LOGISTICS BUDGET PROCESS AND LOGISTICS SERVICE QUALITY: A CASE OF UGANDA PEOPLE'S DEFENCE FORCES-UPDF

BY

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DECLARATION

I, Jacob Opio, hereby declare that this dissertation is my original work and has never been submitted for any academic award or publication in any institution or University. Acknowledgement has been made for the work of others in this report, through quotation and references.

Signed _____

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Date_____

APPROVAL

This dissertation has been submitted for examination under our approval as supervisors.

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DEDICATION

This work is dedicated to my mother Hon Margret Ogwang

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LIST OF ACRONYMS/ABBREVIATIONS

ANOVA	Analysis of Variance
BFP	Budget Framework Paper
CAR	Central African Republic
CIMA	Chartered Institute of Management Accountant
CLE	Chieftaincy of Logistics and Engineering
CVI	Content Validity Index
GOU	Government of Uganda
IFMS	Integrated Financial management System
IMA	Institute of Management Accountant
KPI	Key Performance Indicator
LBCP	Logistics Business Continuity Planning
LSQ	Logistics Quality Services
MFPED	Ministry of Finance, Planning and Economic Development
MOD	Ministry of Defense
MPS	Ministerial Policy Statement
NAP	National Action Plan
OLS	Overall Logistics Strategy
PDU	Procurement and Disposal Unit
SERVQUAL	Service Quality
SPSS	Statistical Package for Social Sciences
TOC	Theory of Constraints

UNCCD	United Nations Convention to Combat Desertification
UPDF	Uganda People's Defence Forces

ABSTRACT

The purpose of this study was to examine the relationship between the budgeting process for logistics and logistics service quality (LSQ) in the Uganda People's Defense Forces (UPDF). Specifically, the study examined the relationship between logistics budget preparation and management and logistics service quality in the UPDF. The study used a cross-section study design using both quantitative and qualitative approaches on population of CLE head office staff and Gulu Division users. Data was collected using questionnaires and interviews. The study found commendable efforts to identify logistics requirements and their costing. Only fleet and spare parts were not adequately identified. The study found a high positive significant relationship between logistics budget preparation and LSQ ($r = 0.544^{**}$ and $p = 0.000$). The study also found that there were commendable efforts to control, utilize funds, monitor and evaluate logistics budgets although with some internal control gaps and regular budget review gaps. The study found a high positive significant relationship between logistics budget management and LSQ ($r = 0.607^{**}$ and $p = 0.000$). The study concluded that logistics budget preparation and management significantly affect military LSQ. To enhance the timeliness, availability and reliability of military logistics, the study recommends use of time series data based on previous records to forecast annual spare parts and fleet maintenance requirements. The study further recommends automation of the verification and authorization process using Integrated Financial Management System (IFMS). CLE should also train lower accounting officers on budget reporting to enable them gain competencies necessary to generate timely monthly reports. Weekly or monthly budget review meetings should be emphasized.

CHAPTER ONE

INTRODUCTION

1.1. Introduction

There have been research studies focusing on logistic service quality and its predictors especially in the private sector of developed countries with scanty research focusing on logistics in the public sector of developing countries (Richey, Daughterty & Roath, 2007; Rafid & Jaafar, 2007). There is also little body of knowledge on the predictors of military logistics service quality in government forces in land locked countries to help bridge the gap between theory and practice in the management of military logistics to enhance military logistics service quality.

This study aimed at examining the relationship between logistics budget processes and logistics service quality. The Chieftaincy of Logistics and Engineering (CLE) of the Uganda people's defense forces (UPDF) was used as a case study. Logistics budget process is the independent variable while logistics service quality is the dependent variable.

This chapter presents the background to the study, statement of the problem, purpose of the study, objectives, research questions, hypothesis, conceptual framework, scope of the study, significance and justification of the study and operational definition of terms and concepts.

1.2. Background to the Study

1.2.1. Historical Background

Although the history of logistics can be traced from over 5,000 years in the construction of the pyramids in ancient Egypt, Chang (1998) classified the developments in business logistics management and logistics service quality into four stages beginning with the dormant stage before the 1950s. In this stage, logistics was a dormant concept and production was the main

concern of managers. In addition, industry logistics was once regarded as a "necessary evil". The second stage according to Chang (1998) is the development stage spanning the 1960s to 70s when manufacturing companies started to realize the importance of logistics in the firm strategy. Logistics was characterized by applying administrative management theories related to planning, organizing, coordination and control in the management of the logistics function to meet production demands but not service quality. The takeoff years 1980-1990s saw developed economies increasing focus on the strategic role of logistics with emphasis placed on logistics service quality to gain competitive advantage in the face of competition with the third world on products and materials. At the turn of the 21st century, logistics alliance, Third Party Logistics and globalized logistics emerged and took center stage and logistics more than before became an essential business activity for sustained competitiveness.

Some scholars have noted that although in the last two decades service quality has been a priority theme in both marketing and logistics research, running parallel to the interest in quality, quality management and satisfaction in companies, the problem of logistics service quality still prevails (Fisk et al., 1993; Shet et al., 2006; Richey et al., 2007). There is also a call for expanded research on factors affecting logistics service quality especially in the public sector of developing countries in the face of increasing globalization and the need to deliver public services within budgets. The motivation of this study therefore is to examine the logistics budget management practices and their influence on military logistics service quality in the UPDF.

1.2.3. Theoretical Background

The study was underpinned by the Goldratt (1990) Theory of Constraints (TOC), which asserts that a system constraint is defined as anything that significantly prevents a system from improving its performance towards that goal. The theory posits that every organizational system

presents at least one constraint that may be physical such as a machine with limited capacity, a policy or a behavior constraint. Mabin and Balderstone (2003) noted that policy constraints often arise when the organizational environment changes while its policies remain unchanged yet policy constraints are usually under the control of the organization's management.

In using the TOC, this study noted that military logistics service quality in UPDF, depends on the extent to which the UPDF identifies logistics budget constraints, evaluates the effectiveness of the logistics budget policy in relation to budget preparation and management and develops the necessary interventions to remove the logistics budget constraints or weaknesses.

The study was underpinned by the SERVQUAL model proposed by Parasuraman et al. (1985) which assumes that service quality has five dimensions; tangibility, empathy, reliability, assurance and responsiveness. Tangibility of the service focuses on an evaluation of the physical facilities, appearance of personnel, tools or equipment used to provide service. Reliability examines the ability to perform the promised service dependably and accurately. Responsiveness focuses on the willingness to help and provide prompt service, responding immediately to requests and solving site problems. Assurance focuses on the skills, knowledge and courtesy of service providers and the level of confidence that they convey while delivering the service. Empathy focuses on the care and personalized attention the firm provides to its customers.

Service quality therefore is a measure of how well a delivered service matches the customers' expectations and the main reason to focus on quality is to meet customer needs while remaining economically competitive at the same time. The SERVQUAL model therefore guided this study as it suggests service quality indicators that should be used to evaluate the logistics service quality.

1.2.3. Conceptual background

Pandey (2003) defines budget simply as a short-term financial plan to guide managers in achieving the objectives of the firm. Lucey (2003) also defines budget in quantitative terms as an expression of a plan of action prepared for the business as a whole and for departments such as sales and production or for financial resource items such as cash, capital expenditure, and human resource through use of budget preparation and management. Logistics budget process is therefore concerned with active, ongoing, organization-wide process of preparation and management of financial resources in the movement of people, equipment and supplies to the point of consumption (Lyson, 2006).

This study borrows from the above conceptualization. Logistics budget process was the independent variable with two dimensions of budget preparation and management during execution of logistics budgets in the UPDF.

The Chartered Institute of Management Accountants (CIMA) (2007) defines budget preparations as the efforts to identify budget lines or requirements and allocation of associated revenue and costs to identified budget items. This study borrows from the above and conceptualized logistics budget preparation to include two indicators of identifying logistics requirements for UPDF operations and allocation of associated costs.

CIMA (2007) defines budget management as the establishment of mechanisms authorizing responsibilities of executives to the requirements of a policy and the continuous comparison of actual with budgeted results either to secure by individual action the objective of a policy or to provide a basis for its revision. Hoftsede (1998) refers to budget control as a process of assuring that specific tasks are carried out effectively and efficiently. At the beginning, a budget is a plan

and at the end it is a control device for measurement. In the view of Simon (2005), budget control aims at providing a formal basis for monitoring the progress of the organization as a whole and of its component parts towards the achievement of the objectives specified in the budget. Budgetary control predetermines plans or standards of output and estimated incomes are compared with actual results and necessary corrective action taken. This study borrows from the above definitions and conceptualized budget management to include two indicators of logistics budget controls using a set of budget approval, verifications, authorization, reviews and secondly, monitoring and evaluation of budgets.

Logistics service quality has been defined in different perspectives. Perrault and Russ (1974) first proposed the concept of logistics service from an operational level which refers to delivering "the right amount of the right product at the right place at the right time in the right condition at the right price with the right information, thus the 7Rs. Perrault and Russ (1974) mainly highlighted time utility and place utility of logistics. Then Ackerman supposed that form utility should also be incorporated into logistics services (Ackerman, 1991). According to this concept, logistics service level is often measured by product availability, the rate of order fulfillment and the frequency of freights in good condition (Mentzer, Gomes & Krapfel, 1989). However, Mentzer et al., (1989) argued that the definition of logistics service needed customers' needs perspective where LSQ considers the extent to which the customer's needs are fulfilled and may consist of three dimensions namely: availability, timeliness and condition of physical distribution service. Bienstocket.al., (1997) argued that SERVQUAL dimensions (tangibility, reliability, responsiveness, assurance, empathy) were not appropriate for all service measurements. As there was no way to measure the variable of empathy in the physical distribution and SERVQUAL did not meet the conditions of service for consumers, therefore, it was deemed

unfit for the physical distribution measurement. This study borrows from the above definitions especially by Mentzer et al., (1989) and conceptualized LSQ to include the three indicators of timeliness, availability and reliability.

1.2.4. Contextual Background

Implementation of the United Nations Convention to Combat Desertification (UNCCD) in Uganda has focused largely on activities carried out within the priority programme areas established by the National Action Programme (NAP) to combat desertification. Difficulties in mobilizing financial resources for the planned activities has highlighted more awareness, in Uganda hence assuring adequate resource allocations and concerns with national development priorities. Deeper understanding of the national budget process is a fundamental prerequisite for taking advantage of potential financing opportunities. The national budget is a compilation of Budget Framework Papers prepared at the sector and sub-national levels (UNCCD, Feb 2008).

Then national Budget Framework Paper (BFP) is prepared by the Ugandan Ministry of Finance and Planning for Economic Development (MFPED) and consists of the expenditures proposed by sectors and local governments. The process is guided by the GoU's annual budget strategy, sector strategies and inter-ministerial policy discussions on outstanding issues. Spending restrictions and limitations are imposed by the macro economic framework as well as an updated Mid Term Expenditure Framework (MTEF) and its provisional ceilings. The preparation of the national BFP is not a highly consultative process since the input from actors outside the MFPED is relatively passive. Inputs such as the Annual Budget Strategy from Cabinet and sector BFPs are written documents complemented with inter-ministerial discussions usually initiated by MFPED. According to some participants, these do not accommodate all the sector needs (MFPED, Feb 2008).

The budget for financial year 2014/2015 set four major priority areas; improving business climate, leveraging government limited resources to support agriculture, improving productivity of Uganda human resources through education and health services and strengthening institutional development. All these objectives will be achieved by prioritizing resource allocation to National security and defense, infrastructural development, scientific research production and productivity of agriculture, human capital and skills development and continued strengthening of institutional development. Ministry of Defense is therefore allocated 1.155 trillion Uganda shillings, an equivalent of 7.1% of the national budget (Uganda National Budget Speech, FY 2014/15)

However, over the years, Ministry of Defense has been insufficiently funded and this has led to chronic inability to provide sufficient accommodation to the troops, recurrent supplementary budgets and accumulated debts (MPS, FY 2014/15). Despite the allocation, less than 50% of the UPDF logistics requirement can be afforded.

1.3. Statement of the Problem

Organizations in both the public and private sector prepare and manage budgets as financial plans to facilitate the attainment of their mandate (Pandey, 2003; Lucey, 2003; CIMA, 2007). The Chieftaincy of Logistics and Engineering is mandated to offer logistics services in the UPDF based on an approved budget, to guide the management of logistics vote allocation and expenditure. However, the logistics service quality in UPDF has persistently been poor. For example, the force has persistently been riddled with a transport problem of insufficient fuel leading to rationalization of the fuel budget to priority areas and in many cases suspending operations due to lack of fuel. Most of the UPDF fleet is not only old and rampantly breaking down, but cases of insufficient funds leading to the central garage spare parts stock outs has made it difficult for vehicles to be repaired. It has also been noted that field operation

requirements in far areas like CAR take long to arrive due to inappropriate transport constraining the military operations (Chieftaincy of Logistics and Engineering, Annual Report, 2014). The key question that motivated this study was if the logistics service quality gaps were a result of how the logistics budget is prepared and managed in UPDF. There is scanty research on logistics budget preparation and management practices and their effect on logistics service quality in public military services in Uganda. This study therefore strived to cover the knowledge gap by examining the logistics budget preparation and management practices in UPDF and their effect on logistics service quality.

1.4. Purpose of the Study

The purpose of this study is to examine the relationship between the budgeting process for logistics and logistics service quality in the Uganda People's Defense Forces.

1.5. Objectives of the Study

1. To examine the relationship between logistics budget preparation and logistics service quality in the UPDF.
2. To examine the relationship between budget management and logistics service quality in the UPDF.

1.6. Research Questions

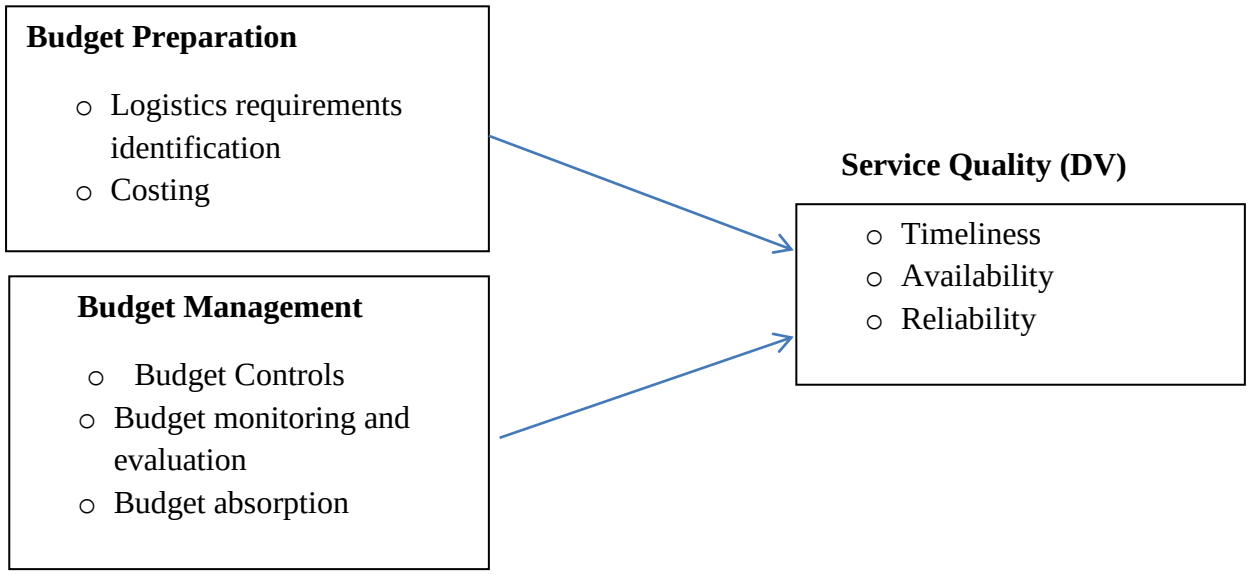
1. What is the relationship between logistics budget preparation and logistics service quality in the UPDF?
2. What is the relationship between logistics budget management and logistics service quality in the UPDF?

1.7. Research Hypotheses

1. There is a significant relationship between logistics budget preparation and logistics service quality.
2. There is a significant relationship between logistics budget management and logistics service quality.

1.8. Conceptual Framework

Logistic Budget process (IV)



Source: Adopted with modifications from Goldratt (1990) TOC and Parasuraman et al. (1985) SERVQUAL model.

The model shows that logistics service quality depends on logistics budget process dimensions of budget preparation and budget management. Logistics service quality has indicators of timeliness, availability and reliability. Budget preparation has indicators of logistic requirements identification and their costing. Budget management has indicators of budget control, monitoring and evaluation and budget absorption. It was therefore hypothesized that any weaknesses in the budget preparation and management adversely affects LSQ in UPDF.

1.9. Scope of the Study

1.9.1. Content Scope

The study focused on logistics budget management practices of budget preparation and approved budget management as the independent variable which influences LSQ indicators of timeliness, availability and reliability of supplies in the UPDF (Land Forces).

1.9.2. Geographical Scope

The study was conducted in the Uganda People's Defense Forces Headquarters located in Ministry of Defense Headquarters on Mbuya Hill, Kampala – Uganda. The study covered Finance Department of the Ministry, Logistics Department of UPDF, PDU, Contracts Committee, Top management of Ministry of Defense and 05 Land Forces Infantry Division Headquarters.

1.9.3. Time Scope

The study covered the period 2010-15, the period the mother ministry of MOD was implementing its three year strategic plan which emphasized strengthening functional units, key among which was the logistics function to meet the military demands of the state.

1.10. Significance of the Study

The study will be useful in the following ways:-

To the leadership of UPDF, the study will evaluate the logistics budget process in the force and develop policy recommendations for strengthening the management of the logistics function for enhanced logistics service quality in the force.

To the management of the CLE, the study provides an opportunity for them to express their concern on the logistics budget process to which the management of the force should respond so as to enhance logistics service quality.

To the academia, the study helps cover literature gaps on logistics budget process as a predictor of military logistics service quality of a developing and land locked country.

1.11. Justification of the Study

Logistics service quality is paramount in the achievement of strategic goals of the firm in both the public and private sector (Thai, 2004, CIMA, 2007; Mentzer et al, 1989). This calls for expanded research to generate knowledge on best practices in logistics management. However, there is little empirical research on the influence of logistics budget process and military logistics service quality in developing countries to help bridge the gaps between theory and practice in the management of military and public sector logistics. This has necessitated expanded research on the predictors of military logistics service quality. This study will help solve budget management problems and fill literature gaps on the relationship between logistics budget management practices and military logistics service quality in a land locked country.

1.12. Operational Definition of Terms and Concepts

Logistics budget process in this study refers to budget preparation and management of financial plans concerned with the movement of goods, people and services in the distribution chain to the point of consumption.

Budget preparation in this study refers to the identification of logistics requirements and their costing.

Budget management in this study refers to the efforts to monitor through controls and generation of logistics budget reports.

Logistic service quality in this study refers to the timeliness, availability and quality of supplies at the point of consumption.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This chapter presents a review of related literature on logistics budgets and LSQ based on what other scholars have observed world over. The first section presents the theoretical review. This is followed by a review of related literature in relation to the study objectives of budget preparation, controls and logistics performance and summary of the literature review.

2.2. Theoretical Review

This study was underpinned by the Goldratt (1990) Theory of Constraints (TOC), according to Goldratt the theory asserts that every organization must be as a system with a goal hence, every action taken by any part of the system must be judged by its impact on that goal. TOC emphasizes that it is imperative to define measures that allow for the evaluation of the impact of any subsystem, and of any local action in this subsystem. Accordingly the TOC theory asserts that a system constraint is defined as anything that significantly prevents a system from improving its performance towards that goal. The theory further asserts that every organizational system presents at least one constraint; the constraint may be physical such as a machine with limited capacity, a policy or a behavior constraint.

At the heart of TOC lies a five-step procedure that enables managers to plan the overall process and focus attention on the resources with the greatest potential to be affected by changes to the system. Reflecting the key underlying principle of TOC- namely,that the performance of a system is limited by its constraints these five steps create a framework for TOC implementation and utilization. The five steps in the TOC focusing process are:

Step 1

Identify the system's constraints. The first step is to identify the constraint in the system that limits throughout or progress toward the goal.

Step 2

Decide how to exploit the constraint(s). Decide on a plan for the primary constraint that best supports the system's goal. This requires taking advantage of the existing capacity at the constraint, which is often wasted by making and selling the wrong products, and by improper policies and procedures for scheduling and controlling the constraint.

Step 3

Subordinate everything else to the above decisions. Alter or manage the system's policies, processes, and/or other resources to support the above decisions. Management directs its efforts toward improving the performance of the constraining task or activity and any other task or activity that directly affects the constraining task or activity.

Step 4

Elevate the constraint(s). Add capacity or otherwise change the status of the original resources as the dominating primary constraint. In this step, additional capacity is obtained that will increase (elevate) the overall output of the constraining task or activity. This differs from step 2 in that the added output comes from additional purchased capacity, such as buying a second machine, tool, or implementing new technology.

Step 5

Return to step 1. Do not let inertia become the new constraint go back to step 1, but do not allow previous decisions made in steps 2 to 4 to become constraints. As a result of the focusing process, the improvement of the original constraining task or activity may cause a different task

to become a constraining task or activity. Inertia could blind management to additional steps necessary to improve the system's output now limited by a new constraint.

According to the Institute of Management Accountant- IMA (1999), the financial professional, playing a pivotal role in TOC implementation, uses management accounting to focus on identifying, analyzing, and reporting key events and opportunities affecting the organization. Emphasizing the development and maintenance of core management information sources within an organization, management accounting serves as the basis for integrating the diverse sources of data available to decision makers. Within TOC, the role of management accounting includes the following activities: provide economic estimates of operational expense, and inventory; accumulate and integrate data from TOC, total quality management, and related management models to ensure consistency in the reporting system; verify constraint identification; provide capacity cost estimates and support for investment analysis of potential additions to capacity; explain the various assumptions underlying differences from other strategic or tactical analyses; work with operating managers to identify solutions for easing constraints and their impact.

The theory is also used to develop and sustain the activity-based cost management system to complement the information provided and required by TOC; work to develop a comprehensive knowledge of incremental cost patterns and underlying cost structures to ensure that ongoing TOC decisions incorporate the impact on step-fixed and semi variable costs throughout the organization provide throughput contribution data and identification of the relevant constraint for all decisions; identify direct linkages between throughput and operational expenses; report on the impact of constraints; and ensure that the finance function does not become the constraint (IMA, 1999).

In support of the Goldratt (1990) theory assumptions, Mabin and Balderstone (2003) noted that policy constraints often arise when the organizational environment changes while its policies remain unchanged yet policy constraints are usually under the control of the organization's management.

An important aspect of the TOC steps is their orientation towards performance improvement efforts aimed at achieving functional and whole organizational performance. TOC, unlike many continuous improvement initiatives intends to reduce operational expenses and which by its inherent nature would be limited (Larsson, 2008), it makes more sense to focus improvement efforts on increasing policy effectiveness (Boyd & Gupta, 2004).

In using the TOC, this study noted that military logistics service quality in UPDF, will dependent on the extent to which the UPDF identifies logistics budget management constraints, evaluates the effectiveness of the logistics budget management policy in relation to budget preparation, and control, and developing the necessary interventions to remove the logistics budget management constraints or weaknesses.

Furthermore, the budget action arising from budget controls should be critically judged by their impact on LSQ and developing the necessary interventions to mitigate its negative impact on the LSQ as suggested by the (Goldratt, 1990) TOC.The TOC underpinned this study in identifying budget management constraints related to budget preparation and controls and how they may constrain logistics service quality in UPDF. The TOC is central in this study as it demands the identification of system or sub system constraints which have to be removed through a systematic process of performance improvement of the logistics function in the force through logistics budget management.

The study was also underpinned by the SERVQUAL model proposed by Parasuraman et al. (1985) which assumes that service quality has five dimensions; tangibility, empathy, reliability, assurance and responsiveness. Service quality therefore depends on if the service met the needs, wants and expectations of that specific customer.

Tangibility evaluates the physical facilities, appearance of personnel, tools or equipment used to provide service; reliability examines the ability to perform the promised service dependably and accurately; responsiveness focuses on the willingness to help and provide prompt service, responding immediately to request and solving site problems; assurance focuses on the skill, knowledge and courtesy of service providers and the level of confidence that they convey while delivering the service; empathy focuses on the care and personalized attention the firm provides for its customers (Parasuraman et.al., 1985).

Service quality is therefore seen as the total assessment of how well a service provided meets the expectations of the customer (Zeithaml, et.al., 1988) Service quality for businesses is no different than it is for the customer, however, the use is different. Service quality is used more as an instrument of measurement of performance relating to the expectations of customers. For customers service quality is the difference between what is wanted, need expected and the actual service. Service quality therefore is a measure of how well a delivered service matches the customers' expectations and the main reason to focus on quality is to meet customer needs while remaining economically competitive in the same time. The SERVQUAL model therefore guided this study as it suggests service quality indicators that should be used to evaluate the logistics service quality.

2.3. Logistics Budget Preparation and Quality of Logistics Services

Most scholars and practioners agree that logistics processes start with the creation of a financial budget and then a material budget, which can go through stages of collaboration and review before final approval (Larson et al., 2008). Best practices therefore require that procurement of materials have to be measurable against approved budgets with the help of budgetary information held sometimes in a financial management system (De Marco & Mangano, 2011; Esper, Defee & Mentzer, 2010; Kosior & Strong, 2006; Randall & Farris, 2009).

The logistics requirements may include but not limited to fixed assets such as plant, depots and warehouses, materials handling equipment, vehicles and other equipment involved in storage and transport. The logistics budget planning process therefore involves definition of operational and material needs, a material plan cascading down through the chain of command to unit level and execution of the plan, formation of budgets, consolidation of material budgets through a complex and iterative approval process (De Marco & Mangano, 2011; Von der Gracht, 2008).

The use of a budget preparation process is informative that this study sought to establish the budget preparation process in the UPDF with a specific focus on logistics. Efforts was directed to establishing if the UPDF adequately undertakes to establish the annual logistics requirements based on its logistics and distribution chain.

One of the challenges in logistics costing highlighted by Panday (2009) is that accounting practice for budgeting and standard-setting has tended to result in a compartmentalization of company accounts; thus budgets tend to be set on a functional basis. The trouble is that policy costs do not usually confine themselves within the same watertight boundaries. A feature of logistics costing decisions that contributes to the complexity of generating appropriate cost

information is that they are usually taken against a background of an existing system (Randall & Farris, 2009). The purpose of total cost analysis in this context is to identify the change in costs brought about by these decisions. Cost must therefore be viewed in incremental terms the change in total costs caused by the change to the system. It is the incremental cost difference between the two options that is the relevant accounting information for decision making (ibid).

The total cost approach to logistics items costing is informative to this study that it was in this study's best interest to establish if the force undertook to consider the total cost approach in the procurement of military logistics requirements and its contributions to LSQ in UPDF.

Fang and Ng (2011) opines that the problem of developing an appropriate logistics-oriented costing system is primarily one of focus. That is the ability to focus upon the output of the distribution system, in essence the provision of customer service, and to identify the unique costs associated with that output. The author contends that traditional accounting methods lack this focus, mainly because they were designed with something else in mind. He recommends that the logistics costing system should mirror the materials flow by identifying the costs that result from providing customer service in the marketplace. The logistics costing decision should equally be capable of enabling separate cost and revenue analyses to be made by customer type and by market segment or distribution channel in the company is to achieve the desired LSQ. This latter requirement emerges because of the dangers inherent in dealing solely with averages, such as the average cost per delivery, since they can often conceal substantial variations either side of the mean.

In complement, Frow et al., (2005) noted that budgeting is still regarded as an organizational imperative if costs are to be controlled and financial performance to be achieved. However, traditional budgets are seen by practitioners of being incapable of meeting the demands of the competitive environment (Østergren & Stensaker, 2010) and are heavily criticized for impeding

efficient resource allocation, encouraging myopic decision-making and encouraging budget games.

Kihn (2011) examines how and why interpretations of budget targets differ from one person to another even in the same business unit. Both the theoretical and empirical results suggest that organizational budgetary processes do not provide a similar understanding of budget targets for each person. While some shared interpretations are evident, individual level variations occur in the personal and subjective meanings that controllers and managers give to budget targets in their own consciousness, situationality and corporeality. A personal historical basis for understanding may impact a manager's interpretation of budget targets, but the interpretations can also be dynamic and change over time. It could be highly useful to jointly discuss the intended primary purposes and nature of organizational budget targets. Otherwise, people may understand targets in different and perhaps even contradictory ways, which could in turn impair the functioning of control systems.

Esper et al., (2010) hints on how to enhance LSQ, and posits that the logistics requirements budgets requires an 'output' orientation to costing by first defining the desired outputs of the logistics system and then seek to identify the costs associated with providing those outputs. This will require a logistics mission focusing on a set of customer service goals to be achieved by the system within a specific product/market context with inputs from a large number of functional areas and activity centres within the firm. Thus an effective logistics costing system must seek to determine the total systems cost of meeting desired logistic objectives (the 'output' of the system) and the costs of the various inputs involved in meeting these outputs (ibid).

The above authors' observations especially on output based budgeting and budget targets during budget preparation are informative to this study that it was imperative to establish the efforts to

use output based budgeting and budget targets in the delivery of military logistics in the UPDF and how it can be used to enhance LSQ in the force.

More resent empirical studies on logistics planning reveals insightful experiences, on logistics budgeting and firm outcomes. Ojha et al., (2013) for example using data of firms operating in the US transportation and warehousing industries, empirically test logistics business continuity planning (LBCP's) effect on their business units' financial performance and found that that LBCP influences financial performance via improvement in logistical competitive capability and enhanced disaster immunity. Further, the findings indicate that when a firm employs mindful-planning processes, an important element within LBCP, it can avoid the trade-off between risk management and efficiency. The authors proffer that LBCP processes are dynamic capabilities because of improvement in logistical competitive capabilities and enhanced disaster immunity. Thus, when firms employ LBCP they gain a competitive advantage, which improves financial performance.

Similarly, Spillan et al. (2013) study in two countries found strong support for overall logistic strategy (OLS) when combined with logistics coordination effectiveness and customer service effectiveness, they contributing to organizational effectiveness.

A review of the literature highlighting the relationship between logistics budget preparation and LSQ not only reveals scanty empirical evidence on the relationships between logistics budget preparation and LSQ, but also shows no evidence of logistics budget preparation in the public or military sector. This creates a literature void necessitating expanded research on the relationship between the variable of logistics budget preparation and LSQ in the public or military sector.

2.4. Logistics Budget Management and Quality of Logistics Services

According to Mensah (2008), weak internal control systems as per an organization's execution framework create incentives for staff to make side deals with suppliers or make side-payments to influence contracts. In a bid to ensure tight internal control systems and ultimately governance, certain provisions are usually provided for. These provisions usually revolve around roles of the board of directors, payments and financial accounting as it relates to budget execution. Anthony and Govindarajan (2007) recommend the use of budget monitoring from which information on early warning of deviations from budgetary targets could alert top managers to take corrective action. Managers also use budget monitoring to exercise control, implement decisions, and facilitate continuous improvement. In line with the foregoing position on budgetary monitoring (Libby & Lindsay, 2007) contends that firms consider budgets to be part of the management control system and tight budgetary control includes rewarding, monitoring and communication of goals. Financial Managers should therefore establish their operating budgets, the goal set for revenue, profit requirements, and operating expenses without compromising quality requirements if the firm is to achieve its performance expectations.

Oak and Schmidgall (2009) equally point out that the major reason for preparing the operating budget is to provide a standard for comparing actual results at the end of the accounting period. If operating budget goals are not met, managers need to take corrective action.

The consideration of a budget itself as a tool to guide budget control is widely accepted as highlighted in the literature above. However, the effectiveness of budget as control tool depends on how it has been adequately developed to guide controls during its implementation. This study strives to establish the use of the UPDF budget as a tool for budget monitoring and how it is useful to enhancing LSQ in the Force.

Akintoye (2008) points out that budgetary control can take a variety of forms ranging from recording expenditures in relation to approved appropriations and allotments to ensure that they are not exceeded. This is designed to ensure that expenditure limits are respected but makes no provision for ensuring that desired results are obtained. An effective approach compares actual expenditures to a predetermined target so that departures may be identified and investigated. It was in this studies best interest to establish the extent to which logistics budget transaction were recorded in the UPDF records to guide budget control decision making.

In relations to logistics management, Esper, et al. (2010) contends that Fifty per cent or more of a company's current assets will often be tied up in inventory from raw materials, subassembly or bought-in components, through work-in-progress to finished goods. The company's policies on inventory levels and stock locations will clearly influence the size of total inventory. Also influential will be the extent to which inventory levels are monitored and managed, and beyond that the extent to which strategies are in operation that minimize the need for inventory.

While emphasizing the nature of logistics control some studies point out that logistics control is not just the transportation, storage, handling and order processing costs within the business that need to be considered but the total pipeline view of costs on a true 'end-to-end'. This has arisen from the growing recognition that time compression in the supply chain not only enhances customer service but can also reduce costs through the reduction of non-value-adding activities with results of dramatic reduction in working capital (Esper, et al., 2010; Randall & Farris, 2009).

The literature highlighted in the above paragraphs is informative that this study strived to establish the extent to which the logistics budget monitoring has been spread in the logistics and

distribution chain of the UPDF and how such an approach (if any) has been useful in enhancing LSQ in the force.

Common tools used in logistics controls according to Sergeyev (2014) include ABC / XYZ-analysis, strategic profit model, model of optimal order size, Cost Accounting Process, Benchmarking, and Make OR Buy. Dybskaya et.al. (2008) recommends that to evaluate logistical efficiency and logisticians' activities in an enterprise it is necessary to have a procedure of measuring logistics department's employees' decisions to identify deviations from the budgeted lines for enhanced LSQ through providing feedback needed for effective management. Dybskaya, et al (2008) further showed measurement of logistics work outcomes has two aspects: firstly, setting a certain system of measures such as KPI, criteria, ratio scales and preferences; secondly, direct measurement of logistics decisions results.

The budget controls mentioned by the above authors impresses on this study to point out if they have been adopted in the logistics budgetary controls in the UPDF and implication of their use and none use on LSQ.

Sergeyev (2014) equally notes that costs control and motivation of regular workers are equally important in any business and logistics is not an exception. However, controlling concepts which are successfully implemented in other functional spheres of business are poorly adapted for logistical activities and the result of successful logistics is a high level of services provided to customers.

Sergeyev (2014) in a more recent study found out that a third of respondents reported fragmented logistics processes in the organization, but 47% of companies confirm the trend towards centralization of linear and expertise. The analysis found that 48% of enterprises have the organizational structure of logistics management, fixed for the central units of the group followed by consolidation of the functional area (34%) and the third level of management (29%).

Sergeyev (2014) study further notes that in the majority of companies (39%) problems of the logistics controlling are performed in the logistics division, and a third of companies function of logistics controlling is absent. Incidence of enterprise logistics problems due to lack of coordination between departments is one of the indicators of the logistics of the enterprise, requiring increased management attention.

Controls may be central or decentralized however, Esper et.al. (2010) study found out that conventionally, supply network management is conducted from a centralized perspective. A central unit makes all decisions for planning and controlling logistics processes. This is a challenging task due to the high number of participants and parameters to be considered.
Furthermore, the complexity and the dynamics even increase due to new requirements on logistics. These developments limit and sometimes even prevent centralized control. Instead, the paradigm of autonomous control in logistics, in short autonomous logistics, is a promising approach.

On the use of decentralized controls, Kopfer (2011) note that autonomous logistics aims at overcoming the limitations of conventional control in logistics by delegating decision-making to local entities. The logistics entities are themselves responsible for satisfying the logistics objectives demanded by their owners. The hierarchical organization without a predefined structure of logistics entities allows reacting locally on dynamics occurring. Instead of updating the plan for the whole system, as it would have been necessary if centralized control was used, it is sufficient to modify only the plans of the entities that are directly affected.

Harjes and Scholz-Reiter (2012) supports the use of decentralized controls and is of the view that decomposing problems into sub problems is a common approach in computer science, generally referred to as divide and conquer. Correspondingly, distributing control in logistics also

decreases the problem complexity because each entity only has to consider its particular parameters. This means a significant reduction of problem complexity compared to the centralized approach that incorporates all parameters of the whole system. With a limited number of parameters even problems with high computational complexity become manageable. As a further advantage, individual entities are only exposed to local dynamics and not to the dynamics of the whole logistics network.

However, decentralized control of the logistics budgets according to Schuldt and Werner (2007) comes with some constraints such as the requirement to harmonise the various local decision making levels. Communication and coordination may also constrain budget execution due to high level of decentralization. Therefore, it is important to categorize coordination mechanisms in accordance with the number of messages to be expected in relation with the number of participating entities.

The literature on logistics budget control mechanisms suggest promotion of centralized a long side decentralize control of the logistics budgets based on their suitability. However, the literature was silent on how effective are the centralized and decentralize mechanisms of budget control in reviewing and reporting military logistics budgets and their contribution to LSQ. This study strived to cover this literature void by evaluating the use of centralized and decentralize logistics budget controls and their contribution to LSQ in the UPDF.

2.5. Summary of the Literature Review

The literature review suggests the need to prepare logistics budget through identification of logistics requirements along the supply chain and adequate allocation of costs. However, a critical analysis of the existing literature revealed no empirical evidence on the relationship

between logistics budget preparation and LSQ especially in the public or military sector. Similarly, the literature although informative on the use of budget management mechanism such as tools and use of centralized and decentralized control, it does not offer a conclusive position the relationship between logistics logistic budget control mechanisms and LSQ in the public or military sector. This study therefore strived to cover the literature gaps by providing empirical evidence on the relationship between logistics budget preparation, budget management and LSQ in UPDF. This was achieved through use of appropriate analytical techniques of correlation analyses and multiple regression analyses as described in the next methodology chapter to help achieve the study objectives and answer the research questions as well as test hypotheses.

CHAPTER THREE

METHODOLOGY

3.1. Introduction

This chapter presents the research design, population of study, sample size and selection, data collection methods, data collection instruments, validity and reliability, data collection procedures, data analysis and measurement of variables.

3.2. Research Design

The study used a cross-section study design using both quantitative and qualitative approaches. The cross-sectional design was used because the issues of logistics budget process and logistics service quality were studied at that point in time (Amin, 2005). The study used a quantitative and qualitative approach because qualitative methods provide in-depth explanations to events while quantitative methods provide the data needed to meet required objectives and to test the hypotheses (Mugenda & Mugenda, 1999).

3.3. Study Population

The study was carried out in UPDF on a target population of 138 CLE staff in UPDF and Gulu 4th Division at the level of Chief, Deputy Chiefs, Staff Officer, Officer in Charge, and Users directly involved in Military logistics budgeting and distribution of logistics in the division.

3.4.Sample Size and Selection Technique

According to (Sekeran, 2003) a sample is a subset of a population. It comprises some selected members who are referred to as elements. Sampling is the process of selecting a sufficient

number of elements from the population so that a study of the sample and an understanding of its characteristics would make it possible to generate such characteristics to the population elements. Sample size therefore is the total number of elements selected to represent the population of study. The study selected up to 112 respondents based on Krejcie and Morgan Sampling Guidelines (see appendix IV) as shown in table 1 below.

Table 1: Population Category and Sample size of the respondents

Population category	Total population	Sample size	Sampling Techniques
Deputy chief (Headquarters)	2	2	Purposive
Staff Officers (Headquarters)	5	5	Purposive
Officers in charge (Headquarters)	13	13	Purposive
Users (4Division - Gulu)	118	92	Simple random
Total	**138**	**112**	

Source: CLE Staff establishment June 2015

As table 1 indicates, a sample of 112 respondents were considered out of a population of 139, based on Krejcie and Morgan's (1970) sampling guidelines (see appendix III). Purposive sampling and simple random sampling were used.

3.5. Sampling Techniques

A sampling technique is the name or other identification of the specific process by which the entities of the sample was selected. There are broadly two sampling approaches thus probability and none probability sampling techniques. The probability sampling approach involves selecting a sample in such a way that all the elements in the population have same chances of being selected (Amin, 2005). As indicated in table 1 above, the study used simple random sampling for users directly involved in logistics in the whole of 4 Division - Gulu. In using simple random

sampling, the study used the lottery approach where names in each category were written on tag and one picked at a time until the required number was reached.

In the non-probability approach, the elements in the population do not have a well-defined chance of being selected (Amin, 2005). This study used purposive sampling which involves the researcher using own judgment regarding the participants from whom the information will be collected (Amin, 2005). Thus the selection of the respondents is based in the researchers experience with the respondents' possession of the required information. In this study purposive sampling technique was used to select the deputy chiefs, staff officers and officers in charge in the UPDF headquarters who are directly involved in logistic budget management in the force.

3.6. Data Collection Methods

The study used a survey approach where both qualitative and quantitative data was collected from primary and secondary data sources. There are several survey approaches however for the purpose of this study the questionnaire and interviewing approaches were used.

3.6.1. Questionnaire Survey Method

A questionnaire is a carefully designed instrument for collecting data in accordance with the specifications of the research objectives. It consists of a set of questions in writing from which the respondents respond in writing (Amin, 2005). The study used a questionnaire basing on the fact that the variables cannot be observed such as views, opinions, perceptions and feelings of the respondents on logistics budget process and LSQ. The questionnaire was also used because it is less expensive for data collection (Amin, 2005). The questionnaire was used to collect primary data from the selected respondents by personally delivering them to the respondents. The

questionnaire was issued to all the 112 respondents in their different categories. The respondents recorded their answers within closely defined alternatives.

3.6.2. Interviewing Method

Interviewing is a method of data collection where the researcher collects information from the targeted respondent through forms of face to face conversations and probing of the respondent's responses to gain detailed explanations on specific issues on logistics budget process and LSQ (Amin, 2005). In this method the researcher interviewed respondents face to face to obtain in depth qualitative information on logistics budget process and LSQ. The study specifically interviewed the Deputy CLE, Senior Budget Officer and the Senior Procurement Officer as key informant to seek their views on budget preparation and management in UPDF.

3.7. Data Collection Instruments

3.7.1. Self-administered Questionnaire

The study used a close-ended self-administered questionnaire divided into sections of background information, logistics budget preparation, control and LSQ. A standard Questionnaire on a five point Likert scale of 5- Strongly Agree; 4- Agree; 3- Not Sure; 2- Disagree; 1- Strongly Disagree were used to get quantifiable primary data from individual respondents (see appendix 1).

3.7.2. Interview Guide

Interview schedule included semi structured along areas of logistics budget preparation and management and how they influence LSQ (see appendix II).

3.8. Validity and Reliability

3.8.1. Validity

The validity of the instrument was tested using the Content Validity Index. This involved expert judges scoring the relevance of the questions in the instruments in relation to the study variables and a consensus judgment given on each variable taking only variables scoring above 0.70.

The Content Validity Index (CVI) was arrived at using the following formula:

$$CVI = \frac{\text{Total number of items declared valid}}{\text{Total number of items}}$$

The findings are presented in the table below.

Table 2: Content Validity Index Results

Variable	Number of items	No of items declare valid	CVI
Logistics budget preparation	17	13	0.760
Logistics budget management	17	14	0.823
LSQ	16	13	0.812

Source: Expert judgment

Table 3 shows that Logistics budget preparation was measured using 17 items and yielded CVI of 0.760 while logistics budget management was measured using 17 items and yielded CVI of 0.823. LSQ was measured using 16 items and yielded CVI of 0.812. Since all variables under study yielded a CVI above 0.70, it was concluded that the instrument had a high validity hence relevant in measuring logistics budget process and LSQ in UPDF.

3.8.2. Reliability

The study questionnaire was pretested for its reliability on a sample of 10 respondents to examine individual questions as well as the whole questionnaire very carefully (Amin, 2005). Reliability measures the consistence of the instrument in measuring what it is supposed to measure (Amin, 2005). In this study a Cronbach's alpha coefficient was computed to show how reliable the data is using Software Package for Social Sciences (SPSS) taking only variables scoring above 0.70 as suggested by Nunally (1978) and the results are presented below.

Table 3: Reliability Results

Variable	Number of items	Cronbach's alpha
Logistics budget preparation	17	0.768
Logistics budget management	17	0.851
LSQ	16	0.868

Source: Primary data

Table 3 above shows that logistics budget preparations yielded Cronbach's alpha value of 0.768 while management yielded Cronbach's alpha value of 0.851. LSQ yielded Cronbach's alpha value of 0.868. Since all variables under study yielded Cronbach's alpha value above 0.70 accepted for social sciences, it was concluded that the instrument was reliable thus consistently measured logistics budget management and LSQ in UPDF.

3.9. Data Collection Procedure

After successful defense of the proposal, an introductory letter from the department of management sciences of Uganda Management Institute was used to seek permission to conduct the study from the UPDF. Anonymity and confidentiality of the respondents was observed by not

asking the respondents to put their names on the questionnaires. Data collected in the different offices was conducted with the help of two research assistants. The questionnaires collected were then inputted into SPSS in preparation for analysis.

3.10. Data Analysis

3.10.1. Quantitative Data Analysis

Quantitative data was presented in form of descriptive statistics using mean and standard deviations generated from SPSS for each of the variables used in the study. Pearson's correlation statistics was used to test the relationships at 99 and 95 confidence limits generated from SPSS. A positive correlation indicates a direct positive relationship between the variables while a negative correlation indicates an inverse, negative relationship between the two variables. A regression analysis using ANOVA statistics of adjusted R^2 values, beta, t values and significance values as suggested by Amin (2005) was used to determine the magnitude of the influence of logistics budget process on LSQ.

3.10.2. Qualitative Data Analysis

Qualitative analysis was analyzed using a content analysis which involves coding of data, identifying categories and patterns based on organized statements, and responses to generate useful conclusions and interpretations on the research objectives. Further qualitative analysis involved comparing the qualitative data with the quantitative and documentary review data.

3.11. Measurement of variables

The variables were measured by operationally defining concepts. For instance the questionnaire was designed to ask responses about logistics budget preparation and management based on CIMA (2007) guidelines while LSQ was measured using Bienstock, et. al. (1997) measures.

These were then channeled into observable and measureable elements to enable the development of an index of the concept. A five- Likert scale namely: 5-Strongly agree; 4- Agree; 3- Not sure; 2- Disagree; 1- Strongly disagrees were used to measure both the independent and dependent variables.

3.12. Ethical Considerations

An authorisation letter from UMI was given in compliance with the Institute's research policy. Participation in the study was voluntary and the respondents were asked not to fill their names on the questionnaire to keep them anonymous. The Officers in Gulu Division were told to return the filled questionnaires to the quarter guard after two weeks. The researcher used the two research assistants to collect this data to ensure respondents answer the questions freely and objectively. The final report was presented for approval and adoption of recommendations by CLE in UPDF.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

4.1. Introduction

This chapter presents, analyses and interprets the study findings on logistics budgeting process and logistics service quality in UPDF. The first section presents the response rate, this is followed by background information about the respondents, presentation and analysis of the study inferential findings in relation to budget preparation and management.

4.2. Response rate

A total of 112 questionnaires were distributed but 97 useable questionnaires were returned giving a response rate of 87% suggesting that the results contain substantial information and the survey results were representative of the survey population. For example, Amin (2005) argues that a response rate of 40% is representative enough and acceptable for a correlation survey. The rest of the questionnaires were not returned in time for consideration in the study.

4.3. Background information about the respondents

This section gives the characteristics of the respondents in relation to level of education, logistics training, position and time worked with CLE and the findings are tabulated in table 4 below.

Table 4: Characteristics of the respondents

Item	Description	Frequency	Percent
Education level	Certificate	39	40.2
	Diploma	42	43.3
	Degree	10	10.3
	Postgraduate	6	6.2
	Total	**97**	**100.0**
Qualifications	Basic logistics course	38	39.2
	Advanced logistics	36	37.1
	Others	23	23.7
	Total	**97**	**100.0**
Position	Staff officers (headquarter)	5	5.1
	Officer in charge (headquarters)	13	16.5
	Logistics users (div)	79	81.4
	Total	**97**	**100.0**
Time worked with CLE	1-3 years	38	39.2
	4-6 years	39	40.2
	7-9 years	11	11.3
	10+ years	9	9.3
	Total	**97**	**100.0**

Source: Primary data

Table 4 shows that a total of 43.3% of the respondents were diploma holders, 40.2% were certificate holders while the least 6.2% had attained a post graduate degree and 10.3% had attained a degree level of education. The implication was that majority of CLE staff had low level of education which may affect their capabilities to execute budget process activities. It was necessary the management of CLE undertakes to develop staff competencies to effectively managed budget activities.

In relation to qualifications, a total of 39.2% had attended a basic logistics course, while 37.1% had attended advanced logistics training while 23% had other qualifications not related to logistics. The implication was that a reasonable number of CLE staff had attained basics in

logistics operations and presumed to appreciate the logistics budget management process and its impact on Logistics service delivery.

Table 4 above shows that majority of 81.4% of the respondents were logistics users in the division, 16.5% were Officers in Charge at the headquarters while 5.1% were Staff Officers at the headquarters. The implication was that data was collected from staff who were either users or managers and therefore deemed to have adequate knowledge on logistics budget preparation and LSQ in the UPDF.

In relation to time worked, majority of 40.2% had worked for 4-6 years, 39.2% had worked for 1-3 years while the least 9.3% had worked for 10 years and more in CLE. This was so as the force has policy of tour of duty where staff is rotated in different chieftaincies to gain experiences of their operations. Never the less, the study noted that the respondents had attained a reasonable level of experiences in logistics service quality from the different departments they had worked before.

4.4. Logistics Service Quality

Logistics service quality was the dependent variable used in this study and was conceptualized under three indicators of timelines, availability and reliability. LSQ was measured using 16 items scored on Likert scale of (5) for strongly agree (4) for agree, (3) for not sure (2) for disagree (1) for strongly disagree and the findings are summarised in table 5 below.

Table 5: Descriptive results for LSQ

Statement	**Mean**	**S.D**
Timeliness		
1. Time between placing logistics requirements and receiving logistics supplies is within the promised time from the source	2.03	1.035
2. All required logistics arrive in time for smooth UPDF operations	2.04	.957
3. All required reverse logistics requirements are always available whenever required	2.14	.943
4. UPDF rarely experiences stock outs due to late deliveries of required logistics	2.38	1.103
Availability		
5. All required trucks for operations are always available to facilitate UPDF operations	2.00	1.118
6. All required fuel for operations is always available to facilitate movement of troops	2.22	1.043
7. All required food stuff are always available where required	4.01	1.113
8. All required clothing always available	3.49	.970
9. All required accommodations is always available at the point of use	4.11	.923
10. UPDF rarely experiences stock outs due to late deliveries of required logistics	2.64	1.284
11. We always receive all our logistics in the expected quantities.	3.59	.899
Reliability		
12. We always receive required logistics in the expected quality	3.58	.991
13. We always receive all our logistics in good conditions for use	3.81	.870
14. CLE is dependable in delivery of required logistics	3.85	.846
15. CLE is consistent in delivery of required logistics	3.75	.913
16. Generally our logistics deliveries reach us whenever we need them	3.69	.939

Source: Primary data

Table 5 above shows that the respondents disagreed with time of placing logistics requirements and receiving logistics supplies were within the promised time from the source (mean = 2.03), while they disagreed that all required logistics arrived in time (mean = 2.04). The respondents also disagreed with availability of reverse logistics requirements (mean = 2.14), and never experiencing stock outs (mean = 2.38). These findings point to failure to meet timeliness LSQ

expectation among most users indicating a poor LSQ evident in later delivery leading to stock outs.

The respondent disagreed with availability of all required trucks for operations (mean = 2.00), and availability of fuel (mean = 2.22). They however agreed with availability of food stuff (mean 4.01), clothing (mean = 3.49), accommodation facilities (mean = 4.11) and receiving them in the requested quantities. The implication was that although the CLE was successful in availability of required logistics, there were gaps related to fuel and fleet required for operations.

The respondent indicated that CLE was reliable in delivering quality (mean = 3.58), delivery of goods in good condition (mean = 3.81), dependable in delivery of required logistics (mean 3.85), consistent (mean =3.75), and that they generally received required logistics whenever they required them (mean = 3.69). The implication was that the logistics uses were satisfied with the level of reliability in delivery of required logistics.

4.5. The Budget Preparation and LSQ

The first objective of the study was to establish the relationship between logistics budget preparation and LSQ. Budget preparation was one of the dimension of budget process conceptualized using two indicators of logistics requirements identification and costing measured using 17 items scored on five point Likert scale of (5) for strongly agree (4) for agree, (3) for not sure (2) for disagree (1) for strongly disagree. The study analyzed logistic budget preparation practices in CLE and the findings are displayed in table 6 below.

Table 6: Descriptive results for logistics budget preparation in CLE

Budget Preparation	**MEAN**	**S.D**
Need Identification		
1. Command Vehicles required to facilitate UPDF operations are adequately identified for each financial year	3.63	.754
2. Troop carriers/trucks required to facilitate UPDF operations are adequately identified for each financial year to facilitate UPDF operations	3.55	.829
3. Spare parts required for UPDF operations adequately established in each financial year	2.11	1.241
4. Fleet maintenance/repairs are adequately identified for each financial year	2.28	1.058
5. Fuel requirement for UPDF operations are adequately established and available in each financial year	3.64	1.091
6. Food stuffs required for UPDF operations adequately established and available in each financial year	4.18	.817
7. Clothing (uniforms and shoes) required for UPDF troops operations are adequately available throughout each financial year	3.61	1.056
8. Accommodation (mattresses, field tents, blankets/bed sheets, plates & cups) requirement for UPDF troops in operations are adequately available throughout each financial year	3.81	1.108
9. Logistics service providers are adequately identified for each financial year for the routine procurements and services necessary for UPDF operations	4.13	.874
Costing		
10. Costs of Command Vehicles to be acquired for UPDF operations in each financial year are well estimated	3.61	.942
11. Costs of Troop Carriers/Trucks to be acquired for UPDF operations in each financial year are well estimated	3.56	.913
12. Costs of Fleet maintenance/repair requirements are well/appropriately estimated	2.44	.924
13. Costs of Fuel requirement for UPDF operations are well/appropriately estimated	4.25	.560
14. Costs of Food stuffs requirement for UPDF operations for each financial year are well/appropriately estimated	4.14	.707
15. Costs of Clothing requirement for UPDF operations in each financial year are well/appropriately estimated	3.84	.909
16. Cost of Accommodation items requirement for UPDF troops in operations are well/appropriately estimated	3.66	1.060
17. Costs of Spare parts requirement for UPDF fleet are well/appropriately estimated	2.25	.560

Source: Primary data

Table 6 shows that the respondents agree with identification of;- command vehicles (mean = 3.63), troop carriers (mean = 3.55), fuel (mean = 3.64), food stuffs (mean = 4.18), clothing (mean = 3.61), accommodation (mean = 3.81) and service providers (mean = 4.13). The implication was that there were commendable efforts to identify key logistics requirements for consideration in the logistics budget by the CLE.

However the respondents disagreed with adequate identification of spare parts (mean = 2.11) and fleet maintenance and repair requirements (mean = 2.28). The implication was that logistics budget could be constrained by the uncertainty in spare parts and fleet maintenance requirements which infringe on other logistics budget costs to meet them as they arise.

Asked to describe the logistics requirement identification practices in CLE, the Senior Budget Officer noted**:**

> Just like any other ministry, Ministry of Defence (MOD) receives the first budget circular call. Immediately this is done, the ministry then requires UPDF to start the preparation of their year's logistics budget preparation. The UPDF (through the Joint Chief of Staff) asks formations/divisions/units to submit in their budget requirement for the financial year. Requisitions are sent through the line department (Chieftaincy) i.e. Chieftaincy of Logistics and Engineering (CLE) where they are incorporated to form the logistics budget items requirement for that year ready for costing. End user may or may not compute the financial value of their requirement since they are always revised or computed by the budget officer at the headquarters.

The Deputy CLE noted key challenges in identification of requirements and pointed out:

> End users do not give right specifications which brings conflicts especially when items procured do not fulfill the purpose to which they were procured. Units rejected other items delivered to them and yet they are the ones who provided the specification of such items. There is also a problem of timing of requirement identifications is always a challenge i.e. end users submits their budget requirements late. This has made it difficult for CLE to assume what units may require and yet these may not be their priorities. We have also noted that some end users ignore submitting their year's requirement since they believe that nothing will be provided. Over years they submit their requirements but are never provided, hence, they rather wait for whatever they may be provided.

The respondents agreed with efforts consider costing of;- command vehicles (mean = 3.61), troop carriers (mean 3.56), fuel costs (mean = 4.25), food stuffs (mean 4.14) clothing (mean = 3.84), and accommodation (mean = 3.66). They however disagreed with costing of fleet maintenance (mean 2.44) and spare parts (mean = 2.25). The implication was that once requirements were identified, they were consequently costed and developed into a consolidated budget. There was a problem of costing fleet maintenance and spare parts which were not adequately identified during budget preparations.

The deputy CLE observed the following on costing:

> User department uses current market prices in computing financial requirement for the year's budget, however, procurement prices are always unpredictable and yet PPDA recommends the prequalified suppliers. However, there seems to be lack of enough research on market prices due to lack of facilitation, hence, estimation of prevailing market prices.

The Senior Procurement Officer observed:

> Poor specifications leading to poor costing i.e. high specification is not economical since unit price will be higher. Low specification on the other hand is bad as items lowly specified may be cheap but do not performs to the expectation hence expensive in the long run. It is recommended that moderate acceptable specification be made; however, it is very difficult for end users to define moderate specification. There are difficulties in predicting the FOREX rates which resulted to under costing unit prices e.g. this current financial year's budget used FOREX rate guided by BOU i.e. USD 1 = Ushs 3,010 but the actual rate turned out to USD 1 = Ushs 3,700 at one point. This has greatly affected the budget performance as other procurements and payments cannot be effected due to limited funds available.

4.5.1. Correlation analysis between Logistics budget preparation and LSQ

To test if there was relationship between logistics budget preparation and LSQ, a correlation analysis was conducted using Pearson's correlation coefficient and significance at the 99 and 95 confidence limits (two tailed level) and the findings are presented in Table below.

Table 7: Correlation matrix between Logistics budget preparation and LSQ

		Logistics budget preparation	LSQ
Logistics budget preparation	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	97	
LSQ	Pearson Correlation	.544**	1
	Sig. (2-tailed)	.000	
	N	97	
**. Correlation is significant at the 0.01 level (2-tailed).			

P≤0.05
Source: Primary data

Table 7 shows the Pearson's correlation coefficient r = 0.544** between logistics budget preparation and LSQ suggesting that the two variables had a positive significant relationship. The r = 0.544** and significance p = 0.000 between logistics budget preparation and LSQ suggests that there was a high positive and significant relationship between logistics budget preparation and LSQ. The budget managerial implication was that increased observance of logistics requirements identification and their costing significantly enhances Military LSQ. Poor budget preparations by inadequate identification of logistics requirements and their costing leads to poor Military LSQ.

4.6. The Budget Management and LSQ

The second objective of the study was to establish the relationship between logistics budget management and LSQ. Logistics Budget management was one of the dimension of logistics

budget process conceptualized using three indicators of budget control, utilization, and monitoring and evaluation measured using 17 items scored on five point Likert scale of (5) for strongly agree (4) for agree, (3) for not sure (2) for disagree (1) for strongly disagree. The study analyzed logistic budget preparation practices in CLE and the findings are displayed in below.

Table 8: Descriptive results for logistics budget management in CLE

Budget management	**MEAN**	**S.D**
Control		
1. All logistics requirements have budget lines/codes from which they are committed	4.29	.946
2. CLE always ensures logistics requisitioned are provided for in the budget before approval	4.21	.935
3. All responsible officers adequately verify logistics requisitions	2.30	.831
4. All logistics expenditures are authorized by the right persons	2.41	.747
5. Budget re-allocations are always authorized by authorities of the CLE	3.81	.982
Budget Utilization		
6. You absorb funds for logistics in time.	2.37	1.124
7. Logistics funds do not remain un-utilized on UPDF account	2.61	1.026
8. CLE has achieved a desirable level of logistics budget utilization	3.73	.823
9. The UPDF has not refunded un utilized funds to the consolidated fund	3.66	.828
Monitoring and evaluation		
10. The CLE management adequately monitors that logistic funds are used for planned purpose	4.15	.905
11. Bottom up Logistics accountability is always enforced by CLE	3.89	.911
12. Monthly logistics expenditures reports are always submitted in time by the responsible persons	1.98	1.090
13. Quarterly logistics expenditures reports are always submitted in time by the responsible persons	4.08	1.027
14. Annual logistics expenditure reports in UPDF are always submitted in time	4.18	.958
15. CLE undertakes to review logistics budgets to identify deviations	2.04	.644
16. CLE undertakes to evaluate the efficiency of logistics budget management	3.95	.870
17. The CLE undertakes to evaluate its budget against attainment of value for money	1.84	.672

Source: Primary data

Table 8 above shows that the respondents agreed that there was efforts to use:- budget lines (mean = 4.29), requisitions based on approved budgets (mean = 4.21) and budget re-allocations based on approval by the relevant officers (mean 3.81). They however disagreed proper verification of logistics requisitions (mean = 2.30) and authorization by the right persons (mean = 2.41). The implication was that although the CLE had instituted logistics budget controls, there were weaknesses in internal control activities of verification and authorization of budget which constrain the effectiveness of budget controls. These need to be addressed.

Similarly, table 8 shows what the although the respondents agreed that CLE achieved a desirable level of logistics budget utilization (mean 3.73) and had not refunded un utilized funds to the consolidated fund (mean = 3.66), they disagree with timely absorption of funds (mean = 2.37). The implication was that CLE utilized most of its budget in the last quarter of the years, a practice which could be attributed to late receipt of funds for the first quarter activities and procurements.

Furthermore, the respondents agreed with adequacy of monitoring of funds expense for the planned purpose (mean 4.15), enforcement of bottom up accountability (mean = 3.89), production of quarterly accountability (mean = 4.08), generations of annual expenditure report (mean = 4.18) and evaluation of efficiency of budget utilization. These findings revealed commendable efforts to monitor and evaluate logistics budgets which foster the attainment of the desired LSQ.

However, the respondents disagreed that Monthly logistics expenditures reports were generated in time (mean = 1.98), disagreed that effort was undertaken to review logistics budgets to identify deviations (mean = 2.04) while the also disagreed with conducting of value for money on logistics budgets. These finding revealed budget monitoring and evaluation gaps which

should be addressed by enforcement of timely generations of monthly reports, conducting of regular budget review meeting and conducting of value for money.

Asked to describe Logistics budget management practice in CLE, the Senior Budget officer pointed out the following on each budget management practice:

a. Budget control

Normal financial policies and regulations are used (public finance and accounting policies used). There is also a problem of procurement regulations i.e. PPDA act used to ensure attainment of value for money where the least cost bidder is higher than the budgeted amount. Control centres are used to ensure expenditure is in line with approved budget and no double expenditure is made.

b. Utilization

All expenditures are in line with approved budget except emergencies cases. Emergencies are either catered for using re-allocations within the approved budget or supplementary support requested for from the central government. Re-prioritizing and reallocation of funding is always discussed with the line departments to finance unforeseen operations. Logistics requirement is always funded (including supplementary support) of about 50% only. This explains outstanding debts over years which has always resulted to hesitation by other companies to honor supply orders by UPDF due to overdue debts e.g. on fuel. CLE exhausts all funds released for logistics even earlier than the year end. In most cases, goods are consumed and paid for in subsequent financial year.

Budget re-allocations are also done occasionally on occurrences e.g. Pope's visit to the country was not planned for in FY 2015/16 hence budget re-prioritization.

c. Monitoring and evaluation

Budget monitoring is done on regular checks. Departmental monitoring and evaluation is done on monthly, quarterly and annual basis to cross-check expenditure. UPDF/MOD retreats are always held to review and re-prioritize tasks.

4.6.1. Correlation analysis between Logistics budget management and LSQ

To test if there was relationship between logistics budget management and LSQ, a correlation analysis was conducted using Pearson's correlation coefficient and significance at the 99 and 95 confidence limits (two tailed level) and the findings are presented in Table below.

Table 9: Correlation matrix between Logistics budget management and LSQ

		Logistics budget management	LSQ
Logistics budget management	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	97	
LSQ	Pearson Correlation	.607**	1
	Sig. (2-tailed)	.000	
	N	97	
**. Correlation is significant at the 0.01 level (2-tailed).			

P≤0.05
Source: Primary data

Table 9 shows the Pearson's correlation coefficient r = 0.607** between logistics budget management and LSQ suggesting that the two variables had a positive significant relationship. The r = 0.607** and significance p = 0.000 between logistics budget management and LSQ suggests that there was a high positive and significant relationship between logistics budget management and LSQ. The budget managerial implication was that increased budget controls, funds utilization, monitoring and evaluation significantly enhance Military LSQ. Poor budget management adversely affects Military LSQ.

4.7. Multiple Regression Analysis

Multiple regression analysis was conducted to establish the predictive strength of budget process of preparation and management influence LSQ in CLE and which among the variables was a

more significant predictor of the variance in LSQ. The multiple regression results are summarized in table 10 below.

Table 10: Multiple Regression Results between Logistics budget process and LSQ

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.675[a]	.456	.444	.42955		

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.124	.364		.342	.733
	Budget Preparation	.309	.079	.334	3.886	.000
	Budget Management	.515	.098	.452	5.254	.000

a. Predictors: (Constant), Budget Management, Budget Preparation
b. Dependent Variable: LSQ

$P \leq 0.05$

Source: Primary data

Table 10 above shows adjusted R^2 of 0.444 or approximately 44% which is the variance in LSQ explained by logistics budget preparation and management putting into consideration all the variables and the sample size of the study. The remaining variance of 56% in LSQ in CLE is explained by other factors other than logistics budget management.

The standardized coefficient statistics revealed that logistics budget management was the most significant predictor of the variance in LSQ (β=0.452, t= 5.254, p=0.000) and then logistic budget preparation (β=0.334, t= 3.886, p=0.000). The implication was that priority should be given to strengthening logistics budget management aspects of controls, utilization, monitoring

and evaluation while always emphasizing adequate logistics requirements identification and costing.

Decision on study hypothesis

The first research hypothesis was that there is a significant relationship between logistics budget preparation and Military LSQ. The standardized coefficient statistics show that budget preparation yielded a standardized β=0.334, t= 3.886, p=0.000 suggesting that logistics budget preparation was a significant predictor of the variance in military LSQ. The hypothesis that there is a significant relationship between logistics budget preparation and Military LSQ is therefore qualified.

The second research hypothesis was that there is a significant relationship between logistics budget management and Military LSQ. The standardized coefficient statistics show that budget management yielded a standardized β=0.452, t= 5.254, p=0.000 suggesting that logistics budget management was a significant predictor of the variance in military LSQ. The hypothesis that there is a significant relationship between logistics budget management and Military LSQ is therefore qualified.

CHAPTER FIVE

SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter presents a summary of the study finding, discussion, conclusions, recommendations, limitations and contributions of the study and areas for further research.

5.2. Summary of the study findings

This sub section presents a summary of the study findings in relations to logistics budget preparation and management respectively and logistics service quality on CLE.

5.2.1. Logistics Budget Preparation and LSQ in UPDF

The study found reasonable efforts to identify logistics requirements for command vehicle, troop carriers, fuel, food, and clothing, accommodation and the respective suppliers during the budget paper preparation phase of budgeting. There were however some gaps/challenges in identification of spare parts and fleet maintenance requirements which could constrain LSQ. There was also commendable effort to cost the identified logistics requirements during the budget preparation phase.

Logistics budget preparation had a high positive significant relationship with ($r = 0.544^{**}$, $p = 0.000$) and it was a significant predictors of Military LSQ ($\beta=0.334$, $t= 3.886$, $p=0.000$). The study therefore confirmed the hypothesis that there is a significant relationship between logistics budget preparation and Military LSQ.

5.2.2. Logistics Budget Management and LSQ in UPDF

The study found that there was a laudable effort to manage the CLE budget by having budget codes and enforcement of requisitions based on budgets and verification of re-allocations as budget control mechanisms. There were however some gaps in the budget control mechanism related to verification and authorization of logistics requirements and budgets.

The study also found that although CLE had attained a reasonable level of funds utilization and had not refunded un-utilized funds to consolidated fund, not all funds disbursed to CLE accounts were absorbed in time.

There was also commendable efforts to adequately monitors and evaluation CLE budgets by ensuring that logistic funds are used for planned purpose, enforcement of accountability, submission of quarterly and annual logistics expenditure reports, an validating the efficiency in budget utilization. The study however found significant budget monitoring and evaluation gaps in areas of gaining monthly expenditure reports, conducting regular budget review meeting to identify deviations and conducting of value for money evaluations.

Logistics budget management had a high positive significant relationship with ($r = 0.609^{**}$, $p = 0.000$) and it was the strongest predictors of he variance in Military LSQ ($\beta=0.452$, $t= 5.254$, $p=0.000$). The study therefore confirmed the hypothesis that there is a significant relationship between logistics budget management and Military LSQ.

5.3. Discussion of the Study Findings

This sub section presents a discussion of the study findings in relations to logistics budget preparation and management respectively and logistics service quality on CLE base on what other scholars had previously observed.

5.3.1. Logistics Budget Preparation and LSQ

The study found a high positive significant relationship between logistics budget management and Military LSQ suggesting that enhanced LSQ will depend on the efforts to identify logistics budget preparation constraints and development of mechanisms to address it. This study observations relate to great extent to Goldratt (1990) Theory which asserts that some organizational practices or policies constrain the attainment of overall goal of the organisation and to address the problem, management needs to identify system constraints and decide how to exploit the constraint and in this study –budget management.

On the relationship between Logistics budget preparation and LSQ, Frow et al (2010) noted that budgeting is still regarded as an organizational imperative if costs are to be controlled and financial performance to be achieved. However, Østergren and Stensaker (2011) noted that traditional budgets are seen by practitioners of being incapable of meeting the demands of the competitive environment which lead to poor service delivery.

Esper et al (2010) concludes by observing that enhance LSQ will require a logistics mission focusing on a set of customer service goals to be achieved by the system within a specific product/market context with inputs from a large number of functional areas and activity centres within the firm.

This study therefore affirms that enhance availability, reliability and timeliness of military logistics in the UPDF will depend on the efforts to identify and develop logistics budgets in the force.

5.3.2. Logistics Budget Management and LSQ

The study found a high positive significant relationship between Logistics budget management and LSQ. The study therefore noted that enhance military LSQ in UPDF depends on the efforts to identify budget controls, funds utilization, monitoring and evaluation gaps and taking of corrective budget management actions. The study observations relate to Goldratt (1990) Theory which asserts that some organizational practices or policies constrain the attainment of overall goal of the organisation and to address the problem, management needs to identify system constraints and decide how to exploit the constraint and in this case budget management constraints. To this effect, the IMA (1999) notes that the financial professional, playing a pivotal role in TOC implementation, uses management accounting to focus on identifying, analyzing, and reporting key finance related events and opportunities affecting the organizational service delivery .

Related studies such as Anthony and Govindarajan (2007) recommend the use of budget monitoring from which information an early warning of deviations from budgetary targets could alert top managers to take corrective action. Oak and Schmidgall (2009) equally point out that the major reason for preparing the operating budget is to provide a standard for comparing actual results at the end of the accounting period-thus value for money. This study therefore inferred that Military LSQ depends on efforts to effectively manage logistics budgets through proactive controls, utilization, monitoring and evaluation of budgets in UPDF chieftaincy of logistics.

5.4. Conclusions of the Study

This sub section presents the conclusions or learning points of the study logistics budget preparation and management respectively and Military LSQ.

5.4.1. Logistics Budget Preparation and Military LSQ

The study concluded that Military LSQ depends on the efforts to adequately identify annual logistics requirements related to fleet, fuel, spare parts, food, clothing, accommodation, suppliers and the adequate costing of requirements. Inadequate identification of logistics requirements and their costing adversely affects Military LSQ.

5.4.2. Logistics Budget Management and Military LSQ

The study concluded that Military LSQ significantly depends on effective management of logistics budget through control activities of establishing budget codes and enforcement of budget based requisitions, verification, and proper authorization. Military LSQ equally depends on emphasis of budget utilization by absorption of disbursed funds for their purpose; budget monitoring and evaluation by ensuring expenditure for planned purpose, enforcement of bottom up accountability, submission of periodic logistics expenditure reports, validating the efficiency of budget utilization and attainment of value for money in budget review activities.

5.5. Recommendations of the Study

This sub section presents the action points that if followed will enhance Military LSQ by addressing weaknesses in logistics budget process.

5.5.1. Logistics Budget Preparation and Military LSQ

To enhance the timeliness, availability and reliability of military logistics, the study recommends that the management of CLE and related military departments in army should use time series forecasting technique which relies on previous records to forecast annual spare parts and fleet maintenance requirements. The results of annual forecasts should guide the costing of spare and fleet maintenance requirements.

5.5.2. Logistics Budget Management and Military LSQ

To enhance the timeliness, availability and reliability of military logistics, the study recommends that the management of CLE and related military departments in Army should enforce budget controls by ensuring that only authorized officers verify and authorize logistics requisitions. Automation of the verification and authorization process using IFMIS could be sought. The forces should also institute funds utilization as one of the performance targets to users that will be evaluated on quarterly basis. CLE should also train lower accounting officers on budget reporting to enable them gain competencies necessary to generate timely monthly reports. Budget monitoring and evaluation should be enforced by conducting weekly or monthly as well as adhoc budget review meeting. Conducting of annual value for money audits on budget expenditure will go a long way to identify LSQ gaps and taking of corrective actions by the CLE.

5.6. Limitations of the Study

The study relied on only primary data without use of secondary data on logistics budget management and LSQ in UPDF given the classified nature on the UPDF records. Similarly, the study relied on data collected from one division out of the 5 Infantry Divisions of UPDF. The use of selected divisions would have enhanced the objectivity of the study findings on LSQ based on

different divisional experiences. Never the less, the results are representative of the views of users of the CLE logistics and could be generalized to other divisions.

5.7. Contributions of the study

The study has generated logistics budget process recommendations requiring the use of time series forecasts to identify requirements which with high uncertainty and their costing for enhanced LSQ. Similarly the study had generated budget management managerial recommendations requiring automation of budget approval process using IFMS, use of budget review meeting to monitor and evaluate budget performance for enhanced LSQ.

5.8. Recommendations for further studies

The study found out that 44% of the variance in the LSQ was explained by logistics budget preparation and management while remaining balance of 56% is explained by other factors other than those covered in this study. Other studies need to examine the moderating role of financial management competencies on the relationship between logistics budget management and LSQ since it was noted that most budget and logistics user may not have had adequate financial management competencies.

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APPENDICES

Appendix I: Study questionnaire

Dear Respondent

My name is Jacob Opio pursuing a Masters in Management Studies at Uganda Management Institute. I am interested in establishing the influence of Logistics Budget Management on Logistics Service Quality in UPDF. You have been selected as a respondent to provide us with your views on this study. Your views will be kept and treated confidential in line with the study.

SECTION I: BACKGROUND INFORMATION

1. Level of education: Certificate ☐ Diploma ☐ Degree ☐ Postgraduate ☐ Others ☐
2. Specialized logistics training received: Basic Logistics ☐ Advanced Logistics ☐ Others ☐
3. Your Position in UPDF : Deputy chief of Logistics ☐ Staff Officers (HQs) ☐ Officer in charge (HQs) ☐ Logistics Users (Div) ☐
4. Time worked in that position:1-3 years ☐ 4- 6 Years ☐ 7-9 Years ☐ 10+ ☐

SECTION II: LOGISTICS BUDGET PROCESS

Instructions

Indicate the extent to which you agree with the observations of the following budget management practices in the UPDF on a scale of (5) for strongly agree (4) for agree, (3) for not sure (2) for disagree (1) for strongly disagree**.**

A. Budget Preparation					
Needs identification					
1. Command Vehicles required to facilitate UPDF operations are adequately identified for each financial year	1	2	3	4	5
2. Troop carriers/trucks required to facilitate UPDF operations are adequately identified for each financial year to facilitate UPDF operations	1	2	3	4	5
3. Spare parts required for UPDF operations adequately established in each financial year	1	2	3	4	5
4. Fleet maintenance/repairs are adequately identified for each financial year	1	2	3	4	5

5. Fuel requirement for UPDF operations are adequately established and available in each financial year	1	2	3	4	5
6. Food stuffs required for UPDF operations adequately established and available in each financial year	1	2	3	4	5
7. Clothing (uniforms and shoes) required for UPDF troops operations are adequately available throughout each financial year	1	2	3	4	5
8. Accommodation (mattresses, field tents, blankets/bed sheets, plates & cups) requirement for UPDF troops in operations are adequately available throughout each financial year	1	2	3	4	5
9. Logistics service providers are adequately identified for each financial year for the routine procurements and services necessary for UPDF operations	1	2	3	4	5
Costing					
10. Costs of Command Vehicles to be acquired for UPDF operations in each financial year are well estimated	1	2	3	4	5
11. Costs of Troop Carriers/Trucks to be acquired for UPDF operations in each financial year are well estimated	1	2	3	4	5
12. Costs of Fleet maintenance/repair requirements are well/appropriately estimated	1	2	3	4	5
13. Costs of Fuel requirement for UPDF operations are well/appropriately estimated	1	2	3	4	5
14. Costs of Food stuffs requirement for UPDF operations for each financial year are well/appropriately estimated	1	2	3	4	5
15. Costs of Clothing requirement for UPDF operations in each financial year are well/appropriately estimated	1	2	3	4	5
16. Cost of Accommodation items requirement for UPDF troops in operations are well/appropriately estimated	1	2	3	4	5
17. Costs of Spare parts requirement for UPDF fleet are well/appropriately estimated	1	2	3	4	5
Budget management					
Controls					
1. All logistics requirements have budget lines/codes from which they are committed	1	2	3	4	5
2. CLE always ensures logistics requisitioned are provided for in the budget before approval	1	2	3	4	5
3. All responsible officers adequately verify logistics requisitions	1	2	3	4	5
4. All logistics expenditures are authorized by the right persons	1	2	3	4	5
5. Budget re-allocations are always authorized by authorities of the CLE	1	2	3	4	5
Budget utilization					
6. You absorb funds for logistics in time.	1	2	3	4	5
7. Logistics funds do not remain un-utilized on UPDF account	1	2	3	4	5
8. CLE has achieved a desirable level of logistics budget utilization	1	2	3	4	5
9. The UPDF has not refunded un utilized funds to the consolidated fund	1	2	3	4	5
Monitoring and Evaluation					
10. The CLE management adequately monitors that logistic funds are used for planned purpose	1	2	3	4	5

11. Bottom up Logistics accountability is always enforced by CLE	1	2	3	4	5
12. Monthly logistics expenditures reports are always submitted in time by the responsible persons	1	2	3	4	5
13. Quarterly logistics expenditures reports are always submitted in time by the responsible persons	1	2	3	4	5
14. Annual logistics expenditure reports in UPDF are always submitted in time	1	2	3	4	5
15. CLE undertakes to review logistics budgets to identify deviations	1	2	3	4	5
16. CLE undertakes to evaluate the efficiency of logistics budget management	1	2	3	4	5
17. The CLE undertakes to evaluate its budget against attainment of value for money	1	2	3	4	5

SECTION III: Logistics Service Quality
Instructions

Please indicate the extent to which you agree with the following observation on logistics service quality in UPDF using a scale of (1) = strongly disagree (**SA),** (2) = disagree (, (3) = not sure (4) = agree (5) = strongly agree.

Statement					
Timeliness					
1. Time between placing logistics requirements and receiving logistics supplies is within the promised time from the source	1	2	3	4	5
2. All required logistics arrive in time for smooth UPDF operations	1	2	3	4	5
3. All required reverse logistics requirements are always available whenever required	1	2	3	4	5
4. UPDF rarely experiences stock outs due to late deliveries of required logistics	1	2	3	4	5
Availability					
5. All required trucks for operations are always available to facilitate UPDF operations	1	2	3	4	5
6. All required fuel for operations is always available to facilitate movement of troops	1	2	3	4	5
7. All required food stuff are always available where required	1	2	3	4	5
8. All required clothing always available	1	2	3	4	5
9. All required accommodations is always available at the point of use	1	2	3	4	5
10. UPDF rarely experiences stock outs due to late deliveries of required logistics	1	2	3	4	5
11. We always receive all our logistics in the expected quantities.	1	2	3	4	5

Statement					
Reliability					
12. We always receive required logistics in the expected quality	1	2	3	4	5
13. We always receive all our logistics in good conditions for use	1	2	3	4	5
14. CLE is dependable in delivery of required logistics	1	2	3	4	5
15. CLE is consistent in delivery of required logistics	1	2	3	4	5
16. Generally our logistics deliveries reach us whenever we need them	1	2	3	4	5

Appendix II: Interview Guide

Introduction

Self introduction

1. Describe the logistics budget preparation practices in UPDF in relation to:
    - Logistics requirements identification
    - Costing

2. What are the challenges in logistics budget preparation?

3. How does logistics budget preparation influence LSQ?

4. Describe the logistics budget management practices in UPDF in relation to:
    - Budget controls
    - Budget monitoring and evaluation

5. What are the challenges in logistics budget management?

6. How does logistics budget management influence LSQ?

Appendix III: Table for determining sample size from a given population

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

Note: "N" is population size

"S" is sample size.

Krejcie, Robert V., Morgan, Daryle W., "Determining Sample Size for Research Activities", Educational and Psychological Measurement,1970.