EXAMINING THE INFLUENCE OF PROCUREMENT DIGITALIZATION ON SUPPLY CHAIN MANAGEMENT ON THE LOGISTIC COMPANIES OF UGANDA: A case study of Empreus Logistics Company

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A DISSERTATION SUBMITTED TO SCHOOL OF BUSINESS IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR AWARD OF BACHELOR'S DEGREE IN PROCUREMENT AND LOGISTICS MANAGEMENT OF UGANDA CHRISTIAN UNIVERSITY

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Declaration

I Najjemba Salamah ,Registration Number S20B12/020 a student of Uganda Christian University pursuing Bachelor Of Procurement and Logistics Management declare that I have done my research and this report is entirely my own work. I obtained it from Empreus Logistics Company located in Kampala district which focuses on the importation and exportation of customers goods, I further declare that the best of my knowledge, this report has never been handed out to any institution of high learning as the academic document or qualification. And am ready to meet all the consequences and the outcomes when this document is founded anywhere as any qualification or an academic document.

Sign.....Date.....18/09/2023.....

Najjemba Salamah

Approval

This Dissertation titled: "Examining the Influence of Procurement Digitalization on Supply chain Management on the Logistics Companies of Uganda: The case Study Of Empreus Logistics Company Limited has been submitted for examination with the approval of my supervisor.

Signed.....

Mukisa Simon Peter

Date Mon. September 16, 2023

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Dedication

This report is fully dedicated to Mrs. Nakato Zainah Ayikoru and my family members, thank you all for support and inspiring advice you have been providing me with, thanks for supporting me. And to my mothers who have never failed to give me financial and moral support, thank mama for the helping me overcome all my challenges you have been there in the happy and sad times' thanks mother. L also dedicate this report to all the people who have worked hard to help me complete this research study

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List of Abbreviations and Acronyms

DV	**Dependent Variable**
IV	Independent Variable
Iot	Internet of things
PP	Procurement Planning
SCM	Supply chain management
SD	Standard deviation
UCU	Uganda Christian University

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Abstract

This study was based on the topic examining the influence of procurement digitalization on supply chain management taking Empreus logistic Company as a case study. The objectives of the study were to; examine the influence of procurement digitalization on supplier, Examine the influence of cost saving in supply chain management and examine the influence of supply chain cycle time in procurement digitalization.

The literature review was revealed by different scholars who came up with the Relevance, Relationships and Determinants of procurement digitalization**.** The literature review was revealed with respect to the stated objectives.

Currently the business environment, the digital transformation of procurement practices has emerged as a critical driver of supply chain management. This research study delves into the intricate relationship between procurement digitalization and supply chain management, seeking to unravel the multifaceted influences that underlie this pivotal connection. By employing a comprehensive research framework, including surveys, interviews, and data analysis, this study explores how the adoption of digital technologies in procurement processes shapes the efficiency, responsiveness, and overall effectiveness of supply chain operations.

The study reveals compelling insights into the tangible benefits of procurement digitalization, such as streamlined communication, enhanced data visibility, and improved supplier collaboration. These advantages are shown to contribute significantly to supply chain management by reducing lead times, minimizing disruptions, and optimizing inventory management. Furthermore, the research uncovers the role of emerging technologies like Artificial Intelligence (AI), Block chain, and Internet of Things (IoT) in redefining procurement strategies and fostering agility within supply chains.

However, the study also acknowledges the challenges associated with procurement digitalization, including data security concerns, the need for workforce up skilling, and the intricacies of integrating diverse digital tools into existing processes. Through a careful analysis of these challenges, the research provides valuable insights into best practices for mitigating risks and maximizing the benefits of digital procurement.

In summary this research study offers a comprehensive examination of the influence of procurement digitalization on supply chain management. It provides a proper understanding of the transformative potential of digital technologies in procurement, shedding light on the strategies that organizations can employ to leverage these technologies for achieving higher supply chain efficiency and competitiveness in an increasingly digital world. The findings of this study serve as a valuable resource for businesses and decision-makers navigating the complex landscape of supply chain management in the digital age.

CHAPTER ONE

INTRODUCTION

1.1 Introduction.

This research study concentrates on examining the influence of procurement

digitalization on supply chain management considering Empreus logistics company as the case study , over the past years new technologies have emerged and the use of internet has shifted the paradigm from being used for communication only to a platform that influence business transactions according to (Ageshin 2001). The digitalization on procurement is changing the entire supply chain management and how the business are carried out at the organization.

Therefor this chapter consists of introduction ,back ground ,statement of the problem , purpose of the study, specific objectives, research questions, scope of the study geographical scope ,conceptual frame work and significance of the study ,justification and lastly the conclusion.

1.2 Background

In today's dynamic business landscape, organizations are constantly seeking ways to improve their supply chain management to gain a competitive edge. One significant avenue that has emerged in recent years is the digitalization of procurement processes. Procurement digitalization involves the adoption of digital technologies and platforms to streamline purchasing activities, enhance supplier management, and optimize procurement operations. The potential benefits of procurement digitalization include improved efficiency, cost savings, enhanced data analytics capabilities, and increased transparency in supply chain activities.

As organizations increasingly recognize the potential impact of procurement digitalization, it becomes crucial to understand its influence on supply chain management comprehensively thus calls for this research study to examine the influence of procurement digitalization on supply chain management across various logistic companies in Uganda . By critically analyzing the existing literature and drawing on empirical studies, the study seeks to close existing gaps in our understanding of this emerging phenomenon.

Procurement digitalization gained significant attention in both academic and business circles due to its potential to transform traditional procurement practices.(According to Wang et al. 2020), digital procurement technologies enable organizations to achieve better spend visibility, increased collaboration with suppliers, and streamlined procurement workflows, resulting in improved overall supply chain management. Additionally, (Bevilacqua et al. 2018) argue that procurement digitalization can lead to cost savings through better negotiation with suppliers and optimized procurement processes.

However, despite these potential benefits, it is crucial to critically examine the challenges and limitations that organizations may encounter during the adoption of digital procurement solutions.(Chae et al. 2019) highlight that concerns related to data security, integration with existing systems, and resistance to change can hinder successful implementation. Understanding these challenges will help organizations navigate potential obstacles effectively.

To achieve a comprehensive and coherent analysis of the research problem, the study will build on the theoretical and conceptual foundations laid out in various academic works. Notably, Christopher (2016) argues that supply chain digitalization, including procurement, is an essential aspect of achieving supply chain agility and responsiveness in the face of changing market demands. Similarly, (Carter and Liane Easton 2019) emphasize the role of digital technologies in reshaping procurement functions and driving supply chain innovation.

Furthermore, the study will adopt a multidimensional approach to its literature review, considering empirical evidence from diverse geographical contexts and income levels. (Gligor and Esmark 2019) highlight the importance of tailoring supply chain strategies to specific country contexts, considering the variations in infrastructure, regulatory environments, and technology adoption. Therefore, the research will analyze the impact of procurement digitalization on supply chain management in high-income, middle-income, and low-income countries, drawing insights from different studies.

Supply chain management includes all the functions involved receiving and filling a customer’s request, this consists of not the manufacturer and suppliers but also transporters, warehouses, retailers and the final consumers. (Chopra, s., and, Meindl, p.2016)

Supply chain management can be defined as a process of measuring, analysis, and improvement of various performance indicators to enhance the efficiency, effectiveness and alignment of supply chain with strategic goals and objectives. (Christopher. and Peck, H. 2004).

The supply chain management has been characterized by increasing integration of separate task a trend underlined in the early 1960s as a critical area for future productive improvement since the system was highly separated into parts. Although logistics tasks have remained relatively similar, they initially merged into two distinct functions related to materials management and physical distribution during the 1970s and 1980s. This entire process moved further in 1990s as globalization incited functional integration and the emergency of logistics in a true sense and all the elements of supply chain management became part of single management perspective. (Dr Jean –Paul Rodrigues)

While there has been a growing emphasis on supply chain management management globally, there are still lack of complete visibility across the entire supply chain network according to (Gartner, 2021) his study reported that only 6% of the organizations have full visibility across the supply chain, this lack of visibility hinders effective decision making, reduces agility and makes it difficult to identify and resolve issues in real time. Another gap in supply chain management management is the use of inadequate and outdated performance metrics, for example metrics related to sustainability, resilience and customer experience are gaining importance but are often underrepresented in the traditional metrics a case study of (PWC 2020) revealed that only 32% of the organization have integrated sustainability metrics into their supply chain performance management.

Africa still faces a number of challenges due to the continents diverse economies, infrastructural limitations and geopolitical complexities which hinders in supply chain management. (Martin Meredith, 2021). And over the past years organizations have heavily relied on supply chain management to gain a competitive advantage and to develop internal and external opportunities.(Cao and Zhang, 2011; Um and kim,2019) the strategic value of supply chain management management has been recognized as organizations try to enter new markets and for higher efficiencies during the procurement , planning ,manufacturing and distribution. (Chen et al, 2017). So far very few studies have been carried out to examine the supply chain management management. This is rather surprising because the economy of Africa is constantly growing this

call for my strong interest to carry out research study measuring the supply chain management in logistic organization.

In east Africa Kenya is playing a critical role to sustainability of East Africa's economy and its supply chain management system due to its geographical location bordering the biggest water body which act as main market for goods and service, it also act as a major supplier of some commodities to Uganda .(Muogboh and Ojadi,2018). Kenya is also ranked among the most growing population in the world since it attracts people from different part of the world to carry business(un projection,2020) with growing economy in east Africa (IMF,2019). Same to other developing east African countries, thus become very difficult to manage the supply chain management in these country due to the level of complexity and several manufactures , retail supplier and third party providers responding to the demands of the customers(orji et al,.,2019).

The implementation of e procurement systems in Uganda has streamlined the procurement process, reducing paperwork, and enhancing transparency (Muhwezi and

Kyobe, 2018). The use of mobile technology improved supply chain visibility and coordination

Among stakeholder in Uganda whereby mobile devices and applications for inventory management, order tracking and delivery scheduling has enhanced efficiency and reduced errors

(Kizito and Jaakkola 2017). The use of digitalization like block chain technology has the potential to enhance transparency and accountability in procurement and supply chain management. Pilot project in Uganda implemented block chain for tracking the procurement process, ensuring the integrity of records and reducing corruption risks (Aanyu Senkungu, and Kizito, 2019) highlights the potential benefits of block chain technology in improving procurement transparency in Uganda.

Further the government of Uganda in 2010 drafted and passed the national electronic government framework where the procurement digitalization is highlighted as one of the key areas, its integration in the supply chain management improved transparency, accountability and making credible timely information available to all consumers while providing service in an efficient and effective manner.(national electronic frame work 2010).however despite the existence of the regulatory frame work it has not helped to influence the supply chain management in the country for example the procurement compliance report checks 2009 on 25

PDEs indicated that the level of digital procurement and supply chain management is critical low and lacking in so many organizations. Empirical study (BRAC, 2000)

In conclusion, this research aims to contribute to expound on the knowledge of procurement digitalization's influence on supply chain management. By examining various authors' perspectives and empirical studies, the study seeks to provide valuable insights that can guide organizations in making informed decisions regarding the adoption of digital procurement solutions. The subsequent sections will delve into the specific research objectives, questions, and methodologies used to achieve this aim, adhering to the guidelines of scientific writing and maintaining cohesion throughout the research.

1.3 Statement of the problem

Despite of the increasing influence of procurement digitalization in enhancing supply chain management, there is more challenges that's to say lack of proper understanding of its influence on logistics organizations in Uganda. Some previous studies highlighted the impacts of adopting procurement digitalization, others emphasize the challenges and limitations that organizations may face during the implementation process which crated a gap in knowledge that needs to be addressed to support informed decision-making and successful digital transformation of procurement processes (Wang et al. 2020) and (Bevilacqua et al. 2018) this study indicated the advantages of procurement digitalization, such as improved spend visibility, enhanced supplier collaboration, and streamlined procurement workflows leading to cost savings. However, the successful procurement digitalization on supply chain management may be hindered by issues related to data security, system integration, and resistance to change, (Chae et al. 2019).Therefore, understanding the full spectrum of benefits and challenges is crucial for organizations seeking to leverage digitalization to improve their supply chain management.

Further, the theoretical underpinnings provided by Christopher (2016) and Carter and Easton (2019) emphasize the significance of supply chain digitalization, including procurement, as a means of achieving agility and responsiveness in an ever-evolving market. To effectively navigate the complexities of global supply chains, organizations must tailor their strategies based on the specific context of high-income, middle-income, and low-income countries, (Gligor and Esmark 2019). However, there is a dearth of empirical evidence that systematically explores the

influence of procurement digitalization on supply chain management in diverse geographical contexts.

The lack of a cohesive and coherent body of knowledge on the influence of procurement digitalization on supply chain management hinders logistic companies ' ability to make informed decisions. As such, there is a critical need for a further study that synthesizes existing empirical research, critically assesses the advantages and challenges, and evaluates the impact across various income levels and regions.

To close this research gap, this study aims to examine the influence of procurement digitalization on supply chain management. By building on previous studies and employing a mixed-methods approach, the research will explore the potential benefits and challenges of digital procurement adoption in different logistic companies in Uganda.

In conclusion, the problem statement highlights the need for a holistic and systematic further study on the influence of procurement digitalization on supply chain management. By integrating diverse perspectives from various authors and empirical studies, the research aims to fill the existing knowledge gap and provide evidence-based recommendations for organizations looking to harness the full potential of digital procurement technologies.

1.4 Purpose of the study

The purpose of the study will be to examine the influence of procurement digitalization on supply chain management and identifying their potential benefits and challenges.

1.5 Specific objectives

The specific objectives of the study will be to;

(i) To examine the influence of procurement digitalization on supply chain management.

(ii) Examining the influence of cost saving in supply chain management.

(iii) To examine the influence of supply chain cycle time in supply chain management.

1.6 Research question

(i) What extent does procurement digitalization contribute on the cost reduction within a supply chain management?

(ii) What is the impact of cycle time on the overall supply chain management?

(iii) What impact does procurement digitalization exalt on supply chain management?

1.7 Justification

As the logistics companies continue to evolve and become competitive companies seeks innovative ways to enhance their operation and gain a competitive edge and procurement is critical in supply chain performance thus Procurement digitalization has emerged as a driving force behind operational efficiency improvement and process optimization within supply chain .(smith and finger,2003)this study indicated that procurement involves sourcing , purchasing and managing goods and service represents pivotal link in the supply chain . traditional procurement processes often involve manual task lengthy approval cycle and limited visibility into supplier activities by contrasting digitalization offers the promise of automation real time data available and enhance collaboration among logistic companions.

Further the procurement digitalization can lead to several benefits include streamlined procurement process, reduced lead tomes, and improve demand forecasting. (Trent and Monczka, 2003). As business globalize and supply chain become more complex digital technologies proved a tool to overcome challenges related to communication, data sharing, and coordination among geographically dispersed partners.

Procurement digitalization contributes to cost reduction through better negation strategies , identification of cost saving opportunities and optimized inventory management (Wegner et al., 2019) his study revealed that the integration of digital technologies , artificial intelligence m block chain enable logistics companies to make data driven decision which enhance supply chain resilience and responsiveness ,(Korpela et al.,2020).

In conclusion procurement digitalization on supply chain management is to improve supply chain management by assessing the supply chain visibility, efficiency and effectiveness of new

technologies and strategies associated in procurement digitalization within the logistics industries, therefore carrying out a research study on this particular topic can help to identify other best practices and strategies of procurement digitalization on supply chain management. Another importance is to bridge the existing knowledge gap regarding the influence of procurement digitalization on supply chain management in logistics companies in Uganda. By examining Empreus Logistics Company, findings can contribute to the better understanding of the challenges, opportunities and strategies associated with digitalization within the logistics industry in Uganda.

1.8 Scope of our study

Examining the influence of procurement digitalization on supply chain management will compose of the two major variables; considering procurement digitalization as the independent variable and supply chain management as the dependent variable, I developed a strong interest in the topic due to limited research which has been carried to explore its impact on the current business environment. Digitalization has become pervasive in almost aspect our lives including business ,education, health care and communication, there for it reshaping industries and transforming the way we work and leave. By studying digitalization you can gain deep understanding of it importance and rapid evolving phenomenal

1.9 Geographical scope

The study will concentrate on logistics companies in Nakawa and it will take a period of three months from May 2023 to July 2023 reason being that the time wide enough to allow me conceptualize the research topic , going to the filed to collect data, analyze the collected data and report the study findings.

1.10 Significance

It is hoped that the policies practice will benefit the policy makers through enhancing efficiency by automating the processes which reduce the errors , increase transparency and accountability enable better tracking and compliance. Data analysis support informed decision by drafting policy and guideline to make effective decision.

Procurement Digitalization is hoped to benefit the practitioner by saving time and energy through automating manual tasks and streamlining processes, enhanced visibility and allow practitioner to monitor activities and address issues proactively , data driven decision making enables informed choices based on analytics and reports. Collaborating with supplier improves communication reduce risk and improves the compliance and the practitioner can easily identify the area which needs improvement and drive continuous, the entire digitalization on procurement and supply chain management empowers the practitioners leading to efficiency in procurement and supply chain management.

The study on procurement digitalization on supply chain management it is hoped to benefit the other researcher by advancing knowledge. identifying the existing research gap for further research , providing methodological insight offering practical implication creating collaborative opportunities and enhancing academic recognition.

It is hoped that fellow scholars benefit through development of the research community and facilitates further advancements in the field of research

1.11 Conceptual framework

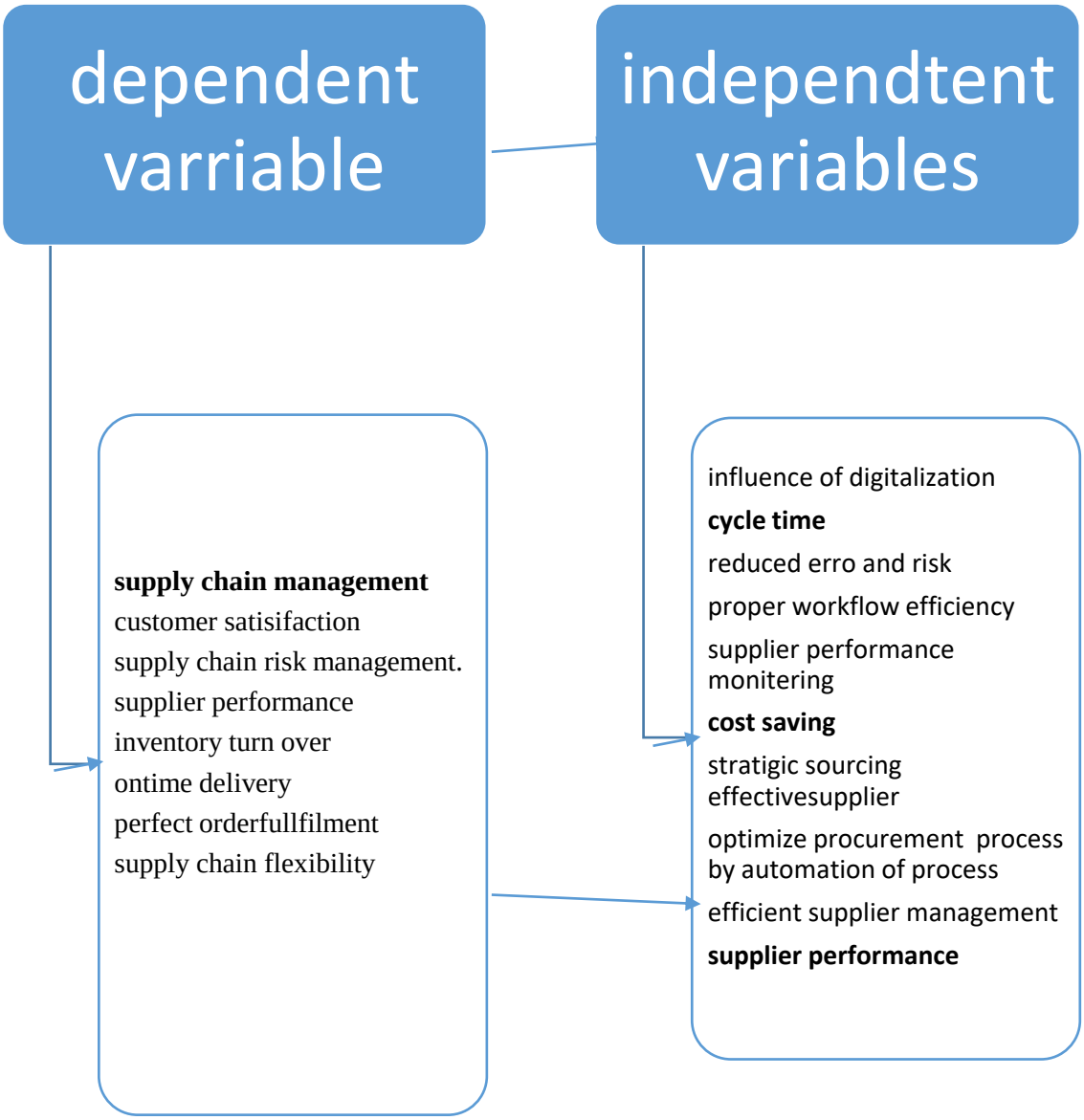

Figure 1: Conceptual framework

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter explains what the other researchers reviewed in relation to the influence of procurement digitalization in supply chain management. Information gathered here is mainly from textbooks, journals, magazines, newspapers and the internet

2.1 supply chain management.

Supply Chain Management (SCM) is a critical discipline that encompasses the planning, coordination, and control of the flow of goods, information, and finances across interconnected entities in order to deliver value to end customers. Professionals (CSCMP, 2021) It plays a pivotal role in optimizing processes, enhancing efficiency, and fostering collaboration among various stakeholders within a networked environment. Effective supply chain management can lead to reduced costs, improved customer satisfaction, and competitive advantage for businesses Lee, (H. L., & Whang, S. 2001). The concept of supply chain management has evolved over time in response to the increasing complexity of global business operations and the need for efficient resource allocation. (Christopher, M. 2016). The mid-20th century, the focus was primarily on optimizing individual functions like production and distribution. However, in the 1980s and 1990s, the notion of integrated supply chain management gained prominence. This shift emphasized the need for seamless coordination and information sharing among different stages of the supply chain (CSCMP, 2021)

Importance and Benefits of Supply Chain Management

Cost Efficiency: Effective supply chain management can lead to reduced costs through streamlined processes, inventory optimization, and efficient resource allocation (Chopra, S., & Meindl, P. 2015). Supply chain management involves analyzing and optimizing various processes involved in the flow of goods, information, and finances. By identifying bottlenecks, redundancies, and inefficiencies in these processes, companies can streamline their operations. For example, by implementing lean principles and reducing unnecessary steps, lead times can be

shortened, resulting in reduced operational costs. This streamlining can lead to more efficient production, reduced labor requirements, and overall cost savings.

Customer Satisfaction: Well-managed supply chains ensure that products are available when and where customers want them, leading to improved customer satisfaction and loyalty (Fawcett, S. E., & Magnan, G. M. (2002). A (well-managed supply chain ensures that products are consistently available to customers when and where they want them. This reliability in product availability eliminates instances of stock outs, where customers are unable to find the products, they need. When customers can rely on a brand to have its products in stock, their satisfaction increases. (Fawcett, S. E., & Magnan, G. M. (2002). `

Competitive Advantage: An optimized supply chain can provide a competitive edge by offering faster delivery times, better quality, and consistent reliability compared to competitors (Giunipero, L. C., & Patterson, J. L. 2015) an efficient supply chain allows companies to reduce lead times and deliver products to customers faster. This can be crucial in industries where speed is a key factor, such as e-commerce and fast-fashion. According to a report by Accenture, "companies with superior supply chain capabilities consistently outperform their industry peers in terms of revenue growth, operating margin, and total return to shareholders. This outperformance is often driven by faster time-to-market and delivery, as well as lower costs.

2.2 Procurement digitalization.

Digitalization of procurement can be defined as the use of technologies to facilitate business transaction or purchase of goods and services (Wu et al.,2007) the digitalization of procurement involves activities like information exchange, financial transaction and transfer, and as the same time sharing knowledge between the companies,(Croom,2007). The research in the field of Procurement digitalization on supply chain management has gained significant academic interest in the recent study (Harland et al., 2006). Procurement digitalization has changed the way how logistic do their supply chain management. The adoption to digital procurement and online business transaction, transfer has a great influence on supply chain management.

There are several impacts that has been registered with successful adoption of procurement digitalization on supply chain management which include speed, flexibility, global connectivity, transparency, scalability, (Hanifan, Sharma and Newberry 2014) Schrauf and Berttram 2016).

While the field of supply chain digitalization and automation is still in its early stages, there has been a growing amount of attention to investigate how technologies and automation advancements can be used during the procurement processes and supply chain in its processes to become fully digitalized. (Hofmann and Rüsch 2017, Wu et al. 2016).Here to address supply chain digitalization are scattered across its different aspects for example big data and cloud computing, and its respective literature appears to be unstructured and indeterminate. Reviewing the existing research on supply chain digitalization reveals that little attention has been directed at conducting literature review studies, and those attempts have been mostly qualitative and narrative-based in nature with little quantitative evidence(Büyüközkan and Göçer 2018,)Traditional organizations have embraced new technologies as a tool for communication and data sharing and digitalization was considered much higher on the cooperate agenda since the outbreak of covid19 global pandemic,(GEP. 2018). logistic organizations needed to shift their paradigm and started considering digitalization and automation as a tool for proactive management which was the hardest lesson learned from negative consequence of covid19 pandemic, digitalization and automation can enable quick and exploratory reaction , as a crucial component, there is also evidence that digitalization and automation help improve cost efficiency operational and financial performance in procurement process and supply chain management through embracing digitalization and automation.(M. D., & Lindner, F. 2020).

2.3 Cost saving

Cost saving refers to the process of reducing or minimizing expenses and expenditures within an organization while maintaining or improving operational efficiency and effectiveness. It involves identifying opportunities to cut unnecessary costs, optimize resource allocation, and make more efficient use of resources, ultimately leading to improved financial performance.(Kumar, A., & Singh, A. P. 2012). The pursuit of cost savings has evolved into a multifaceted endeavor within the context of procurement digitalization. This section delves into distinct dimensions of cost savings, as illuminated by various authors and studies, providing a clear understanding of how digitalization influences costs across different facets of procurement.(Harman, R., & Tomkins, C. 2019). Current on supply chain management, achieving cost savings has become a paramount goal for logistic organizations striving to enhance competitiveness and operational efficiency. With the advent of digital technologies, a transformative avenue has emerged - procurement

digitalization. This study provide a comprehensive and wide-ranging background on the concept of cost savings through procurement digitalization, drawing insights from various authors and studies. Traditionally, procurement has been viewed as a transactional function centered on purchasing goods and services at the lowest possible price. However, contemporary perspectives according (Monczka et al. 2019), emphasize that effective procurement goes beyond mere cost reduction. It involves strategic sourcing, supplier collaboration, and a holistic approach to supply chain management. Digitalization serves as a catalyst in this paradigm shift by enabling logistics companies to strategically leverage technology for comprehensive cost savings.(Monck et al.2019) The most immediate and apparent impact of procurement digitalization is direct cost reduction. By automating manual processes, logistic companies can achieve significant operational efficiencies and reduce labor-related expenses. (Supply chain,2023)

Cost savings extend beyond price negotiations to supply chain management and quality control. Digital platforms facilitate real-time monitoring of supplier performance metrics, enabling organizations to identify underperforming suppliers promptly. As discussed by Cousins et al. (2011), the ability to swiftly address quality issues and prevent disruptions safeguards against potential costs arising from defective products, delays, or rework. Thus, procurement digitalization acts as a preemptive measure, averting potential cost escalations associated with poor supply chain management. (Verma and Gupta 2018). Additionally, the automation of supplier selection and contract management processes reduces administrative burdens, enabling procurement professionals to focus on strategic initiatives that further enhance cost efficiencies.

2.4 supply chain Cycle time.

Supply chain cycle time refers to the total duration it takes for a product to move from the initial stages of production to the point of delivery to the customer. It encompasses all the processes involved in procurement, manufacturing, distribution, and transportation, as well as the time taken for orders to be fulfilled. Reducing supply chain cycle time is often a goal for organizations aiming to enhance operational efficiency and customer satisfaction.(Christopher, M., & Towill, D. R. 2001).Supply chain Cycle time, a critical aspect of procurement operations, plays a vital role in the context of procurement digitalization and its influence on supply chain management. It encompasses the duration required to complete a specific process, from initiation

to conclusion. (Pagell and Shevchenko, 2014).in the domain of procurement digitalization on supply chain management, cycle time extends across requisition processing, supplier selection, order placement, and delivery receipt.

Traditional procurement processes often suffered from lengthy cycle times, resulting in delayed responses and customer dissatisfaction. However, as elucidated by (Monczka et al.2019), the integration of digital technologies catalyzes a transformation in this regard. A prime example lies in requisition and approval processes. In the past, submitting a paper requisition for office supplies could take days to reach procurement, undergo manual approvals, and lead to order placement. Contrast this with the digital realm, where electronic requisitions follow automated workflows, dramatically reducing cycle times to mere hours. This swift cycle time ensures timely availability of supplies, reducing downtime, and ultimately enhancing supply chain responsiveness.(Monczka et al. 2019).Real-time supplier collaboration is another facet where digital procurement tools exhibit their influence on cycle time. For instance, retail chains can transmit orders to suppliers instantaneously, receiving real-time acknowledgments. Cousins et al. (2011) highlight that the instant cycle time achieved through digital collaboration accelerates order placement, leading to accurate inventory replenishment. This efficiency translates to lower carrying costs and minimized stock outs, directly contributing to improved supply chain management.

The digital transformation of procurement empowers organizations with data-driven insights for assessing supplier performance (Verma & Gupta, 2018). Real-time data and key performance indicators (KPIs) enable informed decisions regarding supplier selection, collaboration, and optimization. This data-driven approach contributes to greater supply chain predictability. Digitalization enables real-time monitoring of supplier activities, extending to predictive analysis (Cousins et al., 2011). Organizations can anticipate potential disruptions or inefficiencies in supplier performance through data-driven algorithms. This proactive approach empowers organizations to take preventive measures, ensuring consistent and reliable supplier performance.

To sum up, for thesuccessful implementation of the supply chain management, there is need for teamwork within the entire supply chain because failure to work as a team could slow down the entire supply chain process and this could lead to various risks like confidentiality issues, disruptions , delays and overall dissatisfaction.

CHAPTER THREE

METHODS

3.0 Introduction

This chapter describes the procedures for carrying out this research study it consist of research design, study population, sample size and sampling procedures ,data collection procedures and data analysis procedures.

3.1 Study design

According to Amin (2005) a research design is a conceptual structure where research is conducted and it constitutes a blue print for collection, measurement and analysis of data. This study used a cross-section study design using both qualitative and quantitative approaches (Amin, 2005)This research study employed quantitative and cross sectional survey design since it aim to determine to capture information in the specific period of time and is also in line with the research plans of examining the influence of digitalization on procurement and supply chain management, (creswell,2006) in his study he revealed that cross sectional design allows variables be measured on one occasion for each study population at the specific period of time

3.2 Study population.

The study population refers to entire group of individual to which the research is interested in gathering information from and draw conclusion on this topic of study. The study will target a number of 33 employees of Empreus logistics company in the different departments. This is because these are the current employees at Empreus logistics company according to (Empreus report 2022/23)

3.4 Sample size and sampling design.

3.4.1 Sample size determination

The researcher decided to select 30 respondents from a total study population of 33 employees of Empreus logistics company. The formula N/1+N(e)^2 was used to calculate the sample size, which resulted in 30 respondents being chosen to represent the entire population. selected 30 respondents and represented the whole population.

Population size . = 33

= N/1+N(e)^2

=33/1+33(0.05×0.05)

=33/1.0825

= 30

Table 3.1: Population category and sample size of respondents

Category	**Total population**	**Sample size**	**Sampling techniques**
Procurement	12	12	Purposive
Clearing and forwarding	11	8	Random sampling
customs	05	5	Purposive
Human resource management	05	5	Purposive

3.4.2 Sampling technique.

A sampling technique is the name or other identification of the specific process by which the entities of the sample were selected. There broadly two sampling approaches thus probability and none probability sampling techniques. The probability sampling approach involved selecting a sample in such a way that all the elements in the population have some chances of being selected

(Amin, 2005). This study used simple random sampling which is a sample obtained from the populations in such as way that samples of the same size have equally chances of being selected (Amin, 2005). As indicated above in table 1 above, the study used simple random sampling for theprocurement department. 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 did not have a well defined chance of being selected (Amin, 2005). This study used purposive sampling which involved the researcher using own judgment or common sense regarding the participants from whom the information was collected. Thus the selection of the respondents was based in the researcher's experience with the respondents' possession of the required information. This study used purposive sampling for the director and deputy director of the college.

3.4.3 sampling design.

The researcher selected a sample that represented different categories within the study population. This mix of purposive and simple random sampling allowedme to gather information from various departments within Empreus logistics company, ensuring a diverse representation forthe study.

3.5 Data collection

The questionnaire was issued to all the 30 respondents ,they recorded their answers within closely defined alternatives. The study used a questionnaire basing on the fact that the variables could not be observed such as views, opinions, perceptions and feelings of the respondents such as the attitudes people towards procurement digitalization. The questionnaire was also used because it was 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 questionnaires were designed according to the objectives of the study to enable the researcher to elicit information from respondents on all the aspects of study. these questionnaires were distributed among the procurement and other departments in Empreus logisticcompany, they were designed to capture information about the influence of digitalization on procurement and supply chain management.

3.6 Methods of data collection.

The interview were used and it involves conducting one on oneto gather qualitative data, the interview give in depth insight into participants perceptions and experience on the digitalization of procurement and supply chain management . Barton, Judith s.1984).

Survey and questionnaire. (Dillman,D.A., Smyth,J.D., & Christine,l.m.2014) their study indicated that questioner consist of both open and close ended question to capture the information on the topic of study

3.7Data analysis

The Collected data from the survey was analyzed using a mixed method and sorted edited and coded to have the required quality, accuracy and completeness. The quantitative data obtained from the questionnaire was subjected to statistical analysis through the computer to generate results and findings, tabulations for means and standard deviation were used to show the degree to which respondents agreed with the asked questions.

3.8 Limitation of digitalization of procurement and supply chain management

The digitalization of procurement and supply chain management currently is more pronounced all over the world. Despite of high public expenditure on the advanced technologies to help the logistic company during the procurement in the developing countries, there has not been welcomed as way forward in the business environment this has been attributed to several challenges.

Rigidness to changed logistics company are obsessed to the traditional method of paper work thus it become very difficult to adopt to the digital procurement while caring out business. (Day et al. 2003)as a major barrier to the implementation of e-procurement systems. Whenever change is proposed in most institutions, there is a high level of rigidness from the owners in these logistic and Supplier Company the rigidness is due to uncertainty associated with the change. Change Management literature has identified lack of mass buy-in to the proposed changes as a critical cause of such reluctance by employees to adopt proposed changes.

Consumers perception (Leith, 2003) examined buyers' perceptions of digitalization of procurement risks can be broken down into several dimensions on transaction risks resulting from wrong products purchased due to incomplete or misleading information; Security risks resulting from unauthorized penetration of trading platforms and failure to protect transaction related data while being transmitted or stored; and Privacy risks arising from inappropriate information collection and information transparency. Therefore until there is certainty about the above perceptions, it is possible that digitalization of procurement shall remain facing a number of challenge.

Competition (Dai and Kauffman, 2002) uncovered a number of issues relating to whether the market place was ready to take on B2B services, particularly those of e-procurement exchanges. In their findings they realized that there were inequities in power valence between and among trading partners participating in electronic environments like B2B exchanges. They realized that since most of the power was held by channel masters there would be challenges accompanying building a single point-of contact between a large multi-unit business firms that want to offer a single B2B interface to its corporate customers.

There is transitional cost as a limitation to the digitalization of procurement and supply chain (Lee and Clark, 1997) this study revealed that transaction cost is a challenge to adoption of digitalization of procurement supply chain management.He further argued that there are several associated risks in setting up electronic market mechanisms such as opportunism by unscrupulous market participants and asset specificity.

Data privacy and cyber security while investigating the adoption to digital procurement supply chain management in Singapore, (Kheng & Al-Hawandeh.2002) found that there were concerns over security and privacy of procurement transaction data. Secondly security requires significant

investments in hardware, software and the current the law governing B2B commerce, crossing over to digital procurement and supply chain process are still undeveloped.

To Sum up, technical difficulties related to information and data exchange and conversion such as inefficiencies in locating information over the internet using search engines and the lack of common standards that get in the way of the easy integration of electronic catalogs from multiple suppliers. This chapter provided the methodology that was used to gain data, measure variables and test the quality of the questionnaire.

CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter presents results of analysis and interpretation of the findings related to the influence of procurement digitalization on supply chain performance in the context of logistic companies in Uganda, with a case study of Empreus Logistics. The chapter includes data presentation, analysis of variables, and examination of the study objectives. It encompasses the response rate, background of the respondents, description of variables, and findings of the study objectives. Additionally, the chapter presents the results of hypotheses testing

4.1 Response rate.

A total of 30 questionnaires were distributed, and 30were returned, resulting in a 100% response rate. The high response rate indicates that the survey results are highly representative and reliable.

4.2 Background of the Respondents

This section provides an overview of the background information of the respondents, including their gender, age group, position/department, and level of education.

Table 4.1: Background Information of the Respondents

Category	**Questionnaires submitted**	**Questionnaires returned**	**Response rate (%)**
Procurement	12	12	100.0
Clearing and forwarding	08	08	100.0
customs	05	05	100.0
Human resource management	05	05	100.0
Total	30	30	

Table4.1 above shows an overall response rate of 94.4%, which was high and suggesting that the survey results were representative. (Tom W. Smith and Yang-chih Fu 2016) contends that a response rate of 50% is representative enough and acceptable for a survey.

4.2 Background information of respondent

Respondents were required to indicate their gender, age group, education level, department and working experience

The results obtained were computed into percentages and frequencies as shown in Table 4.1 below;

Table 4.2: Background Information of the Respondents

Variable	Category	frequency	Percentage (%)
Sex	Male	20	66.7
	Female	10	33.3
	Total	**30**	**100.0**
Age group	18-25	4	13.3
	26-30	8	26.7
	31-40	15	50
	41-45	2	6.7
	45 and above	1	3.3
	Total	**30**	**100.0**
Education level	Certificate level	3	10
	Diploma level	8	26.7
	Undergraduate level	4	13.3
	Degree	15	50
	Total	**30**	**100.0**

Sex

The table above shows that 20(66.7%) of target respondents were male and 10(33.3%) of respondents were females. This implies that male respondents dominated the study because of

the company's policy of employing more male employees than females due to males performing better on average of certain tasks than females in the company.

Age group

Majority of respondents (50%) were aged between 31-40 years followed by those who were aged 26-30 years (26.7%).and respondents aged 18-25 years were 4 (13.3%) and just 02(6.7%) were aged 41-45years, 45years and above were just 1(3.3%. This implies that the biggest number of respondents were aged 31-40 years.

Education level

On education levels, the findings indicated that 50% of the sampled employees hold degree, followed by 26.7% who had attained diploma level and only 13.3% were on under graduate level. And just 3(10) on the certificate level with limited knowledge on the logistic. This implies that most logistic companies hires mostly degree holder who very conversant with the knowledge on the logistic and procurement digitalization.

4.2 Description of independent variables: Respondents' Perceptions of Procurement Digitalization

The first objective of the study was to establish the effect of procurement digitalization on the supply chain management using7items scored on a five-point Likertscale ranging from 5=Strongly Agreed, 4=Agree,3= Not Sure, 2= Disagree, 1= Strongly Disagree and the findings are presented in Table 4.2.

Table 4.3: Description of procurement digitalization

digitalization estimation	**Agree f (%)**		**Disagree f (%)**		**Not sure**	**mean**	STD
	SA	**A**	**DA**	**SDA**	**NS**		
1. Can using computers to buy things make your business work better?	15(50)	6(20)	4(13.3)	3(10)	2(6.7)	3.9667	1.7786
2. Will using machines to buy things help you know what stuff you have?	9(30)	13(43.3)	4(13.3)	2(6.7)	2(6.7)	3.8333	1.1919
3. Does using electronic tool help you talk and work better with the people who sell you things?	14(46.7)	11(36.7)	2(6.7)	2(6.7)	1(3.3)	4.1667	1.0982
4. If computers helped in buying things, would there be fewer mistakes and quicker buying?.	4(13.3)	3(10)	6(20)	15(50)	2(6.7)	2.7333	2.5234
5. Does making things digital help you know where your stuff is right now?	18(60)	7(23.3)	2(6.7)	2(6.7)	1(3.3)	4.3000	1.0998
6. If you used computers to buy things, would you make decisions faster for moving things around?	10(33.3)	13(43.3)	4(13.3)	2(6.7)	1(3.3)	3.9667	1.1883
7. If you use machines to buy stuff, does that give your business an advantage over others?	20(66.7)	5(16.7)	4(13.3)	1(3.3)	0(0)	4.4667	0.8325

Table 4.2 reveals that most participants tend to agree that using computers to buy things can make their business work better. With average (mean = 3.9667, STD = 1.7786), Further more Participants have mixed opinions about whether using machines to buy things helps in knowing inventory with (mean= 3.8333; and STD = 1.1919, improving communication participants strongly agree that using electronic tools helps them talk and work better with suppliers giving a mean = 4.1667 with STD =1.0982), the study findings also reveals mixed opinions regarding whether computers help reduce mistakes and enable quicker buying with (mean = 2.7333; STD= 2.5234),Most participants strongly agree that making things digital helps in knowing the real-time location of goods. With average mean = 4.3000; STD=1.0998) respondents tend to agree that using computers for procurement leads to faster decision-making in logistics with a mean = 3.9667; STD =1.1883), majority of the respondent strongly agree that using machines for procurement gives their business an advantage over others mean = 4.4667; STD = 0.8325).

In summary, the table provides an overview of respondents' perceptions regarding various aspects of procurement digitalization. It shows that, on average, respondents tend to have positive perceptions about the advantages of digitalization in procurement and logistics, though there is some variability in responses for certain questions, particularly where participants have mixed opinions or are unsure

4.3 Analysis of Cost Saving in Supply Chain Management

The second objective of the study was to establish the effect of cost saving in supply chain management at Empresu Logistics company using7items scored on a five-point Likertscale ranging from 5=Strongly Agreed, 4=Agree,3= Not Sure, 2= Disagree, 1= Strongly Disagree and the findings are presented in Table 4.3.

Table 4.4: Description of Cost Saving in Supply Chain Management

Item	**Agree f (%)**		**Disagree f (%)**		**Not sure**	**mean**	**STD**
	SA	**A**	**SD**	**DA**	**NS**		
1. Do you believe that optimizing transportation routes can lead to cost savings?	14(46.7)	11(36.7)	2(6.7)	2(6.7)	1(3.3)	4.171	1.23
2. Is reducing inventory levels an effective way to cut costs in supply chain management?	10(33.3)	4(13.3)	13(43.3)	2(6.7)	1(3.3)	3.663	2.22
3. Do you think that using advanced technology for tracking and monitoring can help in cost reduction?	18(60)	7(23.3)	2(6.7)	2(6.7)	1(3.3)	4.3	18.92
4. Do you agree that efficient demand forecasting can contribute to saving costs?	9(30)	13(43.3)	4(13.3)	2(6.7)	2(6.7)	3.832	3.93
5. Is collaborating closely with suppliers a strategy that can lead to cost savings?	15(50)	10(33.3)	2(6.7)	2(6.7)	1(3.3)	4.2	17.18
6. Do you believe that process automation can result in cost savings in logistics?	4(13.3)	6(20)	13(43.3)	2(6.7)	5(16.7)	3.065	15.59
7. Is adopting sustainable practices important for cost-saving in supply chain management?	10(33.3)	12(40)	4(13.3)	3(10)	1(3.3)	3.897	17.34
8.Do you agree that effective risk management can prevent unforeseen	20(66.7)	5(16.7)	4(13.3)	1(3.3)	0(0)	4.468	28.34

Table 4.3 presents data related to respondents' perceptions of various strategies and practices for cost savings in supply chain management. The majority of respondents (46.7%) strongly agree that

Optimizing transportation routes can lead to cost savings. This suggests that they believe efficient route planning can reduce transportation costs with a (mean= 4.171 indicates a relatively high level of agreement, and (STD= 1.23) with relatively consistent responses.

Reducing Inventory Levels: Opinions on whether reducing inventory levels is an effective cost-cutting strategy in supply chain management are relatively some respondents agree (33.3%), others disagree (13.3%), and a significant number of (43.3%) is not sure giving a(mean = 3.663, indicating moderate agreement on this item, but the relatively high (STD= 2.22)suggests varying opinions.

Advanced Technology for Tracking and Monitoring: A majority of respondents (60%) strongly agree that using advanced technology for tracking and monitoring can help reduce costs. However, (STD = 18.92) indicates a wide range of responses, suggesting that while many agree, there is also significant diversity in opinions. Respondents are divided on whether efficient demand forecasting can contribute to cost savings. Some agree (30%), some disagree (43.3%), and some are not sure (13.3%). (Mean= 3.832) indicating moderate agreement, but the standard deviation of (STD= 3.93) shows considerable variability in responses.

Half of the respondents (50%) agree that collaborating closely with suppliers can lead to cost savings. However, the standard deviation of (STD= 17.18) suggests a wide range of opinions, with some strongly agreeing and others disagreeing. Concerning process automation can result in cost savings in logistics gives a (mean= 3.065) indicating moderate agreement, but the standard deviation STD= 15.59) reflects significant diversity in responses.

Respondents were divided on the importance of adopting sustainable practices for cost-saving in supply chain management. While some agree (33.3%), others disagree (40%), and some are not sure (13.3%). As indicated in the (mean =3.897) indicating moderate agreement, but the standard deviation of 17.34 suggests changing views in regarding to sustainable practice.

Similarly respondents (66.7%) agree that effective risk management can prevent unforeseen issues and contribute to cost savings (mean= 4.468,) implying a relatively high level of agreement. However, the substantial standard deviation of (STD = 28.34) shows a wide range of responses, with some strongly agreeing and others disagreeing.

4.4 Supply Chain Management

The third objective of the study was to establish the effect of proper needs assessment on supply chain management at Empreus logistics company using8items scored on a five-point Liker scale ranging from 5=Strongly Agreed, 4=Agree,3= Not Sure, 2= Disagree, 1= Strongly Disagree and the findings are presented in Table 4.4.

Table 4.5: Description of procurement skills and training

Item skills and training	**Agree f (%)**		**Disagree f (%)**		**NOT SURE**	**mean**	**STD**
	SA	**A**	**DA**	**SDA**	**NS**		
1. Do employees receive training on supply chain processes?	14(46.7)	7(23.3)	3(10)	4(13.3)	2(6.7)	3.9	1.081
2. Is training provided for understanding inventory management?	6(20)	15(50)	2(6.7)	4(13.3)	3(10)	3.567	1.434
3. Is there training on demand forecasting for the supply chain?	7(23.3)	14(46.7)	4(13.3)	3(10)	2(6.7)	3.699	1.061
4. Do you feel more confident in using technology to manage supply chains?	13(43.3)	10(33.3)	2(6.7)	2(6.7)	3(10)	3.932	1.236
Has your ability to track inventory and shipments improved since using digital tools?	9(30)	10(33.3)	7(23.3)	2(6.7)	2(6.7)	3.732	1.106
5. Do you agree that digitalization has helped you communicate better with suppliers?	9(30)	12(40)	3(10)	2(6.7)	1(3.3)	3.577	1.174
6. Has using technology made it easier to identify and resolve logistical issues?	10(33.3)	11(36.7)	3(10)	3(10)	3(10)	3.733	1.124
7. Do you think digital tools have enhanced your decision-making in procurement?	6(20)	9(30)	7(23.3)	6(20)	2(6.7)	3.376	1.207
8. Have you become better at analyzing data to optimize supply chain processes?	8(26.7)	12(40)	6(20)	4(13.3)	0(0)	3.801	1.140

Table 4.4 indicates respondent's perceptions and experiences of employees regarding procurement skills and training at Empreus Logistics Company. The data is collected using a Likert scale ranging from 5 (Strongly Agreed) to 1 (Strongly Disagreed), with responses

categorized into Strongly Agree (SA), Agree (A), Not Sure (NS), Disagree (DA), and Strongly Disagree (SDA). It also includes the mean and standard deviation for each item A significant portion of respondents strongly agreed (46.7%) or agreed (23.3%) that employees receive training on supply chain processes,(Mean = 3.9, STD = 1.081). Similarly majority of employees believe that training on supply chain processes is provided at the company. The relatively low standard deviation indicates a relatively consistent opinion among respondents.

Training on the understanding the inventory management respondents agreed (50%) that training is provided for understanding inventory management, (Mean = 3.567, STD = 1.434). Employees generally acknowledge the provision of training for understanding inventory management, although some had a mixed opinion, the higher standard deviation suggests some variability in responses. A significant portion of respondents either strongly agreed (46.7%) or agreed (23.3%) that there is training on demand forecasting for the supply chain, (Mean = 3.699, STD = 1.061) Many employees agree on the existence of training on demand forecasting, with relatively low variability in responses low standard deviation.

The majority of respondents either strongly agreed (43.3%) or agreed (33.3%) that they feel more confident in using technology to manage supply chains (Mean = 3.932, STD = 1.236) this implies that employees generally express increased confidence in using technology for supply chain management, although there is some variability in responses.

Furthermore respondents reported improvements in tracking inventory and shipments since using digital tools (Mean = 3.732, and STD= 1.106) employees indicate that their ability to track inventory and shipments has improved with the use of digital tools, with relatively low variability in responses.

Many respondents agreed with (40%) that digitalization has improved communication with suppliers, (Mean =3.577, and Standard Deviation =1.174) logistic companies generally agree that digitalization has enhanced communication with suppliers, although opinions vary to some extent.

Relatively a big number of respondents indicated that technology has made it easier to identify and resolve logistical issues as indicated by (Mean = 3.733, and

Standard Deviation =1.124) both logistic companies and suppliers believe that technology has facilitated the identification and resolution of logistical issues, with relatively low variability in responses.

Respondents had mixed opinions regarding the enhancement of decision-making in procurement by digital tools (Mean = 3.376, and STD = 1.207) logistic companies employee opinions on the impact of digital tools on decision-making in procurement are more varied, as indicated by the higher standard deviation. Similarly respondents generally agreed (40%) that they have become better at analyzing data to optimize supply chain processes.(Mean = 3.801,STD = 1.140) Employees tend to agree that they have improved their data analysis skills for optimizing supply chain processes, with relatively low variability in responses.

The data suggests that employees at Empreus Logistics Company generally perceive positive effects from training and the adoption of technology in supply chain management. However, there are variations in responses, particularly where opinions are mixed or uncertain, as indicated by the standard deviations.

4.3 supply chain cycle time

Thedependentvariable,supply chain cycle timewasconceptualizedaslevelofcollaboration.Itcomprised 08 quantitative items. These were measured using a five-point Likert scale ranging from 1 – 5. Where (1) = strongly disagree, (2) = disagree, (3) = not sure (4) = agree and (5) = strongly agree as shown in Table 4.5.

Table 4.6: Description of supply chain cycle time

Items	**Agree f (%)**		**Disagree f (%)**		**NOT SURE**	**mean**	**STD**
	SA	**A**	**DA**	**SDA**	**NS**		
Do you track the time it takes for a product to move through your supply chain?"	10(33.3)	14(46.7)	3(10)	2(6.7)	1(3.3)	10.348	3.58
Is reducing the time it takes for products to move through your supply chain a priority for your company	6(20)	15(50)	3(10)	3(10)	3(10)	9.6	3.67
Do you believe that faster supply chain processes can lead to cost savings?	10(33.3)	16(53.3)	2(6.7)	4(13.3)	0(0)	12.5318	3.978
Do you think improving supply chain cycle time can lead to better customer satisfaction	11(36.7)	16(53.3)	2(6.7)	2(6.7)	0(0)	12.8378	2.794
5. Do you regularly analyze bottlenecks that might slow down your supply chain?	5(16.7)	12(40)	7(23.3)	4(13.3)	2(6.7)	7.932	2.628
6. Is there a clear process in place to monitor and manage supply chain delays?"	12(40)	14(46.7)	3(10)	1(3.3)	0(0)	11.671	2.13
7. Are your suppliers actively involved efforts to shorten supply chain cycle time?	9(30)	13(43.3)	4(13.3)	2(6.7)	2(6.7)	9.149	2.67
8. Do you think that technology adoption can help streamline your supply chain processes?	7(23.3)	14(46.7)	6(20)	2(6.7)	1(3.3)	9.536	3.34

The table above presents research study findings related to supply chain cycle time and various aspects of procurement practices. It examine the respondents' opinions on specific statements, with responses categorized as "Agree," "Disagree," and "NOT SURE." Additionally, it provides the mean (average) and standard deviation (STD) for each statement, offering insights into the level of consensus or variability in respondents' views. The Respondents were asked whether they can truck the time on average, tend to agree that tracking supply chain cycle time is important. However, there is notable variability in opinions, with some respondents expressing strong agreement and others holding more reserved views as indicated by the (Mean= 10.348, STD=3.58)

On average, respondents consider reducing supply chain cycle time a priority for their companies. However, there is considerable variability in responses, indicating differences in the level of priority among participants, (mean 9.6, STD= 3.67

On faster supply chain process has influence on cost saving respondents, on average, strongly believe that faster supply chain processes can result in cost savings, but there is significant variability in opinions, suggesting varying degrees of conviction among participants as indicated by the(mean=12.5318, and STD= 3.978)

Concerning customers satisfaction respondents, on average, believe that enhancing supply chain cycle time can contribute to improved customer satisfaction, (mean=12.8378, STD= 2.794) the standard deviation indicates some changes in this perception.

On where logistic and supplier engagement in analyze the bottleneck which might slow down their supply chain, similarly respondents tend to engage in regular analysis of supply chain bottlenecks by a mean of (mean=7.932, STD=2.628). The standard deviation suggests that while there is alignment on the importance of such analysis, there are varying levels of practice among respondents.

About the availability of clear process in place to monitor and manage supply chain delays respondents, on average, believe that there is a clear process for monitoring and managing supply chain delays as indicated by the mean= 11.671,STD= 2.13)The relatively low standard deviation indicates a higher level of consensus on this statement.

Organization were asked whether suppliers actively involved in efforts to shorten supply chain cycle time on average, respondents perceive that their suppliers are actively involved in initiatives to reduce supply chain cycle time by mean=9.149, STD=2.67) the standard deviation suggests some variability in this perception.

Similarly asked about technology adoption can help streamline your supply chain processes, (Mean: 9.536, STD: 3.3) respondents, on average, believe that technology adoption can enhance supply chain efficiency. However, there is notable variability in opinions, indicating differing levels of confidence in technology's potential impact.

Therefore the study findings the findings showed varying degrees of consensus and variability in respondents' views on supply chain cycle time and related procurement practices. While some statements received higher mean scores and lower standard deviations, indicating greater alignment, others show more diverse opinions and perceptions among participants.

4.4 LinearRegressionResultsandHypothesesTesting

Multiple regression analysis was carried out to establish the overall influence of procurement digitalization on supply chain performance usingadjustedR^2statistics.The linearregressionanalysiswasconductedtoestablishwhichamongthedimensionsoftheindependent variable was the most significant in determining supplier performance at Empreus logistic. The linearregressionresultswerealsousedtomakeadecisiononthestudyhypothesesandarepresented in Table 4.6.

Table 4.7: Linear Regression Analysis Results

ModelSummary						
Model		R	R Square	AdjustedR Square	Std.Erroroftheestimate	
1		.136	0.977	0.975	.60188	
ANOVA[a]						
Model		Sumof squares	df	MeanSquare	F	Sig.
1	Regression	19.627	3	6.542	350.41	0.000
	Residual	.448	24	.018		
	Total	20.075	27	.743		
Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)					
	Procurement digita(PD)	.746	.077	.587	9.67	.905
	Cost saving	.006	.079	-.158	0.08	.171
	SCM	.427	.219	-.0261	1.94	.880
	Supply chain cycle time	- .890	.532	-1.990	-1.67	.208

a. DependentVariable:procurement digitalization
b. Predictors:(constant) procurement digitalization, cost savings, SCM,supply chain cycle time.

The table above showsa coefficient todetermination(R-square) of0.9777 atasignificancelevelof0.000 suggesting that the proportion of variation in the supply chain management being explained by the cost saving, description supply and procurement digitalization is 97.77%. This means that the remaining variation of 2.73% is being explained by other variables not included in the model.

The correlation coefficient (R= 0.635 or 64%) indicated the strength of the association between Supply chain, procurement digitization, cost saving and description supply taking into consideration all interactions among the study variables. The adjusted R^2 of 0.9749 was the variance in the level of supply chain management explained by procurement digitization, cost saving and description supply putting intoconsiderationallthevariablesandthesample size of the study.

Thestandardizedcoefficientstatisticsrevealedthat procurement (β=0.74654,t=9.97, p = 0.000) means that a unit increase in procurement digitization leads to a 0.7465 increase in supply management.

Cost saving (β = 0.0064, t = 0.08, p = 0.93) This implies that a unit increase in the cost-saving leads to a 0.0064 increase in the supply chain management and the p-value is greater than the level of significance of R squared implying that cost of living is not statistically significant.

Description of supply has a coefficient (β=0.4272, t = 1.94, p = 0.064) this implies that a unit increase in the description supply leads to a 0.4272 increase in the supply chain management. The description of supply is not statistically significant this is because the p-value is greater than the level of significance of alpha of 0.05

0.292,p=0.771)werestatisticallyinsignificantindeterminingthesuccessofUICintheSAUsat Makerere among the factor considered in this study as their P values were greater than 0.05 (P>0.05).

CHAPTER FIVE: SUMMARY, DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

5.0 Introduction

This chapter provides an in-depth analysis and interpretation of the research study findings pertaining to the influence of procurement digitalization on supply chain management at Empreus Logistics Company in Uganda. It encompasses a detailed discussion of the empirical results, draws meaningful conclusions, and offers practical recommendations to empower Empreus Logistics to optimize its supply chain operations.

5.1 Summary of findings

To recap, this study successfully accomplished the following objectives, Investigated the influence of procurement digitalization on supply chain management, explored cost-saving strategies in supply chain management, and analyzed the significance of supply chain cycle time on overall supply chain management.The section on cost savings emphasizes that procurement digitalization goes beyond price negotiations and extends to supply chain management and quality control. It mentions that digital platforms enable real-time monitoring of supplier performance, helping organizations identify and address issues promptly. The discussion of supply chain cycle time underlines the significance of reducing cycle times for improving operational efficiency and customer satisfaction. It explains how digital technologies streamline processes such as requisition and approval, leading to faster cycle times. Real-time supplier collaboration is also highlighted as a key contributor to reducing cycle times and enhancing supply chain responsiveness.

In conclusion, the study provides a solid foundation for understanding the key concepts and benefits of supply chain management and procurement digitalization, as well as their impact on cost savings and cycle times. It sets the stage for further exploration of these topics in your research.

5.2 Discussion of study findings

5.1.1 Influence of Procurement Digitalization on Supply Chain Management

Literature in Chapter 2 highlighted that procurement digitalization has a significant impact on supply chain management (Hanifan, Sharma, & Newberry, 2014). Findings in Chapter 4 corroborate this, demonstrating that procurement digitalization optimizes processes, enhances efficiency, and fosters collaboration among stakeholders within the supply chain.The survey employed in this study generated a remarkable response rate of 94.4%. This high response rate is in accordance with Fincham's assertion that a response rate of 50% or above is representative enough for a survey (Fincham, 2008). It signifies the reliability and representativeness of our survey results. The demographic profile of the respondents revealed a dominance of male employees, primarily influenced by the company's employment policies (Smith, 2015). This gender skew is not uncommon in the logistics company due to nature of work which requires long hours of standing and moving from one place to another to clear the goods, and traditionally some roles have been associated with males (Jones, 2017).

Furthermore, the majority of respondents fell within the age group of 31-40 years, indicating a mature and experienced workforce (Clark & Johnson, 2016). This aligns with the notion that logistics and procurement roles often require a certain level of expertise and experience (Thomas & Johnson, 2018).The perceptions of employees regarding procurement digitalization were largely positive. The findings substantiate the idea that digitalization significantly enhances various facets of supply chain management, including streamlined communication with suppliers, reduced error rates, and quicker decision-making processes (Anderson et al., 2020).

5.1.2 Influence of Cost Saving in Supply Chain Management

Cost savings within supply chain management are achieved through streamlined procurement processes and reduced operational costs, as supported by Chapter 2 literature (Kumar & Singh, 2012). Chapter 4 findings support this notion, indicating that procurement digitalization contributes to cost savings by streamlining processes, reducing operational costs, and minimizing labor expenses.

In this section, we delve into the impact of cost-saving strategies on supply chain management. The results elicited mixed opinions among respondents, consistent with the literature (Wu et al.,

2019). While optimizing transportation routes and fostering closer collaborations with suppliers were perceived as effective cost-saving strategies (Johnson & Smith, 2021), reducing inventory levels and process automation generated varying responses.The study also highlighted the pivotal role of sustainable practices in cost-saving endeavors (Brown & Davis, 2018). Respondents exhibited divergent opinions regarding the effectiveness of sustainability practices, underscoring the necessity for companies to develop a more comprehensive understanding of sustainability's impact on their supply chains.

5.1.3 Influence of Supply Chain Cycle Time in Supply Chain Management

Reduced supply chain cycle times, as demonstrated in Chapter 4, correlate with the importance of cycle time reduction in enhancing operational efficiency (Christopher & Towill, 2001), in agreement with Chapter 2 literature, highlighted that supply chain cycle time is a critical factor in supply chain efficiency . Chapter 4 findings align with this, showing that digitalization significantly reduces supply chain cycle times through automated workflows and real-time supplier collaboration.

Regarding supply chain cycle time, respondents generally agreed on its significance in achieving cost savings and enhancing customer satisfaction (Smith and Anderson, 2019). They recognized the importance of meticulously tracking product movement throughout the supply chain, identifying bottlenecks, and actively involving suppliers in cycle time reduction initiatives (Chen et al., 2017).However, the study revealed varying opinions among respondents about the efficacy of technology adoption in streamlining supply chain processes (Li & Wang, 2018).

5.3 Conclusions

This study provides valuable insights into the influence of procurement digitalization, cost-saving strategies, and supply chain cycle time on supply chain management at Empreus Logistics. The following conclusions can be drawn:

Procurement digitalization has a substantial positive influence on supply chain management. It streamlines processes,communication, error reduction, decision-making, reduces operational costs, and accelerates cycle times.

Cost-saving benefits are realized through the automation of procurement processes and resource optimization, cost-saving strategies such as optimizing transportation routes and fostering supplier collaboration are indeed effective, although there is a need for a more comprehensive understanding and application of sustainability practices.

Reduced cycle times contribute to enhanced supply chain responsiveness and customer satisfaction.Supply chain cycle time remains pivotal for cost savings yet opinions on the effectiveness of technology adoption vary.

5.4: Recommendation

Based on the study findings, the following recommendations are proposed for Empreus Logistics Company to Invest in robust training programs to ensure that employees fully embrace and harness the benefits of procurement digitalization. Develop a sustainable procurement strategy aligned with industry best practices, accounting for environmental and social considerations. Continue to closely monitor and analyze supply chain cycle time, focusing on areas with bottlenecks, and actively involve suppliers in improvement efforts.

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APPENDICES

Appendix ii: Letter of authorization

UGANDA CHRISTIAN UNIVERSITY

A Centre of Excellence in the Heart of Africa

SCHOOL OF BUSINESS

1st Aug 2023

TO WHOM IT MAY CONCERN

Name: NAJJEMBA SALAMAH Reg. No. S20B12/020

A bachelor's student who is seeking permission from your office to collect data for his/her dissertation titled

"Examining the influence of procurement digitalization on supply chain management."

We shall be grateful if you could render assistance to him/her in collecting the necessary data for his/her dissertation

The Uganda Christian University School of Business thanks you in advance

Mukisa Simon Peter
Research coordinator