# Assessing Inventory Management on the Performance of the Production Sector in Ghana

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## Abstract

Inventory Management System is important to ensure quality control in businesses that handle transactions revolving around consumer goods. A good Inventory Management System will alert the company when it is time to reorder. Inventory Management System is also an important means of automatically tracking large shipments. An automated Inventory Management System helps to minimize the risk of error. An Inventory Management System also helps track theft in the warehouse providing valuable information about stocked items. Finding out the techniques of inventory management used as well as examining the relationship between inventory management and performance of Aluworks was an objective of this project; the effective management of inventory within Aluworks could bring a lot of cost savings to the organization and therefore increase organizational profitability, since inventory represents about forty percent. Despite the growing concern for non-stock procurement policies, inventory continues to play a vital role within our supply chain. The focus here is to reduce inventory, in order to reduce the cost of holding and ensure continuity of supply at the same time. To resolve these challenges, Aluworks should be abreast with the current computerized system of stock taking as well as developing a common platform to link the various departments since they are interlinked.

## I. INTRODUCTION

Inventory management is primarily about specifying the size and placement of stocked goods. Inventory management is required at different locations within a facility or within multiple locations of a supply network to protect the regular and planned course of production against the random disturbance of running out of materials or goods for improved performance (Garry, 1997). The scope of inventory management also concerns the fine lines between replenishment lead time, carrying costs of inventory, asset management, inventory forecasting, inventory valuation, inventory visibility, future inventory price forecasting, physical inventory, available physical space for inventory, quality management, replenishment, returns and defective goods and demand forecasting (Lau A., and Snell, 2006).

Poor inventory management had become an issue of great concern since performance is regarded as the main stream for development of organizations. A truly effective inventory management system minimizes the complexities involved in planning, executing and controlling a supply chain network which is critical to business success. The opportunities available by improving a company's inventory management can significantly improve bottom line business performance.

According to Jayeff (1998) argued that from a financial perspective, inventory management is no small matter. Oftentimes, inventory is the largest asset item on a manufacturer's or distributor's balance sheet. As a result, there should be a lot of management emphasis on keeping inventories. The objectives of inventory reduction and minimization are more easily accomplished with modern inventory management processes that are working effectively for improved performance.

# Statement of the problem

The state of the energy crisis in the country is a major problem for the country's aluminium processors. Due to this, they are unable to use the right IT procedures in managing inventory in the warehouse. The use of bin card at Aluworks is another problem in managing their inventories due to the manual form of record keeping.

## II. LITERATURE REVIEW

## A. Background of the study

This chapter focuses on the review of the related literature in line with the study variables. Inventories are the stocks of raw materials, work in progress, finished goods and supplies held by an organization to facilitate operations in the production process. Inventories can either be assets as well as items held in the ordinary course of business or they can be goods that will be consumed or used in the production of goods to be sold.

# B. Definition of Inventory management

Inventory management is primarily about specifying the size and placement of stocked goods. Inventory management is required at different locations within a facility or within multiple locations of a supply network to protect the regular and planned course of production against the random disturbance of running out of materials or goods for improved performance (Garry, 1997). The scope of inventory management also concerns the fine lines between replenishment lead time, carrying costs of inventory, asset management, inventory forecasting, inventory valuation, inventory visibility, future inventory price forecasting, physical inventory, available physical space for inventory, quality management, replenishment, returns and defective goods and demand forecasting (Lau A., and Snell, 2006). The researcher mainly obtained the theoretical framework available written data by different authors about the variables under the study and the reviewed information is arranged as follows;

## C. Inventory Definitions

Inventory is the raw materials work-in-process goods and completely finished goods that are considered to be the portion of a business's assets that are ready or will be ready for sale. Inventory represents one of the most important assets that most businesses possess, because the turnover of inventory represents one of the primary sources of revenue generation and subsequent earnings for the company's shareholders/owners. Inventory is an asset that is owned by a business that has the express purpose of being sold to a customer. This includes items sold to end customers or distributors. It includes raw materials, work in process, and finished goods.

# Types of Inventory

According to Anubha Dureja 2013, the following are types of inventory

## Cycle Inventory

Those who are familiar with the concept of economic order quantity(EOQ) know that the EOQ is an attempt to balance inventory holding or carrying costs with the costs incurred from ordering or setting up machinery. When large quantities are ordered or produced, inventory holding cost are increased, but ordering or setup costs decrease. Conversely when lot sizes decrease, inventory holding or carrying cost decrease but the cost of ordering or setup increases since more orders or setups are required to meet demand. When the two cost are equal (holding or carrying cost and order or setup cost) the total cost (the sum of the two cost) is minimized. Cycle inventories, sometimes called lot size inventories, results from this process. Usually, excess material is ordered and consequently, held in inventory in an effort to reach this minimization point.

Hence, cycle inventory results from ordering in batches or lot sizes rather than ordering material strictly as needed.

## Transit Inventory

Transit inventory results from the need to transport items or materials from one location to another and from the fact that there is same transportation time involved in getting from one location to another. Sometimes this is referred to as pipeline inventory. Merchandise shipping by truck or rail can sometimes take days or even weeks to get from regional warehouse to a retail facility. Some large firms, such as automobile manufacturers employ freight consolidators to pool their transit inventory coming from various scales. Of course, this can greatly increase the transit time for those inventories, hence an increase in the size of the inventory in transit.

# **Buffer Inventory**

Inventory is sometimes used to protect against the uncertainties of supply and demand, as well as unpredictable events such as poor delivery reliability or poor quality of a supplier's products. These inventory cushions are often referred to as safety stock. Safety stock or buffer inventory is any amount held on hand that is over and above that is currently needed to meet demand. Generally, the higher the level of buffer inventory, the better the firm's customer service. This occurs because the firm suffers fewer 'stock out ' (when a customer's order cannot be immediately filled from existing inventory) and has less need to backorder the item, make the customer wait until the next order cycle, or even worse, cause the customer to leave empty handed to find another supplier. Obviously, the better the customer service the greater the likelihood of customer satisfaction.

## Anticipation Inventory

Oftentimes, firms will purchase and hold inventory that is in excess of their current need in anticipation of a possible future event. Such events may include a price increase, a seasonal increase in demand or even an impending Labor strike. This tactic is commonly used to retailers, who routinely build up inventory months before the demand for their products will be unusually high (that is at Halloween, Christmas or the back-to-school season). For manufacturers, anticipation inventory allows the buildup inventory when demand is low (also keeping workers busy during slack times) so that when demand picks up the increased inventory will be slowly depleted and the firm does not have react by increasing production time (along with the subsequent increases in hiring, training and other associated labor costs). Therefore, the firm has avoided both excessive overtime due to increased demand and hiring cost. It has also avoided lay off costs associated with product out-backs or worse, the shutting down of facilities. This process is 'sometimes' because it smoothed the peaks and valleys in demand, allowing the firms to maintain a constant level of output and a stable workforce.

# D. Inventory Management

Saunders refers to 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. 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 ongoing process as the business needs shift and react to the wider environment. Submit Maltutra defines warehouse as the activities involving storage of goods on a large

scale in a systematic and orderly manner and making them available conveniently when need. Also it is the holding or preserving of goods in huge quantities from the time of their purchase or production till their actually used or sold.

Smriti Chand refers to a warehouse as a place used for the storage or accumulation of goods. The function of storage can be carried out successful with the help of warehouses used for storing the goods. He identified three types I warehouse which are as follows.

# Types of Warehouse

According to Jacob Mars 2014, the following are types of warehouse

#### Private Warehouse

The private warehouses are owned and operating by big manufacturers and merchants to fulfill their own storage needs. The goods manufactured or purchased by the owner of the warehouses have a limited value or utility as businessman in general cannot make use of them because of the heavy investment required in the construction of a warehouse. Some big business firms which need large storage capacity on a regular basis and who can afford money construct and maintain their private warehouse. A big manufacturers or wholesaler may have a network of his own warehouses in different parts of the country.

#### Public Warehouses

A public warehouse is a specialized business establishment that provides storage facilities to the general public for a certain charge. It may be owned and operated by an individual or a cooperative society. It has to work under the license from the government in accordance with the prescribed rules and regulation. They are very important in marketing of agricultural products and therefore the government is encouraging the establishment of public warehouses in the cooperative sector. A public warehouse is known as duty-paid warehouse.

#### **Bonded Warehouses**

Bonded warehouses are licensed by the government to accept imported good for storage until the payment of custom duty. They are located near the ports. These warehouses are either operated by the government or work under control of customer authorities. The warehouse is required to give an undertaking or 'Bond' that it will not allow the good to be removed without the consent of the custom authorities. The goods are held in bond and cannot be withdrawn without paying the custom duty. The good stored in bonded warehouse cannot be interfered by the owner without the permission of custom authorities. Goods lying in the bonded warehouse can be packaged, graded and branded for the purpose of sale.

## E. Ways of Managing Inventory

Materials requirements planning (MRP). One of the assumptions behind the models just described is that demand for the items purchased or its mode of acquisition is independent of all other demands. This situation is true for most manufactured finished goods. However, sub-assemblies, raw materials and parts do not exhibit this independence. Demands for these items are dependent on the assembly schedule for finished goods. Similarly, many MRO items depend on maintenance schedule. Recognition of the existence of demand dependence lies behind the techniques known as materials requirements planning (MRP).

MRP systems attempt to support the activities of manufacturing, maintenance or use by meeting the needs of the master production schedule. In order to determine needs, MRP system needs can be accurate bill of materials for each final product or project. These bills can take many forms but it is conceptually

advantageous to view them as structural trees. Seven general types of structural tree can identified. Process industries as oil refineries and drug and food manufacturers generally take a few raw materials and make a much larger number of end products.

Manufacture/assemblies such as the automobile companies make a number of components purchase others and assemble them into end products (Hellen,1993). Assemblers, such as electronic companies, buy components and assemble them into finished products. Each type of firm can use MRP profitably but the greatest benefits usually accrue to the middle group because of the greatest complexity of its operations. The goals of MRP are to minimize inventory, to maintain a high service coverage and to co-ordinate delivery schedules for manufacturing and purchasing activities. These aims often conflict in other systems but under MRP are achievable simultaneously. The feature and ability of modern MRP systems allow rapid re-planning and searching and in response to the changes of a dynamic environment which are responsible for attractiveness of MRP.

Just in Time Purchasing Emerges. It means the uninterrupted flow of 100% acceptable materials delivered on due date as option cost 100% of time. The cited authors relate this definition for dozens of techniques including supplier certification materials, requirements planning, (MRP) manufacturing resources planning, (MRP 11) bar coding systems; contracting, electronic data interchange (EDI) value analysis and work simplification. This type of purchasing production and inventory control has the great advantage of locating and fixing quality problems immediately.

Ingle makes the point, "it is like large rocks under the water in a lake". If the water level is too high one can see these and necks and avoid the danger. Similarly if the inventory is small, the defects are spotted and corrected immediately. There is less scrap and remake and quality improved dramatically. The supplier provides full time on site personnel who attend design-engineering meeting, investigates their products and use the company's purchase orders to affect delivery.

Vilgfredo Pareto's (1848-1923 the 80-20 rule) an Italian sociologist and economist believes that only 20 percent of a country's population does 80 percent of the work. Today's inventory control manager refines arguments into three priority categories A, B and C. The Category A items may number only 20% of the inventory's total number of items and 80% of usage value. The Category B items number perhaps only 10% of the total inventory and 10% of usage value. The Category C items number perhaps 70% of all items in inventory and 10% of usage value. Typical advantages that have resulted are concentrated on class A and B and on using larger order quantities on C, have reduced purchasing department costs through processing of fewer orders. Reduced receiving and inspection cost through the elimination of the handling and processing of materials as well as paper work for many small value item.

The broader view for determining inventory policy rests with general management because inventories figure prominently in a company's financial operations. However, the actual management of inventory is usually entrusted to subordinate departments. There is considerable variation in which a department manages inventory control procedures. In a few companies, an inventory control committee has been established to initiate broad control policies with the administration of the policies left to the purchasing department. Representatives of all the company departments affected by inventory control policies fit on such committees (Lei, D, Slocum and Pitts 1999).

Inventory exists for this reason alone, the relevance of the decision to be made. Carrying, holding or possession costs. These include handling charges, labour and operating costs, insurance premium, breakage, pilferage, obsolescence, taxes and investment or opportunity costs. In short any cost associated with having

as opposed to not having inventory is included. Other costs may include ordering costs, or purchase costs, set-up costs, stock out and price variation costs (Ronald, H. 1999)

According Halachmi and Bouckaert (2005) inventories have the following purposes including: to provide and maintain good customer service; to smooth the flow of goods through the productive process, to provide protection against the uncertainties of supply and demand and to obtain a reasonable utilization of people and equipment.

Transit or Pipelines Inventories are used to stock the supply and distribution pipelines linking an organization to its suppliers and customers as well as internal transportation points. They exist because of the need to move materials from one point to another. Obviously transit inventories are dependent on location and mode of transportation. A decision to use a distant supplier will probably create a far larger raw materials transit inventory than one to use a local supplier with truck delivery. In just in time (JIT) production, a variety of means are used to reduce transit inventories including the use of local supplies, small batches in special containers and trucks specifically designed for side loading in small quantities (Ronald H, 1999).

Malcolm S. (2005) Buffer or uncertainty or safety stocks exist as a result of uncertainties in demand or supply. Raw materials, purchased parts or MRO buffer stocks give some protections against the uncertainty of supplier performance due to shut down, strikes, lead time variations, late deliveries to and from suppliers, poor quality units that cannot be accepted and so on. Work in process buffer inventories protect against machine break down, employee illness and so on. Finished goods buffer protect against unforeseen demand or production failures. Management efforts to reduce supply uncertainty may have substantial pay off in reduced inventories.

Ronald, H (1999), Purchasing or production solutions may also permit order quantities to be reduced, the other factor that has an immediate and direct effort on average stock level. Both purchasing and production can concentrate efforts on acquiring or making batches of a smaller size, without increasing the unit price or cost (Note that this is reversal of the Western belief in the efficacy of large batch sizes in order to reap the apparent advantages of economies of scales).

Large batch sizes mean making goods in large quantities, ahead of immediate demand and hence lead to a buildup of inventories. The EOQ/EBQ equation was of rational attempt to tackle the root causes of the problem. The Japanese, on the other hand saw that it is the times and cost of setting up (or preparing) machines and processes for production that could be reduced, then large batch sizes could be made smaller and in line with immediate short term demands. Large batch sizes also have implications with regard to the management of time. It takes a longer time to produce the whole batch thus tying up capacity to produce goods in quantities that are not needed immediately. Longer lead-times and longer periods of time laid in stock are the outcome of many products. The point to emphasize is that lead-time may not be independent of the quantity decision, an assumption of most stock control techniques (Colvin and Slevin, 2007).

According to Ronald, H (1999), inventories are stockpiles of raw materials, supplies, components, work in process and finished goods that appear at numerous points throughout a firm's production and logistic channel. Inventories are frequently found in such places as warehouses, yards, shop floors, transportation equipment and on retail store shelves. Having these inventories on hand can cause between 20 and 40 percent of their value per year. Therefore, carefully managing inventory levels makes good economic sense in relation to the performance of the business organization.

Inventory management process is the science-based art of controlling the amount of stock held in various forms, within a business to meet economically the demands placed up one that business. The aim of inventory control system is to maintain the quantities of stock held by a business at a level which optimizes some management criteria such as minimizing the costs incurred by the whole business enterprise for improved performance (Halachmi and Bouckart, 2005).

# F. Concept of Performance

Performance is a measure of the results achieved. Performance efficiency is the ratio between effort extended and results achieved. The difference between current performance and the theoretical performance limit is the performance improvement zone. Performance assumes an actor of some kind but the actor could be an individual person or a group of people acting in concert. The performance platform is the infrastructure or devices used in the performance act (Malcolm, S. 2005). According to Likert (2003) there are two main ways to improve performance: improving the measured attribute by using the performance platform more effectively, or by improving the measured attribute by modifying the performance platform, which in turn allows a given level of use to be more effective in producing the desired output. Performance can be measured by obtaining the magnitude of a quantity, such as length or mass, relative to a unit of measurement, such as a meter or a kilogram.

Performance involves improvement as the concept of organizational change in which the managers and governing body of an organization put into place and manage a program. The primary goals of organizational inventory management are to increase organizational effectiveness and efficiency to improve the ability of the organization to deliver goods and or services (Ronald, H 1999). Performance improvement at the operational or individual employee level usually involves processes such as statistical quality control. At the organizational level, performance improvement usually involves softer forms of measurement such as customer satisfaction surveys which are used to obtain qualitative information about performance from the viewpoint of customers.

# G. Performance Indicators

Kaplan and Norton recommend that managers gather information from four important perspectives.

## *The customer's perspective*

Managers must know if their organization is satisfying customers' needs. They must determine the answer to the question, how do customers see us.

# The Internal Business Perspective

Managers need to focus on those critical internal operations that enable them to satisfy customer's needs. They must answer the questions, what must we excel at?

## The Innovation and Learning Perspective

An organization's ability to innovate, improve and learn ties directly to its value as an organization. Managers must answer the question, which can help continue to improve and create value for our services?

# Financial Perspective

In the private sector, these measures have typically focused on profit and market share. For public sector financial measures could include the results oriented measures required by the Government Performance and Results Act of 1993(GPRA). Managers must answer the question, How do we look to Congress, the President and other stakeholders.

# H. The Challenges Faced By Organizations in Managing Their Inventories.

Inventory management challenges can interfere with a company's profits and customer service. They can cost a business more money and can lead to an excess of inventory overstock that is difficult to move. Most of these problems are usually due to poor inventory processes and out-of-date systems (Gourdin et al, 2001). According to Lambert et al (2001), mentions a number of challenges in inventory management which include: unqualified employees in charge of inventory, using a measure of performance for their business that is too narrow, and a flawed or unrealistic business plan for a business for the future and not identifying shortages ahead of time. Having people in charge of inventory without adequate training, experience or who neglects the job will lead to inventory problems that will result into poor organizational performance. The use of a measure of performance for business that is too narrow. This is a situation where the performance measure are not wide enough and do not encompass all the aspects of the organization. Many areas get overlooked and can lead to either inventory shortages or inventory stockpiling.

A flawed or unrealistic business plans leads to failure in predicting how well a company may do in the future. This affects inventory management because if a company predicts more growth than they actually experience, it can lead to an overstock of inventory. The opposite is true if forecasters do not predict enough growth and are left with not enough inventories. Failure to identify shortages leads to lack of enough products in stock to meet customer demands which spoil customer relations. The staff in charge of inventory management should look over their inventory on a regular basis to make sure enough products are in stock. According to Braglia (2004) and Montanari (2004) are bottlenecks and weak points in delivery which slows down deliveries and systems; "bullwhip effect" an over-reaction by an organization to changes in the market that leads to un necessary over overstocking; distressed stock in inventory; excessive inventory in stock and unable to move it quickly enough; inaccurate computer assessment of inventory items for sale and complicated computer inventory systems.

The above challenges lead to over stocking, under stocking and Inventory costs which reduces the working capital required. Holding stock is an expensive business; it estimated that the cost of holding stock each year is 1/3 of its production or purchasing (Johnson, 1998). The cost include: interest on capital invested in stock, storage space - rent, lighting, heating, refrigeration and air conditioning, Insurance and security, deterioration and obsolescence, loss of future sales and labour frustrations over stoppages (Granville, 2007). Lucay (1994) observes that excessive levels of stock are undesirable because they increase the risks of inventory becoming obsolete, stock loss through damage and theft, increased storage costs like rent, insurance and unnecessary tie up of the firm's funds. He further state that a firm would be foregoing profits when it continues maintaining excessive levels of inventory, which implies that the probability position of the firm is being threatened in the long run since funds are not being invested in other profitable ventures.

Gupta (1994) observes that organizations should establish proper inventory control procedures, efficient and effective information system regarding stock so that they are able to balance the costs and risks of inventory control against the benefits got from having inventory readily available for smooth operations. Lower levels of inventory are also undesirable because it interrupts production, loss of good will and high ordering costs especially when ordering is frequent. Inadequate inventory levels leads to business closure due to shifting of customers to other efficient suppliers as a result of production/ operation interruptions (Gittinger 1995).

According to Kenneth and Brian (2006) said that there are four aims of inventory management which include the following; Provide both internal and external customers with the required services levels in terms of quantity and order rate fill; Ascertain present and future requirements for all types of inventory to avoid over-stocking while avoiding "bottlenecks" in production; Keep costs to a minimum by variety reduction, economical lot sizes and analysis of costs incurred in obtaining and carrying inventories and to provide upstream and downstream inventory visibility in the supply chain.

Transport costs: This is the most important costs that every company must incur, because it is very essential as far as proper inventory management is concerned. This is due to poor roads and high prices of fuel. The most common modes of transport used by most manufacturing firms especially aluworks manufacturing company are road transport, railway, transport among others. Allowing different inventory flow assumptions means that two businesses with identical operating results can report dramatically different amounts of profit. To avoid this possibility, GAAP would have to require that all firms use the same inventory flow assumptions. As desirable as it might be for GAAP to reduce the number of acceptable, but widely divergent inventory flow assumptions, this is not likely to happen any time soon. This means that financial statement users must be aware of the effect of these flow assumptions in comparing one firm's performance to another. (Masiko Hirary, 2005).

Storage and Handling – Examples of storage costs would include the actual space required to contain the inventory, the climate control, shelving and furniture (for the inventory personnel), and utility costs. Are the costs associated with the storage space real? Yes, because the organization pays to rent or own that space which could be used for another purpose. Facilities that are bursting at the seams certainly understand these costs better than others. Also organizations that must expand existing storage space for an expanding inventory also understand these costs. Examples of handling costs would include the personnel time associated with receiving and stocking parts, organizing the inventory room, issuing parts, and producing the paperwork for each of these tasks. How many individuals are required to accomplish these tasks? These costs may be more difficult to identify if no one is dedicated full time. However, the costs are present even if the tasks only take part of a person's time. (Masiko Hirary, 2005).

Insurance and Taxes – Coverage of inventory is part of any general business insurance policy. If the inventory is significant enough in value, separate coverage may be required. Specific taxes on inventory and property taxes (yes, inventory is considered as property) can vary by state. Identifying the taxes by each state is beyond the scope of this article but do recognize that taxes do exist (Tumugumye Bernard, 2005). Obsolescence – Costs associated with obsolescence can occur for a variety of reasons but one of the more common ones is holding on to inventory for a long period of time. Our industry may seem like it moves at a snail's pace when it comes to technology changes but be assured that change does occur.

For example, service bulletins and directives can, in some cases, render an item obsolete immediately. What if you have many of those items on your shelf? What if your fleet changes? Do you still have items associated with the old aircraft, for which you can only get cents on the dollar? Avionics has changed significantly recently. Do you still have old instruments that are worth little when compared to the original purchase price? Upon closer examination, obsolescence is probably more common than first realized. (Kanyandago Peter, 2004).

Theft and Damage - Rather than dwell on the unpleasant subject of theft suffice it to say that if the proper controls are not in place, an organization is exposed to the risk of theft. Damage can occur in a variety of

ways – parts are not stored properly, climate control is not reliable, procedures for moving heavy parts are not clearly defined, and parts remain in inventory long periods of time.

# III. CONCLUSION

# A. Summary of Findings

The researchers in their course of assessment of the research study had come out with the following findings:

Aluworks holds inventory which ranges from finished goods to parts and components.

The company has inventory management policies which covered all the ranges of stock been held. These policies were overseen by the stores manager. Inventory control system employ at aluworks was stock levels.

The organization also enjoyed some benefits with the control system being employed. These benefits includes: avoiding overstocking, preventing pilfering in stores management, preventing stock outs. Despite the benefits been enjoyed from these control systems, there are some challenges associated with them. These include: Ineffective, leading to overstocking and under stocking time wasting in implanting the policies and also a very high cost involved.

In order for the organization to ensure suppliers meet the delivery date on the on the purchase order and sometimes earlier, it uses follow up and in emergent cases expediting. Deliveries and issues are confirmed with the use of stores receipt and issue voucher.

Bin cards are always updated immediately after every transaction. Some challenges associated with the bin cards are: They easily get worn out, some bin cards sometimes do get missing. Thus the introduction of computerized stock records system will mitigate the problems associated with the bin cards. Benefits of the computerized stock records includes: efficient operations, thereby ensuring improved operations, elimination of errors associated with the bin cards, thereby reducing cost.

There is also frequent problem of overstocking and under stocking, and these has effect on the operations of the organization. However the organization puts some measures in place to mitigate these problems. These includes: Periodic checking of stock levels so as to make decisions on which stock items to replenish, Following the principles of the stock control system being employed, compliance with the established stock levels.

Aluworks has a structured and effective procedure for receiving goods into stores. The organization also undertakes stocktaking and stock checking. There is also a strict procedure for stores to go through before they issue to their department.

# **B.** Conclusions

The study was undertaken based on how the management of inventory within aluworks would be effective and bring a lot of cost savings to the organization, therefore increasing organizational profitability since inventory represents about forty percent. Despite the growing concern for non-stock procurement policies, inventory continues to play a vital role within our supply chain. The focus here is to reduce inventory, in order to reduce the cost of holding and ensure continuity of supply at the same time.

## C. Recommendations

It has become clear that effective control of inventory can save cost and increase profit. Thus, in the light of the above discussion and findings drawn from the study, we wish to suggest the following recommendation that would help improve the management of inventory at aluworks.

There should be periodic review of all items in order to update the demand pattern of all items held, thus helping the organization to keep the right level of inventory, and thereby lead to reduction in overstocking and under stocking.

We recommend that job rotation should be carried out within the organization so that every employee would have knowledge of what goes through the organization since the departments are interdependent. Aluworks should fade away the manual system of stock records such as the bin cards and introduce the computerized system of stock records such as the "Ebiz Frame-Enterprise Resource Planning software".

To ensure an effective and efficient implementation of the Enterprise Resource Production System within the organization, all the other departments whose activities are linked with the stores should be on a single platform

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