THE IMPACT OF WAREHOUSE FACILITIES ON SERVICE DELIVERY, A CASE STUDY OF NATIONAL MEDICAL STORES.

BY

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DECLARATION

I, ALIDDEKI DERRICK , do declare that this work is my own and that the work of other persons utilized in this dissertation has been duly acknowledged. This work presented here has not been previously presented at this or any other university for similar purposes.

Signed..... Date..24th July-2015....

APPROVAL

This is to certify that this report has been prepared under my supervision and it is now ready for submission to the University with my approval.

Signed ..... Date 25TH JULY 2015

DEDICATION

To my beloved parents Mr. SSANGO MICHEAL and MRS SSANGO ROSE who have sacrificed a lot for me to bear these wonderful fruits. My lovely son MULINDE DYRAN LOVE and my lovely soulmate

ACKNOWLEDGEMENT

I would like to acknowledge all the invaluable assistance rendered to me by the following individuals during the course of this work in order to bring it to fruition. , my supervisor, for his patience, perseverance and fatherly advice to me, my lecturers Mr. , all my classmates during the undergraduate studies whom I had turned into a surrogate family- thanks for all the material, spiritual and moral support, and all people who were connected in one form or another to the realization of this dream.

ACRONYMS

PPDA	Public procurement and disposal of public assets
NMS	National medical stores
IT	Information technology
WMS	Warehouse management system
RF	Radio frequency communication
LAN	Local area network
TMS	Transportation management systems
3PL	Third party logistics service provider
HCS	Health Centers

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ABSTRACT

The overall objective of the study was to find out the impact of warehouse facilities on service delivery in public organizations in Uganda with National medical stores as the focal point.

The study was guided by three research objectives, to examine the impact of warehousing facilities on service delivery in national medical stores, to examine the factors hindering warehousing facilities from facilitating effective service delivery and ways of improving warehousing facilities to facilitate effective service delivery at national medical stores.

Data was collected using self administered questionnaires and a sample of 30 respondents was used.

The study concluded that warehouse facilities greatly impacted the level of service delivery offered by national medical stores as they are vital to its supply chain as they can determine its success or failure as well as being a source of competitive advantage.

The study recommended to the management of national medical stores to give the warehousing facilities high priority during planning as they influence the levels of service delivered, regularly conduct workshops to train its warehouse personnel as well as put in place stringent controls on inventory in the warehouse facilities if they want to increase the services offered by these facilities.

CHAPTER ONE

1.0 Introduction

The study investigates the impact of warehousing facilities on service delivery in public organizations in particular national medical stores. This chapter covers the statement of the problem, purpose of the study, objectives of the study, research questions, scope of the study and significance of the study.

1.1 Background of the study

Warehousing is one of the most important activities for many companies. Across the supply chains, warehousing is an important element of activity in the distribution of goods, from raw materials and works in progress through to finished products. It is integral part of the supply chain network within which it operates and as such its roles and objectives should synchronize with the objectives of the supply chain. It is not a 'stand-alone' element of activity and it must not be a weak link in the supply chain network (Sabath et al, 2001).

Warehousing continues to play a critical role in assuring high levels of customer service and overall logistics performance. Efficient warehousing can minimize the effects of supply chain inefficiencies, can improve logistics accuracy and inventory management, and allow for product accumulation, consolidation and customization. The cost of warehousing should be commensurate with the contribution of warehousing to overall logistics performance-typically between 2% and 5% of corporate revenue. In world class warehousing these costs can be minimized while also improving customer service.

It's against this background that the researcher decided to go ahead and carry out a study on how warehouse facilities relate to service delivery in public organizations. But this time the study was carried out in the national medical stores.

A warehouse is a "commercial building" for buffering and storage of goods, or an intermediate area for storing of raw materials or products until they are needed for production or consumption (Chua and Teo, 2008).

Warehousing refers to the activities involving storage of goods on a large scale in a systematic and orderly manner and making them available conveniently when needed (CII institute of logistics, Chennai).

Warehousing is costly in terms of human resources and facilities and equipment required, its performance will affect directly on overall supply chain performance. Inadequate design or managing of warehouse systems will jeopardize the required customer service levels and the maintenance of stock integrity, and result in unnecessary high costs.

The recent trends and pressures on supply chains (logistics forever increasing customer service levels, inventory optimization, time compression and cost minimization have inevitably changed the structure of the supply chains and the location and working of warehouses within the supply chain networks.

The study was intended to find out how the national medical stores deals with its warehousing facilities and how this affects its delivery of services to its customers.

National medical stores is an autonomous state corporation that was established by an act of parliament in 1993. It was established to take over the drugs procurement and distribution function from the former central medical stores.

The corporation has the mandate to procure, store and distribute medicines and medical supplies to all government health facilities in a financially viable and sustainable manner. It procures and distributes essential drug kits, drugs for sexually transmitted infections and family planning products in line with the national drug authority policy. (National Medical Stores Website).

NMS operates five warehouses, four at its headquarters at Entebbe and one in Kampala and processes all delivery orders and picks lists from the central distribution center in Entebbe.

1.2 Problem Statement

The principle objectives of the NMS among others are the efficient and economic procurement of medicines and certain other medical supplies of good quality primarily to the public health services, secure safe and efficient storage, administration, distribution and supply of goods in question in accordance to the national drug authority.

Delivery times from NMS to HCS vary from two to four months (Kimera, 2008, MOH, 2009). At NMS, there is lack of storage space, funding to procure enough drugs, and capacity to handle the substantial volumes of orders. Lack of efficient funding and ordering processes means it can take six months to complete tendering processes (Saturday monitor, 2009). Although many initiatives (warehouse consolidation, new warehouse management systems,

and better planning systems, and better planning cycles) have been introduced, NMS acknowledged:," we (NMS) have not been able to supply even 50-60 percent of our mandate." Therefore there is still need to embark on many key areas to improve the warehousing facilities in NMS.

1.3 Purpose of the study

The main purpose of the study was to establish the relationship that exists between warehousing facilities and service delivery using a case study of the national medical stores.

1.4 Objectives of the study

- To examine the impact of warehousing facilities on service delivery in national medical stores.
- To examine the factors hindering warehousing facilities from facilitating effective service delivery.
- To suggest ways to improve warehousing facilities to facilitate effective service delivery.

1.5 Research Questions

- What impact do warehousing facilities have on service delivery at the national medical stores?
- What factors hinder warehousing facilities from facilitating effective service delivery at the national medical stores?
- What can be done to improve warehousing facilities to facilitate effective service delivery?

1.6 Scope of the study

The study focused on the impact of warehousing facilities on service delivery. Warehousing facilities was the independent variable and service delivery was the dependent variable.

Geographical Scope

The study was limited to the National Medical Stores located at plot 4-12 Nsamizi road in Entebbe Wakiso district. Mainly the stores department was considered.

Time scope

The study covered a period of 1 years (2013-2014).

1.7 Significance of the study

- The study will help NMS and other organizations in general on ways of improving and modernizing their warehousing function so as to increase on their customer service levels.
- The research will benefit the researcher because it's a requirement for the award of the bachelor's degree of procurement and logistics management.
- The research will also benefit other researchers who wish to carry out more research on this topic especially business management students as it will be used as a reference.

CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

This chapter discusses the opinions, findings from different authors, publications, magazines, websites and all possible sources on the impacts of warehousing facilities on service delivery.

This chapter is sub divided into the following sub sections. Definition of key variables, impact of warehousing facilities on service delivery, factors hindering warehousing facilities from facilitating effective service delivery, and the ways to improve warehousing facilities to facilitate effective service delivery.

2.1 Theoretical Review

Warehousing

Warehousing refers to the activities involving storage of goods on a large scale in a systematic and orderly manner and making them available conveniently when needed. In other words, warehousing means holding or preserving goods in huge quantities from the time of their purchase or production till their actual use or sale. Warehousing is one of the important auxiliaries to trade. It creates time utility by bridging the gap between production and consumption of goods. The efficient management of any organization requires that all its consistent elements operate effectively as individual SBU'S/ facilities and together as an integrated whole corporate.

Service delivery

Service delivery is getting services as effectively and quickly as possible to the intended recipient. In most instances service delivery implies a degree of excellence on the part of the organization, and is a hallmark of economies that have moved past the production phase (Ask.com).

Oboth (2001) noted that in as far as the Local Government Act, the constitution and any other statutes that are studied, there is no definition of the phrase (service delivery) either deliberately or ignorantly. However he said, Service is a system or arrangement that supplies public needs. Whereas delivery is periodical performance of a service. Therefore service delivery is a system or arrangement of periodical performance of supplying public needs.

Helmsing (1995) in his study defines service delivery as a deliberate obligatory decision by the elected or appointed officials to serve or deliver goods and services to the recipients. Heskett (1987) defines service delivery as an attitudinal or dispositional sense, referring to the internationalization of even service values and norms.

2.2 Impact of warehousing facilities on service delivery

In the past, warehouses were referred to as cost centers and rarely adding value. But the increasing need for transfer of products across cities, countries and continents resulting from movement of production to the far east, the growth in e-commerce and increasing demands from end users have seen a change about the perception of warehouses. They are vital components within today's supply chain (Richards 2007, 7).

The pressure is on warehouse managers to increase productivity and accuracy, reduce cost and inventory whilst improving customer service (Richards 2011, 7). The successful management of the warehouse is critical in terms of the level of service provided as well as the costs incurred. (Rushton et.al. 2010, 225).

Warehouses are important components of modern supply chains, both in terms of cost and service. It has been estimated in a recent survey that warehouses account for 20% of logistics costs while the inventory within them adds a further 19% (Establish, 2008).

As regards service, warehouses are often the last dispatch point to the customer and therefore are critical to the provision of high levels of service. They often determine the success or failure of many supply chains(Frazelle,2002), with failings potentially affecting on shelf availability, market share and profitability(Sainsbury,2004) or resulting in damaging publicity as in the case of toys-r-us when they were unable to fulfill all their Christmas delivery promises(Kover,2000).

On the other hand warehouses can be a source of competitive advantage, as for example when Wal-Mart introduced cross docking techniques in their warehouses (Stalk et al, 1992).

Warehouses play a key role in the supply chains by defining to a great extent the success of business (the organization competitiveness) in terms of cost levels and customer service.

Despite the high expenses, which come by carrying inventories, warehouses function as a buffer between the variability of supply and demand which makes them necessary element in

the contemporary supply chains. The high expenses provoke the challenge for achieving low cost warehousing with a high level of customer satisfaction at the same time (Frazelle, 2002).

Exporters/manufacturers are using warehouses as a point of developing retail outlets in a particular region or country. The above concept cuts down on the end cost of the product to the consumer which in turn enhances the production sale ratio. Warehousing concept is used as a sharp tool by manufacturers to reach directly to consumers by avoiding or by passing importers or other middle agencies (Tompkins, Smith, 1998).

Warehouses are essential components of any supply chain. In a warehouse items are handled in order to level out the variability and imbalances of the material flow caused by factors such as seasonality in demand, production scheduling, transportation and consolidation of items (Gu et al, 2007).

Inventories in a warehouse are capital intensive assets that require storage areas, handling equipment and information systems. In addition, warehouse operations are repetitive, labor intensive activities. The capital and operating costs of warehouses represent about 20-25% of the logistics cost. (Frazelle, 2002, Baker and Canes, 2009).therefore improvements in the planning and control of warehousing systems can contribute to the success of any supply chain.

Warehousing has become an important enabler of globalized production networks, and quite often short lead times, volumes and mix flexibility, postponed customizing in terms of assembly/packaging, as well as corporate profitability, is being achieved through warehousing outlets serving same particular trade area(Christopher et al.2006,Baker 2007,Koskinen and Hilmola 2008, Hilletofth 2009).

Warehouses are crucial components of modern supply chains. They are likely to be involved in various stages of the sourcing, production and distribution of goods, from the handling of raw materials and works in progress through to finished products. As the dispatch point serving the next customer in the chain, they are critical to the provision of high customer service levels (Rushton, Baker, 2010).

Warehousing or stores move materials from the receiving area into storage and make sure they are available when available. Warehousing also looks after stored materials, giving the right conditions, treatment and packing to keep them in good condition. This is particularly

important with say, frozen food, drugs, alcohol in bond, chemicals, animals and dangerous goods (Waters D, 2007).

Warehousing has always been very significant in terms of cost, customer service and also plays an important role in the success or failure of many supply chains (Baker 2007).

The changing role of warehousing revealed that warehouse operations include activities beyond simple product storage and shipment. Firms rely on warehouses to coordinate the flow of material and information among multiple supply chain participants and when necessary to modify the material (Arnold Maltz, 2004).

Firms rely on warehouses to coordinate the flow of material and information among multiple supply chain participants and when necessary to modify the material (Arnold Maltz, 2004).

2.3 Factors hindering warehousing facilities from facilitating effective service delivery.

Warehouse management was considered to be very simple to handle in earlier days when everything was performed manually. The biggest problems then were the barcodes and space utilization in the warehouse. There has been drastic change in today's internet world, after the outbreak of this internet technology everything was looking even simpler than the earlier days with more efficiency and consumption of less time and gaining competitive advantage with potential economic savings. The evolving technology changed the warehousing methods a lot with logistics being carried out at a quicker pace and with very little scope of error. Although there are many technologies evolving every day, many problems are also arising making warehousing more complex. This is in turn affecting the whole supply chain management (Hompell Ten, Michael, Schmidt, Thorsten, 2007).

Traditionally, poor record keeping has been a hindrance of efficiency in warehouse management since the inception of the entire practice of warehousing. In numerous manufacturing entities, records are not up to date. Retrieving information about distinctive store items takes a lot of time. Stores records are not reliable in numerous corporations and making a decision solely based on them tends to jeopardize companies (Furman et al, 2009).

Numerous studies agree that warehouse management challenges begin with failure to maintain a structured, error free environment that fosters efficiency at all times (Sheldon, 2004).

Inadequate visibility of the organization store capabilities causes a buildup in obsolete inventory, and in worse cases, creating demand for extra stock in the occurrence of shortages. In extreme cases, excess inventory proceeds to cause more grievous situations such as lack of cash flow, deficient customer service and customer satisfaction, ware house space issues and unexpectedly high costs of warehousing. In fact, the most grievous challenge that arises from this scenario is the lack of ability to fulfill orders. This translates into a downward shift in the supply curve, ultimately impeding revenue generation and profitability (Richards 2011).

Studies suggest that lack of inventory oversight tends to slow warehouse operations and increase costs significantly. Pickers take incredibly long to decide the items to ship, leading to a slow loading process and an inevitable backup in dock door scheduling and labor allocation; all because of in adequate insight into inventory location (Saxena, 2003).

Poor warehouse space utilization has adverse effects. Failure to optimize storage systems, pallet racking and stacking patterns, the space requirements to accommodate inventory increase dramatically (Bolten, 2007).

The adoption of new management philosophies such as just- in -- time(JIT) or lean production creates new challenges for warehouse systems, including tighter inventory control, shorter response time, and a greater product variety(Gu et al,2007).

Inadequate design or managing of warehouse systems will jeopardize the achievement of required customer service levels and the maintenance of stock integrity and result in unnecessarily high costs (CIL, Institute of logistics, Chennai).

Several studies place the blame on the lack of management ability to optimize processes such as order picking. Numerous warehouses still make use of manual processes in part of their operations. In such companies, there is lack of common route that pickers follow in choosing items for shipment, unnecessarily increasing the time required for this process (Tompkins, 1998).

There are several challenges facing warehouse managers in today's competitive environment, including

- Keeping warehouse running costs at a minimum.
- Rotating stock correctly, thereby avoiding the need to write off stock, which has expired or is obsolete?

Picking and dispatching sales orders as efficiently as possible.

Handling staff turnover (Dave Mills).

2.4 Ways to improve warehousing facilities to facilitate effective service delivery.

A warehouse is an essential limb of the industrial unit. It is the depository of all materials required by all industrial units and supplies materials as and when required. The variety of items stored is so large that a planned system is necessary to keep them safely and in order. The stored items should be identified and issued with minimum efforts and in minimum time. This calls for the following;

- An organizational structure suitable to carry out various activities efficiently and productively.
- Defining the functions and duties of each focal official.
- Developing and maintaining records for proper accounting, management and analysis (Saxena, 2003).

In today's highly competitive global business environment, many firms are automating their basic warehousing functions to achieve the increase in throughput rates or inventory turns required for their warehousing operations to be cost effective. At the same time, continued emphasis on customer service exacerbates the quandary of warehouse managers looking for ways to trim costs and improve customer service at the same time. (Frazelle, 2001).

The records and documents enable cost computation, cost control, and management reporting. Store records should be able to provide up to date stock level of all items at all times, and the stock level in the record should tally with the physical stock balance of the items. This will provide the desired safety for the items and help in avoiding any pilferage and theft (Saxena, 2003).

Warehouse in particular takes up a very significant proportion of total warehouse costs and must be used effectively. Considerations for effective space utilization include:

- Minimizing total stock holding and eliminating obsolete stock.
- Careful selection of appropriate storage and handling system.
- Effective use of building height.
- Minimizing aisle numbers and widths consistent with access and safety.

- Use of random location systems for stock rather than fixed locations (Rushton et al.2000).

Gu et al. (2003) says that the implementation of new information technologies (IT), such as bar coding, radio frequency communication (RF), and warehouse management systems (WMS), provides new opportunities to improve warehouse operations.

Warehouse management system is a pivotal part of the supply chain which mainly controls the storage and movement of materials within a warehouse and processes the transactions, including receiving, shipping, and picking and put away according to the real-time information of bin utilization status.

WMS works on auto id data capture technology, such as mobile computers, bar code scanners, wireless, RFID and LAN'S to efficiently monitor the flow of products.

In this process data is collected and there is either batch synchronization, or wireless transmission to a central data base in real time basis. Then the data base provides the status of goods in the warehouse accurately. The main objective of WMS is to provide an automated (computerized) procedure to handle the records of incoming and outgoing goods. WMS provides a useful link to logistic management and also to order processing in order to pick up, packing and shipping the product out of the facility (Wikipedia).

Teamwork is always a great tool for the growth of any organization. Team work allows the sharing of skills and knowledge and helps to brainstorm new ideas among the departments and teams in a warehouse. Proper training is a good means to improve the skills and knowhow of warehouse personnel which in turn improves the overall standards of the warehouse (Gunasekaran, Marri, Menci, 1999).

Voice directed picking.

This technology is slowly growing in the field of logistics. The operations mostly order picking is performed by the order picker with the help of this voice picking technology. The picker should wear a device having a head set and microphone and the picker is instructed by voice on what items to pick and where to pick them and they must confirm their actions verbally back to the system. The device wore by the order picker communicates with the warehouse management system (WMS) routed through a radio frequency or local area network (LAN) (Wikipedia).

The benefits attained by deploying the voice directed picking technology are,

- Increased accuracy- 99.9% approx.
- Increased productivity- 15%approx.
- Removes the trips back to assignment desk.
- Removes cost of printing and distributing the picking documents.

These principles are the common denominators of the successful warehouse operations: in order they are,

- Profile, create and maintain order profiles, item activity profiles, and planning profiles to identify root causes of process impediments and break through opportunities for improvement.
- Benchmark, benchmark warehouse performance practices, and operating infrastructure against world class standards to determine performance, practice, and infrastructure gaps, to quantify opportunities for improvement, and to estimate the affordable investment in new material and information handling systems.
- Innovate; reconfigure warehouse processes by eliminating and streamlining as much work content as possible. Because most of the work in the warehouse is material and information handling, these two activities should be the focus of the process redesign initiative.
- Computerizing follows innovation because the primary role of the computer is to enforce and monitor the new, simple processes. The warehouse management systems and paperless warehousing system requirements should follow naturally from the process definitions developed during simplification.
- Mechanization (taught throughout) follows computerizing because the simplification and computerizing process should minimize the amount of mechanization required. Investments in mechanized systems are inherently less flexible than investments in computer software and hardware.
- Automate, to automate means to computerize and to mechanize. Computerizing is to incrementally justify and incrementally implement warehouse management systems, paperless warehousing systems, and decision support tools to maintain the warehouse activity profile, to track warehouse performance and resource utilization, and to enforce simplified warehouse processes.

- Mechanizing is to incrementally justify and incrementally implement mechanized materials handling and storage systems to improve warehouse throughput and storage density and to assist warehouse operators in difficult material handling activities.
- Humanize; humanize warehouse operations by involving warehouse operators in redesigning warehouse processes, by developing team and individual performance goals, and by implementing ergonomic improvements in every manual activity in the warehouse.

Humanizing is the last of the seven steps, not because the operators are the least important resources in the warehouse (in fact, just the opposite is true), but because the full skill set and cultural requirements for the workforce are not known until each of the five principles have been applied. The only advice I can give in this area is very old advice- treat people the way you would like to be treated. It works every time (Frazelle, 2002).

In order to cope to these changing trends every second, most of the companies have deployed new technologies such as Warehouse management systems (WMS) and Transportation management systems (TMS) and some have decided to redesign the processes and facilities to meet the emerging requirements as well as to reduce costs and improve service levels to the customers at the same time. Some large scale businesses have gone one step ahead and decided to deploy automation of the whole warehousing operations. Some have already opted to outsource all their warehousing operations to third party logistics provider (3PL). (Hompel, Ten., Michael, Schmidt, Thorsten. 2007).

CHAPTER THREE
METHODOLOGY

3.0 Introduction

This chapter focuses on the description of the procedures that will be employed to carry out this study. The specific areas include; the research design, study population, sampling and sample size, data sources, data collection methods, reliability and validity of instruments, data collection procedure, data processing analysis and presentation of findings, and anticipated limitations.

3.1 Research design

A cross sectional research design was adopted for this study. This design was appropriate because the study involved interviewing the same respondents across different departments at different times. The study also involved the use of qualitative and quantitative methods for data collection and analysis.

3.2 Study population

The study population was composed of procurement staff, warehouse managers, supervisors, clerks, materials handling equipment personnel and order pickers of NMS. Making a total population size of 30 respondents

3.3 Sample size

To attain a reasonable response, an appropriate sample size of 30 respondents was selected as shown in the table below.

Table 3.4.1: Population and sample composition

Population	**Number of respondents**
General management	5
Procurement	5
Stores	15
Sales and marketing	5
Total	**30**

3.4 Sampling procedure

The sampling procedure used was purposive sampling where respondents who conformed to the purpose of the study were selected from different departments. This was done in order to select respondents with the required information.

3.5 Data sources

This study used both primary and secondary data.

- Primary data

Data was collected by use of self-administered questionnaires and interview responses for respondents who will be found to have difficulty in filling the questionnaire.

- Secondary data

Data was from journals, books, internet libraries, documents and reports and any other relevant published literature.

3.6 Data collection instruments

The study used self administered questionnaires and interviews for data collection.

3.7 Questionnaires

Questionnaires were used to collect data from respondents using closed and open ended questions. The questionnaire was structured in nature. The advantages of using this questionnaire was that it enabled faster responses from respondents given the limited time available to conduct this study.

3.8 Interview

Face to face interviews were held with managers. The questions reflected in the interview guide corresponded with those raised in the questionnaires. The advantage of using interviews was to avoid non responses from respondents who may not have had time to fill the questionnaires.

3.9 Validity and reliability of the instruments.

To establish validity of the questions, pretesting of the questionnaires was done amongst selected categories of respondents. Their comments were re-compared in the final instrument to suit the data requirements of the study. The final research instruments were reviewed with the supervisor to ensure reliability of the research findings.

3.10 Data collection procedure

Before the research process, permission was sought by the researcher from the school of management and entrepreneurship. The researcher then travelled to the area of study and introduced himself to the administration using the official university identity card and introduction letter from the university. Proper coordination between key informants and the researcher was done at the preliminary visit. This helped in making proper arrangements with those people who might have been absent in case they hadn't been informed. Questionnaires were issued to the participants to fill by the researcher. A maximum of 10 days were used for questionnaire filling and retrieval. The data was then be analyzed, compiled and interpreted for final report writing.

3.11 Data analysis and presentation

After the collection of data, editing was done to ensure quality and accuracy of findings. Tabular and percentage calculations were used to list question responses. The data was then presented using frequency tables, which were drawn using Microsoft excel.

Analysis and interpretation of the raw data was based on the responses and opinions of respondents. This involved organizing, arranging, and continuous editing of data from the field to ensure data quality, accuracy and consistency.

3.12 Limitations of the study

Financial problems in terms of photocopying, secretarial services and transport costs were faced. However the researcher solicited funds from friends and relatives to overcome this challenge.

Time frame in which the researcher was required to produce a final report wasn't enough. This was dealt with by using the project schedule time appropriately.

The researcher also faced problems of unresponsive respondents in conducting the research. This was dealt with by giving them ample time to fill the questionnaires during their free time as well as giving out many questionnaires to counter unresponsive respondents.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS

4.0 INTRODUCTION

This chapter presents the results (findings) of the study, analysis and interpretation of those findings in relation to the objectives of the study and the research questions. The findings are presented in tabular form as shown below.

PART 1: PERSONAL INFORMATION ABOUT THE RESPONDENT

4.1 GENDER OF THE RESPONDENTS

Table 4.1 showing the gender of respondents

Response	Frequency	Percentage (%)
male	17	57
female	13	45
Total	**30**	**100**

Source: Primary Data

Table 4.1 indicates that the highest percentage of respondents of 57% were male and only 43% were female.

Table 4.2 Showing respondents level of education

Response	Frequency	Percentage (%)
diploma	6	20
degree	16	53.3
masters	8	26.7
Total	**30**	**100**

Source: Primary Data

From table 4.2, the highest percentage, 53.3% of the respondents were degree holders, 26.7% were masters' holders and only 20% were diploma holders. This implies that NMS employs a well educated workforce that can ably execute its mandate.

Table 4.3 showing the various ages of the respondents

Age group	Frequency	Percentage (%)
21-30	6	20
31-40	10	33.3
41-50	5	16.7
51 and above	9	30
Total	**30**	**100**

Source: Primary Data

From table 4.3, the highest percentage, 33.3% are between 31-40years, 30% are 51 years and above, 20% are between 21-30 years and 16.7% are between 41-50 years. This implies that NMS strikes a balance between youth and experience in its workforce to enable it carry out its mandate efficiently and effectively.

Table 4.4 showing the different departments of the respondents

Department	Frequency	Percentage (%)
management	5	16.6
procurement	5	16.7
stores	15	50
Sales and marketing	5	16.7
Total	**30**	**100**

Source: Primary Data

From table 4.4, the highest percentage, 50% of the respondents were from the stores department, 16.6% from general management, 16.7% from procurement and 16.7% from sales and marketing. This implies that relevant information regarding the study was obtained as the highest percentages of the respondents were from the stores department which was the focal department of the study.

SECTION A: IMPACT OF WAREHOUSING FACILITIES ON SERVICE DELIVERY

Table 4.5 showing warehouses are a vital component in the supply chain.

Response	Frequency	Percentage (%)
Strongly agree	12	40
agree	9	30
Not sure	6	20
disagree	3	10
Strongly disagree	0	00
Total	**30**	**100**

Source: Primary Data

From the above table 4.5, 40% and 30% of the respondents strongly agreed and agreed respectively that warehousing facilities are a vital component in the supply chain. However, 20% weren't sure and 10% disagreed that warehousing facilities are a vital component in the supply chain.

Table 4.6 showing that successful management of the warehouse function is critical in terms of the levels of services provided as well as costs incurred.

Response	Frequency	Percentage (%)
Strongly agree	8	26.7
agree	16	53.3
Not sure	2	6.7
disagree	4	13.3
Strongly disagree	0	00
Total	**30**	**100**

Source: Primary Data

From table 4.6 above, 53.3% of the respondents strongly agreed, 26.7% agreed, 13.3% disagreed while 6.7% were not sure of whether successful management of the warehouse function is critical in terms of the levels of services provided as well as costs incurred. However since majority of the respondents, 80% agreed with the statement, successful

management of the warehouse function not only increases the level of service but also reduces operational costs.

Table 4.7showing warehouses determine the success or failure of an organizations supply chain

Response	Frequency	Percentage (%)
Strongly agree	6	20
agree	15	50
Not sure	1	3.3
disagree	3	10
Strongly disagree	5	16.7
Total	**30**	**100**

Source: Primary Data

From table 4.7 above, the highest percentage, 50% agreed, 20% strongly agreed while 16.7% strongly disagreed, 10% disagreed and only 3.3% were not sure. This implies that although 26.7% of the respondents disagreed with this notion, the majority, 70% agreed that warehouses determine the success or failure of a supply chain as they determine the availability of supplies and hence influencing service levels.

Table 4.8 showing warehouses are a source of competitive advantage.

Response	Frequency	Percentage (%)
Strongly agree	12	40
agree	8	26.7
Not sure	0	0
disagree	6	20
Strongly disagree	4	13.3
Total	**30**	**100**

Source: Primary Data

Table 4.8 shows 40% and 26.7% of the respondents strongly agreeing and agreeing respectively that warehouse facilities are a source of competitive advantage. 20% disagree while 13.3% strongly disagree. This implies that the majority of the respondents with a percentage of 66.7% agree that warehouses are a source of competitive advantage as they act as buffer zones and guard against demand and supply fluctuations.

Table 4.9 showing warehouses function as a buffer between the variability of supply and demand which makes it a necessity in the supply chain.

Response	Frequency	Percentage (%)
Strongly agree	5	16.7
Agree	17	56.6
Not sure	6	20
disagree	2	6.7
Strongly disagree	0	00
Total	**30**	**100**

Source: Primary Data

From table 4.9above, the highest percentage, 56.6% of the respondents agreed, 16.7% strongly agreed while 20% weren't sure and only 6.7% disagreed. This implies that the majority of the respondents concurred that warehouses function as buffers between the variability of supply and demand as they can be used in holding safety stocks and limit supply risks hence being a necessity in the supply chain

Table 4.10 showing warehousing concept can be used as a sharp tool to reach directly to consumers by bypassing other middle agencies

Response	Frequency	Percentage (%)
Strongly agree	6	20
disagree	13	43.3
Not sure	2	6.7
disagree	7	23.3
Strongly disagree	2	6.7
Total	**30**	**100**

Source: Primary Data

Table 4.10 shows 43.3% of the respondents agreed, 23.3 disagreed, 20% strongly agreed while 6.7 were not sure and only 6.7 strongly disagreed that warehousing concept can be used as a sharp tool to reach directly to consumers. Therefore although 30% disagreed, majority of the respondents of 63.3% agreed that the warehousing concept can be used as a sharp tool to reach directly to consumers by bypassing other middle agencies.

Table 4.11 showing NMS relies on its warehouses to coordinate the flow of materials and information among its multiple supply chains.

Response	Frequency	Percentage (%)
Strongly agree	5	16.7
disagree	7	23.3
Not sure	0	0
disagree	4	13.3
Strongly disagree	14	46.7
Total	**30**	**100**

Source: Primary Data

From table 4.11 above, the highest percentage of the respondents, 46.7% strongly disagreed that NMS relies on its warehouses to coordinate the flow of materials and information among its multiple supply chains. These were followed by 23.3% who agreed, 16.7% who strongly agreed and 13.3% who disagreed. This highlighted the view that NMS does not necessarily rely on its warehouse facilities to coordinate the flow of materials and information among its multiple supply chain although they are critical to its supply chain.

Table 4.12 showing warehouses are critical to the provision of high customer service levels.

Response	Frequency	Percentage (%)
Strongly agree	14	46.6
agree	7	23.3
Not sure	2	6.7
disagree	5	16.7
Strongly disagree	2	6.7
Total	**30**	**100**

Source: Primary Data

From table 4.12 above, it is observed that 46.6% of the respondents strongly agreed and 23.3% agreed that warehouses are critical to the provision of high customer service levels through holding of stocks and guarding against supply disruptions while 16.7% of the respondents disagreed, 6.7% strongly disagreed while 6.7% weren't sure whether warehouse facilities could play a critical role in the provision of high customer service levels.

Other impacts of warehouse facilities on service delivery are, they are the last dispatch point to the customer and therefore are critical to the provision of high levels of service, warehouse failings may result in damaging the publicity and reputation of an organization when it is unable to fulfill its mandate and warehouses also look after stored materials, giving the right conditions, treatment and packing to keep them in good condition which is of utmost importance for drugs and medical supplies stored at NMS.

SECTION B: FACTORS HINDERING WAREHOUSING FACILITIES FROM FACILITATING EFFECTIVE SERVICE DELIVERY

Table 4.13 showing evolving technology has changed warehousing methods a lot and this has brought a lot of challenges for NMS.

Response	Frequency	Percentage (%)
Strongly agree	15	50
agree	7	23.3
Not sure	0	0
disagree	6	20
Strongly disagree	2	6.7
Total	**30**	**100**

Source: Primary Data

From the findings in table 4.13,the highest percentage, 50% of the respondents strongly agreed and 23.3 agreed that evolving technology has changed warehousing methods and made them more complex which has greatly impacted on their performance while 20% and 6.7% of the respondents disagreed and strongly disagreed with this notion respectively.

Table 4.14 showing poor record keeping is a hindrance of efficiency in warehouse management.

Response	Frequency	Percentage (%)
Strongly agree	13	43.3
agree	8	26.7
Not sure	1	3.3
disagree	5	16.7
Strongly disagree	3	10
Total	**30**	**100**

Source: Primary Data

From table 4.14 above, the highest percentage of the respondents, 43.3% strongly agreed and 26.7% agreed respectively that poor record keeping was a hindrance to efficiency in warehouse management as it leads to bad practices such as overstocking, under stocking,

pilferage and deterioration of stock while 16.7% of the respondents disagreed, 10% strongly disagreed and 3.3% weren't sure.

Table 4.15 showing warehouse management challenges begin with failure to maintain a structured, error free environment.

Response	Frequency	Percentage
Strongly agree	14	46.7
agree	10	33.3
Not sure	0	0
disagree	6	20
Strongly disagree	0	0
Total	**30**	**100**

Source: Primary Data

Table 4.15 shows 46.7% of the respondents strongly agreeing, 33.3% agreeing that most warehouse management challenges begin with failure to maintain a structured, error free environment which brings about issues such as spoilages and accidents. However, 20% of the respondents disagreed with this view that warehouse challenges are triggered by the inability to maintain a structured and error free environment but rather other factors. Therefore, while focusing on maintaining an error free environment, other factors should also be put into consideration.

Table 4.16 Showing lack of inventory oversight tends to slow down warehouse operations and increases cost significantly.

Response	Frequency	Percentage
Strongly agree	17	56.6
agree	8	26.7
Not sure	3	10
disagree	2	6.7
Strongly disagree	0	00
Total	**30**	**100**

Source: Primary Data

From table 4.16, 56.6% and 26.7% strongly agreed and agreed respectively that lack of inventory oversight tends to slow down warehouse operations and increase costs significantly as it tends to hamper proper planning and accountability whereas 10%cof the respondents surveyed weren't sure and 6.7% disagreed altogether with the view that lack of inventory oversight in a warehouse tends to curtail warehouse functions within an organization. Hence NMS should consider inventory oversight since its lacking will slow down ware house operations.

4.17 showing that poor space utilization within NMS warehouses have adverse effects on service delivery.

Response	Frequency	Percentage (%)
Strongly agree	7	23.3
agree	11	36.7
Not sure	4	13.3
disagree	6	20
Strongly disagree	2	6.7
Total	**30**	**100**

Source: Primary Data

Table 4.17 indicates 36.7% of the respondents and 23.3% of the respondents agreed and strongly agreed respectively that poor space utilization within NMS warehouses has adverse effects on service delivery as it increases costs of storage as well as tying up money in stored items, 20% of the respondents however weren't sure, 13.3% disagreed while only 6.7% strongly disagreed that poor space utilization within NMS warehouses has no correlation with service delivery. Therefore, basing on the sure respondents, poor space utilization in NMS warehouses has adverse effects on service delivery.

Table 4.18 showing the adoption of new management philosophies such as JIT OR lean production has created new challenges for warehouse management.

Response	Frequency	Percentage (%)
Strongly agree	4	13.3
agree	2	6.7
Not sure	0	0
disagree	13	43.3

Strongly disagree	11	36.7
Total	**30**	**100**

Source: Primary Data

From table 4.18, it is clearly shown that 43.3% and 36.7% of the respondents disagreed and strongly disagreed respectively with the notion that the adoption of new management philosophies had created new challenges for warehouse management .they were of the view that such philosophies had rather improved the function significantly and hence weren't to blame for the poor performance of the warehouse function. However, 13.3% and 6.7% of the respondents strongly agreed and agreed respectively that the adoption of new warehouse management philosophies created challenges for warehouse managers and thus explaining the poor performance of the warehouse function.

Table 4.19 showing inadequate design of the warehouse systems has jeopardized the achievement of required customer service levels.

Response	**Frequency**	**Percentage (%)**
Strongly agree	3	10
agree	5	16.7
Not sure	0	0
disagree	13	43.3
Strongly disagree	9	30
Total	**30**	**100**

Source: Primary Data

Table 4.19 above indicates 43.3% and 30% of the respondents disagreed and strongly disagreed respectively that inadequate design of the warehouse system had jeopardized the required customer service levels at NMS as they felt the WMS employed at the organization is one of the best if not the best in the country and on the market. These were followed by 16.7% who agreed and 10% who strongly agreed that inadequate design of the warehouse system had jeopardized the achievement of the required customer service levels. This implies that the design system of warehouses at NMS has not affected service delivery since majorities believe it's the best in the country.

Table 4.20.20 showing lack of management ability to optimize processes such as order picking has unnecessarily increased the time for this process.

Response	Frequency	Percentage (%)
Strongly agree	2	6.7
agree	4	13.3
Not sure	0	0
disagree	11	36.7
Strongly disagree	13	43.3
Total	**30**	**100**

Source: Primary Data

As shown in table 4.20 above, 43.3% and 36.7% of the respondents strongly disagreed and disagreed respectively with the statement that lack of management's ability to optimize processes such as order picking had unnecessarily increased the time for such processes as they argued that NMS management has in place a well streamlined mechanism to handle such process .however, 13.3% and 6.7% of the respondents agreed and strongly agreed with this statement.

Other factors limiting warehouse facilities from facilitating effective service delivery are, the road network which slows down medicine delivery especially upcountry, the procurement process as NMS procures medicines and medical supplies according to the PPDA law which doesn't recognize the special nature of medicines required and a shortfall in the number of qualified health workers to do proper selection and quantification of medicines and medical supplies in time to last them for the duration published in the delivery schedules.

SECTION C: WAYS TO IMPROVE WAREHOUSING FACILITIES TO FACILITATE EFFECTIVE SERVICE DELIVERY.

Table 4.21 showing definition of functions and duties of each focal official at NMS will greatly improve the warehouse function.

Response	Frequency	Percentage (%)
Strongly agree	10	33.3
agree	14	46.7
Not sure	1	3.3
disagree	3	10

Strongly disagree	2	6.7
Total	**30**	**100**

Source: Primary Data

As per table 4.21, 46.7% and 33.3% 0f the respondents agreed and strongly agreed respectively that definition of functions and duties of each focal official would greatly improve the warehouse function as each employee would know what would be required of them hence increasing efficiency. However, not all the respondents were in unison as 10% disagreed, 6.7% strongly disagreed and a further 3.3% weren't sure if the definition of functions and duties of each focal official would improve the warehouse function. This proves that most focal officials do not know there functions so NMS has to work upon appraisals to its officials.

Table 4.22 showing implementation of new IT such as bar coding and WMS will provide new opportunities to improve warehouse operations.

Response	Frequency	Percentage (%)
Strongly agree	9	30
agree	15	50
Not sure	0	00
disagree	4	8
Strongly disagree	2	2
Total	**30**	**100.0**

Source: Primary Data

Table 4.22 indicates the highest percentages 50% and 30% of the respondents agreed and strongly agreed respectively that implementation of new IT such as bar-coding provided new opportunities to improve warehouse operations as it would reduce on the amount of paperwork with the automation of various tasks and hence improving on the warehouse efficiency. These were followed by 8% who disagreed and 2% who strongly disagreed with the notion that introduction of new IT provided new opportunities to improve the warehouse operation. With the affirmation number of respondents, NMS has a high need to implement its IT systems so as to improve its warehousing operations.

Table 4.23 showing proper stores records will provide the desired safety for the items and help in avoiding any pilferage and theft.

Response	Frequency	Percentage (%)
Strongly agree	18	60
agree	8	26.7
Not sure	1	3.3
disagree	3	10
Strongly disagree	0	00
Total	**30**	**100.0**

Source: Primary Data

Table 4.24 showing automation of basic warehousing functions at NMS will help achieve an increase in throughput rate.

Response	Frequency	Percentage (%)
Strongly agree	6	20
agree	15	50
Not sure	5	16.7
disagree	3	10
Strongly disagree	1	3.3
Total	**30**	**100.0**

Source: Primary Data

Table 4.24 indicates 50% and 20% of the respondents agreed and strongly agreed respectively that automation of basic warehousing functions would help achieve an increase in throughput rate as these would reduce the amount of time taken to accomplish particular tasks. These were followed by 16% who weren't sure, 10% who disagreed and only 3.3% who strongly disagreed. Hence creating a need for automation of basic warehousing functions at NMS to help achieve an increase in throughput rate.

Table 4.25 showing proper training of personnel is a good means of improving their skills and knows how thus improving the overall standards of the warehouse.

Response	Frequency	Percentage (%)
Strongly agree	9	30
agree	14	46.7
Not sure	4	13.3
disagree	3	10
Strongly disagree	0	00
Total	**30**	**100.0**

Source: Primary Data

From table 4.25, it can be observed that the highest percentages of the respondents 46.7%and 30% agreed and strongly agreed respectively that proper training of personnel was a good way to improve their skills and competences thus improving the overall standards of the warehouse function. These were accompanied by 13.3% who weren't sure of their answers

and 10% of the respondents who disagreed with the view that proper training of warehouse personnel is a good means of improving their skills and competences. This proves that proper personnel training was a good move for NMS warehouses hence improving the performance standards of the warehouses.

Table 4.26 showing teamwork among warehouse personnel is vital for the growth of the warehouse function at NMS.

Response	Frequency	Percentage (%)
Strongly agree	11	36.7
agree	13	43.3
Not sure	5	16.7
disagree	1	3.3
Strongly disagree	00	00
Total	**30**	**100.0**

Source: Primary Data

Table 4.26 above shows 43.3% and 36.7% of the respondents agreed and strongly agreed respectively with the notion that teamwork among warehouse personnel was vital for the growth of the warehouse function as all employees would work tirelessly to meet deadlines as they would consider each other as members of one family. However, 26.7% of the respondents weren't sure and only 3.3% disagreed with the statement hence basing on the majority, teamwork is vital for the growth of the warehouse function at NMS.

Table 4.27 showing adoption of warehouse management systems is pivotal for the improvement of the warehouse function.

Response	Frequency	Percentage (%)
Strongly agree	18	60
agree	9	30
Not sure	3	10
disagree	0	00
Strongly disagree	0	00
Total	**30**	**100**

Source: Primary Data

Table 4.27 above indicates 60% and 30% of the respondents strongly agreed and agreed respectively that warehouse management system is pivotal for improvement of the warehouse function at NMS while only 10% of the respondents weren't sure. This implies that warehouse management system is very important in the improvement of the warehouse function at NMS.

Other ways of improving warehouse facilities to improve their levels of service delivery include, flexibility in the procurement of medicines because at times there are emergencies and lives need to be saved, adoption of a new innovative last mile delivery system that delivers medicines beyond the district health facilities and lastly building of a strong management team and staff that are clearly focused on delivering the mandate given to NMS

CHAPTER FIVE
SUMMARY OF FINDINGS, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.0 INTRODUCTIONS

This chapter summarizes all findings reported in chapter four according to the questions of the study, drawn conclusions, suggested recommendations as well as propositions for further studies.

5.1 SUMMARY OF FINDINGS

The study comprised of 30 respondents of whom 57% were male and only 43% was female.

There levels of education were, 33.3% between 31-40years, 30% were 51 years and above. 20% were between 21-30 years and 16.7% were between 41-50 years and these were from different departments which were, 50% from stores, 16.6% from general management. 16.7% from procurement and 16.7% from sales and marketing department.

The research findings were the following in research objective one. 70% of the respondents agreed that warehouses are a vital component of the supply chain, 80% agreed that successful management of the warehouse function is critical in terms of the levels of service provided as well as the costs incurred, 70% still agreed that warehouses are a source of competitive advantage, 43.3% of the respondents agreed that warehouses function as buffers between the variability of supply and demand which makes it a necessity in the supply chain, 63.3% agreed that warehousing concept can be used as a sharp tool to reach directly to consumers by bypassing other middle agencies. However, 70% of the respondents disagreed that NMS relies on its warehouses to coordinate the flow of materials and information among its multiple supply chains and 69.9% agreed that warehouses are critical to the provision of high customer service levels.

In research objective two, the survey found out the following. 73.3% of the respondents agreed that evolving technology has changed warehousing methods a lot and has brought a lot of challenges for NMS. 70% agreed that poor record keeping is a hindrance of efficiency in warehouse management.80% agreed that warehouse management challenges begin with

failure to maintain a structured, error free environment, 83.3% agreed that lack of inventory oversight tends to slow down warehouse operations and increase costs significantly, 60% agreed that poor space utilization within the warehouse had adverse effects on service delivery. 80% disagreed with the view that adoption of new management philosophies such as JIT had created new challenges for warehouse managers, 73.3% disagreed as well with the notion that inadequate designs of the warehouse systems had jeopardized the achievement of required customer service levels and 80% disagreed that lack of management ability to optimize processes such as order picking had unnecessarily increased the time and cost of these process.

In research objective three, the findings were as follows. 80% overwhelmingly agreed that the definition of functions and duties of each warehouse focal official could greatly enhance the warehouse function at NMS. 80% further agreed that the implementation of new IT such as bar coding and WMS would provide new opportunities to improve the warehouse operations. 86.7% of the respondents also agreed with the view that proper stores records would provide the desired safety for all the stored items and help in avoiding any pilferage and theft, 70% agreed that automation of basic warehousing functions at NMS would help achieve an increase in throughput rate. 76.7% of the respondents also agreed that proper training of personnel is a good means of improving their skills and technical knowhow thus improving the overall standards of the warehouse, 80% agreed that teamwork among the warehouse personnel was vital for the growth of the warehouse function and 90% of them agreed that the adoption of the warehouse management system was pivotal for the improvement of the warehouse function.

5.2 CONCLUSSIONS

Based on the research findings in research objective one, the majority of the respondents agreed and were of the view that warehouse facilities greatly impact or influence the level of service delivery to the masses as they are vital components of the supply chain, their successful management can improve service delivery, they determine the success or failure of a supply chain as well as being a source of competitive advantage thus implying that for public organizations such as NMS to improve their outreach as well as service delivery to the general masses, they should pay special attention and interest to their warehousing function if they are to improve their levels of service.

In research objective two, the survey found out the following. The factors that were hampering warehouse facilities from facilitating effective service delivery were evolving technology which changes warehousing methods a lot, poor record keeping which is a hindrance to efficiency, failure to maintain a structured error free environment, lack of inventory oversight and poor space utilization all contributed to the poor performance of the warehouse function in public organizations thus reducing the level of service delivery and if this is to be rectified, organizations such as NMS should perceive their warehousing functions with utmost importance if they are to improve their levels of service they offer to the general masses.

On the findings in research objective three, the survey discovered that for any public organization to improve their warehouse facilities to facilitate the desired levels of service delivery, the management should define the roles and duties of each focal warehouse officials to ease work performance, implement new IT such as bar coding and WMS to reduce on the manual tasks, keep proper stores records to limit issues such as over and under stocking, automate their basic warehouse functions to save time , properly train their warehouse workforce so as to increase efficiency and finally adopt a warehouse management system to keep track of all activities within the warehouse for proper planning and control.

5.3 RECOMMENDATIONS OF THE STUDY

- NMS should consider its warehousing facilities as high priority as they greatly influence the level of service delivery provided by the organization to the public.
- Regular training workshops should be organized by NMS management for its staff to acclimatize them to the ever evolving warehouse technology and make them more dynamic in handling changes in warehouse practices.
- There should be stringent controls on inventory in the warehouse if the costs are going to be brought down and services improved.

5.4 SUGGESTED FURTHER RESEARCH

The study particularly focused on a public organization, national medical stores and therefore further research should be carried out on other private organizations in the same field such as joint medical stores.

Further research should also be carried out on the quality of service delivered by national medical stores to the public.

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APPENDIX: 1

QUESTIONNAIRE ON THE IMPACT OF WAREHOUSE FACILITIES ON SERVICE DELIVERY

Dear respondents, I am ALIDDEKI DERRICK a Bachelor of Supplies and Procurement Management student of Kampala International University carrying out a study on The Impact of Warehousing Facilities on Service Delivery.

I humbly request you to spare some few minutes of your time and answer these questions below. The study is strictly for academic purposes and will be treated with utmost confidentiality. Your cooperation will be highly appreciated.

PART 1: PERSONAL INFORMATION ABOUT THE RESPONDENT

1. Gender or the respondents

a) Male ☐

b) Female ☐

2. Respondents level of education

a) Diploma ☐

b) Degree ☐

c) Masters ☐

3. Age

a) 21-30 ☐ b) 31-40 ☐

c) 41-50 ☐ d) 51and above ☐

4. DEPARTMENT.....

SECTION A: IMPACT OF WAREHOUSING FACILITIES ON SERVICE DELIVERY

The following abbreviations will be used: strongly agree (**SA**), agree (**A**), not sure (**NS**), Disagree (**D**) and strongly disagree (**SDA**).

Statements	SA	A	NS	DA	SDA
1. Are warehouses a vital component in the supply chain of NMS?					
2. The successful management of the warehouse function by NMS is critical in terms of the levels of services provided as well as costs incurred?					
3. Do NMS warehouses determine the success or failure of its supply chain?					
4. Are warehouses at the NMS a source of competitive advantage?					
5. Warehouses function as a buffer between the variability of supply and demand which makes them a necessary element in NMS supply chain.					
6. Warehousing concept can be used by NMS as a sharp tool to reach directly to consumers by bypassing other middle agencies?					
7. NMS relies on its warehouses to coordinate the flow of materials and information among its multiple supply chains?					
8. As the dispatch point serving the next customer in the NMS chain, warehouses are critical to the provision of high customer service levels?					

SECTION B: FACTORS HINDERING WAREHOUSING FACILITIES FROM FACILITATING EFFECTIVE SERVICE DELIVERY

The following abbreviations will be used;

Strongly agree **(SA)**, agree **(A)**, not sure **(NS)**, disagree **(D)**, strongly disagree **(SDA)**.

Statements	SA	A	NS	DA	SDA
1.Evolving technology has changed the warehousing methods a lot with logistics being carried out at a quicker pace and with little scope of error and this has brought a lot of challenges for NMS?					
2. Poor record keeping has been a hindrance of efficiency in warehouse management at NMS?					
3. Warehouse management challenges at NMS begin with failure to maintain structured, error free environment that foresters' efficiency at all times?					
4. Lack of inventory oversight at NMS tends to slow warehouse operations and increases costs significantly?					
5. Poor space utilization within NMS warehouses has adverse effects on service delivery?					
6. The adoption of new management philosophies such as just in time (JIT) or lean production has created new challenges for warehouse management at NMS?					
7. Inadequate design of warehouse system at NMS has jeopardized the achievement of required customer service levels and has resulted in unnecessary high costs?					
8. Lack of NMS management ability to optimize processes such as order picking has unnecessarily increased the time for this process?					

SECTION C: WAYS TO IMPROVE WAREHOUSE FACILITIES TO FACILITATE EFFECTIVE SERVICE DELIVERY.

The following abbreviations will be used;

Strongly agree **(SA)**, agree **(A)**, not sure **(NS)**, disagree **(D)**. strongly disagree **(SDA)**

Statement	SA	A	NS	DA	SDA
1. Defining the functions and duties of each focal official at the NMS will greatly improve the warehouse function?					
2. Implementation of new information technologies (IT) such as bar coding and warehousing management system (WMS) will provide new opportunities to improve the warehouse operations at the NMS?					
3. Proper stores records will provide the desired safety for the items and help in avoiding any pilferage and theft at the NMS?					
4. Automation of basic warehousing functions at NMS will help achieve an increase in the throughput rates required for warehousing operations to be cost effective?					
5. Proper training of NMS personnel will be a good means to improve their skills and know-how which in turn will improve the overall standards of the warehouse?					
6. Team work among warehouse personnel will be vital for the growth of the warehouse function at NMS?					
7. Adoption of the warehouse management system will be pivotal for improving the warehouse function at NMS?					

THANK YOU VERY MUCH FOR YOUR COOPERATION.