research.

1. What is your position in the company?
2. What is the objective of the company in inventory management system?
3. How does the company forecast inventory need and who is responsible to forecast?
4. What type of inventory management system does the company have?
5. Are there major procedures by which only authorized employees remove items or goods from stock?
6. How is segregation of duties among custody of stocks and record keeping stocks made?
7. How much level of items does your company holds?
8. What kind inventory analysis system does your company use?
9. How is the physical counting procedure conducted in your company?
10. What is your suggestion about the company`s inventory management system

## **Declaration**

we, the undersigned declare that this senior project is our original work, prepared under the guidance of instruction Muez (Ato). All sources of material used for the manuscript have been dully acknowledged.

Name \_\_\_\_\_

Signature \_\_\_\_\_

Name \_\_\_\_\_

Signature \_\_\_\_\_

Name \_\_\_\_\_

Signature \_\_\_\_\_

Place of submission \_\_\_\_\_

Date of submission \_\_\_\_\_

## **Submission approval sheet**

This senior essay has been submitted for examination with my approval as an advisor

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_