ARTICLE ON INVENTORY MANAGEMENT PRACTICE OF ETHIO TELECOM, DESSIE , ETHIOPIA

Mengistu Guliti Buba
PhD candidate ,College of Business and Economics, Department of Management, Wollo university, Ethiopia.

Abstract
The control and maintenance of inventory is a vital problem experienced almost by all sectors of the economy. Inventory management challenges are a vexing problem for manufacturers, affecting operational efficiency, customer satisfaction and revenue. Inventory is the stock of any item or resource used in an organization. The purpose of the study was to assess the inventory management practices of Ethio Telecom, Dessie branch. This study be important to management of Ethio Telecom, Dessie branch in adopting ways of efficient inventory management practices. The study was basic to bring to light certain problems relating to inventory management practices and had gone a long way to enhance interest in concepts, approaches and philosophies aimed at better cost of control over inventories. The researcher used Descriptive research design where by the source of data had contained both primary and secondary source in which the primary includes questionnaires, interviews where as the secondary contains books, journals, articles etc. A sample of 195 respondents were taken using random sampling design with a stratified sampling technique and then after simple random sampling methods was used to select sample from those strata. The collected data were analyzed using simple statistical techniques such as percentages, frequencies and weighted averages in addition; and according to the study, the finding shows that the organization is not good in its inventory management practice as a result the researcher had recommended the organization that, since the goal of every business is to hold as little inventory as possible and still keep their business running. So, Ethio Telecom, Dessie branch has to hold as little inventory as possible and still keep their business running and even determine how much it do have in the store, for how long it will serve him ... etc. So, the concerned body should work well in keeping the entire flow of resource of the organization and keep them in a safe, protected and appropriate place.

Keywords: Inventory, Inventory Management, Stock, Cost of Inventory.

Introduction
According to Chase, Jacobs and Aquilano (2004), inventory is the stock of any item or resource used in an organization. An inventory system is the set of polices and controls that monitor levels of inventory and determine what levels should be maintained. Inventory is defined as "any idle resource of an enterprise". The concept of idle resource in this definition means that it is not kept for immediate use and shows the importance of having some inventories for the smooth functioning of an organization and in other way Inventory is made of all those items ready for sale of items that keep the process running well. Inventory is a stock of materials that are used to facilitate production or to satisfy customers' demand (Ahuja, 1992).

Many companies have been under pressure to streamline their supply chain, minimize large inventories, and cut holding cost on inventory. In the past, inventory management has focused on not running out of finished goods. This caused manufacturers to stockpile large amounts of raw materials, work in process, and finished goods. The extra finished goods would be to protect them from going out of stock (Lee & Kleiner, 2001). Inventory constitutes one of the most important elements of materials management in any organization dealing with supply, manufacture and distribution of goods and services and even supposed that inventory constitute more than half, even up to 60%, of the company capital. It is a major type of control system applied in most organizations (Ahuja, 1992).

Statement of the Problems
The control and maintenance of inventory is a vital problem experienced almost by all sectors of the economy. Inventory management challenges are a vexing problem for manufacturers, affecting operational efficiency, customer satisfaction and revenue (Atkinson C., 2005). Any company that attempts to reduce inventory and its associated costs brings its own unique advantages and challenges to the battle. Lee and Kleiner (2001) stated that in order to manage inventory management successfully, "retailers should understand customer needs, vendor partnerships, technology, data integrity, and performance measurements".

Generally, in today's world most companies are facing with the problem of Preoccupation with the forecast within the execution time frame, No measure of customer service or inventory turns, Specifically the study were under taken in Ethio telecom, Dessie branch and as per the discussion made by the researcher with the branch manager, purchasing and warehouse department, the company is encountering with the problems of capacity limits, lack of good planning, delays in response, having problem of making determination in EOQ (how much to be purchased for the company), unpredictable demand or

uncertainties, and imperfect quality, Lack of new oracle application (ERP) training on employee or procurement administrator. In line with the above problems, the researcher had identified the following research questions.

1. What inventory controlling mechanism the Company uses?
2. How does inventory management Policies of the company help in customer Satisfaction?
3. What strategies and policies are being followed by the company in overcoming the problems of inventory?
4. How to ensure efficient and timely identification of vital assets?

Objective of the Study
The researcher would like to investigate the following specific objectives:

1. To determine if inventory management polices enable the company to respond to customer needs.
2. To pinpoint the strategies of the company in overcoming the challenges of inventory management
3. To look in to methods which are efficient and timely in identification of vital assets.

Scope of the Study
This study was aimed at investigating the inventory management practices of Ethio telecom, Dessie district. The scope of the study was delimited only to the explanation and problem identification of inventory management practices. The areas covered by the study were Dessie branch only. Even though the company has a number of districts throughout the country, the study had only concentrated on Dessie.

Significance of the Study
It is known that inventory accounts a huge capital of an organization as a result it is must to have a good management in the overall flow of resource from the initial purchase through final production and distribution. In generally, after its accomplishment, the research is supposed to have the following importance:

1. It serve as a source for further research if the same issue may be raised and extrapolate further about inventory management practice.
2. It results in the implication of good inventory management practice and system which will result in striving for the realization of the organizations objectives i.e. good control of the overall resource of the organization.

Review of Related Literature
Inventory is the stock of any item or resource used in an organization. An inventory system is the set of policies and controls that monitor levels of inventory and determine what levels should be maintained, when stock should be replenished, and how large orders should be (Adam J., 2005).

By convention, manufacturing inventory generally refers to items that contribute to or become part of a firm's product output. Manufacturing inventory is typically classified into raw materials, finished products, component parts, supplies, and work-in-process. In distribution, inventory is classified as in-transit, meaning that it is being moved in the system, and warehouse, which is inventory in a warehouse or distribution center. Retail sites carry inventory for immediate sale to customers. In services, inventory generally refers to the tangible goods to be sold and the supplies necessary to administer the service (Lee, 2001).

The basic purpose of inventory analysis, whether in manufacturing, distribution, retail, or services, is to specify (1) when items should be ordered and (2) how large the order should be. Many firms are tending to enter into longer-term relationships with vendors to supply their needs for perhaps the entire year. This changes the "when" and "how many to order" to "when" and "how many to deliver" (R. Michael D., 2007).

According to Lee and Kleiner (2001), all firms (including JIT operations) keep a supply of inventory for the following reasons:
In making any decision that affects inventory size, the following costs must be considered (Ahuja, 1992).

Maintaining inventory through counting, placing orders, receiving stock, and so on takes personnel time and costs money. When there are limits on these resources, the logical move is to try to use the available resources to control inventory in the best way. In other words, focus on the most important items in inventory (Haaz and Mort, 1999).

In the nineteenth century Villefredo Pareto, in a study of the distribution of wealth in Milan, found that 20 percent of the people controlled 80 percent of the wealth. This logic of the few having the greatest importance and the many having little importance has been broadened to include many situations and is termed the Pareto principle. This is true in our everyday lives (most of our decisions are relatively unimportant, but a few shape our future) and is certainly true in inventory systems (where a few items account for the bulk of our investment).

Wanke and Zinn (2004, p.466) states that inventory management approaches are a "function of product, operational and demand related variables such as delivery time, obsolescence, coefficient of variation of sales and inventory turnover" and that logistics managers are more likely to decentralize inventory in order to stock product close to the customer's facility if the customers demand a reduced delivery time.

Wallin et al. (2006) classified inventory management into four inventory management approaches being inventory speculation, inventory postponement, inventory consignment and reverse consignment. Inventory speculation is where a purchased item is held in inventory at the buying storage facility in advance of demand, whereas, inventory postponement the supplier waits to purchase and take receipt of the item until the demand is known. Inventory consignment, on the other hand, is where firms physically holds the inventory even though the inventory is still with the supplier and reverse inventory consignment is where a firm pays and owns the inventory but does not hold possession of it, and this inventory is stored within the supplier's network of storage facilities.

Billington et al. (2004), has shown that "the uncertainty surrounding inventory-driven costs creates the dual problem that these costs are both difficult to calculate and difficult to forecast (and) one year ahead in the budgeting process is impossible to know for certain which products will be in high demand and which will be in low demand; which components will be delayed; and which suppliers will have quality problems" (Billington et al., 2004, p.61).
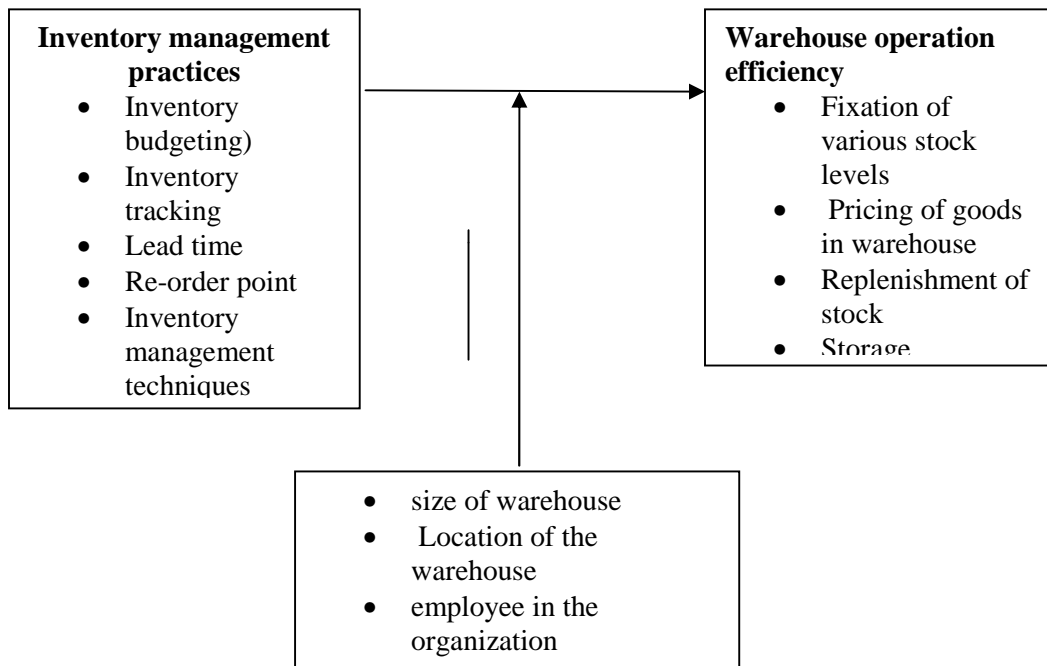The writer uses HP as an example "saying that too much inventory of the wrong type or at the wrong place in the chain can increase obsolescence costs; on the other hand, too little of the models in demand can create allocation conflicts and lost sales" and that this is the main reason why HP holds safety stock at various points in the supply chain to ensure high service levels.

Effective inventory control begins before products are purchased. Effective menu planning and recipe development is the first step in inventory management. Menu planning and recipe development should utilize a minimum of products while providing enough variety to maximize customer satisfaction and good nutrition. Procuring, forecasting, ordering, and receiving ensure that the right foods in the correct quantities are received just in time for production. Storage practices keep food secure and minimize waste. Effective and efficient production and service practices ensure that customers consistently receive desired foods freshly prepared, served in correct portions, and in a safe environment (Billington, et al, 2004).

Conceptual Frame Work

Indipendent Variables **Dependent Variables**

Inventory management practices
- Inventory budgeting)
- Inventory tracking
- Lead time
- Re-order point
- Inventory management techniques

Warehouse operation efficiency
- Fixation of various stock levels
- Pricing of goods in warehouse
- Replenishment of stock
- Storage

- size of warehouse
- Location of the warehouse
- employee in the organization

Methodology

The research process starts when the researcher identified issue that deserves immediate solution and proposed appropriate methodology in approaching the issue. The research design, source and data collection methods, sampling design, techniques and data analysis method that used in this study is discussed as follows.

Research Design

The research design that was used in this investigation is Descriptive design. Descriptive research design was used to investigate the inventory management system of the company. The survey questionnaire had been designed to obtain information about the determinants/problems of inventory management.

Sampling design

The sampling design that were used in this research was a two stage sampling which means probabilistic sampling design with a sampling technique of stratified random sampling for selecting respondents from the different departments working within the organization and then simple random sampling were used to select respondents after stratification.

Table 3.1 Sample Size Determination

Departments	Number of Staff	Samples to be Selected
Enterprise Sales	12	6
Finance	53	25
Human Resource	7	3
Audit	3	1
Legal	6	2
Network	182	83
Ethics and Anti-Corruption	1	1
Residential Sales	107	48
Sourcing & Facility	76	34
Total	**447**	203

(Source: Own Computation, 2016)

Source, Type and Methods of Data Collection

Both qualitative and quantitative types of data were used to collect from primary and secondary sources through different data collection methods. The primary data was those which were collected for the first time through Questionnaires, interviews and observations from target respondents. Those target respondents were employees of the organization like purchasing/procurement department, inventory control, stores and also all user departments who are working for the attainment of the organizations objective. The secondary data, on the other hand, were which have already been collected by someone else, such as documents and reports, a review of literature on the subject i.e., academic articles, website publications, organizational reports, government documents, relevant legislation, administrative rules, policies and procedures.

Data Presentation, Analysis And Interpretation

The level of Inventory management practices of Ethio-Telecom, Dessie, Ethiopia

Table 4.1 The Organization Periodically Review Its Level Of Inventory			
Response	**Frequency**	**Percent**	**Cumulative Percent**
Completely disagree	1	.5	.5
Somewhat disagree	146	74.9	75.4
Indifferent	3	1.5	76.9
Somewhat agree	45	23.1	100.0
Total	195	100.0	

(Source: own survey, 2016)

In inventory management practice, costs are not explicitly considered and order quantity is not fixed. On the other hand, time is taken into consideration and given more emphasis. Inventory is periodically reviewed at fixed intervals and if there has been any depletion in consumption between the last and present review period, a replenishment order is placed to bring the

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stock at a predeterminined level (A K Datta, 2004). A predetermined quantity is equal to the difference between replenishment level and actual inventory on hand. In other words, we are here interested in actual or average consumption over a period of time, I.e. Time between two reviews: review time and lead time. Table 4.1 above indicates whether the organization periodically review its level of inventory or not. And according to the table, more than half of the respondent disagree with the organization periodically review its level of inventory I.e. 146 (74.9 %) somewhat disagree and 1 (0.5 %) of them completely disagree. The remaining 3 (1.5 %) and 45 (23.1 %) of the respondents are indifferent and somewhat agree respectively. This implies that the organization is not good in periodically review its level of inventory.

Table 4.2 The Type of Store System That The Organization Uses			
Response	Frequency	Percent	Cumulative Percent
Centralized store system	146	74.9	74.9
Decentralized store system	30	15.4	90.3
Semi (mix of centralized and decentralized store system)	19	9.7	100.0
Total	195	100.0	

(Source: own survey, 2016)

Materials and supplies constitute the most important assets in most of the business enterprises. The success of the business, besides other factors, depends to a great extent on the efficient storage and material control. Material pilferage, deterioration of materials and careless handling of stores lead to reduced profits. Even losses can be incurred by concerns in which the store-room is available to all employees without check as to the qualities and purpose for which materials are to be used. Store may be defined as: An area set aside into which all the items and materials required for production and/or for sale/distribution are received, where they are housed for safekeeping, and from which they will be issued as required.

The commonly used type of store system that any organization uses are: centralized and decentralized store system. Centralized store results into the following benefits: Better supervision and control, It requires less personnel to manage and thus involves reduced related costs, Better layout of stores, Inventory checks facilitated, Optimum (minimum) stores can be maintained, Fewer obsolete items, Better security arrangements can be made. And for Decentralization of Stores it do have its benefits like: Reduced material handling and the associated cost, Convenient for every department to draw materials, Less risk by fire or theft, Less chances of production stoppages owing to easy and prompt availability of materials, etc, An idea about the disadvantages of centralized and decentralized stores can be had from the advantages of decentralized and centralized stores.

Table 4.2 above shows the type of store system that the organization uses. As of the implication of the table, more than half of the respondents replied that the organization uses centralized store system I.e. 146 (74.9 %) and the remaining 30 (15.4 %) and 19 (9.7 %) replied that the organization uses decentralized and mixed store respectively. Generally, this implies that the organization uses a centralized store system at most.

Factors Determining Maximum Stock Level in Ethio-Telecom
Table 4.3 How Would You Rate The Success Of Your Company's Overall Inventory Management Practice?

Response	Frequency	Percent	Cumulative percent
Exceeded expectation	0	0.0	0.0
Meet expectation	35	17.96	17.96
Fell short of expectation	116	59.48	77.44
Unable to determine at this time	44	22.56	100
Total	195	100	

(Source: own survey, 2015)

Table 4.3 above shows the rate of the success of the company's overall inventory management practice. So, according to the table no respondents have replied that the organization exceeded expectation, 35 (17.96 %) replied the company meets expectation, 116 (59.48 %) replied the company feel short of expectation, and the rest 44 (22.56 %) respond that the organization is unable to determine at this time. The respondent's general outlook in relation with the success of the company's overall inventory management practice is not as much as what is expected from the organization. And even the respondents have listed the following problems which are encountered by the organization like:

Most Network materials are not properly managed some items are not having record and not known by the section moreover it is exposed & damaged by the rain, sun … etc., No enough space at warehouse some items are out of the room, No physical count made every year continually, Inventory management system is not properly implemented, ERP make easy the

inventory recording, retrieving … but all items is not encoded in the system rather there is manual handling of materials and some items are kept in store without purpose for long period, There are high amount of inactive material/non-functional which needs disposal, There is a problem of inappropriate determination of maximum stock level for items like ADSL, Cables, poles…etc I.e. there is proper determination of EOQ, Professional employees are not assigned for the position, There is a problem of discarding obsolete and in active material, There is long process of taking materials from store by sections, Imbalance of inventory records in ERP System & Bin Card against physical count, No good forecasting …. Etc.

Conclusion and Recommendation
Conclusion
The policies and procedures of ET; Dessie branch supports its internal inventory control. The respondent's general outlook in relation with the success of the company's overall inventory management practice is not as much as what is expected from the organization. The organizations inventory management function can be affected by factors like: Manual compassing problems, Inaccurate inventory records, High level of inventory, Excessive expediting etc. Network materials are not properly managed some items are not having record and not known by the section moreover it is exposed & damaged by the rain, sun … etc. The company do not consider the cost of storage while determining the maximum stock levels. There is no enough space at warehouse which leads misplacement of materials. More than half of the respondents replied that the organization uses centralized store system. Inventory management system is not properly implemented. ERP make easy the inventory recording, retrieving … but all items is not encoded by the system rather there is manual handling of materials and some items are kept in store without purpose. There are high amount of inactive material. The organization is not as much in giving focus for safe guarding the inventory of its organization well.

Recommendation
The goal of every business is to hold as little inventory as possible and still keep their business running. So, ET, Dessie branch has to hold as little inventory as possible and still keep their business running and even determine how much it do have in the store, for how long it will serve him … etc. The stores management should ensure, that the required material never goes out of stock that no material is available in (much) excess than required, to purchase materials on the principle of economic order quantity so that the associated costs can be minimized; and to protect stores against damage, theft, etc. The Company has to understand how long it takes for a supplier to process an order and execute a delivery. Inventory management also demands that a solid understanding of how long it will take for those materials to transfer out of the inventory be established. Knowing these two important lead times makes it possible to know when to place an order and how many units must be ordered to keep production running smoothly. There is no enough space at warehouse to keep inventory. So, the organization has to give focus and prepare specific area for keeping inventory. Store location depends upon the nature and value of the items to be stored and the frequency with which the items are received and issued. In general, stores are located close to the point of use. Raw materials are stored near the first operation, in-process materials close to the next operation, finished goods near the shipping area and tools and supplies in location central to the personnel and equipment served. All departments should have easy access to the stores and especially those which require heavy and bulky materials should have stores located nearby. So, the concerned body should work well in keeping the entire flow of resource of the organization and keep them in a safe, protected and appropriate place.

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