

**INVENTORY MANAGEMENT PRACTICES AND ORGANIZATIONAL  
PERFORMANCE IN HEALTH SECTORS.**

**CASE STUDY: KISUBI HOSPITAL**

**BY**

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## **Dedication**

This academic work is dedicated to my parents Mr. and Mrs. Maweje Andrew for all the time, money and effort they put into my studies.

## **Acknowledgement**

I thank the Almighty God the provider of knowledge and wisdom for seeing me through my studies and for enabling me to undertake my research successfully, without His grace I would not have made it.

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May the Almighty Lord bless you abundantly!!

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### **List of Abbreviation/Acronyms**

<b>AICPA:</b>	American Institute of Certified Public Accountants
<b>EOQ:</b>	Economic Order Quantity
<b>FIFOM:</b>	First-in-First-out method
<b>IFRS:</b>	International Financial Reporting Standards
<b>IT:</b>	Information Technology
<b>IT:</b>	Information Technology
<b>JIT:</b>	Just-in-time
<b>MRP:</b>	Material requirements planning
<b>NASB:</b>	Nigerian Accounting Standard Boards
<b>RFID:</b>	Radio Frequency Identification
<b>SIM:</b>	Specific identification method
<b>SPSS:</b>	Statistical Package for Social Sciences
<b>TPS:</b>	Toyota production system
<b>UMU:</b>	Uganda Martyrs University
<b>WAM:</b>	Weighted Average Method

## **Abstract**

This study examined inventory management practices and organizational performance in health sectors, utilizing research conducted at Kisubi Hospital. The specific Objectives were: to establish the relationship between stock valuation and organizational performance in Kisubi Hospital; To establish the relationship between issuing methods and organizational performance in health sector Kisubi Hospital and To establish the relationship between inventory management techniques and organizational performance in Kisubi Hospital. A case study design was adopted and data collected from a sample of 44 respondents. Self-administered questionnaires, interview guide and documentary review guide were used in the study. Data was analysed using SPSS Version 16 and findings were presented in a tabular format showing frequencies and percentages. Qualitative and quantitative findings were presented in themes in a narrative form. The study revealed that Stock valuation has allowed the Hospital to provide a monetary value for items, has also helped the Hospital to assure accurate financial statements and also that all inventory to be sold is first valued. Issuing methods have follows a specific policy, Issuing methods have helped us in planning and forecasting and also that the methods used in for issuing inventory considers items which came first. Additionally, Inventory management techniques has allowed the Hospital to minimize inventory costs, the techniques have also allowed the Hospital to order for the only necessary stock. It was also revealed that the techniques have also allowed the Hospital to receive only required for the Hospital.

The study recommended that the management should ensure to have industry-specific requirements of some of the inventory management systems (as for the case of JIT) and the obtaining situation is considered before the adoption of the technology. The organisational management should ensure that prior to adoption of any computerized inventory management systems, they are assessed for appropriateness, resource optimization and feasibility. It should be noted that some of these systems are time consuming, skill demanding and might require large amounts of data in order to operate. It is also recommend that Organizations should have inventory management policies in place in the organization to guide the organization's inventory management processes and conduct

## **CHAPTER ONE**

### **GENERAL INTRODUCTION**

#### **1.0 Introduction**

This study aims at establishing a relationship between inventory management practices and organizational performance in health sectors. This chapter presents background to the study, statement of the problem, purpose of the study, objectives of the study, research questions, scope of the study, significance of the study and conceptual framework.

#### **1.1 Background to the Study**

In a world of intense competition fueled by globalization, increasing consumer awareness, and technological improvement, organizations that are keen towards large scale success must at all times hype its service availability as consumers can very easily divert their patronages elsewhere (Sharma, 2009). Consequently, managing inventory efficiently has become an important operational weapon for products and service firms wishing to survive the competitive pressures. To demonstrate how vital the efficient management of inventory is, we have been counseled to make a careful study and learning from the “proverbial Ant.” Seemingly inconsequential, the biblical ant appears to have mastered the art and science of adequately keeping inventories of food and other materials for its future use in its business operations.

Inventories represent those items which are either accumulated for sale or they are in the process of manufacturing or in the form of materials, which are yet to be utilized. An inventory system is the set of policies and controls that monitor levels of stocks and determine what levels should be maintained, when stock should be replenished, and how large orders should be. Thus, inventory management may be defined as the system used by a firm to control its investment in inventory (Stevenson, 2010). It involves the recording and monitoring of stock level, forecasting future demand and deciding on when and how to order

(Adeyemi and Salami, 2010).

Inventory is considered to have originated from the military's need to supply themselves with arms, ammunition, and rations as they moved from their base to a forward position (Cachon, and Fisher, 2000). Inventory as a business concept evolved only in the 1950's mainly due to the increasing complexity of supplying ones business with materials and slipping out products in an increasing globalized supply chain and inventory management (Cecil and Robert, 2006).

Historically, inventory management has often been associated with either too much inventory and too little management or too little inventory and too much management. There can be severe penalties for excesses in either direction. Inventory problems have proliferated as technological progress has increased the organization's ability to produce goods in greater quantities faster and with multiple design variations. The public has compounded the problem by its receptiveness to variations and frequent design changes (Tersine, 2009).

The American usage of the word 'inventory' is synonymous with the British use of the word 'stock', this synonym is evident in the definitions of inventory and stock by the Oxford Dictionary. The Oxford English Dictionary defined inventory as follows; A list, catalogue, detailed account, stock of goods, etc. which are or may be made the subject of an inventory.

The American Institute of Certified Public Accountants (AICPA) defined inventory thus, the term inventory is used to designate the aggregate of those terms tangible personal property which are held for sale in the ordinary course of business, in the process of production for such sale or currently consumed in the production of goods and services to be available for sale.

There have been numerous attempts to explain the relationship between inventory management practices and the organization performance. Rajeev (2010) argues that inventory

management practices are a way of acquiring competitiveness. Koumanakos (2008) studied the effect of inventory management on organization performance operating in Greece. The hypothesis that inventory management leads to an improvement in a firm's performance was tested. The findings suggest that the higher the level of inventories preserved by a firm, the lower the rate of return. Eckert (2007) examined inventory management and the role it plays in improving customer service levels. He found a positive relationship between inventory management practices and customer satisfaction due to reduced number of stock-outs.

The literature on inventory management practices reviewed identifies effective inventory management practices as determinants of financial and Organization performance. Organization performance could therefore be improved if effectiveness levels of inventory management practices are improved. There have been numerous attempts to explain Organization performance of companies in the fields of strategic management, accounting, finance, marketing and management science. Naturally each of these areas concentrates on different explanatory variables and therefore this study limits the survey to papers that are perceived as immediately relevant. In the US, Sanghal (2005) studied the effect of excess inventory on long term stock price performance. The study estimated the long-run price effects of excess inventory using 900 excess inventory announcements made by publicly traded firms during 1990-2002. These announcements are clear and unambiguous acknowledgement by affirm that it is suffering from excess inventory. Examples include instances of production curtailment, temporary shutdowns, price mark downs, promotion to liquidate inventory and inventory write-offs to deal with excess inventories. He found evidence suggesting that stock market partially anticipates excess inventory situations and those firms do not recover quickly from negative effects of excess inventory. He further noted that the negative effect of excess inventory is economically and statistically significant.

According to the Nigerian Accounting Standard Boards (NASB) stock includes those finished goods and livestock waiting sale, work-in-program, raw materials and supplies to be consumed in the production of goods and rendering of services. Many understand the word inventory as a stock of goods, but the generally accepted meaning of the word 'goods' in the accounting language is the stock of finished goods only. In a manufacturing organization, however, in addition to the stock of finished goods, there will be stock of partly finished goods, raw materials and stores. The collective name of these entire items is 'inventory'.

Inventory management is aimed at maintaining a minimum investment in operations to maximize profitable operations. To maintain a large stock of investment to ensure a smooth and efficient operation of the organization; The scope of inventory management concerns the fine lines between replenishment lead time, carrying costs of inventory, asset management, inventory forecasting, inventory valuation, inventory visibility, future inventory price forecasting, physical inventory, available physical space for inventory, quality management, replenishment, returns and defective goods, and demand forecasting. Balancing these competing requirements leads to optimal inventory levels, which is an on-going process as the health facility needs shift and react to the wider environment (Brooame, 1999)

Management of the inventories, with the primary objective of determining/controlling stock levels within the physical distribution system, functions to balance the need for product availability against the need for minimizing stock holding and handling costs. According to findings by DeBaise and Colleen, (2010), inventory management involves systems and processes that identify inventory requirements, set targets, provide replenishment techniques, report actual and projected inventory status, and handle all functions related to the tracking and management of material, (DesMarais and Christina, 2011). This would include the monitoring of material moved into and out of stockroom locations and the reconciling of the

inventory balances. It also may include ABC analysis, lot tracking, cycle counting support, etc. All of these practices lead to optimal product storage, helping minimize holding and handling costs. (DeBaise and Colleen, 2010)

DeBaise & Colleen, (2010) found that inventory management involves a retailer seeking to acquire and maintain a proper merchandise assortment while ordering, shipping, handling, and related costs are kept in check. It also involves systems and processes that identify inventory requirements, set targets, provide replenishment techniques, report actual, projected inventory status, and handle all functions related to the tracking and management of material. This would include the monitoring of material moved into and out of stockroom locations and the reconciling of the inventory balances. (Libby, Patricia et al, 2014) It also may include ABC analysis, lot tracking, cycle counting support, etc. Management of the inventories, with the primary objective of determining/controlling stock levels within the physical distribution system, functions to balance the need for product availability against the need for minimizing stock holding and handling costs. (Dolinsky and Anton, 2010)

With proper inventory management, there will be lower inventory costs which come about by reduction in inventory waste as well as costs of obtaining inventory will also be reduced due to the discounts given due to bulk purchases. There will also be organized warehouses where inventory can easily be got for use as well as being able to place late orders nearby for easy retrieval. There is also increase in efficiency and productivity where customers are easily served due to timely availability of inventory in the warehouses.

The effect of inventory management on health institutions like our lady of Consolata cannot be over emphasized; this is because asset of many institutions represents considerable percentage of the total invested capital. The control, accounting and management of an efficient inventory management system is of a special interest to both management, suppliers

and other users of accounting information. Therefore, poor inventory management leads to expiration of drugs, loss of quality sequel to poor storage system with resultant reduction in efficacy of the drug which may cause stock outs that might even lead to death of some patients as a result of poor inventory control and management.

Inventory control is concerned with the acquisition, control, handling and use of inventories so as to ensure the availability of inventory whenever needed, providing adequate provision for contingencies, deriving maximum economy and minimizing wastages and losses. Hence, inventory control refers to a system, which ensures the supply of required quantity and quality of inventory at the required time. Inventory control can make or break a company.

### **1.1 Back ground of the study**

According to the case study which is our lady of Consolata Kisubi Hospital also Our Lady of Consolation Kisubi hospital, commonly referred to as Kisubi Hospital ,which is a private non-profit, community hospital in the central region of Uganda. The auditors of Kisubi Hospital make random checks to ensure that the inventory value is correct. The value of inventory at the beginning and end of the financial year is used to calculate the figure for cost of sales. Therefore, the inventory value has an effect on Kisubi Hospital's profit for the year, thus an existing relationship between inventory management and the financial performance of Kisubi Hospital. The difficulty in inventory management at Kisubi Hospital is in finding out the cost price of inventory as this is not easy when quantities of a particular inventory item are continually being bought in often at different prices and then sold. It is from this perspective that the researcher was prompted to investigate the actual relationship between inventory management and the financial performance (profitability) of mid-sized hospitals in Somalia basing on a case study of Kisubi Hospital.



## **1.2 Statement of the Problem**

Inventory management practices at Kisubi Hospital is mostly seen in arrangement of medical stock like sanitary ware, uniforms, operation kits, medicines, supply of patients, issuing of identifying numbers to in and out patients and logging all hospital patients and their diagnoses in terms of Stock valuation, Issuing methods, and Inventory management techniques. This is because Kisubi Hospital uses different systems in inventory management including integrated system responsible for management of information system, which helps to make serious decisions on stock, material requirement points, and over stock brands for the fast moving products. According to Temeng et al (2010), organizations have continuously ignored the potential savings from proper inventory management, treating inventory as a necessary evil and not as an asset requiring management.

A large proportion of the government health institutions are faced with similar problems which hinder the growth and development of institutions in this country. The problems according to the annual hospital reports include unsatisfied clients/patients arising from poor quality drugs. High rate of obsolescence, wastages and theft of drugs. Poor quality of inventory control leading to out of stock of essential drugs in the hospital, failure to meet targets and low morale of the company members. As a result the organization's stores are overcrowded making the work of a store-keeper difficult, late issue of materials to the department and these in turn result into poor inventory service delivery (Wood, 2004).

The other fact is that only a few health facilities embrace inventory management practices in their health facilities and those that embrace them use rudimentary methods, which has led to many organisations closing health facility because of poor stocks management. Health facilities with effective inventory management do not have to spend large capital balances for purchasing enormous amounts of inventory at once. This also saves handling and holding

costs.

### **1.3 Objectives of the Study**

#### **1.3.1 Major objective**

The main purpose of this study was to examine inventory management practices and organizational performance in health sectors, utilizing research conducted at Kisubi Hospital.

#### **1.3.2 Specific Objectives**

- i. To establish the relationship between stock valuation and organizational performance in Kisubi Hospital.
- ii. To determine the relationship between issuing methods and organizational performance in health sector Kisubi Hospital.
- iii. To examine the relationship between inventory management techniques and organizational performance in Kisubi Hospital.

### **1.4 Research Questions**

- i. What is the relationship between stock valuation and organizational performance in health sector?
- ii. What is the relationship between issuing methods and organizational performance in health sector?
- iii. What is the relationship between inventory management techniques and organizational performance in health sector?

## **1.5 Scope of the Study:**

### **1.5.1 Content scope**

The study focused on inventory management practices and organizational performance in health sectors. It was then confined to the relationship between stock valuation and organizational performance in health sector, the relationship between issuing methods and organizational performance in health sector and relationship between inventory management techniques and organizational performance in health sector

### **1.5.2 Geographical Scope**

The research was conducted at Kisubi Hospital. Kisubi Hospital also known as Our Lady of Consolation is a private, nonprofit hospital located in Kisubi in Wakiso District. The hospital is approximately 28 kilometers by road south west of Kampala. This is the geographical area where the study was conducted and it has been selected because Kisubi Hospital is one of the many health facilities that utilize effective inventory management in their day to day health facility activities.

### **1.5.3 Time Scope**

The study will consider a period of six years that is 2010 – 2017 because this period has enough relevant information to the study.

## **1.6 Justification of the Study**

The role of inventory management practices in improving organizations' performance has been a neglected subject for many scholars who dwell on the overall role of inventory management in enhancing organizational performance creating a research gap that needs to be filled thus, justifying the call for this study on inventory management practices and its impact on the performance of health facilities. Quite many executives in the health care

sector do not fully comprehend the economic and productive advantages of utilizing the different practices of inventory management may have on the overall performance of their health facilities especially large health facilities like Kisubi Hospital, which hold great quantities of medical supplies and stock. There is therefore a significant need to inquire into the actual role of inventory management practices on the organizational performance of health sectors.

### **1.7 Significance of the Study**

**To researchers;** the study will help other scholars and researchers to examine the relationship between inventory management practices and the performance of health facility organizations. Researchers will also be able to underscore the several inventory management practices and how they work as well as understanding the challenges that face health facilities like Kisubi hospital in implementing inventory management.

**To Kisubi Hospital;** the study is expected to show the management of Kisubi Hospital the significant impact of effective inventory management on the performance of their hospital and its overall benefit to service delivery at the hospital.

**To other Organizations;** the study shall act as a useful tool for the upcoming organizations and show how to maintain their growth by implementing inventory management mechanisms aimed at cutting losses by effectively managing their stock.

**To scholars of UMU;** this study is aimed at acting as a source of secondary data for future UMU academicians conducting studies on a similar topic.

## **1.9 Definition of key concepts**

**Inventory;** a detailed list of all the items on hand or the stock of an item on hand at a particular location or health facility

**Management;** the process or the practice of organization running especially done by executives with authority to delegate tasks and duties

**Performance;** the amount of useful work accomplished by someone or something compared to the time and resources used

**Health facility;** a specific commercial enterprise or establishment in operation with a sole goal of making as much profit from its resources as it can.

### **Stock valuation**

The cost assigned to inventory for the purpose of establishing its current value. Inventory valuation is determined according to the basis by which a firm assumes inventory units are sold. If the first units acquired are assumed to be the first units sold (first-in, first-out), costs of the last units purchased are used for valuing inventory remaining in stock. Conversely, if the last units acquired are assumed to be the first units sold (last-in, first-out), the costs of the first units purchased are used for valuing the inventory remaining in stock.

### **Issuing methods**

The issuing method refers to the timing at which inventory is purchased and subsequently used. Inventory that is purchased first is sold or used in production before inventory that is purchased later. Under issuing method, the oldest inventory cost is used to calculate cost of goods sold

### **Inventory management techniques**

These are the different methods used in business to control the level of inventory for example, just in time, Stock review and ABC analysis.

### **Timely availability of inventory**

This means that there is inventory whenever it is needed in the business due to timely restocking as well as monitoring the flow of raw materials out of the organization

**Organization performance:** The accomplishment of a given task measured against present known standards of accuracy, completeness, cost and speed. It is also deemed to be the fulfilment of an obligation, in a manner that releases the performer from all liabilities under the contract

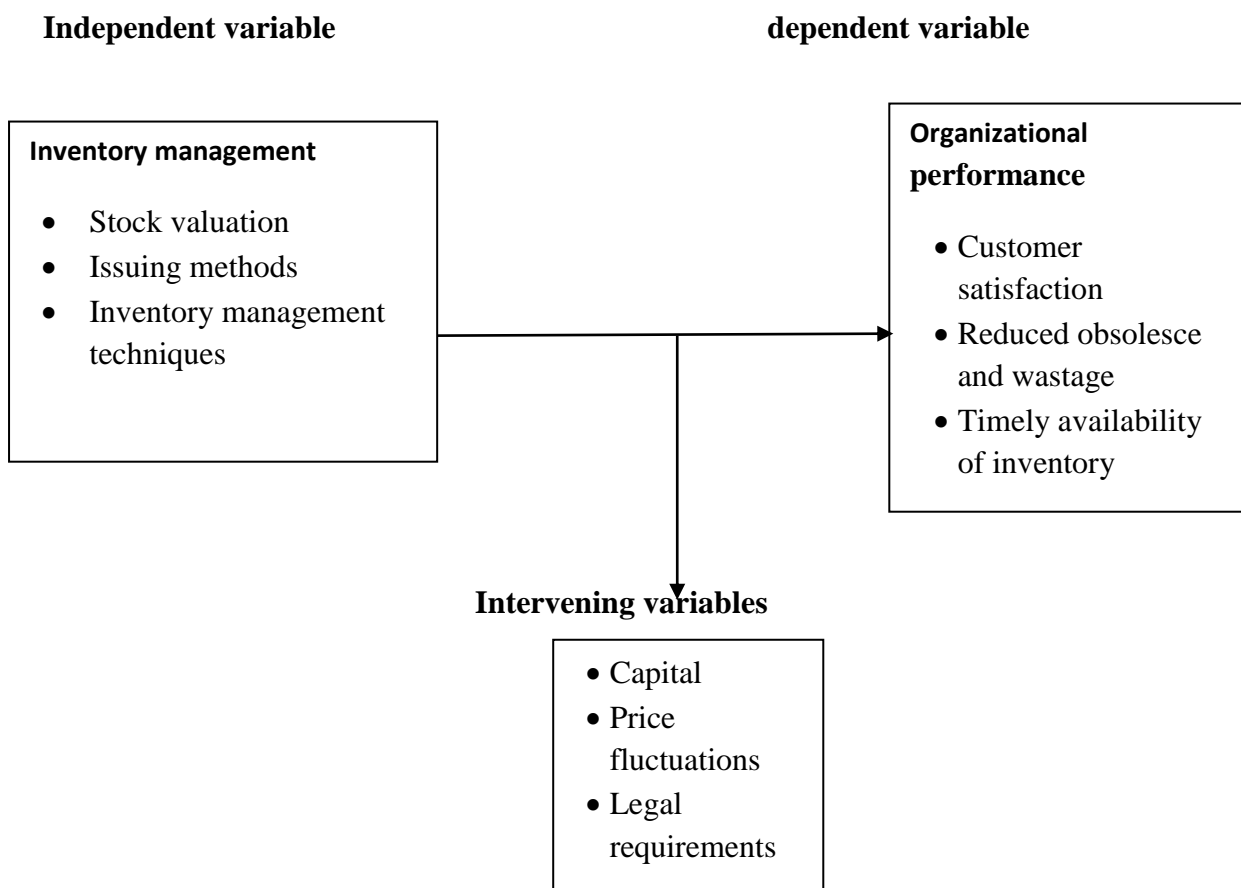
### **Customer satisfaction**

Customer satisfaction is a term frequently used in marketing. It is a measure of how products and services supplied by a company meet or surpass customer expectation. Customer satisfaction is defined as the number of customers, or percentage of total customers, whose reported experience with a firm, its products, or its services (ratings) exceeds specified satisfaction goals.

### 1.10 The Conceptual Framework

According to Nyabwanga, (2012) a conceptual framework refers to what a researcher conceptualizes to be the relationship between variables in the study and shows the relationship graphically or diagrammatically

**Figure 1. 1: Conceptual Framework**



*Source: Nyabwanga, (2012)*

The conceptual framework describes the relationship between the independent variable and the dependent variable. In this conceptual framework, Inventory management is the independent variable while Organizational performance is the dependent variable. In the conceptual framework, Inventory management has indicators of stock valuation, Issuing methods and Inventory management techniques. On the other hand organizational

performance is considered as the dependent variable which is measured by Customer satisfaction, Reduced obsolescence and wastage and Timely availability of inventory. However, Inventory management and performance of organization can also be affected by a number of intervening variables, such as Capital, Price fluctuations and Legal requirements

### **1.12 Conclusion**

Despite the various practices for inventory management at Kisubi Hospital, performance of the hospital had reduced from 80% to 60% in the years 2013 and 2016 respectively. The purpose of this study is therefore to examine inventory management practices and organizational performance in health sectors, utilizing research conducted at Kisubi Hospital. The research relied on finding out stock valuation and organizational performance in health sector, finding out issuing methods and organizational performance in health sector and examining inventory management practices and organizational performance in health sector. The research will be conducted at Kisubi Hospital. For the purpose of this research, the independent variable will be the different inventory management practices used in Kisubi Hospital like; stock valuation and issuing methods have on organizational performance in health sector. Whereas the dependent variables of this study will be customer satisfaction, reduced obsolescence and wastage and timely availability.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

In this chapter, the researcher attempted to explain the related literature arguments and views about this study's objectives from other scholars. Therefore, this chapter elaborates on stock valuation and organizational performance in health sector, issuing methods and organizational performance in health sector and inventory management techniques and organizational performance in health sector.

#### **2.1 Theoretical Review**

##### **2.1.1 Lean Theory**

According to Green & Inman, (2015), Lean theory is an extension of ideas of just in time. The theory eliminates buffer stock and minimizes waste in production process Inventory leanness positively affects the profitability of a business firm and is the best inventory control tool. Firms that are leaner than industry average generally see positive returns to leanness (Eroglu& Hofer, 2011).

The theory elaborates on how manufacturers gain flexibility in their ordering decisions, reduce the stocks of inventory held on site and eliminate inventory carrying costs. Scholarly studies indicate that companies successfully optimize inventory through lean supply chains practices to achieve high levels of asset utilization and customer satisfaction leading to improved growth, profitability and market share (Waller, Tangari& Williams, 2008). Criticism leveled against the theory is that it can only be applicable when there is a close and long-term collaboration and sharing of information between a firm and its trading partners.

## **2.2 Review of the main concepts of the study**

### **2.2.1 Understanding the concept of inventory management**

Inventory is an accounting term for the value or quantity of raw materials, components, assemblies, consumables, work-in-progress and finished stock that are kept or stored for use as the need arises (Lysons, 2010). It is economically unsound and physically impossible to have goods arrive in a system exactly when demand for them occurs. Without stock at hand customers would have to wait for long periods before their orders are fulfilled. Inventory is therefore vital to the successful functioning of firms and occupies the most strategic position in the structure of working capital. To ensure organizational growth and productivity, it is important that good inventory management be practiced since a substantial share of fund is invested in a firm's inventory (Kruger, 2015). Better management of inventories would release capital for use elsewhere productively thus improving the productivity of an organization (Ghosh and Kumar, 2013)

Inventory management is a system for tracking inventory levels, orders, sales and deliveries. It can also be used in the medical industry to create a work order, bill of materials and other production-related documents. Hospitals use inventory management to avoid product overstock and outages (Piasecki and Dave, 2010) It is a tool for organizing inventory data that before was generally stored in hard-copy form or in spreadsheets. Inventory management is made up of several key components, working together to create a cohesive inventory for many organizations' systems. Hospitals that are primarily service-oriented rather than product-oriented can use inventory management to track the cost of the materials they use to provide services, such as cleaning supplies. This way, they can attach prices to their services that reflect the total cost of performing them.

Inventory management is a specific function that focuses on controlling the movement of products through a health facility's various health facility systems. Health facility owners and

managers typically setup systems or processes to aid them with this function. Using a computerized inventory system is quite common in the health facility industry. Cost can be a major disadvantage of computerized inventory management. Many large health facilities use computerized inventory management, but small health facilities can find it difficult to afford it. Barcode readers and other hardware can compound this problem by adding even more cost to health facilities. Computerized inventory management is not necessarily simple or easy to learn. A health facility's management team must dedicate a certain amount of time to learning a new system, including both software and hardware, in order to put it to use.

Inventory plays a big part in service firms as it account for about 56% of the annual turnover (Ondiek, 2016). Kenyan organizations are faced with a lot competition in the current markets. This has led to the need for coming up with better method of managing and measuring how resources are utilized by various jobs or products, and therefore be able to eliminate any wastage in the value chain. The new inventory management methods require having the right persons doing the right job. In this case, the major concern is how inventory functions are organized and actually who is responsible over these functions in service firms. The increasing emphasis on the competitiveness has led to a new emphasis on the competitive advantage through effective utilization of organization resources. It is essential to address fundamental competitive advantage through cost reduction. Issues like competitive buying, buying wisely, effective and reliable sources of supply, to keep inventory investment and inventory costs at a practical minimum, are the current business (Ondiek, 2016).

Inventory management is very crucial to a firm because it is tailored to minimizing costs or maximizing profits while satisfying customer's demands by ensuring that balanced items of stock are maintained at the right quantity, quality and that are available at the right time and in the right place (Jay & Barry, 2016). The two essential questions to address in inventory

management are ‘When to order/deliver?’ and ‘How much to order?’, that is, one time-related and one quantity-related. There are a number of inventory management practices which answer these two questions in different ways and can be categorized as working with dependent or independent demand. Inventory management practices refers to the techniques used to ensure that stocks of raw materials or other supplies, work-in-progress and finished goods are kept at levels which provide maximum service levels at minimum costs (Lysons, 2010). They concern balancing supply and demand, that is, the initiation, control and monitoring of manufacturing and purchasing orders so as to maintain an uninterrupted material flow and value-adding activity in manufacturing and warehouses (Jonsson&Mattsson, 2013).

### **2.2.2 Understanding the concept of organizational performance**

Organizational performance refers to an analysis of a company's performance as compared to goals and objectives. Within corporate organizations, there are three primary outcomes analyzed: financial performance, market performance and shareholder value performance (in some cases, production capacity performance may be analyzed)

Organizational performance comprises the actual output or results of an organization as measured against its intended outputs (or goals and objectives). Richard et al. (2009) points out that organizational performance encompasses three specific areas of firm outcomes: (a) financial performance (profits, return on assets, return on investment, etc.); (b) product market performance (sales, market share, etc.); and (c) shareholder return (total shareholder return, economic value added, etc.).

Performance is any of many different mathematical measures to evaluate how well a company is using its resources to make a profit. Common examples of organization performance include operating income, earnings before interest and taxes, and net asset

value. It is important to note that no one measure of financial performance should be taken on its own. Rather, a thorough assessment of a company's performance should take into account many different measures.

According to Kaplan, (2006), the external factors that influence organizational performance range from the skill level of the labor force to the nature of today's business environment. These include; talent and Skills of Workforce, Influence of Ethics, Global Competition, Technology, Political and Regulatory changes, thus the performance of the organization depends on several factors as mentioned above

## **2.3 Actual Review of Literature**

### **2.3.1 Stock valuation and organizational performance**

Stock valuation allows a company to provide a monetary value for items that make up their inventory. Inventories are usually the largest current asset of a business, and proper measurement of them is necessary to assure accurate financial statements (Broome, 2009). If inventory is not properly measured, expenses and revenues cannot be properly matched and a company could make poor business decisions (Moskowitz & Robert, 2010).

Under certain circumstances, valuation of inventory based on cost is impractical. If the market price of a good drops below the purchase price, the lower of cost or market method of valuation is recommended. This method allows declines in inventory value to be offset against income of the period. When goods are damaged or obsolete, and can only be sold for below purchase prices, they should be recorded at net realizable value. The net realizable value is the estimated selling price less any expense incurred to dispose of the good (Jarrad, 2010).

Proper inventory management through proper inventory valuation in inventory management

using the different inventory valuation in inventory management methods has proved to be a good indicator for increased profits for the health facility (Moskowitz & Robert, 2010). This is because proper valuation of tangible assets of the health facility guarantees few losses in terms of the medical facility's valuable inventory and as such when it is sold at a good price as valued, there are high chances of earning profits from the transactions (Jarrad, 2010). Also on the other hand poor inventory valuation in inventory management can lead to losses hence affecting a medical facility's profit thus a correlation between inventory valuation in inventory management and profitability of a health facility (Broome, 2009)

Inventory is the tangible goods of any health facility that are stocked for future use in production or sale. A health facility that therefore performs good valuation of their inventory is in a good position on the goods and services market as they hold marketable assets and as such hold a good market share on the trades market. Considerably a health facility with poor inventory valuation in inventory management tendencies will lose out on market opportunities as they hold invaluable assets hence a relationship between inventory valuation in inventory management and a health facility's financial performance (Jarrad, 2010)

The sale of well-valued inventory is significantly important for accumulating sales for a health facility. When health facilities value their inventory with the best methods and in a good manner, they take note of its value and as such sell it at a very good price hence earning good sales from them. Therefore, it is evident that proper inventory valuation in inventory management is responsible for sales growth whereas poor inventory valuation in inventory management directly leads to poor sales growth (Shin & Soenen, 2008)

Stock valuation is the cost associated with an entity's inventory at the end of a reporting period. It forms a key part of the cost of goods sold calculation, and can also be used as collateral for loans. This valuation appears as a current asset on the entity's balance sheet.

Inventory valuation is based on the costs incurred by the entity to acquire the inventory, convert it into a condition that makes it ready for sale, and have it transported into the proper place for sale. You are not allowed to add any administrative or selling costs to the cost of inventory. The costs that can be included in Stock valuation are: Direct labor, direct materials, Freight, Handling, Import duties and Production overhead

It is also possible under the lower of cost or market rule that you may be required to reduce the inventory valuation to the market value of the inventory, if it is lower than the recorded cost of the inventory. There are also some very limited circumstances where you are allowed under international financial reporting standards to record the cost of inventory at its market value, irrespective of the cost to produce it (which is generally limited to agricultural produce).

It can be noted that stock valuation is important for example on the impact on cost of goods sold. If you record a higher valuation in ending inventory, this leaves less expense to be charged to the cost of goods sold, and vice versa. Thus, inventory valuation has a major impact on reported profit levels.

Loan ratios. If an entity has been issued a loan by a lender, the agreement may include a restriction on the allowable proportions of current assets to current liabilities. If the entity cannot meet the target ratio, the lender can call the loan. Since inventory is frequently the largest component of this current ratio, the inventory valuation can be critical

Inventory is a current asset that represents goods held for future sale in the ordinary course of health facility or use in the manufacture of goods for sale. Inventory is frequently the largest single component of a firm's assets. Moreover, due to its nature, inventory is subject to wear, theft, and obsolescence. Due to its significance, it is critical that firms properly manage and safeguard their inventory. The method a medium sized health facility chooses for inventory

valuation can also lead to substantial tax savings. Inventory occupies a greater part in the composition of total current assets. Inventory is needed for production as well as sale. Inventory valuation, greatly, influences the profitability of the firm. (Polsson& Ken, 2010) Often the value of inventories is high, representing a considerable sum of money and so it is important that it is valued consistently, and proper controls are kept over the physical inventory.

DeBaise& Colleen, (2010) argue that the inventories held by a health facility invariably have considerable value and tie up a lot of money. At the end of the financial year, it is essential for a health facility to make a physical inventory count and to value its inventory for use in the financial statements – in the calculation of profit, and for the balance sheet. This physical inventory count involves the health facility staff counting each item held.

Valuation methods can be applied to complete products of an entity as well as to raw materials that are standing ready for the production process. Different valuation methods produce different cost of sale figures and eventually different gross profits. The three different methods that are used in conformance with the International Financial Reporting Standards (IFRS) are First-in-First-out method (FIFOM); weighted average method (WAM); and Specific identification method (SIM), The FIFOM method is applied by an entity only when the goods are similar in nature and use. The cost for items of inventory is determined on an item-for-item basis in the production process. This method entails that the inventories are valued in accordance with the assumption that the entity will sell the items of inventory in the order in which they are purchased like first the old inventory items and then the new (Moskowitz& Robert, 2010)

Hospitals face a dilemma in today's competitive marketplace, where on one hand, customers demand customized products and services and require that their orders are filled quickly, but



on the other hand, they do not want to pay a premium for this customization and availability. Therefore, organizations are exploring ways toward postponement strategy in response to constantly changing demands. According to Dale & Cooper, (2012), the cost of holding inventory, extensive product proliferation and the risk of obsolescence, especially in rapidly changing markets, make the expense of holding large inventories of finished goods excessive and that high demand items naturally have safety stock assigned to them, but in many organizations there are so many very-low-demand items that keeping any stock of these items is unreasonably expensive, so they argue that hospitals must now provide good service while maintaining minimal inventories. Therefore, inventory valuation approaches are essential aspects of any organization (Libby, Patricia et al, 2014)

The auditors of Kisubi Hospital make random checks to ensure that the inventory value is correct. The value of inventory at the beginning and end of the financial year is used to calculate the figure for cost of sales. Therefore, the inventory value has an effect on Kisubi Hospital's profit for the year, thus an existing relationship between inventory valuation and the financial performance of Kisubi Hospital. The difficulty in inventory valuation at Kisubi Hospital is in finding out the cost price of inventory—this is not easy when quantities of a particular inventory item are continually being bought in—often at different prices—and then sold. It is from this perspective that the researcher was prompted to investigate the actual relationship between inventory valuation and the financial performance (profitability) of mid-sized hospitals in Somalia basing on a case study of Kisubi Hospital in Uganda. (Researcher, 2017)

Inventory valuation is important because health facilities are required to reduce the amount they deduct for inventory purchases over the course of a year by the amount remaining in inventory at the end of the year. Brevard, Henry et al, (2013) found that there are costs and

benefits in holding inventory. Some of the more common costs include interest charges, storage, insurance, security, and increased obsolescence. There is also the difficulty to measure cost of lost sales due to not having an item in stock. These costs must be balanced against the benefits of stocking additional inventory, which are increased sales and purchase discounts for buying certain lot sizes. Some of these costs and benefits can be easily quantified, but some cannot—particularly the sales aspect. As such, achieving the ideal level of inventory is usually the result of trial and error plus experience

### **2.3.2 Issuing methods and organizational performance**

The issuing method refers to the timing at which inventory is purchased and subsequently used. Inventory that is purchased first is sold or used in production before inventory that is purchased later. Under issuing method, the oldest inventory cost is used to calculate cost of goods sold. Issuing method is a more realistic inventory method than last in first out. Most health facilities try to sell their oldest inventory first to reduce the risk of obsolescence and spoilage, so costs are generally more accurate. This can help the business with planning and forecasting. During times of inflation, issuing method has the effect of increasing the value of remaining inventory and increasing net income. Showing large assets and income can help a health facility that is trying to lure in potential investors and lenders (Baines &Langfield-Smith, 2013)

Issuing is the process of moving products from storage rooms to production and service areas. The correct quantity of products must be issued to meet estimated guest demand. This process must be carefully controlled to minimize product misuse and so managers can match issues of items with the amount of revenues they should produce.

Managers must do all that is practical to control products at the time of issue. Inventory costs are increased if there is a lack of control in this process. Given the importance of security, it

is difficult to justify the open-door policies that exist in some operations. Operations come in all sizes. Large operations may have a full-time receiving and issuing staff member whose duties involve only these two tasks.

The vast majority of organizational operations, however, do not employ staff members with only receiving or storing duties. As a result, control at time of product issue in these organizations can become a challenge.

Effective issuing helps ensure that products removed from storage generate the expected amount of revenue. Issue requisitions provide a written record of the products that have been moved from storage areas to production or service areas. Departments complete issue requisitions as they ready their areas for stocking. Managers approve requisitions prior to any product issuing. The requisition document can be used to calculate daily costs. Issue requisitions can also serve as the source of information used in updating perpetual inventory records.

**Reduce Obsolete Inventory;** Obsolete inventory refers to inventory that is old or outdated and is not suitable for sale or use in production. Many businesses require obsolete inventory to be written off against its bottom line after a predetermined period has lapsed since its last usage. Issuing method helps prevent obsolete inventory by using the inventory first received before using newer inventory (Charles, George et al, 2010)

**Reduce Impact of Inflation;** Inflation refers to the increase in price of an item over time. Issuing method can reduce the inflationary impact felt by the health facility, as the oldest inventory items are used. Assuming that inflation is constant, the purchase price of the inventory used in production or that is sold at retail was lower than the price of inventory most recently purchased. Since direct materials expense is recorded at the purchase price of the items used or sold, this cost is lower than if the current market price of the items were

used to record the expense (Brevard, Henry et al, 2013)

Current Ending Inventory Value; Issuing method ensures that the ending inventory values on the balance sheet are indicative of current market prices for the items. As items purchased at earlier dates are pulled from inventory for production or retail sale, the inventory on the books at the end of the month consists of more recently purchased inventory. This ensures that the ending inventory on the balance sheet is reflective of current market prices (Klein & Karen, 2011)

May not show an accurate depiction of costs; Issuing method may not show an accurate depiction of costs when material prices rapidly increase. If material prices triple but accountants are using costs from months or years back, managers may not notice cost issues as quickly. Health facilities also suffer from missing the tax advantages of last in first out. Income tax is one of the largest expenses a health facility incurs, and a reduction can be a substantial financial benefit. Higher taxes from issuing method valuation decrease a health facility's cash flows and growth opportunities (Hope, Jeremy et al, 2011)

### **2.3.3 Inventory management techniques and organizational performance**

Properly managing inventory requires a system of some sort. It does not matter if the system consists of writing inventory levels on the back of an envelope or using the most sophisticated radio frequency identification system. The different types of inventory management systems all have pros and cons. For the small hospital deciding on an inventory management system, choosing the right one boils down to which system holds the most value for the health facility (DesMarais and Christina, 2011)

Inventory management techniques have significant for any relevant enterprise in an inventory intensive organization because effective practices in inventory management will allow a firm to minimize inventory costs and avoid the consequences that come with a shortage of

material resources. Inventories are significant portions of current assets to any business enterprise. Holding inventory ensures operational activities proceed uninterrupted (Kotler & Keller, 2016). Therefore, to achieve high performance of organization apply various practices of inventory management to determine and maintain an optimum level of investment in inventory that meets customer demands and reduces inventory costs.

EOQ is the best-known approach for explicitly establishing an optimum inventory level. It is a mathematical approach to the ordering of inventories where in the combined cost of ordering and carrying inventory is kept at minimum. While the ordering costs are cost relating to purchases and the whole process of bringing inventory in store, the carrying costs are costs incurred from receipt of inventories in the store to the sale point. The management is tempted on one hand to order huge quantities but holding costs are also to be considered. Either of these two courses will have an adverse effect on the profit of the firm. Hence the management tries to reconcile them and this reconciliation points is economic order quantity. In reality, a company will wish to reorder before its inventory goes to zero for two reasons. First, by always having at least some inventory on hand, the firm minimizes the risk of stock out and resulting losses of sales and customers. Second, when a firm does not reorder, there will be some time lag before the inventory arrives. The three extensions are maximum, minimum stock limit and reorder points.

The various inventory management techniques include the following:

Properly managing inventory requires a system of some sort. It does not matter if the system consists of writing inventory levels on the back of an envelope or using the most sophisticated radio frequency identification system. The different types of inventory management systems all have pros and cons. For the small hospital deciding on an inventory management system, choosing the right one boils down to which system holds the most value for the health facility. (DesMarais and Christina, 2011)

**Manual:** Many small hospital owners, especially if the hospital has very few products, keep track of inventory manually. The easiest way to perform manual inventory management is to use a spreadsheet. For example, a small bakery might use a spreadsheet to keep track of inventory purchases and usage. The owner can also set up the spreadsheet to calculate when ingredients need to be reordered. At the start of each week, the owner manually counts the raw ingredients and components she has on hand. She enters these values in the spreadsheet. She also enters her expected usage based on existing orders. Using the appropriate spreadsheet formulas, she determines if she has enough materials for the week or if she will need to purchase more. Manual systems allow the small hospital owner to manage inventory with very little investment in systems or training. Maintaining data integrity is a major downside to managing inventory using a spreadsheet. A single data entry or formula error can cause major inaccuracies in the data output. (Dolinsky and Anton, 2010)

**Barcode:** Inventory management systems that use barcode technology increase the accuracy and efficiency of managing inventories. All major retailers use barcode technology as part of an overall inventory management program. When a barcode is read at the point-of-sale (the computerized cash register), inventory sales data are immediately read to a broader system that maintains usage statistics. The health facility is purchasing department uses these data to make buying decisions based on sales and existing inventory levels. Barcodes also manage inventory at the warehouse level. Most warehouses use barcode or radio frequency identification (RFID) to scan incoming inventory into the warehouse's inventory management or warehouse management software. Barcode technology facilitates the movement of inventory within the confines of the warehouse (from one location to another) or from the supplier to the warehouse (receiving) and from the warehouse to the customer (picking, packing and shipping) (Lockard and Robert, 2010)

Radio Frequency Identification: While barcode technology has done a lot to increase the accuracy and efficiency of managing inventory, radio frequency identification (RFID) has raised the bar on inventory management. Hospitals that use radio frequency identification typically move thousands of pieces of inventory through their doors. Radio frequency identification uses two types of technology to manage inventory movements--active and passive technology. Active radio frequency identification technology uses fixed tag readers assigned throughout a warehouse. Anytime an item with a radio frequency identification tag passes the reader, the movement of the item is recorded in the computerized inventory management. Active systems work best in environments that require real-time inventory tracking or where inventory security problems exist. Passive radio frequency identification technology requires the use of handheld readers to monitor inventory movement. Just as in an active system, once an inventory item's tag is read, the movement data are transmitted to the health facility's computerized inventory management. (Moskowitz and Robert, 2010)

Just-in-time (JIT): Just-in-time (JIT) inventory management, also known as lean manufacturing and sometimes referred to as the Toyota production system (TPS), is the process of ordering and receiving inventory for production and customer sales only as it is needed and not before. This means that the company does not hold safety stock and operates with low inventory levels. This strategy helps companies lower their inventory carrying costs by increasing efficiency and decreasing waste. This method requires producers to forecast demand accurately (Brooame, 2009)

ABC analysis: ABC analysis is an inventory categorization method which consists in dividing items into three categories, A, B and C: A being the most valuable items, C being the least valuable ones. This method aims to draw managers' attention on the critical few (A-items) and not on the trivial many (C-items). Inventory optimization is critical in order to keep costs under control within the supply chain. (DesMarais and Christina, 2011) Yet, in

order to get the most from management efforts, it is efficient to focus on items that cost most to the business. The Pareto principle states that 80% of the overall consumption value is based on only 20% of total items. In other words, demand is not evenly distributed between items: top sellers vastly outperform the rest. (Polsson& Ken, 2010)

Material requirements planning (MRP): `Material requirements planning (MRP) is a production planning, scheduling, and inventory control system used to manage manufacturing processes. Most MRP systems are software-based, but it is possible to conduct MRP by hand as well. (Libby, Patricia et al, 2014) An MRP system is intended to simultaneously meet three objectives: Ensure materials are available for production and products are available for delivery to customers; maintain the lowest possible material and product levels in store and plan manufacturing activities, delivery schedules and purchasing activities (Moskowitz& Robert, 2010)

Computerized inventory systems help health facilities order, count, sell and maintain different products in an organization. Health facilities often implement bar code systems computers and scanners that electronically transfer information through the health facility. Inventory security is a key feature of computerized inventory systems. Health facility owners and managers can install tracking devices to ensure inventory is not stolen or is traceable if taken from the health facility. These systems are found at both the retail and wholesale level of the inventory chain. Health facilities often use computerized inventory systems to prevent running out of inventory stock. These systems can provide a report on needed inventory or place preapproved electronic orders to suppliers for more inventories, creating a smooth flow of inventory in the health facility



## **2.4 Summary of Literature Review**

The concept of inventory management has been expounded both in literature as well as from the empirical studies done on the subject area. It is evident that management of inventory has become a common practice among large Organizations worldwide and this is due to the various benefits that accrue to a firm as a result of managing its inventories. Firms manage inventory to determine and maintain an optimum level investment in inventory in order to achieve required operational performance. Firms have continuously managed their inventory in order to improve their operations and meet customer demand. To meet customer demand, firms have to ensure that stock-outs are avoided without incurring high inventory costs. However, the various studies covered have not extensively delved into inventory management practices in relation to the organizations.

## **CHAPTER THREE: METHODOLOGY**

### **3.0 Introduction**

This section covers the background against which data was gathered. It discusses the research design, study area, study population, sample size, sampling techniques, and sources of data, data collection methods and instruments, quality assurance, measurement of variables data processing, analysis and presentation Ethical issues and limitations of the study.

### **3.1 Research design**

The study was conducted through a case study design. It is specifically intended to investigate the different inventory management practices available and how they can be used to improve on inventory management practices in organisations. The design was selected to enable the researcher study smaller samples in-depth analysis by vender taking case studies generally entails extensive, descriptive and holistic analysis. The researcher intends to use a case study research design because it helps the researcher to concentrate on a single locality hence enabling him/her to deeply investigate the variables under study thus collecting the most up-to-date data in a relatively short period of time. The other reason is that case study design is well suited for both qualitative and quantitative approaches.

Qualitative and quantitative research methodologies of data collection were used. Quantitative were used to establish the extent of utilization of inventory management practices while qualitative methods were used to analyses employees and customers views on improved inventory management practices.

### **3.2 Area of study**

The study was carried out in Kisubi Hospital located along the Entebbe High Way in Kawuku Sub County. The main reason for choosing this area is to make data collection easier and reduce on the transport as well as the fact that the hospital is busy.

### **3.3 Study population**

The study population consisted of the local community members and employees of the hospital because they are directly involved in running of the hospital as well as affected by the activities of the hospital. As revealed from the Human Resource Management Report (2016), the hospital has a number of 50 employees and gave adequate data to the researcher.

### **3.4 Sampling procedures**

#### **3.4.1 Sample size**

A sample size representative of the study population was selected using simple random sampling and purposive sampling. The sample size was determined using Krejcie and Morgan (1970) technique of sample size determination and a total of 44 respondents were selected for the study.

#### **3.4.2 Sampling techniques**

According to Orodho and Kombo (2006), sampling is the process of selecting a number of individuals or objects from a population such that the selected group contains elements representative of the characteristics found in the entire group.

The study will mainly use two methodologies. These included stratified sampling, and simple random sampling methodology. These will be used in determining the sample to base on in carrying out data collection in the field because it gave appropriate findings and results in the end as it's consistent and accurate and easy to use than other techniques.

### **3.5 Data collection methods and instruments**

The researcher used both primary and secondary data collection methods. Both qualitative and quantitative techniques were used.

#### **3.5.1 Questionnaire survey**

The study used a questionnaire survey method. This is a formulated written set of questions that was used to obtain information about the study objectives from the study population (Amin, 2005). The questionnaire was used because of its ability to produce data which deals with the topic in depth and detail. This was designed for collecting qualitative and quantitative data and extracting information concerning all the aspects of the study. It was to collect adequate information over a short period of time. It was suitable because the target population is literate. The questionnaire was subjected to the employees in the hospital

#### **3.5.2 Interview.**

This method involves conversation between the researcher and interviewee. According to Kothari (2004) states that interview method involves presentation of oral verbal stimuli and reply in terms of oral verbal responses either face to face or through telephone. The researcher found this method was appropriate for the study because explanations to the questions asked was given immediately and the researcher could ask for more clarification.

### **3.5.2 Documentary review-**

This assisted to collect data from the inventory documents used to observe the movement of inventory in the hospital as well as the intervals of re ordering inventories.

## **3.6 Quality assurance.**

### **3.6.1 Validity**

Validity refers to the extent to which questions in an instrument accurately measure the variables therein (Hair et al., 2003). In other words, Validity is the accuracy and meaningfulness of inferences, which are based on the research results (Mugenda and Mugenda, 1999). The questionnaire was subjected to expert face validity and theoretical content validity tests. A Content Validity Index (CVI) is an indication of the degree to which the instrument corresponds to the concept it is designed to measure. Amin's (2005) recommended minimum CVI of 0.7 which was employed.

### **3.6.2 Reliability**

Melville and Goddard (cited in Mboniyane 2006) define reliability as consistencies of measurements whereas validity as an instrument that measures what they are supposed to measure which is correct. Reliability refers to the degree to which a set of variables are consistent with what they are intended to measure (Amin, 2005). When the items on an instrument are not scored right versus wrong, Cronbach's alpha is often used to measure the internal consistency which is often the case with attitude instruments that use Likert scale. Mugenda&Mugenda, (2003) stresses that a coefficient of 0.70 or more implies that there is a high degree of reliability of the data, and that's what the researcher adopted

### **3.7 Measurement of variables**

In the measurement of variables of the study, a Likert Scale was used to measure each dimension in the scale of 1 to 5, where 1 represents Strongly Disagree, 2 -Disagree, 3- None, 4- Agree and 5- Strongly Agree. This helped used for questions seeking the extent of perception of the respondents about various aspects concerning the inventory management practices and performance of organizations

### **3.9 Data Management**

During the process of data analysis the researcher put into consideration both qualitative and quantitative approaches In the quantitative method or approach, the data was collected using questioners and interviews and its analysis used (SPSS) and also the use of Excel to present the data that is in form of tables and figures Where as in the qualitative approach, data was collected using Interview guides was analyzed and then presented a Narratives way. After the researcher had carried out the study, she collected questionnaires and data from interviews and organize them properly according to the objectives. The processing of data involved editing, re-writing, summarizing and data coding to ensure that better quality report is made. The data was coded on sheets and then arranged in accordance with the data items, their categories and then matched accordingly for easy data analysis.

### **3.10 Data analysis**

Data was analyzed using the two principal methods which included qualitative and quantitative data analysis methods. Because the research included quantitative and qualitative approaches, the researcher used statistical and descriptive methods to analyse the data.

#### **3.10.1 Qualitative data analysis**

The qualitative data was collected through the use of questionnaires, interviews, and observation and conclusions made in the field. Data was analyzed after responses are coded. After the field, responses were arranged under themes. This was basically be to search for the relationship between various codes. To avoid value judgment and bias, the researcher carefully analyzed the information by consciously cross checking and was in position to interpret objectively.

### **3.10.2 Quantitative data analysis.**

Responses were categorized under sub headings and respondents' views were also analyzed under them by tallying the responses from the questionnaires. Simple descriptive statistics like frequencies and percentages were generated hence the tabulation method. The information sought from the respondents' reactions reflected the objectives and research questions.

### **3.11 Ethical issues.**

The researcher abided the research ethical code of conduct, social responsibility, proper collection of data and reporting correctly, as well as respect of the dignity of the respondents. The respondents to the research decided to participate basing on their adequate knowledge about the study. They were informed about the procedures of the study, purpose, issue of privacy and confidentiality. All participants had the right to remain anonymous. The aspect of voluntary participation was also put into consideration thus respondents were not coerced in to participation. William (2008) asserts that prospective research participants must be fully informed about the procedures and risks involved in research and must give their consent to participate.

### **3.12 Limitations of the study and possible solutions**

During the course of the study, the research met the following limitations;

Some of the targeted respondents developed bias to the researcher, and this led them to give biased information especially the staff responsible for inventory. The researcher used all possible ways to minimize any kind of bias among respondents especially through convincing them that the study is to help improve inventory management activities in the hospital.

The researcher faced financial constraints during the study. Financing the research study was too costly in terms of transport costs, feeding and processing of the proposal and research report. Financial constraints were minimized by trying to spend carefully and better planning in form of drafting a budget and this will help in managing the finances and using the carefully.

The research triggered overwhelming expectations from the community, that is whenever people are interviewed, they request for some money which makes the data collection very expensive even when you try to explain to them the importance of the research they still think that you are a news reporter. For the overwhelming expectations the researcher created awareness about the intentions of the research to the respondents in order to minimize the expectations.

### **3.13 Conclusion**

This Chapter has explored the research methods that the researcher used including the study population, sample size, sampling techniques, and sources of data, data collection methods and instruments, quality assurance, measurement of variables data processing, analysis and presentation among others. The next chapter four looks at the presentation and analysis of findings.





## CHAPTER FOUR

### DATA PRESENTATION ANALYSIS AND DISCUSSION OF THE FINDINGS

#### 4.0 Introduction

This chapter is divided into theme and sub themes to generate a logical flow of the study results putting into consideration the objectives of the study which included; To establish the relationship between stock valuation and organizational performance in Kisubi Hospital; To establish the relationship between issuing methods and organizational performance in health sector Kisubi Hospital and To establish the relationship between inventory management techniques and organizational performance in Kisubi Hospital

#### 4.1 Background of the respondents

In this section, efforts are made to document the background information of the respondents such as gender, age bracket, marital status and educational level attained

##### 4.1.1 Gender of the respondent

**Table 4. 1: showing the gender of the respondent**

	Gender	Frequency (F)	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Female	20	45.5	45.5	45.5
	Male	24	54.5	54.5	100
	<b>Total</b>	44	100.0	100	

*Source: Primary data(2017)*

As presented in the table above, the findings indicate that majority 54.5% of the respondents were males while the minority (45.5%) of the respondents was females. This disclosed that

that there was some gender imbalance in the study as it is indicted that there are more males than females. This also assisted the research to have response from distinct sides with varying views.

#### 4.1.2 Age bracket of the respondent

**Table 4. 2: showing the age bracket of the respondent**

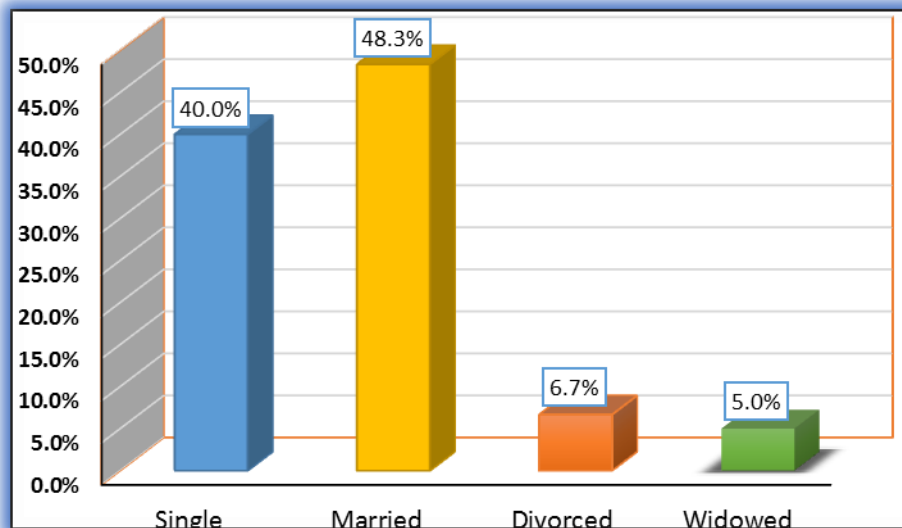
	<b>Gender</b>	<b>Frequency (F)</b>	<b>Percent (%)</b>	<b>Valid Percent (%)</b>	<b>Cumulative Percent (%)</b>
Valid	Below 20	2	4.5	4.5	4.5
	20 – 25	5	11.4	11.4	15.9
	26 – 30	9	20.5	20.5	36.4
	31 – 35	14	31.8	31.8	68.2
	36 – 40	8	18.2	18.2	86.4
	Above 40	6	13.6	13.6	100.0
	<b>Total</b>	44	100.0	100	

**Source: Primary data (2017)**

Results from table 4.2 showed that the majority (31.8%) of the respondents belonged to the age group of 31-35 years, those were followed by (20.5%) who had years ranging from 26 – 30 years, then (18.2%) of the respondents were in the age group of (36-40) years, (13.6%) of the respondents had years above 40, (11.4%) ranging from 20-25 years, and the minority (4.5%) were below 20 years.

### 4.1.3 Marital Status of the respondent

Figure 4. 1 Showing the Marital Status of the respondent

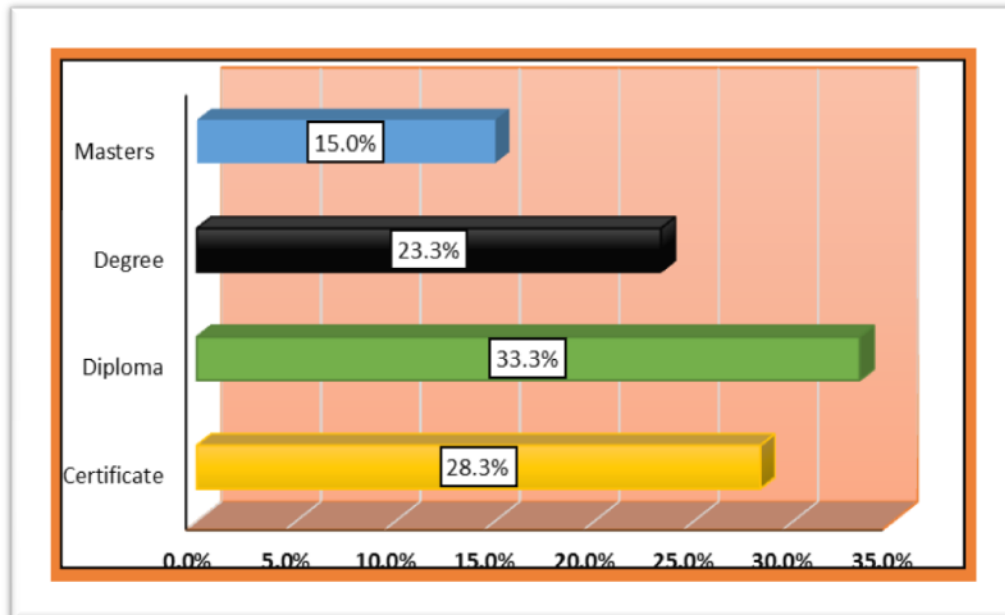


*Source: Primary data (2017)*

According to figure 4.1, it was indicated that the majority (48.3%) of the respondents were married, those were followed (40.0%) who were still single, then (6.7%) had divorced whereas the minority (5.0%) of the respondents were widowed. This showed that the working population was distributed among different marital status and they had different views in relation to the topic under investigation hence helping the company on getting different ideas on branding.

#### 4.1.4 Education Level of the respondent

*Figure 4. 1 Showing the Education Level of the respondent*



*Source: Primary data (2017)*

Results from figure above indicated that the majority (33.3%) of the respondents had attained a diploma. (28.3%) had attained certificate, (23.3%) were degree holders while the minority (15.0%) of the respondents had attained a masters level. From the above figure, it is observed that more than 70% of the respondents were educated and probably were equipped with improved skills and knowledge to operate company tasks..

#### 4.2 Stock valuation and organizational performance

The first objective of the study was to investigate the relationship of stock valuation and organizational performance. The findings were presented, analysed and interpreted in percentages and frequencies as indicated below

**Table 4. 3 Showing the stock valuation and organizational performance**

Stock valuation and organizational performance.	SA		A		NS		D		SD	
	F	(%)	F	(%)	F	(%)	F	(%)	F	(%)
Stock valuation has allowed the Hospital to provide a monetary value for items	22	50.0%	20	45.5%	0	0.0%	2	4.5%	0	0.0%
Stock valuation has also helped the Hospital to assure accurate financial statements.	20	45.5%	22	50.0%	1	2.3%	1	2.3%	0	0.0%
All inventory to be sold is first valued	19	43.2%	21	47.7%	1	2.3%	2	4.5%	1	2.3%
Sale of valued inventory is important for accumulating sales for the Hospital	28	63.6%	16	36.4%	0	0.0%	0	0.0%	0	0.0%
Valuation allows attaching importance to stock for control purposes.	23	52.3%	19	43.2%	2	4.5%	0	0.0%	0	0.0%
Stock valuation has proved to be a good indicator for increased profits for the Hospital.	22	50.0%	18	40.9%	4	9.1%	0	0.0%	0	0.0%

*Source: Primary data (2017)*

Results from the findings show that the majority (50.0%) strongly agreed Stock valuation has allowed the Hospital to provide a monetary value for items, (45.5%) agreed while (4.5%) and disagreed. In consideration to the fact that Stock valuation has also helped the Hospital to assure accurate financial statements, the majority (45.5%) strongly agreed, (50.0%) agreed, (2.3%) were neutral whereas (2.3%) disagreed. This was in agreement with Brooame, (2009)

who propounded that Stock valuation allows a company to provide a monetary value for items that make up their inventory. Inventories are usually the largest current asset of a business, and proper measurement of them is necessary to assure accurate financial statements

It was revealed that the majority (47.7%) of the respondents agreed that all inventory to be sold is first valued, (43.2%) strongly agreed, (2.3%) were not sure whether All inventory to be sold is first valued while (4.5%) and (2.3%) disagreed and strongly disagreed respectively. his in line with the findings of the interview where one of the respondents mentioned that.

*We make sure that for every stock and inventory that we sell, it is valued so as to avoid loses*

The findings show that the majority (63.6%) strongly agreed that Sale of valued inventory is important for accumulating sales for the Hospital while the minority (36.4%) agreed this in line with the findings by Shin & Soenen, (2008) who stressed that the sale of well-valued inventory is significantly important for accumulating sales for a health facility. When health facilities value their inventory with the best methods and in a good manner, they take note of its value and as such sale it a very good price hence earning good sales from them

In relation to the fact that Valuation allows attaching importance to stock for control purposes, the most of the respondents that is (52.3%) strongly agreed, (43.2%) agreed whereas the minority (4.5%) were not sure about this. It was revealed that the majority (50.0%) of the respondents strongly agreed that Stock valuation has proved to be a good indicator for increased profits for the Hospital, (40.9%) agreed, (9.1%) were not sure whether Stock valuation has proved to be a good indicator for increased profits for the Hospital. One of the interviewed respondents stressed that

In most cases, different valuation methods produce different cost of sale figures and eventually different gross profits.

#### 4.2.1 Correlation on Stock valuation and organizational performance

**Table 4. 4: Stock valuation and organizational performance**

		Stock valuation	organizational performance
Stock valuation	Pearson Correlation	1	0.477**
	Sig. (2-tailed)		.001
	N	44	44
organizational performance	Pearson Correlation	0.477**	1
	Sig. (2-tailed)	.001	
	N	44	44

\*\*Correlation is significant at 0.05 levels (2-tailed)

**Source: Primary Data (2017)**

Results in the table show that there is a significant positive relationship between Stock valuation and organizational performances. This was done with the support of the Pearson correlation product moment technique. The table above reflects the results that emerged. It comprises of variables; Stock valuation and organizational performances, the Pearson correlation ( $r=0.477^{**}$ ). This revealed a positive relationship between Stock valuation and organizational performances. It is also revealed that the  $p < 0.01$ , is less than the alpha level of significance of 0.05 which shows a significant relationship between Stock valuation and organizational performances. The  $r$  value of  $r=0.477^{**}$ ) reveals that a positive relationship exists between Stock valuation and organizational performances



### 4.3 Issuing methods and organizational performance

The second objective of the study was to investigate the relationship between Issuing methods and organizational performance. The findings were presented, analysed and interpreted in percentages and frequencies as indicated below.

**Table 4. 5 Showing the Issuing methods and organizational performance**

Issuing methods	SA		A		NS		D		SD	
	F	(%)	F	(%)	F	(%)	F	(%)	F	(%)
Issuing methods have follows a specific policy	32	72.7%	8	18.2%	2	4.5%	1	2.3%	1	2.3%
Issuing methods have helped us in planning and forecasting.	21	47.7%	18	40.9%	1	2.3%	3	6.8%	1	2.3%
The methods used in for issuing inventory considers items which came first	26	59.1%	12	27.3%	2	4.5%	1	2.3%	3	6.8%
Issuing methods have also helped us to Reduce Obsolete Inventory	18	40.9%	15	34.1%	6	13.6%	2	4.5%	3	6.8%
Issuing method has also reduced the inflationary impact felt by the health facility,	18	40.9%	21	47.7%	1	2.3%	4	9.1%	0	0.0%
The stock record cards for used in issuing has helped the Hospital to get inventory values closing stock	24	54.5%	16	36.4%	4	9.1%	0	0.0%	0	0.0%

*Source: Primary data (2017)*

Findings also indicated that the majority (72.7%) strongly agreed that Issuing methods have follows a specific policy, (18.2%) agreed (4.5%) were not sure whether Issuing methods have follows a specific policy while (2.3%) and (2.3%) disagreed and strongly disagreed respectively. Results from the findings show that the majority (47.7%) strongly agreed that Issuing methods have helped us in planning and forecasting, (40.9%) agreed, (2.3%) were not sure while (6.8%) and (2.3%) disagreed and strongly disagreed respectively. This can help the business with planning and forecasting. During times of inflation, issuing method has the effect of increasing the value of remaining inventory and increasing net income. Showing large assets and income can help a health facility that is trying to lure in potential investors and lenders as agreed by Baines &Langfield-Smith, (2013)

The findings of the study indicated that the majority (59.1%) of the respondents strongly agreed that the methods used in for issuing inventory considers items which came first, those were followed by (27.3%) who agreed, (4.5%) of them were not sure whether the methods used in for issuing inventory considers items which came firstwhile (2.3%) and (6.8%) disagreed and strongly disagreed respectively. According to the study findings, it was presented that the majority (40.9%) of the respondents strongly agreed that Issuing methods have also helped us to Reduce Obsolete Inventory., those were followed by (34.1%) who agreed, (13.6%) of them were not sure whether this was true, (4.5%) disagreed while the minority (6.8%) strongly disagreed. This was in line with the findings of the interview where one of the respondents pointed out that:

*“We require obsolete inventory to be written off against its bottom line after a predetermined period has lapsed since its last usage. Issuing method helps prevent obsolete inventory by using the inventory first received before using newer inventory*

In relation to the study findings, it was shown that the majority (47.7%) of the respondents agreed that Issuing method has also reduced the inflationary impact felt by the health facility, (47.7%) strongly agreed, (2.3%) of them were not sure whether Issuing method has also reduced the inflationary impact felt by the health facility whereas(9.0%) disagreed. The findings of the study indicated that the majority (54.5%) of the respondents strongly agreed that The stock record cards for used in issuing has helped the Hospital to get inventory values closing stock, those were followed by (36.4%) who agreed, (9.1%) of them were not sure whether the stock record cards for used in issuing has helped the Hospital to get inventory. This was in agreement with Brevard, Henry et al, (2013) who stressed that Inflation refers to the increase in price of an item over time. Issuing method can reduce the inflationary impact felt by the health facility, as the oldest inventory items are used.

#### 4.3.1 Correlation on Issuing methods and organizational performance

**Table 4.6: Issuing methods on organizational performance**

		Issuing methods	Organizational performance
Issuing methods	Pearson Correlation	1	0.322**
	Sig. (2-tailed)		.000
	N	44	44
Organizational performance	Pearson Correlation	0.432**	1
	Sig. (2-tailed)	.000	
	N	44	44

\*\*Correlation is significant at 0.05 levels (2-tailed)

*Source: Primary Data (2017)*

Results in the table show that there is a significant positive relationship between issuing methods on organizational performance. This was done with the support of the Pearson correlation product moment technique. The table above reflects the results that emerged. It

comprises of variables; Issuing methods n on organizational performance, the Pearson correlation ( $r=0.432^{**}$ ). This revealed a positive relationship between Issuing methods organizational performance. It is also revealed that the  $p < 0.00$ , is less than the alpha level of significance of 0.05 which shows a significant relationship between Issuing methods organizational performance. The r value of ( $r=0.432^{**}$ ) reveals that a positive relationship exists between Issuing methods on organizational performance.

#### **4.4 Effect of Inventory management techniques on Organizational performance**

The second objective of the study was to establish effect of Inventory management techniques on organizational performance. The findings were presented, analysed and interpreted in percentages and frequencies as indicated below. They were categorized on how the respondents strongly agree, (SA), agree (A), Not Sure (NS), disagree (D) and strongly disagree (SD).

**Table 4. 7: Showing Inventory management techniques**

Inventory management techniques	SA		A		NS		D		SD	
	F	(%)	F	(%)	F	(%)	F	(%)	F	(%)
Inventory management techniques has allowed the Hospital to minimize inventory costs	16	36.4%	19	43.2%	3	6.8%	2	4.5%	4	9.1%
The techniques have also allowed the Hospital to order for the only necessary stock.	25	56.8%	14	31.8%	2	4.5%	0	0.0%	3	6.8%
The techniques have also allowed the Hospital to receive only required for the Hospital.	18	40.9%	18	40.9%	3	6.8%	4	9.1%	1	2.3%
The Hospital is able to reorder before its inventory goes to zero	16	36.4%	26	59.1%	0	0.0%	2	4.5%	0	0.0%
The Hospital has been able to reduce the time lag before the inventory arrives	19	43.2%	17	38.6%	3	6.8%	3	6.8%	2	4.5%
Inventory management has enhanced customer satisfaction due to reduced number of stock-outs.	21	47.7%	18	40.9%	1	2.3%	3	6.8%	1	2.3%

*Source: Primary data (2017)*

In relation to the study findings, it was shown that the majority (43.2%) of the respondents agreed that Inventory management techniques has allowed the Hospital to minimize inventory

costs, (36.4%) strongly agreed, (6.8%) of them were not sure Inventory management techniques has allowed the Hospital to minimize inventory costs while the (9.1%) strongly disagreed and minority (4.5%) of the respondents disagreed. In addition to the above, the study findings showed that the majority (56.8%) of the respondents strongly agreed that the techniques have also allowed the Hospital to order for the only necessary stock(31.8%) agreed, (4.5%) of them were not sure disagreed while the (6.8) of the respondents strongly disagreed. This was supported by the findings of the interview where one of the respondents noted out that:

*“Inventory management techniques have significant for any relevant enterprise in an inventory intensive organization because effective practices in inventory management will allow a firm to minimize inventory costs and avoid the consequences that come with a shortage of material resources*

The findings of the study indicated that the majority (40.9%) of the respondents strongly agreed and agreed that The techniques have also allowed the Hospital to receive only required for the Hospital., those were followed by (9.1%) who disagreed, (6.8%) of them were not sure whether The techniques have also allowed the Hospital to receive only required for the Hospital. while (2.3%) strongly disagreed. According to the findings of the study, it was presented that the majority (59.1%) of the respondents agreed thatThe Hospital is able to reorder before its inventory goes to zero, (36.4%) of them agreed, (4.5%) disagreed. This implies that the management tries to reconcile them and this reconciliation points is economic order quantity. In reality, a company will wish to reorder before its inventory goes to zero for two reasons. First, by always having at least some inventory on hand, the firm minimizes the risk of stock out and resulting losses of sales and customers. Second, when a firm does not reorder, there will be some time lag before the inventory arrives. The three extensions are

maximum, minimum stock limit and reorder points as agreed by DesMarais and Christina, (2011)

In relation to the study findings, it was shown that the majority (43.2%) of the respondents strongly agreed that The Hospital has been able to reduce the time lag before the inventory arrives, (38.6%) agreed, (6.8%) of them were not sure whether have also been able to reduce the time lag before the inventory arrives while the minority (2.0%) of the respondents strongly disagreed. In addition to the above, the study findings showed that the majority (47.7%) of the respondents strongly agreed Inventory management has enhanced customer satisfaction due to reduced number of stock-outs (40.9%) agreed, (6.8%) of them disagreed while the minority (2.3%) of the respondents strongly disagreed. This was supported by the findings of the Moskowitz & Robert, (2010) who noted out that to meet customer demand, firms have to ensure that stock-outs are avoided without incurring high inventory costs. However, the various studies covered have not extensively delved into inventory management practices in relation to the organizations.

#### 4.4.1 Correlation on Inventory management techniques on organizational performance

**Table 4. 8: Inventory management techniques and organizational performance**

		Inventory management techniques	organizational performance
Inventory management techniques	Pearson Correlation	1	0.443**
	Sig. (2-tailed)		.002
	N	44	44
organizational performance	Pearson Correlation	0.443**	1
	Sig. (2-tailed)	.002	
	N	44	44

\*\*Correlation is significant at 0.05 levels (2-tailed)

*Source: Primary Data (2017)*

Results in the table show that there is a significant positive relationship between Inventory management techniques and organizational performance. This was done with the support of the Pearson correlation product moment technique. The table above reflects the results that emerged. It comprises of variables; Inventory management techniques and organizational performance, the Pearson correlation ( $r=0.443^{**}$ ). This revealed a positive relationship between Inventory management techniques and organizational market performance. It is also revealed that the  $p < 0.002$ , is less than the alpha level of significance of 0.05 which shows a significant relationship between Inventory management techniques and organizational performance. The  $r$  value of ( $r=0.443^{**}$ ) reveals that a positive relationship exists between Inventory management techniques and organizational performance.

#### **4.6 Performance of the Organization**

Under this section, the performance of the hospital was presented, analysed and interpreted in percentages and frequencies as indicated below. They were categorized on how the respondents strongly agree, (SA), agree (A), neutral (N), disagree (D) and strongly disagree (SD).



**Table 4.7 organisational performance**

<b>Organizational performance</b>	<b>SA</b>		<b>A</b>		<b>NS</b>		<b>D</b>		<b>SD</b>	
	F	(%)	F	(%)	F	(%)	F	(%)	F	(%)
Inventory management practices has greatly improved the Hospital	17	38.6%	18	40.9%	3	6.8%	2	4.5%	4	9.1%
The Hospital has improved the customer satisfaction.	25	56.8%	14	31.8%	2	4.5%	0	0.0%	3	6.8%
The Hospital has realized higher value for money in the last four years.	18	40.9%	18	40.9%	3	6.8%	4	9.1%	1	2.3%
There is improved response time in the Hospital.	16	36.4%	26	59.1%	0	0.0%	2	4.5%	0	0.0%
Inventory management has led to improved timely delivery of materials.	19	43.2%	17	38.6%	3	6.8%	3	6.8%	2	4.5%
There is improved continuous flow of materials due to enhanced inventory management practices.	21	47.7%	18	40.9%	1	2.3%	3	6.8%	1	2.3%
I am satisfied with inventory management practices carried out at the Hospital.	24	54.5%	17	38.6%	0	0.0%	1	2.3%	2	4.5%

*Source: primary data (2017)*

The findings of the study indicated that the majority (40.9%) of the respondents agreed that Inventory management practices has greatly improved the Hospital, those were followed by (38.6%) who strongly agreed, (6.8%) of them were not sure whether Inventory management

practices has greatly improved the Hospital while (4.5%) and (9.1%) disagreed and strongly disagreed respectively. This was supported by the findings of the interview where one of the respondents mentioned that:

*“We have achieved a good improvement in as far as inventory management is concerned*

According to the findings of the study, it was presented that the majority (56.8%) of the respondents strongly agreed that The Hospital has improved the customer satisfaction, (31.8%) of them agreed, (6.8%) strongly disagreed while the minority (4.5%) of the respondents were not sure whether The Hospital has improved the customer satisfaction. This was in agreement with Eckert (2007) who examined inventory management and the role it plays in improving customer service levels. He found a positive relationship between inventory management practices and customer satisfaction due to reduced number of stock-outs.

In relation to the findings of the study, it was showed that the (40.9%) of the respondents strongly agreed and agreed that the Hospital has realized higher value for money in the last four years, (9.1%) of them disagreed, (6.8%) were not sure, while the minority (2.3%) of the respondents strongly disagreed. The findings of the study indicated that the majority (59.1%) of the respondents agreed that There is improved response time in the Hospital, those were followed by (36.4%) who strongly agreed while the minority (4.5%) of the respondents were not sure whether the There is improved response time in the Hospital. From the findings of the study, it was also presented that the majority (43.2%) of the respondents strongly agreed that Inventory management has led to improved timely delivery of materials, those were followed by (38.6%) who agreed, (6.8%) of the respondents were not sure whether Inventory management has led to improved timely delivery of materials whereas (6.8%) and (4.5%) disagreed and strongly disagreed respectively. This shows that there is also increase in

efficiency and productivity where customers are easily served due to timely availability of inventory in the warehouses.

In addition to the above, the findings of the study indicated that the majority (47.7%) of the respondents strongly agreed that there is improved continuous flow of materials due to enhanced inventory management practices, (40.9%) of them agreed, (2.3%) of the respondents were not sure about this, (6.8%) disagreed while only (2.3%) strongly disagreed respectively. More to the above, the findings of the study indicated that the majority (54.5%) of the respondents strongly agreed that they are satisfied with inventory management practices carried out at the Hospital, (38.6%) of them agreed, (4.5%) of the respondents strongly disagreed while the minority (2.3%) strongly disagreed. Health facilities with effective inventory management do not have to spend large capital balances for purchasing enormous amounts of inventory at once. This also saves handling and holding costs and achieves satisfaction.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS OF THE FINDINGS**

#### **5.0 Introduction**

This chapter brings forth the summary of the findings and conclusions drawn from the study based on the findings presented in data analysis and the study objectives. The chapter also advances the recommendations, as well as identifying the areas for further studies.

#### **5.1 Summary of findings**

##### **5.1.1 Stock valuation and organizational performance**

The findings revealed that the majority agreed and strongly agreed that Stock valuation has allowed the Hospital to provide a monetary value for items, has also helped the Hospital to assure accurate financial statements and also that all inventory to be sold is first valued. It was also revealed that the sale of valued inventory is important for accumulating sales for the Hospital in addition to the fact that Valuation allows attaching importance to stock for control purposes. The findings also revealed that stock valuation has proved to be a good indicator for increased profits for the Hospital.

##### **5.1.2 Issuing methods and organizational performance**

The findings indicated that the most respondents agreed and strongly agreed that Issuing methods have follows a specific policy, Issuing methods have helped us in planning and forecasting and also that the methods used in for issuing inventory considers items which came first. It was also revealed that Issuing methods have also helped us to Reduce Obsolete

Inventory in addition to the fact that Issuing method has also reduced the inflationary impact felt by the health facility. The study findings also revealed that the stock record cards for used in issuing has helped the Hospital to get inventory values closing stock

### **5.1.3 Inventory management techniques and organizational performance**

The study revealed that majority of the respondents agreed and strongly agreed that Inventory management techniques has allowed the Hospital to minimize inventory costs, The techniques have also allowed the Hospital to order for the only necessary stock. It was also revealed that the techniques have also allowed the Hospital to receive only required for the Hospital, the Hospital is able to reorder before its inventory goes to zero and also that the Hospital has been able to reduce the time lag before the inventory arrives. From the study Inventory management has enhanced customer satisfaction due to reduced number of stock-outs.

## **5.2 Conclusion**

In conclusion, Stock valuation has allowed the Hospital to provide a monetary value for items, has also helped the Hospital to assure accurate financial statements and also that all inventory to be sold is first valued. Issuing methods have follows a specific policy, Issuing methods have helped us in planning and forecasting and also that the methods used in for issuing inventory considers items which came first. Additionally, Inventory management techniques has allowed the Hospital to minimize inventory costs, the techniques have also allowed the Hospital to order for the only necessary stock. It was also revealed that the techniques have also allowed the Hospital to receive only required for the Hospital.

## **5.2 Recommendations**

Based on this study, the researcher made the following recommendations;

The management should ensure to have industry-specific requirements of some of the inventory management systems (as for the case of JIT) and the obtaining situation is considered before the adoption of the technology.

The organisational management should ensure that prior to adoption of any computerized inventory management systems, they are assessed for appropriateness, resource optimization and feasibility. It should be noted that some of these systems are time consuming, skill demanding and might require large amounts of data in order to operate.

It is also recommend that Organizations should have inventory management policies in place in the organization to guide the organization's inventory management processes and conduct.

## **5.3 Areas for further Study**

More study and research should be made on the following areas and topics

- i) Forms of inventory management practices used in Organisations
- ii) Relationship between inventory management and organisational Profitability

## REFERENCES

Author Stream, (2012). "Advantages Of inventory valuation ".p. 7 Retrieved 23 November 2012.

Author Stream, (2012) "Advantages Of inventory management". p. 7 Retrieved 23 November 2012.

Baines, A., &Langfield-Smith. K (2013) Antecedents to inventory valuation change: a structural equation approach. *Accounting, Organizations and Society*, 28, 675-698.

Brevard E, Henry R and James C, (2013) Principles of inventory valuation. Houghton Mifflin Health facility. Boston,

Brooame, Jr., J. (2009). "The Benefits of Smart computerized inventory management". CBS Interactive.

Charles T, George F & Stricken M, 2010 Inventory valuation. New Jersey: Prentice-hall Inc,

Dale B.C. & Cooper C.L., 2012, Total Quality Management and Inventory systems: An Executive Guide, Basil Blackwell, Oxford

DeBaise, Colleen 2010. "Technology Basics for Health facility". The Wall Street Journal Complete Small Health facility Guidebook.

DeBaise, Colleen 2010. "Technology Basics for Health facility". The Wall Street Journal Complete Small Health facility Guidebook.

DesMarais, Christina 2011. "Choosing the Best Inventory Tracking Software". Inc.com. Retrieved 23 November 2012.

DesMarais, Christina 2011. "Choosing the Best Inventory Tracking Software". Inc.com.

Dolinsky, Anton 2010. "Inventory Management History Part Four". Almyta Systems.

Eckert, S.G. 2007. Inventory Management and its effects on customer satisfaction, *Journal of Public policy*.

Ghosh, A.K. & Kumar, P. 2003. *Production management*, New Delhi: *Anmol Publication Pvt. Ltd.*

Hope, Jeremy, Robin Fraser, Peter Bunce, and Franz Roosli. 2009 "Beyond Budgeting. "Beyond Budgeting Round Table,

Jarrad, V. T, 2010, *Inventory valuation, excess capital and acquisitions*. New York: Garland Publishing, Inc.

Jay & Barry, 2016 *Supply chain strategy: the logistics of supply chain management*, New York: McGraw-Hill.

Jonsson, P., & Mattsson, S.A. 2013. Inventory management practices and their Implications on perceived planning performance, *International Journal of Production Research*, 46:7, 1787-1812.

Kaplan, 2006 A longitudinal study of material planning applications in manufacturing companies. *Int. J. Oper. Prod. Manage.* 26(9), 971–995.

Klein, Karen E., 2011 "Better Health facility better inventory handling," *Health facility Week*, Jan. 19.

Kotler & Keller, 2016 *Lean thinking and vendor managed inventory*, A working Paper

Koumanakos, D.P 2008. The effect of inventory management on firm performance *International Journal of productivity and performance Management*, Vol 57 (pp355-369) Emerald Group Publication



Kruger, G.A. 2015. A statistician looks at inventory management, *Quality Progress*, 38,2,36

Kytonen, E, (2009)the inventory valuation behavior of firms and its structural change in an emerging money market. Proceedings of the University of Oulu.

Libby, Patricia Magad, E.and Amos, J., 2014 Total materials management. New York: Van NostrandReinholdSinghal ,V.R.

Lockard, Robert 2010. "3 Advantages of Using computerized inventory management". Inventory System Software Blog. Retrieved 23 November 2012.

Lysons, 2010. *Purchasing and supply chain management, Prentice Hall. London*

Marginson, David and Stuart Ogden. 2005 "Budgeting and Innovation: Do budgets stifle creativity?" Financial Management (UK).

Moskowitz, Robert, (2010) "How does Inventory Control management systems work". Acc vision.

Ondiek, G. O., &Odera, O. 2016. Assessment of material management in Kenya Manufacturing firms. *Journal of business studies quarterly*, 3, 40-49.

Piasecki, 2010 Dave "Optimizing Economic Order Quantity – Carrying Costs". Inventoryops.com.

Polsson, Ken 2010. "Chronology of Inventory management in private health facilities– 1981". Polsson's Web World.

Richard Robert Libby, Patricia A, and Daniel G, 2009 inventory valuation. McGraw hill Irwin, Boston. ()

Sanghal 2005 *Operations management*, (10th Ed), N.Y. McGraw- Hill Publishing Inc.321-340.

Shin, H., &Soenen L, 2008 Efficiency of inventory valuation and corporate profitability. *Financial Practice & Education*, 8(2), 37-45.

Singh, Sujit 2013. "Computerized inventory management". Cutwater Solutions.

Horace R. Brock, and Linda A. Herrington 2007 *Cost Accounting*, seventh edition, McGraw-Hill International edition.

Joseph.S. Martinich 2007 *production operations management, an applied modern approach*.

## Appendix I: Questionnaire

### Introduction

I am **NALIKKA BERNA** a student of Uganda Martyrs University pursuing a Bachelor's Degree in Business Administration. I am conducting a research on **Inventory Management Practices and Organizational Performance in Health Sectors: A Case Study of Kisubi Hospital**. The information is purely for academic purposes and all the answers will be handled with utmost confidentiality. I therefore humbly request that you complete this questionnaire correctly in the spaces provided or options given.

Thank for time and efforts in advance

Yours faithfully

Nalikka Berna

### Student

#### SECTION A: Demographic Characteristics

*Tick / fill in the most appropriate answer.*

1. Gender:

a) Female                       b) Male

2. Age

a) Below 20 years       b) 20 – 25 years       c) 26 – 30 years   
d) 31 – 35 years       e) 36 – 40 Years       f) Above 40 years.

3. Marital status

a) Single       b) Engaged       b) Married       c) Divorced   
e) Widowed

4. Highest level of education Qualification

a) Certificate       b) Diploma       c) Degree       d) Masters

e) Others (specify) .....

**SECTION B: STOCK VALUATION AND ORGANIZATIONAL PERFORMANCE**

*Please using the below scale, indicate the extent to which you agree or disagree to the following statements by ticking the appropriate number.*

Strongly agree	Agree	Not sure	Disagree	Strongly disagree
5	4	3	2	1

**Section B1: Stock valuation in Kisubi Hospital**

		5	4	3	2	1
1	Stock valuation has allowed the Hospital to provide a monetary value for items					
2	Stock valuation has also helped the Hospital to assure accurate financial statements.					
3	All inventory to be sold is first valued					
4	Sale of valued inventory is important for accumulating sales for the Hospital					
5	Valuation allows attaching importance to stock for control purposes.					
6	Stock valuation has proved to be a good indicator for increased profits for the Hospital.					

**Section B3: Issuing methods in Kisubi Hospital**

1	Issuing methods have follows a specific policy					
2	Issuing methods have helped us in planning and forecasting.					
3	The methods used in for issuing inventory considers items which came					

	first					
4	Issuing methods have also helped us to Reduce Obsolete Inventory					
5	Issuing method has also reduced the inflationary impact felt by the health facility,					
6	The stock record cards for used in issuing has helped the Hospital to get inventory values closing stock					
<b>Section B3: Inventory management techniques in Kisubi Hospital</b>						
1	Inventory management techniques has allowed the Hospital to minimize inventory costs					
2	The techniques have also allowed the Hospital to order for the only necessary stock.					
3	The techniques have also allowed the Hospital to receive only required for the Hospital.					
4	The Hospital is able to reorder before its inventory goes to zero					
5	The Hospital has been able to reduce the time lag before the inventory arrives					
6	Inventory management has enhanced customer satisfaction due to reduced number of stock-outs.					
<b>Section B4: Organizational Performance in Kisubi Hospital</b>						
1.	Inventory management practices has greatly improved the Hospital					
2.	The Hospital has improved the customer satisfaction.					
3.	The Hospital has realized higher value for money in the last four years.					

4.	There is improved response time in the Hospital.					
5.	Inventory management has led to improved timely delivery of materials.					
6.	There is improved continuous flow of materials due to enhanced inventory management practices.					
7.	I am satisfied with inventory management practices carried out at the Hospital.					

**Thank you for your time and response**

## **Appendix II: Interview Guide**

1. Are you aware on how the Hospital manages its inventory management?
2. If yes elaborate.
3. What is the different stock valuation techniques used in the Hospital?
4. What are the different issuing methods used in health sector?
5. What are inventory management techniques and organizational performance in health sector?
6. What challenges are faced in your organization regarding inventory management?
7. What recommendations can you give regarding improving inventory management?

**THANK YOU FOR YOUR TIME AND COOPERATION**

### Appendix III: Sample Size Determination

Note: “N” is population size and “S” is sample size.

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	<b><u>120</u></b>	<b><u>92</u></b>	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
<b><u>50</u></b>	<b><u>44</u></b>	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Source: Krejcie, R. V., & Morgan, D.W. (1970).



