The impact of computerized procurement on the effectiveness of a firm: A case study of Ceva Inter Freight Uganda Limited

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DECLARATION

I Nalumu Adeline declare that as per the values of integrity and diligence, I have not received any unauthorized assistance while working on this dissertation. I declare that the work is authentically mine and to the best of my knowledge, it contains no traces of plagiarism or any other unethical practices. The only work used that has already been published by other persons has been purely for reference purposes.

Signed……

Date: ……

APPROVAL

This dissertation was completed under the guidance and supervision of my Academic Supervisor and is expected to be submitted to Uganda Christian University as part of the requirements for the award of a Bachelor's Degree in Procurement and Logistics Management.

Signed……. Date……

MR. DUNCAN TUMUHAMYE

(Supervisor)

DEDICATION

With special regard, I wish to dedicate this dissertation to my dear parents and family who have always been there to support me in my education and have always encouraged as well as motivating me spiritually, physically, and emotionally.

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I would like to thank the Almighty God for the gift of life and guiding me throughout my entire education journey: It has not been easy but with God it was all possible.

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ABSTRACT

The study examined the impact of computerized procurement on the effectiveness of a firm: a case of Ceva Inter freight Uganda Limited. It specifically focused on the efficiency of procurement processes, cost savings, and cost management, data accuracy and decision making, supply chain visibility and performance, and other factors of improving effectiveness of Ceva inter freight Uganda Limited. The study was carried out using a cross sectional research design where both quantitative and qualitative research approaches were also used. The data was collected using questionnaires and interviews during the data collection, both purposive and stratified sampling methods were used. A sample size of 52 respondents who were management and employees of Ceva inter freight was also used in the study.

This study found out that computerized procurement plays a valuable role throughout the procurement lifecycle of a firm and offers concrete opportunities for local and national government to improve their performance in terms of transparency, participation, and decentralization by narrowing the constraints of geographical isolation or insufficient time, also has the potential to invigorate business relations allowing citizen participation in firm activities. However, the study also highlighted challenges affecting the effectiveness of Ceva inter freight including limited financial resources, limited research, and innovation, limited skilled personnel, limited technical support, inappropriate technologies, and limited management commitment. Overcoming these challenges is crucial for organizations to fully realize the impact of computerized procurement on the effectiveness of Ceva inter freight Uganda Limited.

The study recommended that Ceva inter freight Uganda limited should conduct staff training or job training for computerized staff. It also recommended that Companies should select appropriate

technology or platforms to have and maintain the quality of information provided by computerized procurement. The selection of computerized procurement platforms should also consider the type of organizations and users who use them.

LIST OF ACRONYMS

ICT	Information and communication Technology
URA	Uganda Revenue Authority
GDP	Gross Domestic Product
EDI	Electronic Data Interchange
EPOS	Electronic Point of Sale
EFT	Electronic Funds Transfer
E-mail	Electronic Mail
VDU	Visual Display Unit
MRP	Material Requirement Planning
WWW	World Wide Web

UNESCO	United Nations scientific and Cultural Organization
IP	Internet Protocol
UCU	Uganda Christian University
HIPAA	Health Insurance Portability and Accountability Act

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CHAPTER ONE

1.0 Introduction

This chapter covers the background of the study, purpose of the study, research questions and the scope of the study, significance of the study, and definition of terms.

1.1Background of the study

Computerized procurement/ information technology plays a valuable role throughout the fraud management lifecycle. There is no stage in fraud management lifecycle that does not benefit from the effective application of computerized procurement resources or suffer from inefficient or inflexible process or staff. Computer technology resources are frequently the key to success or failure of the entire firm (Ernst and Young, 2000)

In the past companies were used tradition buying, which was characterized by higher procurement funds in form of; non-value adding activities, forged documentations, poor trafficking of goods on transit among others. It is due to such inefficiency that many organizations are increasingly recognizing information and communication technology (ICT) in buying to reduce procurement frauds (Australian National Training Authority, 1999)

In the modern world, competition among organizations is a common issue. Every organization is looking at procurement efficiency as the only way for survival, therefore timely and accurate information is vital for effective decision making and proper management of scarce resources. Incase organizations are to manage the challenges of globalization and volatile competitive business environment embracing, computerized procurement is necessary (Lysons 2003)

According to Chaffey (2007), computerized procurement involves the use of computers and telecommunication especially internet to send and receive information.

Absence of the use of computerized procurement may lead to procurement fraud which occurs when an employee or other person related to a firm unlawfully gains an advantage in purchasing goods or services for that firm. Some of the most common types of procurement fraud are overpaying for products (and receiving kickbacks), creating, and falsely paying duplicate vendors, creating, and paying fictions venders and paying for over-shipments from vendors (Frank E. Fox, 2010)

According to (Rene Hansen, Thembile Phute, Killron Dembe and Synovia Chikanza (2005) effectiveness of an organization is when an organization can eliminate the aspect of corruption which normally happens in organizations where the governance structures are weak or have become corrupted themselves. This is a worldwide trend which cuts across all sectors.
Uganda as a country before the period of 2000, the level of fraud was not pronounced like it is happening now where there are many cases of procurement fraud running on the media such as newspapers, radios, televisions. According to report on the newspaper (daily monitor 23 May 2011), Uganda revenue Authority (URA)noted that the government is losing revenue because of

organized crime between staff of the institution and official of clearing forwarding firms. MS Sarah

Kasheka, the acting commissioner customs says that “at least 10 clearing agencies have been suspended for tax fraud including under declaration of the value of imported goods, diversion of cargo, and fording signatures of URA officials”.

Organizations are looking at indicatives that can enable obtain a better competitive advantage over their competitors, in terms of customer satisfaction. To achieve this goal executives in the information age, need instant and result oriented information to make strategic decision. (Chaffey 2007)

Even though there is constant improvement in computerized systems and the huge amount of money invested in ICT, companies are still incurring heavy losses in terms of high costs, delayed delivery, bribery, bid rigging, missing of products in transit and above all poor customer service, this is very disturbing to all the stake holders as to why such mishaps continue to happen. Basing on the background, the researcher therefore seeks to investigate into the impact of computerized procurement on the effectiveness of a firm.

1.2 Statement of the problem

It has been discovered that there has been great and constant improvement in the effectiveness of a firm. This has been evidenced by increased sales, increased profitability, customer satisfaction, high growth rate and high response in providing management, clients, and suppliers with accurate timely information. Although there are number of factors that contribute to the effectiveness of a firm, However, this study was aimed to determine the impact of computerized procurement on the effectiveness of a firm.

1.3.0 Objectives of the study

1.3.1 General objective

To establish the impact of computerized procurement on the effectiveness of a firm.

1.3.2 Specific objectives

i. To identify the various ICT techniques used to promote effectiveness in Ceva Inter freight.

ii. To establish the impact of computerized procurement on Ceva Inter freight's effectiveness in the sourcing process.

iii. To establish ways on how to improve the effectiveness of Ceva Inter freight.

1.4 Research questions

i. What are the various ICT techniques used to promote effectiveness in Ceva Inter freight?

ii. How does computerized procurement impact on effectiveness in Ceva Inter freight?

iii. What are the ways of improving effectiveness in Ceva Inter freight?

1.5.0 Study scope

1.5.1 Content Scope

The focus of this study was the impact of computerized procurement, efficiency of procurement processes, supply chain visibility and performance, and other factors of improving effectiveness of Ceva inter freight Uganda Limited.

1.5.2 Geographical scope

The study was conducted at CEVA INTER FREIGHT UGANDA LIMITED, Nakawa division, Plot M248 Nakawa Industrial Area, P.O.Box 4555, KAMPALA - UGANDA

1.5.3 Time scope

The period of investigation was from July 2023 to September 2023.

1.6 Significance of the study

- It was to help the public know the benefits of using computerized/ICT in procurement to promote effectiveness of a firm.
- It was to benefit the organization in reducing costs associated with procurement.
- It was to benefit stake holders in making procurement decisions about how to promote effectiveness in a firm by using the techniques got in the study.
- It was to benefit future academicians and researchers in finding more information about how computerized procurement promotes effectiveness in a firm.

1.7.0 Definitions of the key terms

1.7.1 Computerized procurement

Computerized procurement/ICT is the process of automatic acquisition, storage, manipulation, movement, control, display, switching, interchange, transaction or reception of data or information (Lysons, 2000)

Computerized procurement works in the same way as e-procurement and it is defined as the use of internet to operate the transactional aspects of requisitioning, authorizing, ordering, receiving and payment process for the required service or products.

Computerized procurement refers to the use of automated machines especially computers in dealing with transactions that require interaction electronically between the sender and the receiver (Chaffey, 2007).

1.7.2 Firm

Effectiveness of firm refers to a situation when a firm can meet its short run and long run expenses without going bankrupt (Wikipedia)

Effective firm is a firm where workers feel part of the organizations and the meanings that the people attach to their actions. Culture includes the organization values, visions, norms, working language, system, believes and habits. It is also the pattern of such collective behaviors and assumptions that are taught to new organizational members as a way of perceiving and even thinking and feeling. Organization culture affects the way people and groups interact with each other with clients and with stakeholders (Ravasi and Schultz 2006)

1.7.3 Globalization

Globalization refers to the process of increasing interconnectedness, integration, and interdependence among people, economies, cultures, and nations around the world. It is driven by advancements in communication, transportation, and technology, which have significantly reduced barriers to trade, investment, and exchange of information across borders.

1.8 Communication

Communication refers to the process of exchanging information, thoughts, ideas, or emotions between individuals or groups through various means. It is an essential aspect of human

interaction and plays a crucial role in conveying messages, understanding one another, and building relationships.

1.8.0 Unemployment

Unemployment refers to the condition in which a person who is capable and willing to work is unable to find suitable employment opportunities. In other words, it is the state of being jobless despite actively seeking employment. Unemployment is an essential economic indicator that reflects the health of an economy and its labor market.

1.8.1 Electronic Data interchange [EDI]

EDI is technique based on agreed standards**,** which enables computers in difference organization to successfully send business information of transection from one to another.

1.8.2 Electronic funds transfer (EFT)

According to Lysons and Farrington (2006), EFT is based non-electronic transmission of receipts and payments to make to suppliers "here money travels not paper". EFT involves automated digital transmission of money between organizations and banks. Lysons and Farrington (2006) state that the buying organization will make payment to the supplier using EFT, in a more convenient and accurate way.

1.8.3 Electronic Mail (e-mail)

E-mail is a process by which letters, orders or other documents are sent by a computer along telecommunication lines to appear on the visual display unit (VDU) at their destination.

1.9 Smart Cards

Smart cards are integrated circuits chips used to store customer specific information including electronic money. They have ability to provide intelligence and stores significant amount of information, up to 20pages of texts. Smart will be used to purchase goods and services, store information, and above all, they can be availed to all potential users. (Lysons 2006)

1.9.0 Electronic Hubs (E-hubs)

The dives connect several networks together. As used in e-business it means a central repository exchange such as the star network. In the network, a server is a control computer that holds database and programs from many computers (Harper and Thompson 2005)

1.9.1 E-market place

Lysons (2006) assert that, e-market is a website that enables procurement officers to select the best suppliers in the market electronically. In this situation, a procure is in control especially in open marketplaces. This enables procure to evaluate all potential suppliers for a practically product or service and makes informed buying decisions regarding what and where to buy. This brings efficiency in procurement since the best-evaluated binders will be given contracts to supply.

1.9.2 Electronic catalogs

E-catalogs are web pages that provide information on product and services offered and sold by the vendors. (Lysons 2006).

1.9.3 Material requirement planning (MRP)

MRP systems are primarily used to determine when to place orders to standard materials, so that they will arrive exactly when needed, this helps in reducing the level of inventory held and theft in inventory. (Sollish, et-al 2007)

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

This chapter discusses what various scholars have written about the impact of computerized procurement/ICT on organization effectiveness. It mainly covers the concepts of information and communication technology, the relationship between computerized procurement and firm effectiveness, ways of improving effectiveness of a firm.

2.1 Concepts of computerized procurement on effectiveness of firm

Computerized procurement is a very important asset to any organization today since it is a major driver in cost reduction, through the time saved in searching for suppliers, placing orders and the number of participants involved (Chaffey 2007).

2.2 ADVANTAGES OF COMPUTERIZED PROCUREMENT

Marasco (1992) asserts that information will only be meaningful to an organization in case it is; Accurate thus free from errors, complete, simple to understand by all participants, economic where resources are utilized properly, relevant.

2.2.1 Globalization

According to Marasco (1992), computerized procurement does not only bring the world closer together, but it will allow the world's economy to become a single interdependent system. This means that we will only share the information quickly and efficiently, but we will only bring down barriers of linguistic and geographic boundaries. The world will develop into global village due to the help of information and communication technology, allowing countries like Chile and Japan who are not only separated by distance but also by language to share ideas and information with each other.

2.2.2 Communication

Chaffey (2007) asserts that with help of information and communication technology, communication became cheaper, quicker, and more efficient. We can now communicate with anyone around the globe by simply text messaging them, or sending them an email, for an almost instantaneous response. The internet has also opened up face to face direct communication from different parts of the world, thanks to help videoconferencing hence computerized procurement has solved communication problem between the supplier and consumer.

2.3 Cost effectiveness

According to Crake Richard (1998), information and communication technology helps to computerize the business process, thus streamlining businesses to make them extremely cost-effective money-making machines. This in turn increases productivity, which ultimately gives rise to profits; that means better pay and less strenuous working conditions.

2.3.1 Bridging the cultural gap.

Cortesao L; Rosa A; Carvallio P (2005) argues that the computerized procurement helps to bridge the cultural gap by helping people from different cultures to communicate with one another and allows for the exchange of views and ideas, thus increasing awareness and reducing prejudice.

2.3.2 More time

Computerized procurement makes it possible for businesses to be open 24/7 all over the globe. This means that a business will be opened anytime, anywhere, making purchases from different

countries easier and more convenient. It also means that you will have your goods delivered right to your doorstep without having to move a single muscle (Kennedy A, 2001)

2.3.3 Creation of new jobs

Kennedy a (2001) argues probably the best advantage of information and communication technology is the creation and interesting jobs. Computer programmers, systems analyzers, hardware and software developers and web designers are just some of the many new employment opportunities created with the help of computerized procurement.

2.3.4 Disadvantages of computerized procurement

2.3.5 Unemployment

Crake Richard (1998) emphasized that while computerized procurement may have streamlined the business process, it will also create job redundancies downsizing and outsourcing. This means that many lower and middle level jobs will be done away with, causing more people to become an employed.

2.3.6 Privacy

Simon Harper & Lora Thompson (2007), assert that though the computerized procurement makes the work quicker, easier, and more convenient it will also bring along privacy issues. From cellphone signal interception to email hacking, people are now worried about their once private information becoming public knowledge.

2.3.7 Lack of Job security

Industry experts believe that computerized procurement will make job security a bigger issue since technology keeps on changing with each day. This means that one must be in a constant learning mode if he/she wishes for their job to be secure (Crake Richard, 1998)

2.3.8 Dominant culture

While computerized procurement may take the world a global village, it will also contribute to one culture dominating other weaker ones. For example, it is now argued that US influences how most young teenagers all over the world now act, dress, and behave.

Languages too have become overshadowed with English becoming the primary mode of communication for business and everything else (https://wiki.answer.com)

Chaffey (2007) identifies the following as disadvantages of computerized procurement.

- Computerized procurement normally requires the use of machines like computers that rely on electricity, hence will limit reliability.
- Computerized procurement requires a capital making it expensive especially in terms of buying computers, maintaining, and updating the system.
- Computerized procurement may also result into health problems like finger and eyesight disorders among others.

From the above computerized procurements benefits the organization by reducing on the routine activities at the same time, it requires huge investments on purchasing machines, maintenance, and training of staff.

2.3.9 A Firm

Once a firm is running effectively, procurement fraud is eliminated which is a very common vice leading to inefficient firms dishonestly obtaining an advantage of avoiding obligation or causing loss to the organization, like bribery, theft, embezzlement, false claims, and many others (Farington 2006)

According to Norman Katz (1996), computerized procurement eliminates procurement fraud and promotes effectiveness of a firm.

3.0 Computerized procurement techniques used to promote the effectiveness of a firm.

3.1Electronic Data interchange [EDI]

They emphasize that EDI reduces in the lead-time simply because transaction is faster and more accurate (Lyons and Farmington 2006)

According to Chaffey (2007), EDI involves business transactions like, placing order, invoices delivery and payment transactions. EDI works according to standards implying that the organization using it must agree on the system and the software that it is to use (Chaffey 2007)

Chaffey (2007) identifies that EDI approach is associated with electronic point of sale (EPOS) he cites an example in a supermarket, when a product is purchased, the checkout operator scans the barcode on the label and automatically registers the price on the product. In the same way in case

of stock replenishment, the machine can order automatically as the stock reaches the re-order level.

Sollish et-al (2007), shows that EDI works as follows:

- Company A sets a purchase order using its internal business software.
- EDI software transforms the order from the internal format to standard 850- purchase order document format.
- Company A sends the 850 standard purchase orders to company B over a third-party value-added network.
- Company B receives 850 purchase order document and will translate it from EDI its proprietary format.

Typical company A will send an acknowledgement to company B.

According to Clarke (1998), EDI will replace paper-based purchase order with electronic one and sites the following as advantages that are associated with use of EDI in reducing procurement fraud:

- ❖ Reduction of paperwork.
- ❖ Reduced errors.
- ❖ Reduction of inventory levels.
- ❖ Supports just in time (JIT) inventory policies.
- ❖ Facilitates global purchase.
- ❖ Promotes long term buyer supplier relationships.

3.2 Electronic funds transfer (EFT)

According to Chaffey (2007), EFT is associated with the following advantages.

1. Reduction of costs due to elimination of cheque and writing receipt cancelling.
2. Increased speed of funds transmission. This is accurate and safe.

However, it is also associated with some disadvantages like; difficulty to implement especially where purchasers and suppliers may prefer to make and receive payment by cheque. It may cause problems especially with digital signatures.

3.2.1 Electronic Mail (e-mail)

They emphasize that incase buyers use this technique in the process of buying, sending, and receiving of messages and minutes instead of days. (Leaders et-al.1998).

According to Chaffey (2007), emphasizes that the recent innovation is the use of websites, which provide free e-mail facilitates, and does not require any software other than web browser.

Kennedy (2000), describe internet based on e-mail and stresses that the internet messages are sent through email and thus gives examples like:

- Hot mail (www.hotmail.com)
- Yahoo mail (www.yahoo.com)

Kennedy (2000) further categorizes emails broadly into in-bound and out-bound email is received from outside the organization such as from suppliers, email reduces on costs associated with movement thus resulting to efficiency on procurement activities.

3.2.2 Smart Cards

The following are the benefits of using smart cards:

- They offer convenience since they are of the same size as credit cards.
- They store reasonable amount of information thus will be easier to be accessed by organization for use any time.
- They are economical and thus reduce on the handling fraud.
- They provide confidentiality and security of information.

According to Enslow (2006) smart cards provide effective and efficient mean of storage and compatibility, especially with EDI, which facilitates easy movement and exchange of information. The global use of smart cards will depend on the introduction of global payment standards that are currently being developed.

3.2.3 Electronic Hubs (E-hubs)

According to Herder Thompson (2005), the buyers PCs will relate to the supplier's personal computers and information regarding business transactions will be conducted since all the information is kept in the server computer.

3.2.4 E-market place

According to Chaffey (2007), e-market is applicable where; the market is large enough, appraising and evaluating suppliers is high.

3.2.5 Electronic catalogues

The advantages of e-catalogs include facilitation of real time commutation between buyers and sellers; allows room development of closer buyer-supplier relationship due to improved vendor services, and enables suppliers respond quickly to market conditions by adjusting repackaging (Lysons,2006)

According to Accenture (2006), catalogs reduce procurement fraud by providing easy commutation of the real product in the market.

3.2.6 Material requirement planning (MRP)

According to Sollish-el-al (2007), MRP processes involves forecasting demand for individual parts so that they will be ordered in advance for receiving actual customer orders. This complex process is generally handled by computer software program through decision support models, using calculated algorithms to predict future requirement.

According to Chaffey (2007), MRP reduces procurement fraud in the following ways:

- The level of stock kept is reduced and this reduces on the costs associated with holding stock and missing of items in the inventory.
- Proper planning on when to order and receive goods.
- Assists in forecasting demands about the future among others.

3.2.7 The impact of computerized procurement on firm effectiveness in the sourcing process

Ernst and Young (2000), assert that, computerized procurement plays a valuable role throughout the procurement lifestyle of a firm. This is not a stage in procurement lifestyle that does not benefit from effective application of computerized resources or suffer from inefficient or

inflexible systems or processes or staff. According to Ernst Young (2000) computer resources are frequently the key to success or failure of the activities in the individual procurement stages and at times on the success or failure of the entire procurement department.

The rapid development of World Wide Web (www) technologies, internet and information and communication technology (IICT) have generated evolutionary online business solution and electronic commerce (E-commerce) both of which are to provide support for both information and workflow control and process management as well as enhance the communication. E-commerce technologies are provided as a mainstream to improve productivity, information flow and communications (Osmonbekov T, Bello D. and Gilliland D, 2000)

According to Jakubowski, Bruce, Stone, and Conner (2002), communication and training significantly contributes to improving the effectiveness of the firm. Procurement and accounts payable employs, as well as vendors need to be put on notice and educated as to what constitutes a violation of the organization code of ethics. The organization must provide for a method of report suspicious activity.

Jakubowski, Bruce, Stone, and Conner (2002) assert that, procurement awareness training is a positive experience that educates the employees in the organization ethics and fraud policies, while stressing that fraud is both costly and detrimental to the organization. Through this training, employees become aware of the red flags to fraudulent activities and their responsibilities.

Australian National Training Authority (1999) assert that the through communication accounts payable personnel are trained on what to look for in processing invoices, controls that are crucial to their department, red flags of procurement fraud, and how to report suspicious activities within the organization.

According to UNESCO (2002), ICT offers concrete opportunities for local and national government to improve their performance in terms of transparency, participation, and decentralization by narrowing the constraints of geographical isolation or insufficient time, computerized procurement has the potential to invigorate business relation allowing citizen participation in firm activities.

UNESCO (2002) assert that the integration of computerized procurement in business process has the primary objectives of transforming the relationship between an organization and the public, its customs by allowing the public to become active stake holders in business making process.

According to Rene Hansen Thembile Phute, Killron Dembe, and Synodia Chikanza (2005) argues that through use of ICT passwords have developed that prevent access to certain software applications. This is done through having a general windows passwords reinforced by passwords in pastel or pay plus programs; these two programs maintain the financial records of entity and information about the employees' salaries and particulars. The passwords help to prevent some intruders into the company information and therefore minimize frauds.

3.2.8 WAYS OF IMPROVING EFFECTIVENESS

3.4 Providing easy access to information.

Delivering speedy access to information to employees can make solid business decisions is a challenge nearly all SMBs face. Networks that are slow frequently down or unsecured don't allow employees to move quickly, which could result lost opportunities and revenues.

For example, Alliance, an online marketing firm in Pittsburgh, Pennsylvania, had a simple hub-based network which frequently slowed to a crawl when employees downloaded large files.

Alliance built a new high-performance network, reducing response time to 'milliseconds', says. CEO Abu Noaman. As a result, employees can now quickly post access core business intelligence on customers, venders, team members and processes. "Our technology keeps the sales and brand manager in front of the clients at all times", Noaman adds, and that has enabled Alliance to enter new markets while maintaining the same size sales team.

3.4.1 Delivering anywhere, anytime access.

SMBs today provide employees working out of hotel rooms, airport lounges, remote branches, and home offices with anywhere access to information. Without it, mobile remote workers lose valuable time. Wholesale personnel may have outdated customer information or miss urgent messages informing them of a critical business matter.

An internet protocol (IP), network connects remote and mobile workers to an SMBs critical applications such as customer-relationship management and force automation tools, along with emails, instant messaging, and other tools. A unified IP network supplies easy access to

application data and can support voice and video application, a virtual private network solution makes the remote and mobile access secure.

3.4.2 Creating Effective Business Processes with Partners

Inefficient operation can prevent an otherwise qualified SMB from doing business with some organization, Ventura. for example, some retailers require their suppliers to follow certain efficiency enhancing procedures and SMBs that don't meet the criteria out of the running.

A network with top-notch security and liability is key to enabling SMBs to develop efficient business processes that meet their needs, Ventura says.

3.4.3 Ensuring regulatory compliance.

Government regulations mandating higher levels of customers or patient privacy is another ongoing challenge for companies of all sizes. The health insurance probability and accountability act (HIPAA) of 1996, for instance, established standardized methods for electronic exchange, security, and confidentiality of health care data.

Seven countries services, Inc.; a Louisville, Kentucky-based non-profit organization that provides mental-health support services, developed IP network for integrated voice, video and data communications. A firewall and intrusion detection system keep patient data secure while IP communication improve efficiency.

3.4.5 Enhancing employee collaboration.

Without solid and frequent collaboration among employees, good ideas die, and opportunities are missed. The result: Valuable workers frustrated by operational inefficiencies that result from the poor collaboration may become disheartened and depart for other jobs and yet how does an SMB develop a richly collaborative environment when many employees work remotely or on the go? An IP network with integrated voice, video, data, and wireless communications delivers interactive calendaring, web-based video conferencing, IP technology and other tools that foster collaboration, Synodia Chikanza (2005)

CHAPTER THREE

RESEARCH METHODOLOGY

2.0 INTRODUCTION

This chapter entailed the research and sampling design, study population, sample size, sample selection, data sources, data collection methods and the tools, data collection procedure, how the data was analyzed and the limitations the researcher was likely to encounter in carrying out the study.

3.1 Research Design

I used a cross-sectional research design that was descriptive in nature. This design was best suited to studies aimed at finding out the prevalence of a phenomenon, situation, problem, attitude, or issue, by taking a cross-section of the population. This was useful in obtaining an overall "picture'" as it stands at the time of the study. I decided on what I wanted to find out about, identified the study population, selected a sample, and contacted respondents to find out the required information.

3.2 Study population

A research population is defined as a collection of individuals or objects known to have similar characteristics. All individuals or objects within a certain population usually have a common, binding characteristic or trait. The study population comprised of 5 top managers, 10 procurement personnel, 40 production personnel and 5 store personnel at Ceva Inter freight Uganda Limited, all totaling 60 people as shown below:

Table 1: Study population

Section /Department	**Population**
Top management	5
Procurement department	10
Production department	40
Stores department	5
Total	**60**

Source: Ceva Inter freight Uganda Limited employee records, 2023

3.3 Sample size

The sample size was 52 respondents that included 4 top managers, 9 procurement staff, 35 production staff and 4 stores staff who were selected from the population using Krejcie and Morgan (1970) table as shown below:

Table 1: Krejcie and Morgan Table for determining sample size from a given population.

Determination of 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	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	**52**	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384
Note: N is Population Size; S is Sample Size									

Source: Krejcie and Morgan (1970)

3.3.1 sampling technique

Both stratified sampling and purposive sampling were used to allocate samples from different departments at Ceva inter freight Uganda Limited.

3.3.2 Stratified sampling

In stratified random sampling, I attempted to stratify the population in such a way that the population within a stratum was homogeneous with respect to the characteristic based on which it was being stratified. The study population was divided into different strata and then a proportion of respondents were selected from each stratum in relation to the sample size. It was also important that the characteristics chosen as the basis of stratification were clearly identifiable in the study population.

Purposive sampling is a non-probability sampling. Purposive sampling method was used because it allows the selection of a sample with experience and knowledge about the study variables, and this was used to select the respective sample sizes allocated to each department basing on the respondents with significant knowledge about the study variables because they are in a best position to provide required information. The table below shows the different sample sizes that were chosen from each stratum.

Table 2: Sample size determination

Category (Stratum)	**Population**	**Sample size**
Top management	5	4
Procurement department	10	9
Production department	40	35
Stores department	5	4
Total	**60**	**52**

3.4 Sources of data

Both primary and secondary data sources were used in coming up with data for the study. Primary data was the firsthand data that was obtained directly from the field through research instruments. Secondary data on the other hand was obtained from written documents like journals, magazines, internet, final documents, and other relevant books of accounts of Ceva inter freight Uganda Limited.

3.4.1 Data collection instruments

Questionnaire was used to collect data from operational staff from different departments at Ceva inter freight Uganda Limited. In this case, the study used self-administered questionnaires during data collection to come up with the correct information for the study. A questionnaire tool was used to collect primary data whereby a set of questions were designed to collect data from the study respondents. After reaching the study area, the researcher distributed questionnaires to the selected operational staff who filled them at their convenient time and then collected them later. This data collection instrument was used during data collection because of collecting responses with no errors but with high level of confidentiality as the study respondents were answering the questions at their convenient time.

3.4.2 Validity and reliability of Instruments

3.5 Validity

Validity was ascertained by supervisor who constantly checked, evaluated, and highlighted the errors in this dissertation, drafted a questionnaire, and then recommended me to continue and go for data collection. I made all the necessary corrections made by the supervisor and then printed final copies for data collection.

3.5.1 Reliability

I determined reliability of the questionnaire through carrying out a Pilot study test in the study area before the time of the study. A pilot study was carried out to know whether the data instruments were able to establish the required data and it only covered five people selected from the study. The selected people were required to provide their views regarding the study variables after which I was able to confirm that the formulated data instruments were reliable for data collection.

3.5.2 Procedure of Data Collection

After approval of the dissertation, I issued an introductory letter which introduced me to the respondents. I presented the introductory letter to the manager of Ceva Inter freight Uganda Limited to seek permission to collect data from their company. Upon being granted permission, I built the confidence of the respondents by clearly explaining the purpose of the study and assured them that their identity and views would be kept confidential and only used for academic purposes. I then administered the research instruments around the study area. I monitored the

instruments by calling and contacting the respondents. Filled instruments were then collected and prepared for analysis.

3.6 Data presentation, analysis, and interpretation

After collecting the data, it was sorted manually, edited, and classified for easy identification. This was done by selecting the useful information from the answered questions and this was to be done after data collection. After editing, the data was analyzed using SPSS v20.0 from which descriptive statistics that included frequencies, mean, standard deviation and percentages among other statistics were computed. The data was then presented in form of frequency tables, after which the data was ready for interpretation. Generated tables were developed by being exported to Micro soft-Word from which analysis was done. The presented information was interpreted by explaining the derived frequencies and percentages that were obtained to show the clear outcomes of the dissertation. Interpretation and discussion of the results were done by the researcher by explaining the strength of the study variables basing on the frequencies and percentages and statistical conclusions were made in establishing the relationship between the two variables. The study proceeded on to draw study discussions of the findings by using secondary data.

3.6.1 Likely limitations during the research study

The study was limited by inadequate current secondary data sources prevailing at the time of being conducted. Much of the available information was very old which was less considered by the instructors.

The study was also limited by limited research writing skills on the researcher. This was because it was the first time the researcher was studying this kind hence lacked the necessary knowledge for the study. The researcher closely followed on the supervisor’s guidance to come up with a well written report.

Ever since the coming of covid-19, most organizations and firms developed a policy of regulating the number of people visiting their premises. This also limited the researcher’s time allowed for data collection hence limiting the amount and quality of data collected. I tried to explain to the administrators the purpose of the study to allow me to attain adequate time for data collection at Ceva inter freight Uganda Limited.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, AND INTERPRETATION OF FINDINGS

4.0 Introduction

The chapter presents and discusses the findings of the study. To this, the study tried to examine the impact of computerized procurement on the effectiveness of Ceva inter freight Uganda. The chapter was guided by the objectives under which specific responses were highlighted by the study findings: The objectives included; To identify the various ICT techniques used to promote effectiveness in Ceva Inter freight, To establish the impact of computerized procurement on Ceva Inter-freight's effectiveness in the sourcing process, To establish ways on how to improve the effectiveness of Ceva Inter freight However, this chapter starts by writing background information of the study participants as follows:

4.1 Background information

This subsection examined the background variables about the respondents which included their gender, age, marital Status, highest level of education, period spent, and position held in the organization. The results on the background information of the respondents were indicated as follows.

Table 4: Gender of the respondents

Gender	**Frequency**	**Percentage (%)**
Male	33	66.0
Female	17	34.0
Total	**50**	**100.0**

Source: Primary Data, 2023

The findings in the table 4 above majority 3 3 (6 6. 0%) of the respondents were males while 17 (34.0) of the respondents were females. This implies that most of the employees of Ceva Inter freight Uganda Limited were males, this is because most of the tasks in the organization were

tiresome and needed physically strong people to operate machines, carry heavy stock while loading and off- loading and carrying cartons of juice to customers and sacks of raw materials from suppliers. Females were majorly employed only to perform simple tasks like record keeping, cleaning labeling, quality control, sorting, cutting of raw materials and packaging.

Table 5: Age of the respondent

Age	**Frequency**	**Percentage (%)**
Below 30 years	34	68
30-40 years	13	26
41-50 years	3	6
51 and above	0	0
Total	**50**	**100**

Source: Primary Data, 2023

Response in table 5 above indicates that most of the respondents 34(68.0%) were in the age range of below 30 years, followed by 13(26.0%) who were between 30-40 years while the least were those above 40 years totaling to 36.0%). This implies that Ceva Inter freight Uganda Limited employed workers who were in the youthful age since this was the most productive and physically strong age group consisting of highly skilled, committed, and flexible human resource and therefore willing to work tirelessly towards the achievement of the organization's required organizational performance. Included in this category were the people who normally went to the field to visit suppliers, collect supplies, and enhance supplier relations with the company.

Table 6: Marital status of the respondent

Marital Status	**Frequency**	**Percentage (%)**
Single	36	72
Married	14	28
Total	**50**	**100.0**

Source: Primary data, 2023

As shown in the table 6 above, it is revealed that majority of the respondents totaling to 36(72. 0%) were single, followed by 14 (28.0%) who were married. This indicates that most of the employees at Ceva Inter freight Uganda Limited were single and therefore had enough time to do work hard and tirelessly as they did not have pressure from family or any serious family commitments. They were therefore willing to work even overtime and right shifts without any serious constraint stopping them, hence improving organizational performance.

Table 7: Level of education of the respondents

Level of education	**Frequency**	**Percentage (%)**
Secondary	28	56.0
Tertiary	14	28.0
University	8	16.0
Total	**50**	**100.0**

Source: Primary Data, 2023

According to the responses in table 7 above concerning the respondent's highest level of education, the findings revealed that most of the respondents 28(56.0%) had studied up to secondary, followed by 14(28.0%) who had studied up to tertiary level (Diploma and Certificate institutions), then 8(16.0%) of the respondents who had studied up to university degree. This implies that majority of the employees of Ceva inter freight Uganda Limited were educated and therefore understood the impact of computerized procurement and its effectiveness on the firm.

Table 8: Period spent working with the company.

Period spent	**Frequency**	**Percentage (%)**
Less than 1 year	26	52.0
1-3 years	12	24.0
3-5 years	10	20.0
Above 5 years	2	4.0
Total	**50**	**100.0**

Source: Primary data, 2023

The study findings in table 8 above revealed that majority of the respondents, 26(52.0%) had spent less than 1 year working with Ceva Inter freight Uganda Limited, 12(24.0%) had spent 1-3 years, 10(20.0%) had spent 3-5 years while only 2(4.0%) of the respondents had spent five years and above working with the organization. This indicates that the rate of labor turnover in Ceva Inter freight was very high as most respondents had worked with the company for only less than one year. This was likely to affect the employee's commitment to managing computerized procurement effectively as dissatisfied employees would involve themselves in pilferage, theft and carelessness as regards to inventory management, hence affecting financial performance.

Table 9: Position held in the company.

Position held	**Frequency**	**Percentage (%)**
Production staff	35	70.0
Stores staff	4	8.0
Accounts staff	2	4.0
Management	1	2.0
Sales Staff	8	16.0
Total	50	100.0

Source: Primary data, 2023

The findings in the table above indicate that majority 35(70.0%) of the respondents were working at Ceva inter freight Uganda Limited as production staff, followed by 8(20.0%) of the respondents who were sales agents, then 4(8.0) % who were stores staff and lastly 1(2.5%) who was a plant manager. This implies that the proportion of production staff was higher than all other employees in the organization: This was because production department was the most crucial department that dealt with actual production of goods and services and therefore consisted of a lot of tasks such as labeling, sorting, quality control, mixing or materials, hailing of materials, bottle manufacturing, loading and offloading Since these people were the ones that used the raw materials and aided on the conversion of raw materials into finished goods, they influenced the decisions of management and procurement staff towards supplier relationship management.

4.2 Computerized procurement techniques adopted by Ceva Inter freight Uganda Limited

This study aimed to find the various computerized procurement techniques used at Ceva Inter freight Uganda Limited. This was the first specific objective as seen in chapter one of this report. The researcher first asked the respondents if they had adopted any computerized procurement techniques. The study revealed that majority of the respondents totaling to 89.3% agreed. In addition, the researcher provided several statements on the computerized procurement techniques and respondents were asked to indicate their level of agreement with each statement. The statements were presented, analyzed, and interpreted accordingly i.e, Electronic Funds Transfer, Electronic Data interchange, Electronic Mail, smart cards, electronic cards, Electronic Market Place, Electronic catalogues, Material Requirement Planning, Artificial intelligence, and machine learning. The responses from the field were analyzed and presented in the tables below:

Table 10: Computerized procurement techniques adopted by Ceva Inter freight Uganda Limited

Computerized procurement techniques adopted by Ceva Inter freight Uganda Limited	**SA**	**A**	**NS**	**D**	**SD**	**Mean**
Electronic Funds Transfer (EFT)	27	15	9	0	0	4.35
Electronic Data Interchange (EDI)	15	30	6	0	0	4.18
Electronic Mail (E-mail)	6	9	0	0	39	2.00
Smart cards	0	21	15	9	6	3.00
Electronic Cards	0	0	45	0	6	2.76
Electronic Market Place (EMP)	20	24	6	0	0	4.29
Electronic catalogues	23	9	18	0	0	4.12

Material Requirement Planning (MRP)	0	12	38	0	0	3.24
Artificial intelligence (AI) and machine learning	23	12	15	0	0	4.18

Source: Primary data, 2023

ELECTRONIC FUNDS TRANSFER (EFT)

The study findings revealed most of the respondents strongly agreed that in Ceva Inter freight Uganda Limited, used EFT to pay their employees' salaries and benefits. This method ensured timely and accurate payments, reduces paperwork, and minimizes the risk of errors associated with manual payroll processing.

(Mean = 4.35). This implies that Electronic Funds Transfer is one of the major computerized procurement techniques at Ceva inter freight Uganda Limited. The findings agree with Atrill (2006) who postulated that Companies that issue dividends to shareholders can use EFT to distribute dividends directly to shareholders' bank accounts. This process is efficient and can reduce the administrative costs associated with dividend payments.

Donations and Fundraising: Nonprofit organizations often rely on EFT to collect donations from supporters. EFT allows for easy and secure online donations, making it more convenient for donors.

The findings also agree with Saleem and Rebman (2011) who pointed out that EFT simplifies the process of reimbursing employees for business-related expenses, such as travel and entertainment. Employees can submit their expenses digitally, and funds can be transferred directly to their bank accounts.

Electronic Data Interchange (EDI)

In addition, the study revealed that majority of the respondents agreed that in Ceva inter freight Uganda Limited, there was exchange of procurement-related documents (such as purchase orders, invoices, and shipping notices) between Ceva Inter freight and its suppliers in a standardized electronic format (Mean 4.18). This implies that Ceva Inter freight Limited got to

exchange procurement documents with its different suppliers electronically and this was time saving as well as being cost effective. The findings are in line with Melwania (2015) who pointed out that EDI eliminates the need for paper-based documentation, such as purchase orders, invoices, and shipping notices. This streamlines data exchange between trading partners and reduces the risk of manual data entry errors.

ARTIFICIAL INTELLIGENCE (AI) AND MACHINE LEARNING.

The study revealed that majority of the respondents agreed that in Ceva inter freight Uganda Limited, they used artificial intelligence to forecast demand more accurately, optimize inventory levels, and identify cost-saving opportunities. AI can also be used to analyze supplier performance and negotiate better terms. (Mean=3.24) According to Sople (2010), AI algorithms can analyze vast amounts of data to uncover patterns, trends, and insights that humans might miss.

This data-driven approach helps organizations make informed decisions, identify opportunities, and address challenges. Furthermore, AI models can predict future outcomes based on historical data, enabling organizations to anticipate customer behavior, market trends, and potential issues. Predictive analytics is used for demand forecasting, maintenance scheduling, and risk management.

ELECTRONIC MAIL (E-MAIL)

The study findings revealed that majority of the respondents agreed that in Ceva inter freight Uganda Limited, they used E-mails to create an online portal for suppliers allowing them to upload product catalogs, update pricing information, and receive purchase orders electronically. (Mean 4.18). The findings agree with Drury (2005) that online supplier portals play a crucial role in modern supply chain management and procurement processes within organizations. These portals provide a platform for organizations to interact with their suppliers in a digital and an efficient manner. Also, important documents such as contracts, agreements and product specifications can be shared securely through the portal ensuring that both parties have access to the latest information.

SMART CARDS

The study findings also revealed that majority of the respondents agreed that in Ceva Inter freight Uganda Limited there was use of smart cards (Mean = 4.12). This implies that to a greater extent, Ceva inter freight used smart cards. Smart cards can store data securely and are difficult to tamper with or replicate. This ensures that only authorized personnel can access and update inventory information, reducing the risk of theft or fraud. The findings are in line with Drury (2005) who postulated that smart cards can be programmed to restrict access to specific inventory areas or functions based on an employee's role or permissions. This ensures that employees can only access the parts of the inventory that are relevant to their job responsibilities. Secondly, employees can use smart cards with mobile devices to perform inventory tasks on the go. This is particularly useful in environments where inventory is constantly moving, such as warehouses or retail stores.

ELECTRONIC CARDS

The study revealed that majority of the respondents disagreed that Ceva inter freight Uganda Limited used electronic cards. (Mean = 2.00) This implies that this technique was less used, and these cards however are used to control access to buildings, rooms, and secure areas within an organization. Employees or authorized personnel can swipe or tap their cards at access points to gain entry. This enhances security by restricting access to only those with the proper credentials. The findings agree with Melwania (2015) who pointed out that electronic cards often come with advanced security features, including encryption and two-factor authentication. Without them, the organization may be more vulnerable to unauthorized access and security breaches.

MATERIALS REQUIREMENT PLANNING (MRP)

Majority of the respondents also strongly agreed that in Ceva inter freight, they had a master production schedule to estimate the number of products that can be produced by a specific number of raw materials (Mean= 4.29). The findings agree with Sople (2010) who pointed out MRP is typically applied to manage inbound material movement in the enterprise and is based on the production requirements and scheduling. A material requirement plan is derived from the master production schedule (MPS), inventory records and the product structure.

4.3 Table12: THE IMPACT OF COMPUTERIZED PROCUREMENT ON THE EFFECTIVENESS OF CEVA INTER FREIGHT UGANDA LIMITED

The study findings in table 12 below of the study was meant to examine the impact of computerized procurement on the effectiveness of Ceva Inter freight Uganda Limited. The researcher provided several statements to explain the impact of computerized procurement.

The impact of computerized procurement on the effectiveness of Ceva Inter freight. Uganda Limited	**SA**	**A**	**NS**	**D**	**SD**	**Mean**
Increase staff productivity	23	21	6	0	0	4.35
Increase efficiency in operations	26	15	9	0	0	4.35
Improves quality of services	0	43	0	6	0	4.12
Increases profitability	15	21	14	0	0	4.00
Eases access to services	0	9	27	9	6	2.76
Improve performance in	9	15	12	14	0	3.35

terms of transparency						
Enhances service competitiveness of firms	5	21	24	0	0	3.65
Enhance service diversification	12	24	14	0	0	3.94

Source: Primary data, 2023

Findings indicated that respondents strongly agreed that Computerized procurement had an impact on Ceva inter freight (Mean=4.35) In that it increases staff productivity .

Computerized procurement systems automate many tasks involved in the procurement process, such as purchase requisition, approval workflows, supplier selection, and order generation. This automation reduces manual paperwork and the time spent on administrative tasks, allowing staff to focus on more strategic activities. Automation reduces the risk of human errors that can occur in manual procurement processes. This reduces the time spent on resolving mistakes and prevents costly procurement errors. Furthermore, automated approval workflows can significantly reduce the time it takes to get purchase requisitions approved, allowing procurement staff to move forward with orders more quickly.

The study findings also indicated that majority of the respondents of Ceva Inter freight agreed that computerized procurement increases efficiency in operations. (Mean=4.35) in such a way that with computerized procurement, organizations can access real-time data on inventory levels, order statuses, and supplier performance. This information allows for better decision-making, reducing the risk of stock-outs or overstock situations. In addition, by automating repetitive tasks, procurement professionals can save time and focus on strategic activities, such as supplier relationship management, negotiation, and value-added tasks. Computerized procurement often includes supplier portals or communication tools that enable better collaboration between buyers

and suppliers. This can lead to improved supplier relationships, faster issue resolution, and more efficient procurement negotiations.

The study findings also indicated that majority of the respondents of Ceva Inter freight agreed that computerized procurement improves quality of services. (Mean=4.12) This is so in such a way that computerized procurement systems streamline the procurement process, reducing manual errors and delays. This ensures that the right products or services are procured in a timely manner, which can directly impact the quality of services delivered to customers. In addition, effective inventory management is crucial for service quality, especially in industries where inventory directly impacts service delivery. Computerized systems help organizations maintain optimal inventory levels, reducing the risk of stock-outs or overstocking, which can affect service quality.

The study findings also indicated that majority of the respondents of Ceva inter freight agreed that computerized procurement increases profitability (Mean=4.00) This is so in such a way that computerized procurement systems provide real-time insights into spending patterns and budgets. This visibility helps businesses identify areas where they can reduce unnecessary spending and allocate resources more efficiently. In addition, savings human errors in procurement can lead to costly mistakes, such as ordering the wrong quantity or paying incorrect prices. Computerized procurement systems reduce the risk of such errors, leading to cost.

(Mean=3.94) This is so in such a way that Computerized procurement systems often facilitate better communication and collaboration with suppliers. This can lead to the identification of new opportunities The study findings also indicated that majority of the respondents of Ceva inter freight agreed that computerized procurement improves organization performance in terms of transparency. (Mean 3.35) This is so in a way that computerized systems enable real-time tracking of procurement activities. Stakeholders can monitor the progress of procurement processes, including vendor selection, order processing, and delivery, which increases transparency into the status of each transaction. In addition, Computerized procurement systems can generate automated reports and dashboards that summarize key procurement metrics and

KPIs. This allows stakeholders, including management, auditors, and regulators, to quickly assess the performance and compliance of the procurement function.

The study findings also indicated that majority of the respondents of Ceva inter freight agreed that computerized procurement enhances services diversification for services, joint ventures, or partnerships with suppliers to offer bundled solutions. In addition, Digital procurement systems can help organizations easily source products and services from a broader range of suppliers, potentially leading to the diversification of the supply chain and access to different types of services.

Table 13: Impact of computerized procurement on the effectiveness of Ceva Inter freight Uganda Limited

Category	**SA**	**A**	**NS**	**D**	**SD**	**Σ**
Computerized procurement x	13	15	16	0	6	**Σx =50**
effectiveness [y]	6	10	33	1	0	**Σy = 50**
XY]	78	150	528	0	0	**Σxy =756**
X^2	169	225	256	0	36	**Σx^2 = 682**
Y^2	36	100	1089	1	0	**Σy^2 = 1226**

Source: Primary Data 2023

r = correlation coefficient

Y = dependent variable (effectiveness) n = sample size x =

independent variable (computerized procurement) r = 50

(756) - (50 x 50) ÷ √50(682)-(50)2 √50(1226) - (50)2 r=

37,800-2500 ÷ √31,600 √58,800

r= 35,300 ÷ 43,103.24 r=

0.819

The results were given by the Pearson correlation coefficient formula -0.819 and indicated that there was a strong positive relationship between computerized procurement and effectiveness of Ceva Inter freight Uganda Limited. This implies that continuous implementation of computerized procurement leads to effectiveness of Ceva inter freight Uganda Limited.

4.4 CONSTRAINTS AND MEASURES TO IMPROVE THE EFFECTIVENESS OF COMPUTERIZED PROCUREMENT IN CEVA INTER FREIGHT

Constraint	**Measures used to improve the effectiveness of computerized procurement in Ceva Inter freight**	**SA**	**A**	**NS**	**D**	**SD**	**Mean**
Limited financial resources	Budgeting and financial planning Cost reduction strategies	6	6	39	0	0	3.35
Limited research and innovation	Setting clear objectives and priorities	6	15	24	6	0	3.41
Limited skilled personnel	Training and skills development	12	12	27	0	0	3.71
Limited technical support	Setting up clear communication channels	6	15	30	0	0	3.53

Inappropriate technologies	Establish clear ICT Policies and guidelines. Employee monitoring	6	0	40	0	0	3.24
Limited management commitment	Set clear goals and milestones. Continuous evaluation of management team	0	12	38	0	0	3.24

Source: Primary data, 2023

The study revealed that majority of the respondents (mean=3.35) agreed that Ceva inter freight always faced different challenges but also used various measures to overcome them and the first one was Limited financial resources, and the best measure that was used to address this constraint in the organization was budgeting and financial planning as well as cost reduction strategies. The findings are in line with Sople (2010) who revealed that creating a detailed budget that outlines income and expenses help an organization to understand where their money is going and where they can make cuts or adjustments.

The findings also indicated that majority of the respondents (mean=3.41) agreed that the constraint of limited research and innovation was another challenge in Ceva inter freight and the measure that was used to address this challenge was setting clear objectives and priorities. The findings are in line with Chase et al (2009) who showed that there is need to collaborate with international organizations, universities, and research institutions to access additional resources and expertise. This can help bridge the resource gap and bring in new ideas. In addition, a well-educated workforce is essential for innovation. Invest in education and training programs to develop a skilled workforce capable of conducting research and driving innovation.

The findings revealed majority respondents (mean=3.53) agreed that in Ceva inter freight the challenge of limited technical support was addressed by setting up clear communication channels. The findings are in line with Chase et al (2009) who pointed out that continuously monitor the performance of the organization technical support team or processes and analyze metrics like response time, issue resolution time, and user satisfaction to identify areas for improvement.

Organizations should also establish a feedback mechanism for users to report issues and suggest improvements thereby using this feedback to continuously refine and enhance organizational technical support processes.

The study also revealed that majority respondents (mean=3.71) agreed that there was a constraint of limited skilled personnel in Ceva inter freight Uganda Limited and that the best measure to be used was training and skills development. The findings are in line with Tersine (1982) who pointed out that organizations should establish partnerships with local colleges and universities to create specialized training programs tailored to your industry's needs and offer internships, apprenticeships, or co-op programs to students to develop a talent pipeline.

The study findings also revealed that majority of the respondents (3.24) agreed that limited technologies was another challenge in Ceva inter freight and the best measure was to establish clear ICT policies and guidelines. The study findings are in line with Hamisi (2010) who pointed out that organizations should Involve employees in the decision-making process and gather their feedback on technology improvements. They can provide valuable insights and help identify areas where technology can make the most impact. Furthermore, addressing the challenge of limited technologies in an organization requires a strategic and systematic approach. By taking these measures, the organization can make steady progress in improving their technology infrastructure and maintaining competitiveness in their industry.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary, conclusion and recommendations about the study findings and is also arranged according to the study objectives which include to identify the various ICT techniques used to promote effectiveness in Ceva Inter freight, to establish the impact of computerized procurement on Ceva Inter-freight's effectiveness in the sourcing process, and to establish ways on how to improve the effectiveness of Ceva Inter freight Uganda Limited.

5.1 Summary of findings

The findings were summarized according to specific objectives as follows:

5.1.1 Various techniques used to promote effectiveness in Ceva Inter freight Uganda Limited

The findings revealed that Ceva inter freight used various inventory computerized techniques which included Electronic Funds Transfer (EFT), Electronic Data Interchange (EDI), E-mail, Smart cards, electronic catalogues, electronic marketplace, material requirement planning, and artificial intelligence (AI) and machine learning. Inventory techniques are methods and strategies used by businesses and organizations to manage their inventory effectively. Proper inventory management was essential for optimizing operations, reducing costs, and ensuring customer satisfaction. The use of these inventory techniques depends on the nature of the business, the industry, and specific inventory management goals. Effective inventory management is crucial for balancing the costs associated with carrying inventory while ensuring products are available to meet customer demand.

5.1.2 The Impact of computerized procurement on the effectiveness of Ceva Inter freight Uganda Limited

The study findings revealed that computerized procurement increases staff productivity, increases efficiency in operations, improves quality of services, increases profitability, eases access to services, improves performance in terms of transparency, and enhances service competitiveness of firms. However, it's important to note that the effectiveness of computerized procurement systems depends on various factors, including the quality of the system, user

training, and the organization's ability to adapt to the new technology. Additionally, the implementation of such systems should align with the specific needs and goals of the firm to realize the full benefits.

5.1.3 Constraints and Measures to improve the effectiveness of computerized procurement in Ceva Inter freight.

The study findings revealed that there are constraints such as limited financial resources, limited research, and innovation, limited skilled personnel, limited technical support, inappropriate technologies and some of the measures used to improve effectiveness are budgeting and financial planning, cost reduction strategies, setting clear objectives and priorities, training, and skills development, setting up clear ICT policies and guidelines and employee monitoring. By implementing these measures, Ceva inter freight can significantly improve the effectiveness of its computerized procurement processes, leading to cost savings, efficiency gains, and better supplier relationships.

5.2 Conclusion

The study concluded that an investigation of the influence of the adoption of computerized procurement on organizational performance was conducted. This study shows that senior management involvement and information quality are the variables that may affect the adoption of computerized procurement. The results indicated that all variables involved in the framework, such as senior management and information quality, significantly affect the implementation of computerized procurement. Moreover, the implementation of computerized procurement on the company has a significant effect on organization performance. The findings of this study could be considered by policymakers in making managerial policies. Some managerial policies such as the involvement of management in strengthening the adoption of electronic technology adoption in procurement and increasing staff’s ability to adopt this technology could be implemented. For future research, the adoption of electronic technology, such as the internet of things, EDI, RFID, and blockchain, could be discussed in other business processes for better organization performance.

5.3 Recommendations

The study recommends Ceva Inter freight Uganda Limited to conduct staff training or job training for computerized procurement staff. Dooley and Purchase believe that one of the factors influencing computerized procurement usage is staff skills. Moreover, staff training is crucial for implementing computerized procurement. Thus, internal organizational supports should allocate a budget for sufficient staff training in using computerized procurement platforms. For a company that uses new technology or platforms for its computerized procurement, it is highly recommended that the management provide adequate staff training.

The second recommendation for companies regarding the quality of the information provided by computerized procurement implementation is selecting appropriate technology or platforms. Computerized procurement technology or platforms play a significant role in the implementation of computerized procurement. Senior internal management of the organization should provide a platform or appropriate technology for computerized procurement and its infrastructures. The selection of platforms for the usage of computerized procurement should consider the risk [the future trend the effectiveness, and the costs. The selection of computerized procurement platforms should also consider the type of organizations and users who use them. Some approaches can measure the acceptance of computerized procurement platforms. Staff and customers' readiness for using computerized procurement technology can be measured by the technology readiness index. In contrast, the acceptance of computerized procurement technology for users or customers can be rated by the technology acceptance model.

5.4 Areas for further Research

Ceva Inter freight Uganda Limited, like any other organization, may benefit from ongoing research and development efforts to enhance its operations, expand its market presence, and address emerging challenges. Here are some areas for further research that the company could consider:

Market Expansion Strategies: Investigate potential markets or regions for expansion. Conduct market research to identify untapped opportunities and assess the feasibility of entering new markets.

Sustainability Initiatives: As sustainability becomes increasingly important, research ways to reduce the environmental impact of operations. This could involve exploring renewable energy sources, sustainable packaging, or waste reduction strategies.

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APPENDICES

APPENDIX I: QUESTIONNAIRE FOR RESPONDENTS

Dear sir/madam

Re: <u>The impact of Computerized Procurement on the Effectiveness of a Firm (A Case Study Ceva inter freight Uganda Limited- Nakawa Division)</u>

I am NALUMU ADELINE, a student of Bachelor of Procurement and Logistics Management from Uganda Christian University. I am carrying out a research study on the Impact of Computerized Procurement on the Effectiveness of a firm. This study is one of the major requirements to complete my course. The information you will provide is truly for academic purpose, with guaranteed confidentiality. I request you to fill this questionnaire by ticking or filling where necessary. Any assistance rendered to me is appreciated.

<u>Section A: Background Characteristics of Respondents</u>

1. Gender: Male ☐ Female

2. Age: 18-30 years ☐ 31-40 years ☐ 41-50 years ☐ 51 years and above

3. What is your education level? Certificate ☐ Diploma ☐ Undergraduate ☐

   Diploma ☐ Postgraduate ☐ Other…….

4. Marital status: single ☐ Married ☐ Widowed ☐ Divorced

   Others……

5. What is your designation at Ceva Inter freight

……

6. For how long have you been employed at Ceva Inter freight?

Less than 1 year ☐ 1-3 years ☐ 3-5 years ☐ Above 5 years ☐

Section B: Computerized procurement techniques adopted by Ceva Inter freight.

7. Has Ceva Inter freight adopted any computerized procurement techniques?

Yes ☐ No

8. If yes, what types of procurement techniques has Ceva Inter freight adopted

(Please tick what is appropriate for you)

Procurement techniques	Tick	Procurement techniques	Tick
Electronic Data Interchange (EDI)		Electronic Cards	
Electronic Fund Transfer (EFT)		Electronic Market Place (EMP)	
Electronic Mail ((E-MAIL)		Electronic Catalogues	
Smart Cards		Material Requirement Planning (MRP)	

Others (specify)……..

Section C: impact of computerized procurement on the effectiveness of a firm

9. Do you agree that computerized procurement affects the effectiveness of Ceva Inter freight?

Yes ☐ No ☐ not sure. ☐

10. If yes, specify how? (Please tick what is appropriate for you)

Computerized Procurement and Effectiveness	Tick	Computerized Procurement Effectiveness	Tick
Increase staff Productivity		Eases access to services	
Increase efficiency in operations		Improve performance in terms of transparency	
Improves quality of services		Enhances service competitiveness of firms	
Increases profitability		Enhance services diversification	

Others…….

11. Are there any negative effects of computerized procurement on the effectiveness of Ceva Inter freight?

Yes ☐ No ☐ not sure. ☐

12. If yes, specify those effects

I. ……. II. …….

Section D: Constraints and measures to improve the effectiveness of computerized Procurement in Ceva Inter freight

13. What factors hinder the effective adoption and use of computerized procurement at Ceva Inter freight?

(Please tick what is appropriate)

Constraints	Tick	Constraints	Tick
Limited financial resources		Inappropriate technologies	
Limited research and innovation		Illiteracy and ignorance about ICT	
Limited skilled personnel		Social-culture factors	
Limited technical support		Limited management commitment	

Others ……

Thank you very much!