Evaluating the Storekeeping Procedures of the Health Sector

Hanson Obiri-Yeboah

Abstract

Storekeeping procedures play a key role in the supply chain management for the achievement of organisational goals. The lack of capacity to select, forecast, and quantify product requirements, and to manage the stores procedures disrupt the distribution of health commodities to the client, in a government health-care such as Korle Bu Teaching Hospital, and the ineffective stores procedures result in low revenue generation. The study is geared towards finding out the stores procedures pertaining to the hospital, while establishing the relationship between stores procedures and revenue generation. The survey method was used to collect data from workers, management, patients and suppliers on the stores management. Some of the weaknesses were ineffective stock procedures, discrepancies in procedures from receiving to the delivery points, among others, while the strengths is to with stock control following various methods and there is orderly flow of stock. The research established the relationship between efficient stores management with net income. The study will help academicians and stakeholders gain insights about the stores management theories and concepts, while stakeholders interpret and confirm the strengths and weaknesses for bettering the stores procedures. The way forward will involve management of Korle Bu Teaching Hospital enforcing the stores procedures to the latter in line with required standards, and monitoring the flow of stock and information from receiving section to delivery level efficiently, while improving the human resource capacity building and general management of the hospital to enhance effective revenue generation.

Keywords: Stores Evaluation, Storekeeping, Storekeeping Procedures, Warehouse Ethics

I. INTRODUCTION

In a companion study in Africa, only 20 percent of these medicines were available to public sector clients (PATH 2005). Efforts to address this challenge have focused on seeking measures to address stores management issues. Effective store procedures are prerequisites for any better operations. However, these efforts have resulted in a more complex stores management environment involving rigid stores procedures, inventory management concepts with greater attention. Stores management is not given due relevance in the operational cycle within the public sector (Harrison, 2000). According to him, a lot of the stores procedures such as Goods Inward Register (GIR) and Goods Inward Note (GIN) the international standards for enhancing stores procedures are not adhered to, thereby affecting the production outcomes in the long term. Lack of effective implementation of stores procedures in the health care sector accounts for high mortality rate in public hospitals, because items issued for patients lose their efficacy before being administered. Citing Dr. Aryee, (2004), discrepancies such as wrong packaging of products, loss and damages in stores procedures at Government hospitals in Ghana is not managed well, leading to low consumer satisfaction. The physical verification practices of state institutions does not coincide with annual account closing, going a long way to impact quality delivery of products and services (Aryee, 2004). According to Alfred (2007), stores management activities carry glossy blue print policies but lacked effective implementation, especially with codification which is relevant for identifying and defining of receipt and dispatch of items in the organisation. He stated that most stores operations within health care industries are fraught with pilferage, and stealing of drugs, which affects the health care deliveries.

The lack of capacity to select, forecast, and quantify product requirements, and to manage the stores procedures disrupt the distribution of health commodities to the client. Revelations from stores audits have cited payments for deliveries. Inward Note (GIN the international standards (Harrison, 2000). According to him, a lot of the stores procedures such as Goods Inward Register (GIR) and Goods Inward Note (GIN) the international standards for enhancing stores procedures are not adhered to, thereby affecting the production outcomes in the long term. Lack of effective implementation of stores procedures in the health care sector accounts for high mortality rate in public hospitals, because items issued for patients lose their efficacy before being administered. Citing Dr. Aryee, (2004), discrepancies such as wrong packaging of products, loss and damages in stores procedures at Government hospitals in Ghana is not managed well, leading to low consumer satisfaction. The physical verification practices of state institutions does not coincide with annual account closing, going a long way to impact quality delivery of products and services (Aryee, 2004). According to Alfred (2007), stores management activities carry glossy blue print policies but lacked effective implementation, especially with codification which is relevant for identifying and defining of receipt and dispatch of items in the organisation. He stated that most stores operations within health care industries are fraught with pilferage, and stealing of drugs, which affects the health care deliveries.

The lack of capacity to select, forecast, and quantify product requirements, and to manage the stores procedures disrupt the distribution of health commodities to the client. Revelations from stores audits have cited payments for deliveries. Inward Note (GIN the international standards (Harrison, 2000). According to him, a lot of the stores procedures such as Goods Inward Register (GIR) and Goods Inward Note (GIN) the international standards for enhancing stores procedures are not adhered to, thereby affecting the production outcomes in the long term. Lack of effective implementation of stores procedures in the health care sector accounts for high mortality rate in public hospitals, because items issued for patients lose their efficacy before being administered. Citing Dr. Aryee, (2004), discrepancies such as wrong packaging of products, loss and damages in stores procedures at Government hospitals in Ghana is not managed well, leading to low consumer satisfaction. The physical verification practices of state institutions does not coincide with annual account closing, going a long way to impact quality delivery of products and services (Aryee, 2004). According to Alfred (2007), stores management activities carry glossy blue print policies but lacked effective implementation, especially with codification which is relevant for identifying and defining of receipt and dispatch of items in the organisation. He stated that most stores operations within health care industries are fraught with pilferage, and stealing of drugs, which affects the health care deliveries.
management in the health care sector, such as KBTH is ineffective and lack proper adherence to laid down policies and practices. Stores procedures are fraught with irregularities, such as pilferage, theft, improper cost management with no specific rules on accounting/pricing method governing the issue of materials, with its consequence on the mortality rate in public health care, Paulray et al (2000).

II. LITERATURE REVIEW

A. Stores Management

According to Kaufmann (2000), stores function as an element of materials department has an interface with many user departments in its operations. The inherent limitation of forecast makes the stores function a necessity. Stores function is an inseparable part of all business and non-business concerns, whether they are industrial or service-oriented, public or private, small or large. The task of store keeping relates to safe custody and stocking materials, their receipts, issues and accounting with the objective of efficiently and economically providing the right materials at the right time whenever required in the right condition to all user departments. Stores function is an inseparable part of all business and non-business concerns, whether they are industrial or service oriented, public or private, small or large. By proper preservation and storage, the store department avoids any depreciation in the value of inventory. The financial view considers stores as an overhead i.e. a cost with no return. This all the more highlights the need for economic operation and efficient stores management. The cost of stores can be categorized into a capital cost component and revenue expenditure component.

The revenue component of stores expenditure consists of salaries and wages of store personnel, maintenance cost, stationary cost, communication expenses, and inventory carrying cost. Stores must be visualized as an integral part of the purchasing – manufacturing – marketing link. Unfortunately, stores management is looked down upon by many as an operational clerical function and fails to attract appropriate talent because of its underdog nature. One has to bear in mind that the stores manager heads the single largest group of current assets and his performance is the key to smooth production and subsequent marketing. One must appreciate the role of stores in maintaining optimum inventory and highlighting exception cases through building up of proper measures by maintaining accurate records.

B. Functions of stores

The following are the principal functions of a store; to receive raw materials, components, tools, spares, supplies, equipments and other items and account for them, asserts Kaufmann, (2000). To provide adequate, proper and efficient storage and preservation for all the items. Physical checking of all incoming materials as per the delivery challan/invoice and proper maintenance of daily goods receipt register or records. The firm arrange for inspection of incoming materials. It ensures that goods inward notes (GIN) are raised and distributed without delay and issue materials to the consuming departments against authorised requisitions and account for the same. Maintain accurate and up-to-date records of material received, issued, rejected, disposed, and quantity on hand of all the items.

The following are the principal functions of a store;
- Ensure that all documents relating to receipts and issue are sent to stock control, accounts and other concerned departments.
- Undertake stock verification as per approved procedure.
- To highlight stock accumulation, discrepancies and abnormal consumption and initiate appropriate control action, wherever necessary.
- To minimise obsolescence, surplus and scrap through proper codification, standardization, preservation and handling.
- To ensure good housekeeping so as to minimise the need for material handling.
- To make available a balanced flow of materials so as to economise on capital tied up in inventory.
- To accept and store scrap and other discarded materials.

Depending upon the nature of business (i.e. manufacturing, trading services, etc.) one or more of these functions may gain primacy over the rest.

C. Stores organization
According to Alford and Beatt (2002), organization is a vehicle to achieve the predetermined objectives. It is a framework of tasks, responsibilities, authorities, and associated personnel. The type of organization must be geared to achieve the desired objectives efficiently and economically. Organization is based on commonality of certain tasks and specialization of work. It is an indispensible means to good management. A faulty organization structure can seriously hamper its performance.

Steps in organization: Identify the entire gamut of tasks to be performed. Group and re-group the tasks according to certain well defined common characteristics.

- Define and delegate responsibility and commensurate authority.
- Establish reporting and structural relationships between all positions.

Stores organization must comprise of the following:

- Outlining and communicating to all concerned, becomes the primary and other objectives of the store functions. Define clear-cut responsibilities.
- Bestow appropriate authority and practice delegation of power to enable the firm fulfill its given responsibilities.
- Establishment of proper communication channels and allocate tasks to qualified personnel.

The conventional practice is to locate the stores near user departments so as to minimize material handling cost and ensure timely supplies so as to allow smooth production. The materials department is seldom consulted in aspects such as stores location and layout. Stores management centralised and decentralised stores: There are both advantages and disadvantages associated with a centralized or decentralized stores. A very big organization having a portfolio of numerous products may have a huge main store along with number of smaller decentralized store sections (Thai, 2000).

**Advantages of centralized store:** Optimum level of service to user departments; Better internal control; Economy in storage space and material handling; Single point delivery and single point inspection; Speedy communication with purchase department and various suppliers; Provides opportunities for standardization; Probability of obsolescence is reduced due to higher inventory turnover; Users departments are provided with a wide variety of materials; and avoids duplication of efforts.

**Disadvantages of centralized store:** May create bottlenecks in materials receipt, incoming inspection and issues – the basic function of any stores; It may not be sensitive to the needs of individual user departments; May not be located at the optimum location and thus result in increased materials handling and transportation costs; Improper control procedures may result; Inaccurate shortages and unanticipated performance; Requires more internal documentation; Risk is accentuated in case of natural or manmade calamities such as fires.

**D. Stores location and layout guiding principles of stores location**

The following decisions are a part of the location decision:

- One store or many stores?
- Should it report to the production department or to the materials department?
- What transport facilities are to be used? Is there a chance or need for future expansion?
- What is the number and variety of materials used in the firm?

Guiding principles of store location: Basic objective of stores is to maximise service to user departments at optimum overall cost. Priority must be given to minimum material handling and transportation expenditure. According to Paulray et al (2004), the firm has to incorporate in-built flexibility to deal with futuristics requirements. Adequate communication links must be arranged for. Adequate safety measures must be available at hand, and pre-plan effected about the nature, quantity of materials to be dealt with. Guiding principles of stores layout: The determining factors of a proper stores layout are economy and efficiency. An underutilized warehouse is indicative of wastage of capital and one that holds too much represent wastage of time and labour (Harrison, 2001). The objective must be to ensure a continuous unhindered workflow through the stores so that it can operate continuously and provide optimum service.

Given below are some thumb rules for proper stores layout.

The organisation arrange for separate, de-marked areas for incoming, outgoing material, materials received but yet to be inspected, material received - inspected - and rejected, toxic or hazardous material, scrap and obsolete materials.
etc. An item must be locatable with minimum effort and expense of time, and adequate lighting, ventilation, and proper colour schemes must be devised. There should be the provision for heating, cold storage, air-conditioning, and other environmental requirements as and when necessary. The firm keep safety appliances such as goggles, aprons, hand gloves, etc, at accessible places, the stores department from unauthorized access to other parties are screened. The stores function deal with three major activities, asserts (Hughes, 2002):

- Receipt
- Stocking
- Issues

E. Medical Stores Management
The goals of medical stores are to protect stores items from loss, damage, thefts, or wastage and to manage reliable movement of supplies from source to users in the most economic and expedient way. The integrated process is called material management. The system has three components:

- An inventory control system that the right goods are acquired in the correct quantities, monitor their quantity, and minimise the total variable cost of operation.
- A warehouse system monitors the physical flow of goods within the system, such as receipts, storage and issues.
- Performance monitoring system checks that the monitoring systems are operating efficiently.

i. Manual and computerised system
The information system must include data on products entering and leaving the warehouse, products in stock, products in order, and ways to monitor the progress of orders in the supply pipeline. The system should be well-designed with computerised information system clearly defined procedures. Both manual and computerised systems perform the same fundamental information processing, data retrieval, and dissemination. The difference is that a computerised system enables some tasks to be accomplished more rapidly, accurately economically and flexibly.

ii. Flow of stock and information
Stock and the information that accompanies it should flow through the warehouse in orderly flow through the warehouse in orderly manner. The process has six stages:

**Recovery:** Goods arrive at the receiving room are quarantined, inspected, and if found to be acceptable, entered into the stock-recording system.

**Storage:** Accepted goods are moved to their allocated position in the warehouse, where they are stored in the first-in/first-out (FIFO) or first-expiry/first-out (FEFO) order.

- Allocation of stock: The manager determines whether to allocate the complete quantities requested when a requisition is received.
- Order picking: An order picking is prepared. Workers use this list to identify and collect the allocated items from the warehouse.
- Order assembly: Individual orders are assembled and checked in the parking area.
- Dispatch and delivery: The packed goods are held in designated, secure areas pending shipment, then loaded onto the transport and dispatched, accompanied by required documentation.

iii. Stock receipt
When the shipment arrives at the warehouse receiving area, contacts should be quarantined until they have been checked. The receiving clerks systematically check the cases and their contents against supplied invoice. Discrepancies, variations, and damage are noted in the invoice. A prompt and thorough inspection based on predefined criteria is essential to quality assurance and as a precursor to any insurance claim. A copy of the recovery report is filed according to the purchase order (P.O.) number to which it corresponds. The other copy and the supplier’s invoice are passed to the stock control section.

iv. Stock Storage
After incoming stock has been checked and approved, it is formally received from the receiving area and moved to the warehouse to be stored in the appropriate zone. New stock may be stored on floor pallets, pallet racks, or shelves.
If a fluid or semi-fluid location system is used, the exact location of each item must be recorded. If a bin card system is in use, receipts should be entered on the bin card when the items are transferred to the storage area.

v. Stock Controlling using FIFO and FEFO
In order to avoid accumulation of expired and obsolete stock items should be stored on a FIFO and FEFO, according to the following: The stock control system must record the expiry date and the date of receipt. Stock must be stored so that the earliest expiry or first-delivered batches can be picked and issued first. When small quantities are involved, this goal can be achieved by placing the newly received stock at the back of the shelf behind the existing stock. When larger quantities are involved, the newly recorded items can be placed on the upper level of the pallet racking. They remain there until the older stocks have been issued.

vi. Order Allocation
Under a pull distribution system, lower-level stores health facilities submit request, or requisition for supplies. At most medical stores, a designated official is responsible for reviewing requisition and allocating stock based on inventory levels at the requesting facility and in the issuing warehouse as well as on past consumption at the facility. A formula is used for quantification based on their inventory control system to prevent over or under ordering, and rationed at the warehouse level only if there are insufficient funds or stocks.

vii. Order Picking
The allocation quantities form the order picking. This list is passed by the storekeeper. The listed items are taken from stock in strict FIFO/FEFO order and transported to the packing area, when order assembly takes place. In large stores it is common to use separate zones or rooms for storing specific types of products, such as anti-retroviral, which may be locked up.

viii. Order Assembly
At a second shipping location to the supplies are arranged in the order in which they appear on the picking list or requisition voucher. The order is double checked by the storekeeper or shopping clerk before items are packed, sealed and labelled for delivery.

ix. Order dispatch and delivery
Supplies are generally distributed according to fixed delivery schedule. In some instances, a collection system may be used, whereby representations from health facilities collect supplies from the store. The shipping clerk completes a delivery voucher. The voucher lists the number and type of shipped packages. Their specific content is not identified unless the items require special handling, such as vaccines, loose items (such as bulk germicides) and medical gas tanks. The voucher is signed by the driver who takes two (2) copies with him/her, together with two copies of the invoice or completed requisition form. The third copy of delivering voucher remains bound in the delivery voucher book, which is maintained by the shipping clerk. When the delivery arrives at the receiving facility, the driver and the facility’s receiving officer count and inspects the containers. Any apparent loss or damage is noted on the delivery voucher. The Receiving Officer and the driver sign both copies. Each keeps one copy. The signed delivery voucher certifies that the driver has safely delivered the supplies. The driver returns the signal copy of the delivery voucher to the inventory clerk, who signs and dates it and also signs and dates the permanent copy in the delivery voucher book.

x. Inventory Picking
The bin card and the stock card, the computer file, or both provide a continuous record of each supply item in stock. The files copies of the purchase orders and the verified copies of the suppliers’ invoices are used to document addition to the inventory. The medical stores unit must regularly take physical counts of stock on hand to check, that the stock balance on perpetual inventory records is correct. The government or stores audit office should also periodically certify that the recorded transactions and net totals are accurate. Inventory verifications are planned to:

- Enforce procedures and regulations designed to prevent loss or wastage
- Ensure that security measures are adequate
- Provide an additional form of evaluation that reveals defects in the warehouse system
- Provide regular evaluation of storage conditions and the conditions, adequacy of storage facilities layout and stock arrangements.
- Identify surplus, expired and obsolete stock

xi. **Zoning stock within the store**

Medicines and essential medical supplies must be located in a part of the store with the correct combination of temperature and security conditions. A zone can be separate building or room, a locked cupboard a refrigerator, a freezer or cold room. The product manufacturer’s storage instructions should be followed to the extent possible. If these instructions cannot be followed, the product must be kept most suitable conditions available and used as quickly as possible. The product manufacturer should be consulted before violating the recommended storage conditions to determine how long the product will remain safe and effective under the actual storage conditions. If no specific storage instructions are given, normal storage conditions for medicines have been defined as “storage in dry, well-ventilated premises at temperature of +15°C to + 25°C (i.e. degree Celsius) or depending upon climatic conditions up to +30°C (i.e. degree Celsius) (World Health Organisation, 2003). Each storage zone should have at least one thermometer and temperature should be recorded daily at the hottest times of the day.

xii. **Stock classification**

The items should be organised within each zone at the store. Such organisation make it much easier for store personnel to control stock, take periodic stock inventory, and pick order.

In stores that use fixed local principle, item can be physically organised in one of these ways:

- Alphabetical order
- Dosage form
- Random bin
- Commodity code
- Therapeutic or pharmaceutical category

This method may be effective way of organisation medicines in smaller stores and the dispensaries of small clinical facilities where the store keeper is also a dispenser.

- Alphabetical Order - This is a generic name is attractive method in peripheral stores that keep a small number of items. This method may not results in optimal use of available space.
- Dosage form - With this method, for example tablets and capsules are stored together with separate areas for oral liquids, injections, creams and ointments and fluids, and it allows for optimal use of space.
- Random bin - The storage space is identified by a code. A shelving unit is divided vertically and horizontally into cells, each with a unique location code.
- Commodity code - The system is based on a unique article code combined with a unique code.

xiii. **Stock and storage handling**

The choice of storage handling depends on the following:

- Total quantity of product to be used
- Average volume of each product
- Internal height of the stores building
- Local availability of mechanical handling equipment and the skills to use and maintain it.

xiv. **Human resource management and medical stores**

Every worker receive appropriate job training and refresher programme, as required by the specific profession. A written manual of standard procedures of operating medical stores is supposed to cover the following:

- General management policy
- Management structure
- Job description
- Reporting procedures
• Stock control and other record keeping procedures
• Operating procedures
• Health and safety procedures
• Security measures

**Staff supervision and discipline**
The supervisory hierarchy should be clearly described to all workers. The positive feedback and encouragement are essential, while problems and lapses that appear in performance should be handled professionally and kept in perspective. Regular staffs meetings can help maintain a sense of shared purpose and ensure that staffs understand their responsibilities. An effective store operation relies on staff members provided with requisite training and development to perform their job correctly and line with ethical standards. Workers should be rewarded and praised when they have performed creditably. Staffs need requisite motivation with good salary and incentives with opportunities for personal development to enable staff

**xv. Korle Bu Teaching Hospital**
The Supplies Department is responsible for the management of all medical and non-medical supply of goods and services to the hospital (KBTH, Strategic Plan, 2012-2016). The staff strength is 27, and is divided into procurement, stores and inventory sections. Selection and employment of consultants to render services to the hospital. The functions: Procurement of goods and services, procurement planning and management, tender administration, contract management and maintaining procurement data base. Maintenance of efficient records management system to facilitate auditing. Receipt of goods, inspection and acceptance into Stores.

- Storage. Issuing of items from KBTH stores.
- Monitoring (follow ups).
- Accounting for the goods during audit inspection.
- Disposal of obsolete equipment and machines.
- Assisting in the procurement of works.
- Liaising with agents to clear items from ports (air & sea).

Local Collaborators: Ghana Supply Company, Public Procurement Authority, Ghana Health Services, International Collaborators, Government Hospitals, Chartered Institute for Purchasing and Supply (CIPS), UK.

**KBTH Stores procedures**

**Concept of stores** - Stores need to be considered as a temporary location of materials for operation purposes and should be planned, organized and operated in such a way that period of residence of each item is shortest possible, consistent with economic operations. Since supply cannot be exactly matched with demand, we have to carry operating stock.

![Diagram of KBTH Stores procedures](image)

The above figure shows that a single transaction in direct supply replaces three Operations- Receipt- Stores- Issue. One activity replaces three.

**Receiving and Despatch:** All the incoming materials from the suppliers and other units of the organization shall be received at stores. Arrangement need to be made for transportation, unloading and receiving of materials, and handing over the same to custody group checking up of packages, checking up materials with details of invoices and purchase order, identifying discrepancies, if any, record keeping, preparation of Stores Receiving and Inspection Report.
**Inspection of Materials:** It has to be ensured that every item received in stores is checked from quality angle. Any failure of poor quality materials may put the organization to heavy losses, especially, those of components of vital equipment. Quality plans need to be developed for critical and high consumption value items. Inspection can be carried out by independent Quality Assurance Group (Medical/paramedical/user departments).

**Procedures/Functions of Stores:** Following are the broad functions of stores management.

**Receiving and Despatch:** All the incoming materials from the suppliers and other units of the organization shall be received at stores. Arrangement need to be made for transportation, unloading and receiving of materials, and handing over the same to custody group checking up of packages, checking up materials with details of invoices and purchase order, identifying discrepancies, if any, record keeping, preparation of Stores Receiving and Inspection Report, and for arranging despatches of materials returned to suppliers, sent for repair or transferred to other units of the organization.

**Inspection of Materials:** It has to be ensured that every item received in stores is checked from quality angle. Any failure of poor quality materials may put the organization to heavy losses, especially, those of components of vital equipment. Quality plans need to be developed for critical and high consumption value items. Inspections are carried out by independent Quality Assurance Group or by user department or by third party.

**Issue of materials and maintenance of records:** Stores department, on receipt of requisition/indent from user departments shall identify requirements and issue materials without any delay. Proper records need to be made of issue and receipt documents.

**Warehousing and Preservation:** All materials received from Receipt Section shall be stacked properly and bin location recorded to facilitate issues. Necessary steps need to be taken for preservation of materials especially those, which are to be stored for longer period. Preservation methods need to be developed in consultation with suppliers/user departments.

**Stock control records:** Day to day receipts and issues shall be posted in stock ledgers or master computer so that the current balances of each item are known without physical counting or checking.

**Identification and disposal of scrap, obsolete and surplus materials:** All scrap arising, worn-out and unusable spares etc. shall; be received in scrap yard and after identification and formation of lots shall be disposed off promptly. Similarly, obsolete and surplus items shall be identified and most economical disposal action is taken.

**Physical stock taking/stock verification:** It has to be ensured that physical stocktaking of each item of stores is done at least once in a year, book balances tallied with ground balances. Discrepancies, if any noticed are properly investigated, reconciled and adjusted.

**Identification and codification:** It is also the function of Stores to properly and rationally codify each item of stock, prepare the code catalogues and distribute to all the concerned. This shall involve identification, systematic defining and describing all items, adoption of material specification, unit of measurement, introduction of a degree of standardization and variety reduction.

**Inventory control:** This shall involve fixation of inventory levels, safety stock and monitoring availability, watching outstanding quantities, preparing purchase requisitions for items reaching reorder levels, analyzing consumption pattern, identification of surplus and obsolete materials and initiate disposal action.

**Issue of materials and maintenance of records:** Stores department, on receipt of requisition/indent from user departments shall identify requirements and issue materials without any delay. Proper records need to be made of issue and receipt documents.
**Warehousing and preservation:** All materials received from Receipt Section shall be stacked properly and bin location recorded to facilitate issues. Necessary steps need to be taken for preservation of materials especially those, which are to be stored for longer period. Preservation methods need to be developed in consultation with suppliers/user departments.

**Medical Stores Storage:** Products such as drugs, reagents, etc can be safely stored at uncontrolled room temperature. However, the temperature in the upper part of a store can exceed +40°C even in temperate climates. In cold climates, temperatures will drop below freezing in unheated stores. Such temperature extremes may damage some items.

**Stock storage and handling -** Within each temperature and security zone, products must be stored so that they are easily accessible and protected against damage. There are four basic systems of storage: shelves, floor pallets, block-stacked pallets, and pallet racks.

Direct storage of cartons on the warehouse floor should be avoided because their contents may be damaged by moisture.

**Stock control records:** Day to day receipts and issues shall be posted in stock ledgers or computer master so that the current balances of each item are known without physical counting or checking.

**Identification and disposal of scrap, obsolete and surplus materials:** All scrap arising, worn-out and unusable spares etc. shall be received in scrap yard and after identification and formation of lots shall be disposed off promptly.

**Physical stock taking/stock verification:** It has to be ensured that physical stocktaking of each item of stores is done at least once in a year, book balances tallied with ground balances. Discrepancies, if any noticed are properly investigated, reconciled and adjusted.

**Identification and codification:** It is also the function of Stores to properly and rationally codify each item of stock, prepare the code catalogues and distribute to all the concerned. This shall involve identification, systematic defining and describing all items, adoption of material specification, unit of measurement, introduction of a degree of standardization and variety reduction.

**Inventory control:** This shall involve fixation of inventory levels, safety stock and monitoring availability, watching outstanding quantities, preparing purchase requisitions for items reaching reorder levels, analyzing consumption pattern, identification of surplus and obsolete materials and initiate disposal action.

---

**World Health Organisation standard organisational chart for medical stores operations**

```
Chief Medical Officer

Director, Central Pharmaceutical Stores

Asst Director, Medical Stores

Asst Director, Medical Surgery

Asst Director, Storekeeper

Storekeeper

Assistant Director, Medicines

Storekeeper

Assistant Director, Inventory

Inventory Clerk, Medicines

Receiving Clerk

Inventory Control Clerk

Labourers/Packer

Receiving Clerk

Inventory Control Clerk

Receiving Clerk

Inventory Clerk, Surgery

Receiving Clerk

Inventory Clerk, Surgery

Receiving Clerk

Receiving Clerk

Messengers
```

---

Dama International Journal of Researchers (DIJR), ISSN: 2343-6743, ISI Impact Factor: 0.878
Vol 1, Issue 2, February, 2016, Page 47-60, Available @ www.damaacademia.com
F. Review of Literature
This chapter features the functions of stores outlined in the literature which involves ensuring that all documents relating to receipt are sent to stock control, accounting and other department align with KBTH stores procedures, but the substantial gap between theory and practice occurs in the public institutions. The stores procedures cater for verification as per approved procedure, which are done in collaboration with team of representatives from Medical/paramedical/user departments. The stock ordering system was elaborate in the theories, the study is yet to uncover whether KBTH follows these rules and regulation for receiving, allocation of stock order assembly, dispatch and delivery in the medical supplies operations. Zoning of stock within store was not covered to control enhance quality level and security of drugs in inventory, whether the temperature level and mechanism used for preserving the products follows the due recommended storage conditions. The storage classification methods was not mentioned, but relevant feature in stores management, and whether KBTH storage handling is based on some of points in the storage system choice mentioned above. To ensure good housekeeping so as to minimise the need for material handling in the literature, was good concept, but not part of KBTH stores function, while stores layout, organisation was covered broadly in the stores procedure documentation policy. Accounting/pricing rules governing issues of materials, also a relevant area was not covered in the KBTH store procedures, thus goes a long way in affecting return on investments. The study will have to ascertain whether KBTH has standard procedure for managing their staff concerning medical staff, among in terms of training, emoluments, supervision, professional ethics, while the WHO organisational chart is been applied.

III. FINDINGS, CONCLUSION AND RECOMMENDATION
A. Summary of Findings
The highlights concerning the data findings are as follows:

- The Medical stores procedures help to protect stock by reducing loss, damage and theft.
- Staff/management agree that KBTH operate effectively a combination of manual/computer system in their stores management.
- Stakeholders stated that the flow of stock and information follow through the warehouse system in an orderly manner.
- The respondents disagree that KBTH stock system checks discrepancies to promote quality assurance.
- The stock control system uses FIFO and FEFO methods effectively.
- The order allocation sometimes enhances the rational distribution system to prevent under/over ordering.
- Order dispatch and delivery are done according to required schedule is average.
- Workers/management and other stakeholders agree that inventory verification help tp prevent loss and damage.
- Inventory management enhance security measures and reveal defects in warehouse system.
- Stores handling depends on internal height, quality and average volume of each product
- Internal and external stakeholders agree that storage depends on mechanical handling of equipment and skills of staff.
- KBTH applies management, organisation structures in enhancing stores operations.
- Stakeholders disagree that staff and medical personnel lack proper training and development.
- Salaries and incentives of staff motivating them to work efficiently at KBTH is average.

B. Conclusion
Stores procedures play a relevant role in the supply chain for the achievement of organisational goals. The lacks of capacity to select, forecast, and quantify product requirements, and to manage the stores procedures disrupt the distribution of health commodities to the client. Revelations from stores audits have cited payments for stores without evidence of receipts, prepayments for store items not supplied, purchases without procurement plans, un-accounted...
for store items running into millions of Ghana cedis (The Auditor-General Report – Ghana, 2013). There is lack of effective implementation of stores procedures in the health care sector accounting for high mortality rate in public hospitals, because items issued for patients loose their efficacy before being administered. Citing Dr. Aryee, (2004), discrepancies such as wrong packaging of products, loss and damages in stores procedures at Government hospitals in Ghana is not managed well, leading to low consumer satisfaction.

The research goes a long way to affirm the fact that KBTH physical verification practices of state institutions does not coincide with annual account closing, and the weaknesses unearthed were that medical stores procedures not able to reduce loss, damage and theft, while stock system is ineffective in checking discrepancies to promote quality assurance. Also, the study revealed that the staff and medical personnel lack proper training, development and better remuneration to perform well, while stores management does not positively on the net income of KBTH. The strengths outlined include stock control using FIFO and FEFO method effectively, and the order dispatch and deliveries are done according to schedule, while storage depends on mechanical handling of equipment and skills of staff (Montana, 2001). The study affirm the fact that there is lack of accuracy in stores procedures to prevent wastage and effective management of space and facilities with processes to deliver just-in time principles. The weaknesses affect receiving, transfers, breakage adjustments, balance adjustments, physical count adjustments, internal and external customer returns, translating into unfulfilled profitability targets.

The study goes a long way to confirm the fact that there relationship stores procedures and revenue generation in the health-care industry like KBTH, by helping stakeholders gain insight and interpretation concerning the application of stores management theories and concepts. The research affirmed the fact that there is always the performance gap between theory and practice of stores management theories and concepts in the health care sector resulting in lack of effective deliveries in line with desired profitability index. Also, the study has gone a long way to enlighten the researcher concerning stores procedures, particularly in the health care industry. The project also will add up to the information academicians and research institutions have gained on the theories and conceptual framework of stores procedures in stores management in the health industry. Finally, the project will assist stakeholders of KBTH ascertain the challenges and draw new concepts and policies in the stores procedures to help realise their organisational goals and mandate.

C. Recommendations

Stores procedures should enhance the balanced flow of materials.

- KBTH stores procedures has to help economise capital tied up in inventory
- KBTH stores procedures should accept and store scrap and other discarded material
- Establish reporting and strict relationship between all parties in the value chain.
- The stores procedures have to apply the receiving, storage, allocation, order picking order assembly and dispatch/delivery accordingly.
- The medical stores should take physical counts regularly on hand to check that the stock on perpetual inventory record is correct.
- Inventory verification should provide regular evaluation of storage condition and adequacy of storage facilities.
- Effective zoning has to be carried out to manage space and preserve the storage condition of products.
- KBTH has to carry out storage classification effectively to include commodity code, among others.
- KBTH has design effective reporting procedures among stores personnel and undertake stock control and other record-keeping procedures.
- KBTH order allocation should enhance rational distribution pool system, according to a fixed delivery schedule to prevent under/over ordering, while promoting allocation cost-effectiveness.
- Material handling equipment should reduce turn-around time.
- The Stores policy of KBTH has to inculcate job description for stores, paramedical and medical staff with supervision and disciplinary rules for members general conduct.
- Stores personnel should have regular meetings to address their lapses/problems and chart new plans in line with collective goals.

Dama International Journal of Researchers, www.damaacademia.com, editor@damaacademia.com
The stores staff and medical personnel should receive regular training and refresher courses to up-date their knowledge and skills to perform better and help individuals build a career path.

The government has to raise the remuneration level of staffs, medical and paramedical personnel at government hospitals to make them perform better.

References


Dama International Journal of Researchers, www.damaacademia.com, editor@damaacademia.com


