THE EFFECT OF INVENTORY MANAGEMENT ON PROFITABILITY OF A PRINT MEDIA BUSINESS
A CASE STUDY OF THE NEW VISION

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A RESEARCH REPORT SUBMITTED TO MAKERERE UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF BACHELOR OF COMMERCE OF MAKERERE UNIVERSITY

JULY 2011
I ASIIMWE GAHWERRA ROBERT, declare that this research report is my original work and has not been presented by any one for the award of a degree in any university.

SIGNED………………………………………………………………………………

DATE………………………………………………………………………………
APPROVAL

This research report has been submitted for examination with my approval as the candidate’s university supervisor.

Signed …………………………………………………………………………………

Mr. Kiwala Yusuf.
DEDICATION

I dedicate this research study to my parents that is to say; Mr. Gahwerra Edward and Mrs. Baijanibera Consolate

Also to my wife Nakyajja Victoria and daughter Katusiime Divine

Also to my friend Okwakol Peter s who also contributed a lot towards my research.
ACKNOWLEDGEMENT

I take this opportunity to express my sincere appropriation to acknowledge all those who in one way or another contributed to the production of this work. I am greatly indebted to my supervisor Mr. Kiwala Yusuf for his advice, tolerance and his willingness to attend to my questions.

Special appreciation goes to my Daddy and Mummy who financed my academic struggles. Without them, my education would have been a myth rather than a reality. I am obliged to thank the staff and management of new vision for the great assistance and contribution without which I would not have completed this work.

My gratitude is extended to my brothers; Ikiriza Richard, Baguma Edward and my sisters; Katwesige Betty and to all my friends Baguma Charles, kyalisiima monic etc who helped me in this academic research.
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ABSTRACT

The study was aimed at evaluating the effect of inventory management on performance. The research study in the new vision was guided by the following specific objectives, to establish inventory management system, to evaluate the effectiveness of inventory systems management, to examine the relationship between inventory management and profitability.

The findings reveal that inventory management in the new vision is poor. There are loopholes in their inventory management systems that have increased the firms’ costs. It’s important that New Vision adheres to the inventory requisition and purchase procedures, adapts computerized inventory recording system and stock taking. Materials should be received, controlled and issued from one central place.
CHAPTER ONE

1.1 BACK GROUND TO THE STUDY

Inventories are the stocks or products that a company holds to further its production and sales Pandey, (2003). They appear in the form of raw materials, work in progress, finished products and supplies maintained by the firm to smoothly conduct their business. The aim of inventory management is to make sure that there is adequate amount of inventory for efficient and smooth production operations. It also ensures that minimum levels of investment in inventories are maintained in order to maximize profitability. Although inventories are paramount to any organization, they constitute the most significant part of the current assets of the large majority of the companies. (On average 60% of the current assets). The dilemma is on how much inventories have been associated with the problem of causing holding costs and obsolescence risk while inadequate inventories have been associated with production interruptions and loss of sales. This calls for efficient and effective inventory management.

1.2 Statement of the Problem

Organizations establish internal control policies and procedures to manage inventories. Those policies are aimed at minimizing costs, maximizing production as well as ensuring proper recording, authorization and continuous supply of inventory. However, some organizations do not strictly follow the policies in place. This can adversely affect their performance as inventories are declining despite improvements made in building modern storage house.
According to the annual report (2009-2010), the company has been experiencing a decrease in the inventory levels as evidenced in the table below.

**Rate at which inventories declined**

<table>
<thead>
<tr>
<th>Year</th>
<th>2009 (units) (000)</th>
<th>2010 (units) (000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>news printing</td>
<td>666,224</td>
<td>424,350</td>
</tr>
<tr>
<td>printing ink</td>
<td>114,832</td>
<td>50,680</td>
</tr>
<tr>
<td>film &amp; plates</td>
<td>318,073</td>
<td>178,394</td>
</tr>
<tr>
<td>printing chemicals</td>
<td>185,616</td>
<td>169,863</td>
</tr>
<tr>
<td>Consumables</td>
<td>135,595</td>
<td>99,964</td>
</tr>
<tr>
<td>work in progress</td>
<td>78,299</td>
<td>58,178</td>
</tr>
<tr>
<td>Totals</td>
<td>1498,639</td>
<td>981,435</td>
</tr>
</tbody>
</table>

**SOURCE:** (the new vision annual master budget report from 1st July 2009-30th June 2010).

**1.3 Purpose of the study**

The purpose of the study is to examine the effects of inventory management on performance.

**1.4 Objectives of the study**

1 To establish the inventory management systems

2 To evaluate the effectiveness of inventory management systems

3 To examine the relationship between inventory management and profitability.

**1.5 Research questions.**

1 What systems are used to control inventory?

2 How effective are the inventory management systems?

3 What influence does inventory management have on the profitability?
1.6 Scope of the study

1.6.1 Subject scope
The study focused on inventory management and performance.

1.6.2 Time Scope
The study was based on the annual master budget report for the period 2008/2009 to 2009/2010.

1.6.3 Geographical scope
The study is intended to be carried out at the new vision printing and publishing company head office 6th street industrial area Kampala.

1.7 Significance of the study
The findings of the study are expected to benefit the new vision printing and publishing company by highlighting areas of inventory management that are badly managed and their impact on performance. The research is also expected to benefit the researcher in understanding the study variables.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter, the researcher presents some of the salient issues presented by various scholars in relation to inventory management and performance.

2.2 Inventory management and inventories

Pandey (1995) defines inventories as a stock of products a company is manufacturing for sale and components that make up the product. He further asserts that inventories constitute part of the company’s current assets, and therefore need to be managed effectively. Render and Stair (1895) define inventory as any resource used to signify a current future need. This definition by Render and Stair contends with that of Pandey as they all refer to inventory as a stock of goods.

Inventories exist in 3 forms, raw materials, work in progress and finished goods. Fleet (1988) also included supplies as an item of inventory. According to Pandey (1995), inventory management is defined as an activity of determining the range and quantities of materials and products that should be stocked, the regulation of receipt and issues of materials. Inventory management and control process are very useful in determining optimum and finding answers to the problem of economic order quantity, reorder level and safety stocks. (Pandey, 1995).

Inventory control according to Lucey (1996) is defined as a system used to control the firm’s investment in stock. It starts with ordering, receipt, storage and issue, all together
associated with recording. Goods must be properly received, inspected and the goods received note raised (Lucey 1996). However, sophisticated inventory or stock control in the firm is a basic pre-requisite in that stock movements are accurately recorded (Lucey 1996). Other scholars such as walgemback et al (1982) defines inventory as the merchandise owned by the company and held for resale to customers in the ordinary course of business. Since inventories constitute stock of products, they have a relationship with performance of the new vision printing and publishing company.

2.3 Inventory planning and control

Render and stair (1994) assert that the planning phase is primarily concern with what inventory is, how much to be stocked and how it’s acquired. This information is then used in forecasting demand for inventory, controlling inventory levels and studying how organizations control their inventory is equivalent to studying how they achieve their objectives by supplying goods and services to their customers.

Inventory control system as defined by Lucey (1997) is a system in a firm used to control the firm’s investment in stock. It includes recording, monitoring of stock levels, forecasting future demands, deciding on when and how much to order. For a firm to perform efficiently and effectively, the inventory control system has to be properly designed and implemented to suit the firms requirements. The overall objective of inventory is to minimize total costs associated with stock there by meeting the firms objective of wealth maximization. These systems include just in time systems. This is a recent approach in inventory control that was developed by the Japanese (kakuru, 2000).the aim of just in time is to have a particular item of inventory delivered hours
before they are required. Thus there is no need for holding stock and there is need to be in close liaison with the supplier and the purchaser.

According to Lucey T (1996), just in time aims at producing the required item of high quality at the exact time they are required. This was further supported by Dickerson, Campsey Brigham, (1995). Just in time system of control according to Lucey (1996), is the system that aims at producing the required items of high quality exactly at the time they are required and can only operate in an environment where the following assumptions exist;  it assumes that deliveries will always be made 100% on time, It assumes that items supplied are perfect quality with zero defects and therefore all costs associated with poor quality will be eliminated, There is a move towards zero inventories which means that the firms will hold on inventories at all and therefore will avoid all costs of carrying and maintaining safety stocks.

2.3.1 Economic order quantity (EOQ) model
The economic order quantity is one of the oldest and the most commonly known inventory technique dating back to 1915. Publication by Ford W.Harris (Render and stair, 1994). According to Render and Stair (1994), they assert that the EOQ is also known as the optimal quantity and it is calculated using re-order quantity which minimizes the balance of costs between carrying and ordering costs. However according to Lucey (1994), the economic order quantity is the quantity at appoint where carrying costs and ordering costs are not only minimal but also equal.
This control technique answers the inventory control question of “how much to order”, which it does by defining the quantity to order that will minimize carrying and ordering
costs (Arora 1995, Drury, 1995). The re-order point as per Lucey (1994) is a definite action level while according to Van Horne (1995), it is appoint when replenishment should be ordered with inventory (Lucey 1994). According to Render and Stair (1994), the re-order point is given as: Re-order point = demand per day x lead time for new order. From the above, because of uncertainty in determining the lead time and usage rate, buffer of inventory should be kept by firms to guard against stock outs. Furthermore Van Horne (1995) looks at re-order point when replenishment should be ordered with inventory. The above system and techniques will be helping the firm in determining the right level of inventory to hold at a particular time.

Safety stocks are also another technique used when management believes that some economic order quantity assumptions are invalid hence it comes in to correct. According to Pandey (1995), in the real life situation, lead-time, delivery time, demand and usage of the materials cannot easily be determined. This may give rise to a situation where demand of a commodity exceeds supply hence leading to stock outs. Therefore, there is need for inventory control so as to keep a buffer during the lead time to ensure that there is continuous smooth operation (Pandey 1995, Van Horne 1995).

Furthermore render and stair (1994) assert that in maintaining safety stocks against stock outs and excessive stocks, a firm should consider including safety stocks in the formula that is re-order point = demand per day x lead time + safety stocks for new order.
2.3.2 Profitability

Business profitability is a justification of its good performance and loss is a justification of poor performance. In fact profits of a business are the end results of operation and an indication of its good performance (Griffith 2001). According to Hermanson (1989), profitability is the organization’s ability to generate income and its inability to generate income is a loss. He further asserts that if the income generated is greater than the input cost, that is simply profitability but if the incomes are less than the input cost, it reflects poor performance.

Masumeno (2001) asserts that the principle motivating force in any business is profitability. He noted that although profit maximization is not the only motive in business, it is important. Therefore there should be adequate return on capital invested if any business is to be considered good performing.

2.4 Relationship between inventory management and profitability

2.4.1 Inventory control and profitability

Inventory control is a system used in a firm to control investment in stocks. It includes the recording and monitoring of stock levels. Lucey (1994). It also involves forecasting future demand and deciding when and how much to order. Jessop and Morrison (1998) also add that it’s the activity of determining the range and quantities of items which should be stocked, and regulation of receipt and issue of these items. Inventory control in an organization needs to be implemented to manage inventories since it works with an objective of minimizing all inventory related costs and maximizing wealth of an
organization. This can be controlled effectively if the procedures that they undergo are controlled and these procedures include.

- **Purchase procedure**

The purchase procedure begins with the replacement of the purchase requisition from the user department that initiates the purchase department to buy stocks with the particular specifications such as type, quantity and quality. It should be authorized by a responsible officer and should have a multiple copies sent to the purchasing, sales, and production departments’ . Arora, (1994). This is followed by the verification of the requisition to ensure that the need for stock is actually there, a search for suppliers in the market is made in the market that best satisfy the organizations needs. It should also be duly authorized by the responsible officials (purchase committee). Multiple copies sent to the seller, accounts, receiving department. (Lucey, 1994).

The next procedure involves receiving the items in a particular site with delivery notes, copies of purchase orders; goods received note and multiple copies to the purchase store and receiving department (Drury1995). On receiving the items, inspection and checking is done to ensure that they are of appropriate quality and quantity specifications. An inspection note is raised with various copies to all concerned departments. Items are returned (rejected) to the supplier if they do not have the right specifications. However for new vision this scenario is rare. Then the supplier submits an invoice that is approved by an authorized officer with all supporting documents. Furthermore the price and arithmetic accuracy is checked then payments made preferably by a cross check after
which all documents relating to purchase are stamped so as to avoid duplication, (ACCA, 2000).

- **Sale procedure**

  This is another procedure in an organization where particular emphasis should be put in controlling. The new vision sells to the public through its agents or sale representatives who want to purchase items from the new vision as they raise an order. This customer needs to be verified by the organization to ensure that is worthy while and will pay for the items purchased. Then the order will be sent to the different departments like accounts and stores. On approval an invoice is prepared and the items are dispatched in accordance to the customer’s order thus an invoice raised.

- **Stores procedure**

  Drury (1995) asserts that the stores procedure in inventory control involves managing the stores where items purchased have to be stored. It involves maintaining stocks in stores so as to ensure that items are protected from loss, over or under stocking, minimal storage space utilized, proper stock records as well as keep stock costs minimal. Store clerks should be trained and release items upon full authorization and as prescribed by the purchase order and requisition. In stores, proper records should be maintained and stock taking should either be periodic or on daily basis.

- **First in First out (FIFO)**

  This is an inventory management method where the first items to be purchased are the first to be consumed and thus those in stock are those that are sold last.
• **Last in First Out**

This method is where items that were purchased last are sold out first. However this system is generally not accepted by the revenue authority and not recommended by IAS9. Inventory control under the above mentioned procedure is done under two basic types of inventory systems (Lucey 1992) which include; The re-order level also known as the bin system where the predetermined re-order level is set for each item and then stock falls to this, replenishment order which is optimal order quantity at which the carrying and holding costs are minimized. The periodic review system is where the replenishment quantity is previously calculated and stock levels are checked at fixed intervals. If the firm realizes from this check that there is need for more stock, a replenishment order is then raised which brings the stock levels to the predetermined level.

**2.4.2 Inventory costs and profitability**

There are 3 categories of costs associated with inventory and these are carrying costs, ordering costs, and stock out costs. Kakuru (2002) defines ordering costs as those costs incurred right from the time the order of inventories is placed to when the order is actually received and placed in the business premises. Some of these costs include, administrative costs, transportation costs, and purchase order costs. Pandey (1995) asserts that these ordering costs increase in proportion to the number of orders placed. For proper control, one must consider the cost of ordering and processing inventory, Block and Hirt (1984).

Carrying costs are costs associated with holding the quantity of goods for a period of time, Ballow (1973). They are costs incurred in the maintenance of a certain level of
inventory. As per Kakuru (2002), he categorizes carrying costs to include insurance, taxes, depreciation and obsolescence. In contrast to ordering costs, these vary with the size of inventory.

Lucey (1995) defines stock out costs as those brought about by lack of finished goods and disruption in the production process. He further asserts that these costs are associated with having inadequate or no stocks. Stocks out costs are essential factors in inventory control and make it difficult to estimate factor control. If a firm runs out of stock, it leads to lost sales in the short run and in lost goodwill and performance in the long run and this will adversely damage the organization (Pandey, 2000). The avoidance of stock out costs is the basic reason stocks are held in the place (lcey.T.1996).because inventories constitute a large part of the firms current assets, Proper management of inventories has to be emphasized. If poorly managed, they can lead to high operating costs eating up all the profits of the firm hence earning a lower than expected return. (Poor performance).

In addition to these costs, Render and Stair (1994) cited out stock out costs like, Cost of item; this is the price at which a commodity is purchased. Cost of safety stocks; this is the cost of maintaining inventory of the transaction, speculative, and precautionary motives. The above inventory associated costs in an organization arise because they have a problem of determining an inventory point. This is a point at which investment in inventories is at minimum and profits are at maximum (lcey 2000). This optimum point in the organization needs to be determined because holding of excessive or inadequate inventory levels will hinder the profit making ability of the organization.
2.4.3 Stores management and profitability

There must be efficient maintenance of stocks to protect materials and supplies from loss, under stocking and overstocking. Drury, (1996). A store is an area where all forms of inventory are held and controlled. Store keeping is an important function and makes substantial contribution to an effective operation. Drury (1996) further asserts that the simplest way of stock control is updating stock files from movement records. To ensure that the firm performs well, there has to be information flow between stores and other departments. If there is an information gap, this can affect a company’s performance.

- Stock records

Block (1987) asserts that for any company to carry management of stock, it has to keep records. According to lucey (1996), however sophisticated an inventory control system is, the basic condition is that stock movements are recorded accurately. The stock levels are shown on various stock records and physical stock levels should be reconciled with the records. Documents used in the store include purchase requisition, material or store requisition, stock records or bin cards, materials return note, materials transfer note, scrape note and shortage notes. The stock record card or bin card is very important in the store. This is because it is where the economic order quantity, re-order level, buffer level and actual quantities are recorded, Whilst, other documents are used to update this document.

Stores management involves receipt, inspection, and issue of proper quantities of materials as and when required. Inventories should be inspected for quality, quantity and specification. If they are of right specification, an inspection note is raised and the goods
are taken into the store. The issue of materials must be properly authorized and the amount and the material are recorded so that appropriate charge can be made to the receiving cost centre as per lucey (1996).

- **Stock taking**

The objective of stock taking is to find out the physical quantities of items at a given date. According to lucey (1996) stocktaking can be carried out periodically or continuously. Periodic stocking involves taking stock once in a period or time for purposes of establishing the closing stock value. Perpetual stock taking involves taking stock or items daily such that over the year, all stock is checked at least once. Stock taking should be done regularly and balanced to avoid losses through theft or spoilage. Stores play an important role as far as performance is concerned in that in case of any shortages, which will halt supply and reduce sales. If proper inspection is not done, poor quality or defective supplies could be acquired, proper stores management also guards against theft and loss of items. This will in turn cut down costs incurred by a company.

**Conclusion**

It’s important for print media businesses to improve on there inventory management systems because its one of the major company resource that affects the profitability of the business.
CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction
This chapter describes the area and context of the study. It highlights the scope and the basis upon which the findings of the study are based. It describes the research design, research area and population, sources of data, data sampling design, procedures and size, data collection techniques, data processing and analysis and limitations of the study which will help the researcher to collect the necessary data analyze it and attach meaning to it.

3.2 Research Design.
The research design will be analytical and descriptive based on the results from questionnaires. Both qualitative and quantitative techniques will be used to analyze data.

3.3 Research Area
The study will be restricted to New Vision printing and publishing company located in 6th street industrial area.

3.4 The target population
These will be employees and the section heads in the stock department, since they are responsible for handling and recording stock movements.
3.5 Sources of data

3.5.1 Primary source

Primary data will be collected from respondents by filling questionnaires. The researcher will also get data through the formal interviews with managers, and heads of departments.

3.5.2 Secondary sources

Secondary data will mainly be collected from management reports, publications of the firm. The purpose of collecting the secondary data will be to collaborate and strengthen the primary data.

3.6 Sampling Design, procedure and size.

Descriptive sampling design is to be used by the researcher. This has been chosen because it involves describing the research variables. A sample of 25 respondents is targeted; these will be administered with questionnaires.

3.8 Data processing and analysis.

The data collected will be scrutinized to eliminate any errors. Three processes will be used to scrutinize among which include editing, coding and tabulating data from questionnaires responses. Editing will be done to check the completed responses for purposes of detecting and eliminating errors and identifying vital information that would be essential in coding and tabulation. Tabulation will involve mainly the use of simple statistical techniques like the use of frequency distribution tables to test the significance of the information from which to draw meaningful interpretation.
3.9 Likely limitations of the study.

The researcher expects to face a problem of insufficient funds, which are required for travelling, typing and printing of research work in various drafts and copies. Rigidity of staff in releasing the data. This is a great problem given the competitive industrial environment. This makes the respondents especially management cautious about the data availed to the researcher. Time allocated to complete the research report is quite short. This will put a lot of stress on the researcher since there are other course units to cover.
CHAPTER FOUR

4.0 PRESENTATION, INTERPRETATION AND DISCUSSIONS OF FINDINGS.

4.1 Introduction

This chapter presents the findings on the inventory management systems and its relation to performance in the new Vision Printing and publishing company. In the presentation of the findings, tables and figures have been used. Frequencies and percentages were also used to fully describe the findings and come up with rational interpretation.

4.2.1 The respondents by gender.

The storekeepers, purchasing officers, accountants and store clerks were requested to identify their gender. The reason for this question was to enable the researcher to know how the employees of the company are composed in terms of gender most especially those involved in inventory management. Below was the outcome the question.

Table 1: The respondents by gender where distributed as below

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequencies</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>15</td>
<td>60</td>
</tr>
<tr>
<td>Female</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Source; Primary data.

There was gender balance from the response collected indicating 60% male and 40% female. This shows that there was gender balance in the organization and fair apportionment of duties between the different employees regardless of their gender.
4.2.2 Education level.

The accountants, the purchasing officers and storekeeper were asked to indicate their education levels in the questionnaire they were provided with. The reason for this question was to enable the researcher know whether the company employees people who can understand what they are supposed to be doing to enable the researcher investigate the cause of the problem faced by the company as regards to inventory management. Below are the results of the question.

**Table 2 : Showing education level.**

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequencies</th>
<th>Percentages %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Degree</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Diploma</td>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td>Certificate</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

*Source; Primary data*

From the above, the majority of the accountants, storekeepers, purchasing officers had attained an average level of education. The researcher found out that 40% attained certificates, 32% attained diplomas, and 20% attained degrees while 8% had masters. This implies that most of the staff members involved in inventory management are educated enough to understand what they are supposed to do.
4.2 Duration of work of respondents.

One of the questions in the questionnaires that were provided to the accountants, storekeepers and the purchasing officers was asking them to indicate the time they had finished as employees of the organization. The reason for this question was to help the researcher know whether the company had employees who have enough experience regarding their job. The table below shows the response

Table 3: Showing time spent by the employees in the company

<table>
<thead>
<tr>
<th>Time on job</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3 years</td>
<td>13</td>
<td>52</td>
</tr>
<tr>
<td>3-4 years</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>5-7 years</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>7 and above</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Source; Primary data

From the above table, 80% of the accountants, storekeepers and purchasing officers have spent less than five years being employed by the new vision. This therefore implies that most of them are not much experienced in their work explaining the reason for poor inventory management system.

4.3 Inventory management system

A question as to what inventory management system the organization uses was put a cross to the accountants, purchasing officers, storekeepers. The reason was to know whether the organization was using a viable system in managing its inventory. According to them they indicated that the organization was using Jit – in-time inventory management system (JIT)
The idea behind JIT is to have the supplies a firm needs at the exact moments that they are needed. In order to accomplish this goal, a firm must constantly be seeking ways to reduce waste and enhance value.

**Strengths of Jit**

Jit makes production operations more efficient, cost effective and customer responsive. Jit allows manufacturers to purchase and receive components just before they are needed on the assembly line, thus relieving manufacturers of the cost and burden of housing and managing idle parts.

Overall, JIT system results in lower total system costs and improved product quality. With JIT, some plants have reduced inventory more than fifty percent and lead time more than eighty percent (Droge, 1998). JIT is lowering costs and inventory, reducing waste, and raising the quality of products.

JIT system can be a real money-saver for accompany. Companies are not only more responsive to their customers, but they also have less capital tied up in raw materials and finished goods inventory, allowing companies to optimize their transportation and logistics operations (ups, 2003).

**Weaknesses of JIT**

In JIT, everything is very interdependent. Every one relies on every body else (Greenberg, 2002). Because of this strong interdependence with JIT, a weakness in the supply chain caused by a JIT weakness is can be costly to all those linked in the chain. JIT processes can be risky to certain businesses and vulnerable to the supply chain in situations such as
labor strikes, interrupted supply lines. Market demand fluctuations. Stock outs, lack of communication upstream and downstream in the supply chain and unforeseen production interruptions.

4.3.1 Effectiveness of inventory management system.

A question to whether the organization had an effective inventory management system was asked to the accountants, purchasing officers and storekeepers. The reason for such a question was to establish whether the inventory was managed well. Below was the response.

Table 4 : Showing effectiveness of the inventory management system

<table>
<thead>
<tr>
<th>Options</th>
<th>Frequency</th>
<th>Percentages %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Agree</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Not sure</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Disagree</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Source; primary data

From the table above; 80% of the accountants, storekeepers and purchasing officers disagreed that the inventory management system was not effective in the organization. This shows that no proper procedures are followed in the management of inventory.
4.3.2 Inventory inspection on arrival

A question was asked whether inventory was inspected on arrival. The reason was to know whether the organization normally receives what it orders for. Below are the results of the question.

Table 5: Inventory inspection on arrival

<table>
<thead>
<tr>
<th>Option</th>
<th>Frequencies</th>
<th>Percentages%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Not sure</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Never</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Some times</td>
<td>17</td>
<td>68</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: primary data.

According to the research findings from the accountants, storekeepers, purchasing officers, 68% showed that inventory is sometimes inspected on arrival, 12% were not sure, 4% never while 16% said that inventory is always inspected on arrival. This was an indication that in situations when inventory is not inspected, chances are high that the company may not receive what it ordered for.

The purchasing officers, storekeepers and accountants were asked to indicate whether materials are recorded on arrival. The purpose of the question was to enable the researcher know whether proper records are always kept for the materials purchased. Below was the response to the question.
Table 6: Materials are recorded on receipt.

<table>
<thead>
<tr>
<th>Option</th>
<th>No of respondents</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Agree</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Disagree</td>
<td>12</td>
<td>48</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: primary data.

From the findings, 72% of respondents disagree that proper records are kept, 4% strongly agreed and also neither agree nor disagree that proper records are never kept. According to findings, this shows inefficient inventory management system in the organization.

4.3.3 Responses on stock valuation / inventory issue.

The user departments, accountants, purchasing officers, were asked the method of issuing inventory that was used by their organization. The reason was to know why some stock would get spoiled while still on storage. Below was the response.

Table 7: Showing method of stock valuation.

<table>
<thead>
<tr>
<th>Options</th>
<th>Frequency</th>
<th>Percentages %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last in First Out</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>First in First Out</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Weighted average method</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Net realizable value</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: primary data

From the research findings, the accountants, storekeepers and purchasing officers, 80% of them indicated that inventory was issued using Last in First Out method. This shows that
materials which are purchased last will be issued first. In case of valuation, they are valued at the price they were acquired but not the prevailing prices. During inflation the organization will not be in position to find out the real value of its stock. This method also increases chances of materials purchased first getting spoilt.

The question on whether inventory management was a critical issue in the organization was asked to the accountants, purchasing officers, storekeepers. The reason for this question was to know whether inventory management has any influence on profitability and this was their response.

Table 8: Showing whether inventory is a critical issue

<table>
<thead>
<tr>
<th>Options</th>
<th>Frequency</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>20</td>
<td>80%</td>
</tr>
<tr>
<td>Agree</td>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td>Not sure</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Disagree</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>3</td>
<td>12%</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source; primary data.

From the above table, 80% strongly agreed that inventory management was a critical issue in the organization. This means that inventory management systems greatly influences the profitability levels of the firm.

4.3.4 Responses on stock taking. The purchasing officers, storekeepers, accountant and the user departments such as the production department were also asked how often they
carryout stock taking. The reason was to make the researcher know whether there was proper monitoring of inventory in the company and this was the response.

Table 9: Responses on frequency of stock taking

<table>
<thead>
<tr>
<th>Option</th>
<th>Frequency</th>
<th>Percentages %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perpetual</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>Periodic</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Never</td>
<td>15</td>
<td>60</td>
</tr>
<tr>
<td>Others specify</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

**Source: primary data.**

It was seen from the research carried out that 12% of the accountants, purchasing officers, storekeepers revealed that stock taking is carried out periodically, 60% revealed that stock taking is never done. While 28% revealed that there was perpetual stock taking. The absence of regular stock taking makes the company not to have records on daily usage hence causing shortages.

**4.3.5 Situations when supplies are delayed** One of the questions that were put forward to the storekeepers, accountants, and purchasing officers was whether there were situations when the supplies were delayed. The reason for this question was to enable the researcher to know whether purchasing process was done in time. Below is how they responded.
Table 10: Response on whether there are delays in supplies.

<table>
<thead>
<tr>
<th>Option</th>
<th>Responses</th>
<th>Percentages %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>15</td>
<td>60</td>
</tr>
<tr>
<td>Agree</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Disagree</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: primary data.

According to the research findings pertaining to a situation when supplies are delayed, the response to this issue showed that 16% disagree that supplies are never delayed, 4% neither agree nor disagree, 20% agree while 60% strongly agreed that supplies are always delayed. This is an indicator of an inefficient inventory purchasing process. This leads to stock out costs and production stoppages which will affect the organization negatively because revenues will be lost in the process when no production is taking place.

4.3.6 Tendering process.

A question was put forward to the accountants, purchasing officers, storekeeper on which department was responsible for tendering. The reason for this question was to know whether the tendering process was done in the organization. The table below shows how they responded.
Table 11: Showing the departments responsible for Tendering process

<table>
<thead>
<tr>
<th>Option</th>
<th>Respondents</th>
<th>Percentages %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchasing</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Store keeping</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>User department</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Others specify</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Source; primary data.

From the above, 20% of the accountants, storekeepers and purchasing officers revealed that the tendering process is carried out by the purchasing department while 80% revealed that it is the user department. This indicates weak controls on the tendering process because no segregation of duties is followed when it comes to the tendering process because allowing the user department to carry out the tendering process can lead to malpractices such as colluding with the suppliers.

4.3.7 Department responsible for receipt of materials.

The accountants, purchasing officers and storekeepers were asked to indicate which department was responsible for receipt of materials. The reason was to know whether the materials are always delivered to the right place and received by those who are supposed to receive. The table below shows how they responded.

Table 12: Department responsible for receipt of materials.

<table>
<thead>
<tr>
<th>Option</th>
<th>Responses</th>
<th>Percentages %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Purchasing</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Finance</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Others specify(user department)</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Source; primary data
12% of the accountants, purchasing officers and storekeepers according to the researcher affirmed that accounts department was responsible for receipt of materials, while 80% indicated that it’s the user departments responsible for receipt of materials. This is a sign of poor inventory management system because materials are taken directly to the user department without being recorded by the storekeepers. This makes it hard to trace the records for the materials received at a given time.

4.3.8 Response to the extent to which inventory management has been responsible for revenue performance.

A question to whether inventory management has an effect on profitability was asked to the staff of new vision which included; storekeepers, purchasing officers and accountants. The reason for this question was to enable the researcher understand whether inventory management influences profitability in any way. The table below shows how they responded.

Table 13: Response to the extent to which inventory management has been responsible for revenue performance.

<table>
<thead>
<tr>
<th>Options</th>
<th>Frequency</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>12</td>
<td>48%</td>
</tr>
<tr>
<td>Agree</td>
<td>7</td>
<td>28%</td>
</tr>
<tr>
<td>Not sure</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>3</td>
<td>12%</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: primary data
The table above shows that 48% of the staff of New Vision strongly agreed that inventory management has a great effect on the profits of the firm. This means that proper inventory management systems should be put in place in order to increase on the profits.

The relationship between the study variables (effects of inventory management on profits.) was established using the following questions; whether inventory management was a critical issue in the organization for the independent variable and whether inventory management was greatly responsible for revenue performance. The researcher used rank correlation to establish the relationship between the research variables. It was found out that there was a strong relationship between inventory management and profitability. The details can be got in table 14 in the appendix II.
CHAPTER FIVE

5.0 SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction.
This chapter presents a summary of findings of the study. The conclusions drawn are also presented upon which some recommendations on what should be done to improve the inventory management system are made.

5.2 Summary of findings.
- The study revealed that according to the inventory management controls practiced, the study revealed that there is no proper procedure followed in the issue of stores requisition when need arises. This showed weakness in this control system.

- Research findings have that records are not kept by the storekeepers instead materials purchased are taken directly to the user departments. This reflects discontent with others, which shows that the procedure is not well streamlined.

- The study also revealed that inventories are inspected on arrival. This is a good indicator of controls in the inventory management system.
• Findings have it that stocks are valued using Last – in First Out. This is a poor method of valuing because it does not give the real value of stock given today’s level of inflation.

• The study also revealed that there is no regular stock taking carried out in this company. This is a weakness in the control system since companies need always to update their stock counts in order to arrive at rational decisions.

• Findings revealed that suppliers of materials always delay. This is a clear sign of shortages in terms of materials this leads to stock out costs.

5.3 CONCLUSIONS.
According to the findings, the study reveals that the New Vision holds inventory as a resource that satisfies a current need. Stocks are valued using Last-in First Out basis. Materials are sometimes inspected on arrival for the right specification. However, regardless of this system in place, the New Vision is facing various inventory related problems like no issue of a requisition, stock taking is never practiced, the tendering process and receipt of materials is poor which henceforth affects its profitability. These problems arose because there is no proper inventory management system in place that has an adverse effect on the profitability of the company.

5.4 RECOMMENDATIONS.
This research was carried out to find out whether inventory management relates to profitability or whether there is an inventory management system. Basing on the
discussions in chapter four and conclusions drawn above, the researcher would like to suggest the following recommendations in order to improve inventory management system.

- Adherence to the inventory requisition and purchase procedures. For the firm to minimize inventory related problems, it should strictly follow the purchasing procedures and follow the re-order levels and lead times, which the inventory takes. It should also observe clear segregation of duties and authorization of stock movements.

- Management should usually carry out stock taking to know the right values of stocks in the stores, ascertain the absolute stocks in order to maintain better inventory records.

- Adaptation of computerized recording system. This will enable large volumes of transactions of inventory be monitored under computerized techniques. This will enable proper determination of re-order levels, lead time and stock outs in advance hence reducing the delays in supplies.

- Materials should be received at one place (stores). It will be the duty of the user departments to requisition for the items in need through one centralized place. This will enable easy monitoring of materials.
• Further more, in terms of tendering process; this should be in the hands of the purchasing department and not the user department. Possible collusion and ordering for less stock will be minimized in this respect.

• Management should adapt a style of motivating its employees and instill a sense of sharing and knowing the firm’s objectives in order to improve on its performance.

• There is need to separate duties (segregation of duties and reconciliation) each employee or department is given a specific task to perform.

5.5 AREAS OF FURTHER RESEARCH
The study should not be taken as an end to its self. Let me take this opportunity to suggest further research in Quality Control and since they affect inventories and quality contributes to the better performance and goodwill to the customers, it provides better services and products hence the corporate image put to competitive edge.
Reference:


Iam Asiimwe Gahwerra Robert a student at Makerere University carrying out an academic research on the effect of inventory management on profitability of a print media business. You have been chosen as a respondent because of the knowledge and information that you have with regard to this topic. You are therefore kindly requested to find answers to the following questions. The information you give is exclusively for academic purposes and will be treated with utmost confidentiality.

PERSONAL DATA;

1) Sex

Male □

Female □

2) Department

3) Level of Education
4) Position/ designation.

a) Manager

b) Internal Auditor

C) Stores assistant

d) Accountant

Others specify………………………………………………………………………………..
C) Over 5 year’s
Please tick where applicable

<table>
<thead>
<tr>
<th>Statement</th>
<th>Always</th>
<th>Not sure</th>
<th>Never</th>
<th>Others specify</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management raises stores requisition form.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local purchase orders are used</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods are inspected on arrival</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stocks are held and monitored on computerized</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6) The tendering process is carried out by;

a) Purchasing department □

b) Storekeeper □

c) User department □

d) Others specify……………………………………………………………………………………………………

7) Which department is responsible for receipt of material

a) Accounting department □

b) Purchasing department □

c) Finance department □
d) Others specify……………………………………………………………………

8) Stocks are recorded on:

a) Bin cards  □

b) Stock cards  □

c) Code numbers  □

Non  □

Others specify……………………………………………………………………

9) Which method is applied in stock valuation in your firm?

a) Last in last out  □

b) First in first out  □

c) Weighted average method  □

d) Net realizable value  □

e) None of the above  □
10) Stock taking method used is;

a) Perpetual stock taking  □

b) Periodic stock taking  □

c) None of the above  □

Others specify………………………………………………………………………………

Please indicate your response by ticking in the corresponding spaces as indicated.

<table>
<thead>
<tr>
<th>Strongly agree (SA)</th>
<th>Agree (A)</th>
<th>Not sure (NS)</th>
<th>Disagree (D)</th>
<th>Strongly disagree (SD)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>NO</th>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>NS</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Inventory management is a critical issue in your organization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>The organization uses appropriate inventory management system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Your organization keeps inventory records</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Materials are recorded on receipt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>There are discrepancies in stock records</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Inventory models are used in management of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

41
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>inventory.</td>
</tr>
<tr>
<td>17</td>
<td>There are situations when supplies are delayed</td>
</tr>
<tr>
<td>18</td>
<td>There are loyal customers.</td>
</tr>
<tr>
<td>19</td>
<td>Customers are known on personal basis.</td>
</tr>
<tr>
<td>20</td>
<td>Inventory management has been greatly responsible for revenue performance.</td>
</tr>
</tbody>
</table>

Thanks for your cooperation.
APPENDIX II

Table 14

<table>
<thead>
<tr>
<th>N</th>
<th>X</th>
<th>Y</th>
<th>Rank X</th>
<th>Rank Y</th>
<th>D</th>
<th>d^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>-1</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>-1</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>25</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

\[ r = 1 - \frac{6\sum d^2}{n(n^2-1)} \]

\[ r = 1 - \frac{6*3}{5(5^2-1)} \]

\[ r = \frac{18}{120} = 0.1 \]

\[ r = 0.9 \]