Examining the end-of-life management of organization's assets as a pre-requisite to public procurement: Case study of the Parliament of the Republic of Uganda

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DEDICATION

With special regard, I wish to dedicate this piece of work to my dear parents and family who have always been there to support me in my education and who have always encouraged and motivated 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 education; it has not been easy but it was possible.

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God bless you all.

ABSTRACT

The study examined the End-of-life management of organization's assets as a pre-requisite to public procurement: a case of The Parliament of Uganda. It specifically focused on; managing products that have reached their end of life and finding practical solutions on how they can be managed in the whole supply chain.

The study was carried out using a cross sectional survey 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 30 respondents who are management and employees of Parliament was also used in the study.

The study sought to draw a relationship between the different objectives of the study, to devise different ways of managing products that have reached their end of life at Parliament of Uganda. To assess the different ways of implementing end-of-life management at the Parliament of Uganda. To analyze the economic implications of end-of-life management practices to the Government.

This study found out that that implementing sustainable end of life management of organization's assets enhances efficiency, reduces costs and improves on organization's reputation through the adoption of eco-friendly products and their full sustainable utilization resulting in reduced emissions and operating costs while positively impacting environmental preservation and overall performance. However, the study also highlighted challenges affecting sustainable end of life of organization's management, including initial investment costs, resistance to change, and the need for comprehensive training. Overcoming these challenges is crucial for organizations to fully realize the benefits of sustainable end of life management and ensure long-term success in improving the way products are handled when they reach their end of life at the Parliament of Uganda.

The study recommended that Parliament of Uganda should Integrate Sustainability Strategy in their functions. Invest in End-of-life management. Use of Eco-Friendly Raw materials to ensure that they produce only eco-friendly raw-materials for use in the organization to optimize consumption and reduce emissions. Collaborate for Infrastructure and Lifecycle Analysis, Conduct thorough lifecycle assessments of all assets that are bought to consider environmental impact from production to disposal, aiding in informed asset and products selection at the time of purchasing. Continuous Monitoring and Reporting. Awareness Campaigns, leading by example, as this will help them to be role models and also attract investor funding and many other benefits.

LIST OF ACRONYMS

EOL – End of life

EOLM – End of life management.

RRR- Reduce, Recycle, Reuse

SCM – Supply chain management

SCV – Supply chain visibility.

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CHAPTER ONE

INTRODUCTION

1.1 **Introduction**

The study examines the end-of-life management of organization's assets as a prerequisite to public procurement at **Parliament of Uganda**. End of life management is conceived as the independent variable while public procurement stands in as the dependent variable. This chapter presented the background of the study, statement of the problem, Research objective, specific objectives, Research questions, scope of study, significances of the study, anticipated problems and solution and operational definition of variables.

1.2 **Background of the study**

In procurement, "end of life" refers to the phase in the lifecycle of a product or service when it is being phased out or discontinued. This can happen for a variety of reasons, such as technological advancements, changes in consumer demand, or the availability of more cost-effective alternatives.

As a result, end-of-life procurement strategies may be necessary to manage the discontinuation of products or services and to ensure that the organization can continue to operate effectively. This may involve identifying and sourcing alternative products or services, negotiating with suppliers to extend the availability of discontinued products or services, or phasing out the use of products or services altogether. End-of-life procurement strategies may also involve considerations related to sustainability and environmental impact, such as disposing of products or services in an environmentally responsible way or recycling materials where possible. End-of-life procurement strategies are an important aspect of managing the procurement process and ensuring that organizations can continue to operate effectively in the face of changing market conditions and product availability.

Organizations have therefore got to do some element of end-of-life management. This refers to planning for items at their phased-out stage. In other wards, this point refers to that time when goods have got to be managed and well planned for so that even at their end of life they are of benefit to the organization. Effective end of life in procurement refers involves a number of activities like planning which refers to organizing well into time and I advance, tracking of the lifecycle of products, analyzing market trends, anticipating potential disruptions that may impact product availability. The other can be inventory management which means organizations need to manage their inventory effectively to ensure that they do not have excess stock of products that are being phased out, disposal is another activity that we look at here where organizations have got to dispose of these items in an environmentally friendly way, communication, evaluation to mention but a few.

Public procurement which is the acquisition of goods service and works for the general public from mostly private sector suppliers at agreed prices to effective value for money at the right time, right cost, right place from right source. There is a close relationship between end-of-life management and public procurement, as effective end-of-life management is an important consideration in the procurement process. When procuring goods, services, or works, public sector organizations need to consider the entire lifecycle of the products or services they are acquiring, from acquisition to disposal.

Effective end-of-life management requires the procurement to take a proactive approach that takes into account the environmental impact of the products or services being procured. This includes considerations such as recyclability, waste reduction, and environmentally responsible disposal. In the context of public procurement, this means that public sector organizations need to consider end-of-life management when evaluating bids and selecting suppliers. They should seek out suppliers that have a track record of environmental responsibility and demonstrate a commitment to sustainable practices. Moreover, public sector organizations can use the procurement process to incentivize sustainable practices among suppliers. This can include setting criteria related to end-of-life management as part of the procurement process, such as requirements for recycling or responsible disposal.

Overall, effective end-of-life management is an essential aspect of public procurement, as it helps ensure that public sector organizations are responsible stewards of public resources and are taking into account the broader social and environmental impacts of their procurement decisions

1.3 **Statement of the problem**

End of life management is increasingly becoming a critical success factor in public procurement. The logic here is that companies will focus on those elements in the value chain where it has got increasing advantage and focus on those. End of life is a clear-cut challenge for every organization, let alone it being a fact of life. Organizations at most times face a huge trouble trying to deal with their products when they reach their end of life. Therefore, its paramount to identify those items that are nearing or at their end of life then develop means of dealing with them accordingly.

In today's globalized world, public procurement plays a crucial role in driving sustainable development and promoting responsible consumption and production. With increasing awareness of environmental and social impacts, there is a growing need to ensure that the products and services procured by public entities adhere to sustainable practices throughout their life cycle. End-of-life management, which encompasses the responsible handling, recycling, and disposal of products at the end of their useful life, is a critical aspect of sustainable procurement. However, the current state of end-of-life management in public procurement remains inadequate and fragmented, leading to potential adverse consequences for the environment, society, and long-term economic viability.

By addressing this gap in knowledge, the study seeks to develop a comprehensive framework that enables public procurement authorities to effectively assess and prioritize suppliers and contractors based on their end-of-life management practices. Additionally, the research aims to identify best practices, policy recommendations, and strategies that can facilitate the implementation of sustainable and responsible sourcing principles, resulting in a more circular economy, reduced waste generation, and increased resource efficiency. Ultimately, this research seeks to enhance the sustainability performance of public procurement processes and contribute to the achievement of broader sustainability goals at local, national, and global levels.

The missing connection between end-of-life management and public procurement hinders the full realization of their potential to foster a circular economy, reduce environmental impacts, and promote responsible consumption. This research aims to identify and explore the challenges that impede the seamless integration of end-of-life management considerations into public procurement processes. The lack of clear guidelines, standardized criteria, and mechanisms to assess suppliers' end-of-life management practices pose significant barriers to implementing sustainable procurement strategies. Moreover, limited awareness and understanding of the benefits associated with prioritizing suppliers with robust end-of-life management frameworks further exacerbate the gap between these two critical areas.

The problem at hand requires an in-depth analysis of existing procurement policies, practices, and sustainability initiatives to identify potential points of intersection with end-of-life management. The research seeks to examine the barriers faced by public procurement authorities in incorporating end-of-life management criteria into tender evaluations and supplier selection processes. Additionally, this dissertation will investigate the challenges faced by suppliers in meeting end-of-life management requirements while maintaining competitiveness in public procurement markets.

It’s important to note that school administration should try its level best to devise means of dealing with this challenge through ensuring proper and effective, sustainable disposal means. This calls for needs for intervention to improve compliance and efficiency in procurement and the entire lifecycle at the university. This research therefore seeks to examine the impact of end-of-life management as a prerequisite or requirement to public procurement.

1.4 Research Objective

The general objective of this research was to examine the end-of-life management of organization’s assets as a prerequisite to public procurement at Parliament of Uganda.

1.5 Objectives of the study

To devise different ways of managing products that have reached their end of life at Parliament of Uganda.

To assess the different ways of implementing end-of-life management at the Parliament of Uganda.

To analyze the economic implications of end-of-life management practices to the Government.

1.6 Research Question

What are the different ways of managing products that have reached their end of life?

What is the relationship between the end-of-life management and public procurement at Parliament of Uganda?

What are the economic implications of end-of-life management practices to the government?

1.7 Scope of the study

1.7.1 Content Scope.

The study looked at the end-of-life management being a requirement to public procurement. Specifically, it sought to understand how best to manage products that have reached their end of life and what happens thereafter, how to incorporate end of life management in many organizations and improvement in the products life from time of inception to point of disposal. The study also looked at the relationship that exists between product's end-of-life management and public procurement.

1.7.2 Geographical Scope

This study was carried out from Parliament of Uganda located at plot 16-18, Parliamentary Avenue, Kampala Uganda.

1.7.3 Time Scope

The study covered the period between 2021 and 2023

1.8 Significances of the study

The findings of this study were to help the Parliament of Uganda with the best way of managing end of life of products to improve on the way they conduct their procurement and hence improve it.

The findings of this study was to help the policy makers of the organization to focus on policies drafted for continuous improvement to shape the future of the procurement industry in a more sustainable way.

The study also was to help the researcher in partial fulfillment for the award of the Bachelors degree of procurement and logistics management.

The researcher was also positive that the research made today was to be a basis for further future research mostly with or on practices of life cycle assessment, whole life costing of items to clearly establish the best ways of handling these products so well till there end of life.

The research added to a pool of knowledge in the area that had not been given much attention, the area of end-of-life management. This goes a long way to even include the circular economy and providing information on the closed loop supply chain that many businesses are not being encouraged to adopt to.

The research sought to highlight the challenges that organizations go through while they have goods in their hands especially those that are redundant and need to be disposed off or being used as raw materials and may not know how to.

1.9 **Anticipated problems and solutions**.

Financial constraints hindered the researcher as need to find resources to transport the researcher to areas of further study, acquire stationery like books, paper, pens etc. to record information where technology means may not be enabled. This issue was solved by soliciting funds from relatives; parents to allow the researcher finish the exercise adequately well.

Given the diversity and wide nature of the topic under discussion, the time assigned to the researcher was not enough. This made it difficult for the researcher to coordinate both research and the semester programs, say class. Striking a balance between the two was very necessary by

drawing a timetable and use of all the different types of questionnaires that don't require physical presence all through the exercise.

Policy of the organization was yet another challenge that was faced in the search for important information. The policy of the organization hindered the researcher from obtaining the necessary information to be used for enriching the research. This was solved by engaging the key organization stakeholders so that they can help in adjusting the rules to enable the researcher get all the required data to enrich my research.

The respondent's unwillingness to disclose information so much important at the heart of the study was another challenge the researcher experienced. Confidentiality at the institution and among many organizations hindered researchers from getting information that would have otherwise created such a huge difference. The researcher tried to convince the respondents to give all the necessary information entirely only for the study purposes and no other uses.

Failure to answer the questions asked diligently by the respondents especially when using the elements of interview method due to lack of lived in experiences and knowledge. ALikert scale questions and open-ended questionnaires helped solve this issue where they are at liberty to tick on alternatives and a few were called for open ended questions.

1.10 Operational definition of variables.

End of life Management. This is the assessment of the product's final phases or stages and devising means to best ways to handle it and make it useful again, dispose it off well or repurpose. This involves identifying best ways to handle products responsibly and sustainably. This aspect is so much important because it helps to reduce wastes, minimize environmental impact, and create value from products that have reached the end of their life cycle.

Supply Chain Management

First of all, a supply chain is a sequence of activities involved in producing and delivering a product or service to customers. It has got many stages such as sourcing of raw materials, through production to distribution and delivery to the end customer. It involved many organizations, suppliers, manufactures, distributors, retailers and logistics providers. It aims at creating value for the end customer.

Therefore, **supply chain management,** is the process of planning, coordinating and controlling the flow of goods, information and finances across the entire supply chain, from raw material source to the end customer. Effective supply chain requires integration of all activities involved in the supply chain, such as sourcing, procurement, production, inventory management, logistics and customer service. Hence a close collaboration and communication among all organizations involved in the supply chain like suppliers, manufacturers, distributors and retailers.

Therefore, by the above detailed descriptions, the research sought to bring harmony between end-of-life management and the supply chain and how the two relate to create value and best fit in the ever-changing business environment. These two, if properly done, would bring a lot of never seen before value, save costs, time and as well as keep business up in competition with the others.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter presented the literature review of the research objectives of this study. It looked and appreciated the earlier work and research documents from various researchers and their literature with the aim of exposing the aspect or the issue of concern. Another involvement was a critical review of other sources of material related to the topic of study "Examining the end-of-life management of organization's assets as a prerequisite to public procurement." Concepts, ideas and opinions of experts in relation to the topic of the study were looked at in this chapter.

With the unfolding twenty first century, public institutions and companies worldwide are undergoing unprecedented change and confronting multiple challenges brought about by the vast and complex processes of globalization and technological change, powerful internal and external forces; political, economic and paradigmatic and reconfiguring all aspects of institutions life. (Bird, 1984)

The integration of End-of-Life Management (EOLM) of public assets as a prerequisite in public procurement gained significance in recent years, driven by sustainability goals and legal frameworks. Research indicated that EOLM significantly enhanced efficiency by reducing waste, minimized disposal costs, and promoted resource efficiency. It also contributed to environmental impact reduction, particularly in terms of greenhouse gas emissions and resource conservation. Furthermore, EOLM positively influenced service delivery by ensuring the longevity of assets, reducing downtime, and lowering maintenance costs. However, challenges such as awareness and capacity gaps existed, necessitating capacity building and stakeholder collaboration for effective implementation. In conclusion, EOLM in public procurement aligned with sustainability objectives and offered tangible benefits for improved governance and service outcomes

Merriam Webster (Aug, 2004) defined the word Prerequisite as “something that is necessary to an end or to the carrying out of a function” she went ahead to note that it is something that is required before hand or necessary as preparation for something else. The preconditioning, the essentials, the preliminaries that must be fulfilled before something happened or takes place.
This chapter exposed the end-of-life management as a prerequisite to public procurement and what the different authors noted about the two variables.

2.2THE DIFFERENT WAYS OF IMPLEMNENTING END-OF-LIFE MANGEMENT AT PARLIAMNET OF UGANDA

Kenneth Lyson and Brian Farrington in their book procurement and Supply chain, 2006 argue that the relationship between end-of-life management and public procurement is significant and intertwined. End-of-life management refers to the practices and processes involved in the final stages of a product's life cycle, including its disposal, recycling, or reuse. Public procurement, on the other hand, is the process by which governments and public organizations acquire goods, services, or works from external suppliers. Public procurement plays a crucial role in influencing end-of-life management practices for several reasons;

According to Shuler, 2021 Sustainable Procurement: Public procurement can incorporate sustainability criteria into the purchasing process. Governments and public organizations can prioritize environmentally friendly products and services that are designed with end-of-life considerations in mind. This can include selecting products that are easily recyclable, have low environmental impact, or come from suppliers with responsible disposal practices. In the long run, this will help at the time when disposing off these products which shall be made easy because the entity will not bother with environmental issues as it was put in consideration at the start of the process. The three important R’s (reduce, reuse, recycle) are put to maximum use when dealing with the products from make to disposal.

Extended Producer Responsibility (EPR): Many jurisdictions have implemented Extended Producer Responsibility programs, which place the responsibility for managing a product's end-of-life with the producers. Through public procurement, governments can encourage suppliers to participate in EPR programs by giving preference to those who demonstrate commitment to responsible end-of-life management. Extended Producer Responsibility (EPR) is a policy approach that holds manufacturers or producers responsible for the entire lifecycle of their

products, including their post-consumer stage. It shifts the burden of managing and financing the end-of-life disposal or recycling of products from governments and taxpayers to the producers. The concept of EPR is based on the recognition that manufacturers have the greatest control over the design, production, and distribution of products. Therefore, they should also take responsibility for the environmental impacts associated with their products, particularly at the end of their useful life.

Supplier Selection: Public procurement processes often involve evaluating and selecting suppliers based on their ability to meet specific criteria, including environmental and social considerations. By including end-of-life management as one of the evaluation criteria, government can choose suppliers who demonstrate a commitment to responsible disposal practices and waste reduction (Maryann Wann, 2023). Sustainable supplier selection takes into consideration the use of eco labels, ISO certified goods and so on and so forth. All these must be told to the supplier through a tender document and when they do not meet the criteria, they are done away with.

Market Demand and Innovation: Government procurement represents a significant market force. By leveraging their purchasing power, public entities can drive market demand for sustainable products and services. This, in turn, encourages innovation in end-of-life management strategies and technologies as suppliers strive to meet the requirements set by public procurement policies. Innovation plays a crucial role as a driver for sustainability across various sectors and industries. It enables the development of new technologies, processes, and business models that address environmental and social challenges, leading to more sustainable practices. There are so many ways innovation can be a force for change and some include; renewable energy and clean technologies, energy efficiency, circular economy, smart cities, sustainable agriculture, waste management, education awareness, etc. (Kenneth Lysons, 2016)

Collaboration and Information Sharing: Public procurement can facilitate collaboration and information sharing between government agencies, suppliers, and other stakeholders involved in end-of-life management. By working together, they can develop more effective strategies, share best practices, and enhance the overall understanding of responsible disposal methods. Asthe saying goes, unity is strength by Mattie Stepanek, there would never be anything that beats a united team force in any organization. When different government entities collaborate and work

together, they achieve a lot through synergy and continuous improvement. There must be a clarion call for collaboration which in turn will create an atmosphere of transparency and easy information sharing. If entities are going to incorporate sustainability in the public procurement process, they need to share information and note down what is the most pressing needs as regards to public procurement end of life management. Therefore, collaboration and teamwork plus information sharing are all important facts that entities in the government need to embrace.

Overall, public procurement can shape and influence end-of-life management practices by integrating environmental considerations into the purchasing decisions made by governments and public organizations. By prioritizing sustainability, encouraging responsible practices, and driving market demand, public procurement can contribute to a more circular economy and reduce the environmental impact of products throughout their life cycle (Frevvoblog,2022).

2.3 THE DIFFERENT WAYS OF MANAGING PRODUCTS THAT HAVE REACHED THEIR END OF LIFE.

According to Puleng Z, Market Demand and Innovation, 2003 there are several ways to manage products that have reached their end of life, depending on the nature of the product, its materials, and the available infrastructure. First and for most the reuse and repair. When a product reaches the end of its primary use, it can often be repaired, refurbished, or repurposed for secondary uses. Reuse extends the product's lifespan, reduces waste, and conserves resources. Repair and refurbishment services can be provided by manufacturers, third-party repair shops, or individual consumers. Reuse involves finding new uses or purposes for products that are still functional or can be restored to functionality. It is the process of using a product again without significant alteration or processing. It can be done in many ways which include, donating, selling or exchanging, handing down items, use of reusable shopping bags, water bottles, coffee mugs and so on. Repair involves fixing or restoring a product to its original or usable condition, often addressing issues or damage that has occurred during its lifespan. Repair activities can range from simple fixes that individuals can do themselves to complex repairs carried out by professionals.

Recycling is a way of managing products that reached their end of life. Recycling involves the collection, sorting, and processing of products or materials to create new products or raw materials. Recycling can be mechanical, such as shredding and melting plastics, or chemical, involving processes like chemical decomposition or extraction of valuable components. Commonly recycled materials include paper, glass, plastics, metals, and electronics

Composting: Organic waste, such as food scraps, yard waste, and certain paper products, can be composted. Composting breaks down organic matter into nutrient-rich soil amendments that can be used in agriculture, landscaping, and gardening. Composting reduces the volume of waste sent to landfills and contributes to soil health and fertility (Kenneth Lysons and Brian Farrington purchasing and supply chain management, 2006). Composting is a natural process that involves the decomposition of organic materials into nutrient-rich soil amendments called compost. It is a sustainable method of managing organic waste, such as food scraps, yard trimmings, leaves, and other biodegradable materials. Composting provides several environmental benefits and produces a valuable end product that can be used to enrich soil and support plant growth.

Waste-to-Energy: Some non-recyclable and non-compostable waste, such as certain plastics and other materials with high energy content, can be converted into energy through waste-to-energy processes. Technologies like incineration and gasification can generate heat, electricity, or fuel from waste, reducing the reliance on fossil fuels. This is what we call repurposing or recycling. Technology can be of good use under this, such as incineration, gasification, pyrolysis. It has got many advantages such as energy generation, waste reduction, energy recovery from non-recyclable waste, greenhouse gas emission reduction and so on. Doctor (PhD) Alan Brunch in his book international Purchasing, 2000 notes that this can however pose a few challenges and must be done carefully if entities want to get positive results. Challenges such as environmental impact, waste hierarchy, technological advancements, and so on.

Landfilling: Disposal of waste in landfills is the least desirable option from an environmental standpoint and is typically reserved for materials that cannot be effectively managed through other methods. Modern landfills incorporate measures to control environmental impacts, such as leachate collection systems and methane capture for energy generation.

Extended Producer Responsibility (EPR): As mentioned earlier, EPR programs place the responsibility for managing a product's end of life on the producers. This can involve various

approaches, such as implementing take-back systems, establishing recycling infrastructure, or financially supporting end-of-life management.

Product Redesign and Sustainable Materials: Designing products with end-of-life considerations in mind can facilitate easier disassembly, recycling, and reuse. Using sustainable materials that are less harmful to the environment and can be more effectively managed at the end of their life is another important strategy.

Donation and Philanthropy: Products in good condition that are no longer needed by one party can be donated to others in need. This can apply to various goods, including clothing, furniture, electronics, and appliances. Donations can help extend the useful life of products, reduce waste, and support social causes.

Educational and Awareness Programs: Promoting education and awareness about responsible end-of-life management is crucial. By informing consumers and businesses about proper disposal methods, recycling options, and the importance of reducing waste, individuals can make informed choices and actively participate in sustainable product management. Education and awareness programs are crucial components of sustainability initiatives and efforts to promote responsible and sustainable practices. These programs aim to inform and educate individuals, communities, businesses, and organizations about various sustainability issues, challenges, and solutions. It will help to disseminate knowledge, change behavior, empowerment, youths' engagement, community building, policy learning, lifelong learning and so on (Frevvoblog, 2022)

It is important to note that the most effective end-of-life management strategies often involve a combination of these methods, with an emphasis on waste reduction, reuse, and recycling. Integrated waste management systems that incorporate multiple approaches can minimize the environmental impact of discarded products and contribute to a more circular economy.

2.4 THE ECONOMIC IMPLICATIONS OF END-OF-LIFE MANAGEMENT.

End-of-life management can have plenty of economic implications to the government as explained below.

Cost of Waste Management: (Shuler, 2021) indicates that inadequate end-of-life management can result in increased costs for waste management and disposal. If products are not properly recycled, reused, or disposed of, the government may bear the expenses of waste collection, transportation, and landfilling. These costs can be substantial, particularly for hazardous or complex waste streams. Cost and waste management are closely intertwined as effective waste management strategies can help minimize costs associated with waste disposal and maximize resource recovery. The government entities will reverse costs that are channeled I to disposal, transportation, material recovery, waste recovery and recycling and so on.

Landfill Space and Expenses: Improper end-of-life management can lead to the depletion of landfill space, requiring the government to identify and invest in new landfill sites or alternative waste management solutions. Developing and maintaining landfills is costly, and the scarcity of suitable land for waste disposal can further escalate expenses. Landfills have limited capacity, and finding suitable sites for new landfills can be challenging due to regulatory requirements, environmental concerns, and community opposition. As existing landfills reach their capacity, governments may face difficulties in finding alternative locations, leading to potential waste management crises. Acquiring land for landfill sites and developing the necessary infrastructure, such as access roads, landfill cells, liners, leachate collection systems, and gas management systems, can be expensive. The costs involved in securing and preparing suitable land for landfilling need to be considered in waste management budgeting. Improperly managed landfills can have negative environmental impacts, such as groundwater contamination, soil degradation, and air pollution. Remediation and restoration of contaminated landfill sites can be expensive and time-consuming, requiring extensive cleanup efforts and long-term monitoring. Governments may bear the financial burden of addressing these environmental impacts.

Resource Conservation: Implementing effective end-of-life management practices can contribute to resource conservation and promote a more circular economy. By encouraging recycling, remanufacturing, and reuse of products, the government can reduce the need for extracting and processing virgin resources, leading to potential cost savings and reduced environmental impact (Kashyap, 2023). Resource conservation refers to the sustainable and efficient use of natural resources to minimize waste, preserve environmental quality, and ensure their availability for future generations. It involves strategies and practices aimed at reducing

resource consumption, promoting recycling and reuse, and minimizing environmental impacts. It involves reducing the extraction and consumption of natural resources, such as minerals, fossil fuels, timber, and water. By promoting responsible consumption patterns and adopting sustainable practices, governments can minimize the depletion of finite resources, preserving them for future use. Water is a valuable resource that requires conservation efforts. Governments can implement water management strategies, such as efficient irrigation practices, water recycling and reuse systems, and public awareness campaigns on responsible water use. These measures can help conserve freshwater resources and protect ecosystems that depend on them.

Job Creation and Economic Growth: Emphasizing end-of-life management can stimulate job creation and economic growth in the recycling and waste management sectors. The establishment of recycling facilities, remanufacturing plants, and other infrastructure can create employment opportunities and generate economic activity. Sustainable practices, such as renewable energy development, waste management, and resource conservation, often require specialized skills and expertise. The implementation of sustainable initiatives can create new employment opportunities in industries such as renewable energy, energy efficiency, green building, waste management, and sustainable agriculture. These "green jobs" contribute to job creation and diversification of the economy. Sustainability challenges often drive innovation and the development of new technologies, products, and services. This innovation can lead to the emergence of new businesses and entrepreneurial opportunities, stimulating economic growth. Sustainable practices encourage businesses to adopt eco-friendly approaches, fostering a culture of innovation and entrepreneurship in sectors aligned with sustainability goals. Sustainable practices in the tourism industry, such as eco-friendly accommodations, nature conservation, and community engagement, can attract tourists seeking environmentally responsible destinations and experiences. Tourism, particularly ecotourism, can generate revenue, create employment opportunities in the hospitality and service sectors, and stimulate economic growth in local communities.

Raw Material Cost Reduction: Proper end-of-life management that supports recycling and resource recovery can reduce the dependence on raw materials and their associated costs. By integrating recycled materials into manufacturing processes, the government can mitigate price

volatility, enhance supply chain resilience, and potentially lower the costs of producing goods and infrastructure (Maryann Wann, 2023)

Revenue Generation: Effective end-of-life management can create revenue streams for the government. For example, revenue can be generated through the sale of recyclable materials or by implementing extended producer responsibility (EPR) programs where producers bear the costs of managing their products at the end of life. Such revenue can help offset waste management expenses and fund sustainability initiatives. Governments generate revenue through taxation. Taxes can be levied on income, profits, property, sales, imports, and other economic activities. Governments use tax revenue to fund public services, infrastructure development, healthcare, education, defense, and other essential functions. Revenue can be generated through investments in financial instruments such as stocks, bonds, mutual funds, and real estate. Investments can generate returns in the form of dividends, interest income, capital gains, or rental income. Generated through advertising and sponsorship agreements. Businesses generate revenue by selling advertising space in various forms, such as print media, digital platforms, television, radio, and outdoor advertising. Sponsorship deals involve organizations paying to associate their brand with an event, team, or product.

Legal and Regulatory Compliance: Governments often establish laws and regulations pertaining to waste management and end-of-life management practices. Non-compliance can lead to fines, penalties, or legal actions, which can have financial implications for businesses and individuals involved in waste disposal activities. By enforcing proper end-of-life management practices, governments can ensure legal compliance and avoid associated costs (Strecker, 2018). Compliance goes beyond mere legal requirements. It often includes adhering to ethical standards and best practices. Organizations are expected to operate with integrity, honesty, transparency, and fairness in their business dealings, regardless of legal obligations. Helps organizations identify and manage risks associated with legal and regulatory non-compliance. By understanding the applicable regulations and implementing appropriate controls, organizations can mitigate legal and reputational risks, financial penalties, lawsuits, and damage to their brand and reputation. Compliance with labor laws ensures fair and safe working conditions for employees. This includes adhering to minimum wage laws, overtime regulations, workplace

safety guidelines, non-discrimination policies, and other labor-related requirements. Compliance with these laws helps protect employee rights and promote a healthy work environment.

Positive Environmental Externalities: Effective end-of-life management contributes to environmental sustainability, which can have positive externalities such as improved air and water quality, reduced greenhouse gas emissions, and enhanced ecological integrity. These benefits can lead to cost savings in terms of environmental remediation, health care expenses, and ecosystem restoration.

It is important for governments to consider these economic implications when formulating waste management policies and promoting sustainable end-of-life management practices. By prioritizing effective waste management and resource recovery, governments can potentially reduce costs, stimulate economic development, and create a more sustainable and resilient economy (Calzon, Datapine, 2023).

CHAPTER THREE.

METHODOLOGY.

3.1 Introduction.

This chapter presented the methodology to be used to obtain data during the study, this consists research design, study population, sampling techniques, data collection sources, methods of data collection, data collection procedure, data analysis and limitations.

3.2 Research Design

Research design refers to the use of procedures, protocols and guidelines that provide the tools and framework for conducting a research study (Kumar).

For this case, qualitative research design refers to collecting and analyzing non-numerical data such as texts, videos and audios. Qualitative research design helped the researcher to observe the emotions of the participants, to air out their views and opinions and to gain more insight on the situation. Quantitative research design is a process of collecting and analyzing numerical data (Bhandari, 2023). This method helped the researcher to be fast, focused, scientific and relatable in the research.

3.3 Study Population.

Study population refers to a group of individuals or subjects who are the focus of the research study. It's the population of interest and affected by the problem where the researcher selected participants to collect data and information from and hence come up with conclusions about the research questions. (Smith)

The anticipated population size was thirty (30) employees from the different departments of the organization such as archives, procurement, stores and finance departments.

3.4 Sampling Techniques.

There are two types of sampling techniques which include probability or random sampling techniques and non-probability or non-random sampling techniques.

For this case, the researcher used non-probability techniques whereby it referred to the sampling technique in which the researcher selected samples based on subjective judgment rather than random selection. Some of the methods used under this technique included accidental or convenient, snowball or network, judgmental or purpose, and quota system sampling. This technique enabled the researcher to obtain data and information faster and more cost-effectively because it was well-known and understood by the researcher.

3.5 Data Collection Sources.

3.5.1 Primary Sources.

Primary sources refer to anything that gives direct evidence about the people, events or phenomena that you are searching (Streefkerk, 2018). Here data is directly collected from the source itself. This source provided first-hand information about the event.

3.5.2 Secondary Sources

Secondary sources refer to anything that describes, interprets, evaluates or analyzes information from primary sources such as journal articles, reviews, documentary and academic books (Streefkerk, 2018). The researcher had efficient time to collect data about the topic of study and it was easy to obtain information since it saved time and cost needed to carry out the research.

3.6 Methods of data collection

Data collection methods are techniques and procedures used to obtain information for research purposes.

3.6.1 Interview and Focus Groups.

Interviews and focus groups consist of talking to respondents face-to-face about a specific topic or issue. Interviews are one-on-one whereas focus groups tend to be made up of several people in a group.

3.6.2 Questionnaire.

Questionnaire is where a researcher comes up with a list of questions about the topic of study and presents it to the respondents and he/she fills it either online or physically and also oral. This method was convenient for the researcher because it was affordable and easy to use.

3.6.3 Direct observation.

Direct observation refers to use of naked eyes to watch, record situations in an area. Here the researcher does not disclose her identity to the respondents but act like one of the people in the community. This was very crucial because the researcher tended to observe the behavior and attitude of the people without false information from any anywhere and it was time saving since the researcher watched everything for himself.

3.7 Data Collection Procedure.

A letter of introduction was obtained from Uganda Christian University School of Business to introduce the researcher to the field where the research was conducted.

3.8 Data analysis interpretation and presentation.

This refers to the process of collecting, modeling and analyzing data using various statistical and logical methods and techniques (Calzon, Datapine, 2023). The main purpose of this activity was to create conclusions on specific data. The study put forth the level at which procurement practices influenced operational performances in the organization and afterwards the data collected was summarized and put into a format that could easily be understood for instance presentations and tables.

3.9 Limitations of the study.

Scarcity of finances to carry out the research: since the researcher was financed by his parents, there arised issues of not having transport hence limiting the study

Limited access to information: this was because some people were not willing to give information concerning that as they feared leakage of crucial information during examining interviews

Unfavorable weather. At times heavy rains disorganized the movement of the researcher and also disrupted the gathering of respondents hence it limited sufficient information gathering from the field.

CHAPTER FOUR

PRESENTATION AND INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter presents and discusses the results of analysis that has been done to look at the specific objectives of the study and in relation to the reviewed literature. The study was cried out using questionnaires with 30 employees of Parliament of Uganda. The findings are presented with the help of tables for purposes of clarity and interpretation.

In an era where sustainability concerns have become paramount, the adoption of end-of-life practices is gaining significant attention as a key driver of sustainability. (Neha Gupta, eco idea 2022).

In that chapter, we explored the data we had collected in a smart way. We looked at the numbers and stories we had found during our study about how end-of-life management of organization's assets was a key prerequisite to public procurement and a driver of sustainability.

We were like detectives, trying to understand what the data told us. This chapter helped us turn the raw information we gathered into clear ideas. We used special methods to understand the numbers better and showed them in pictures, for example, the survey data was analyzed using statistical analysis software Excel generated by automatically by the Google Form, and we used appropriate descriptive statistics to summarize the survey responses. We conducted inferential statistics like correlation analysis to explore relationships between variables and assess the significance of findings. Then, we talked about what these numbers meant. We also paid attention to what respondents told us in their own words. By looking at both the numbers and what respondents said, we hoped to learn the importance of end-of-life management in public procurement and as a driver of sustainability and provided recommendations for improving the way public assets are managed when they reach their end of life.

For this research an online and physical questionnaire was used on 04th August 2023. The participant’s responses were collected and stored, which were exported when the questionnaire closed on 8th August 2023. Thirty (30) participants were recruited via random sampling method

to an online questionnaire (Google form); links to the questionnaire were sent to workers of the organization, and they were able to complete the questionnaire.

Participants were directed to the questionnaire with 4 sections where 3 of those sections were our research questions and the first section focused on the socio demographic aspects of participants. Firstly, they had to state their gender, age and their level of study. They were then required to answer 5 questions which with an aim of understanding the different ways of Implementing end of life management in public procurement at parliament of Uganda. Next, they had to state the different ways of managing products that have reached their end of life by answering 5 questions and all of them from strongly agree to strongly disagree. They were then asked the economic implications of end-of-life management where 5 questions where the focus. Participants were presented with an informed consent form prior to completing any questions, informing that their anonymity would be maintained and that they were free to withdraw at any point without providing reason. At the end of the questionnaire participants were provided the researcher's email address for any further information.

4.2 Socio-demographic data

To appreciate the reliability of the research findings, the researcher identified the respondents' demographic data in respect of Gender, Age, and Education level.

Table 4.2.1 Gender of respondents.

Gender	Frequency	Percentage
Male	13	43.3%
Female	17	56.7%
Total	30	100%

The collected data is from primary sources. The data breakdown in the table reveals that the female respondents were56.7%, while males accounted for 43.3% of the responses. This highlights that a higher percentage of females were actively engaged in responding to the researcher's questionnaires compared to males. It suggests that a greater number of female participants took part in the study than males did.

Figure 1; showing gender of the respondents available on the appendix 3 question one .

Table 4.2.2 showing age of respondents, summarizes their age bracket to this research.

Age Bracket	Frequency	Percentage
18-24	19	65.5%
25-34	6	20.7%
35-44	3	10.3%
45 and above	2	3.4%
Total	30	100%

Looking at the table provided, it's evident that 65.5% percent of the participants fell within the age range of 18 to 24 years, while 20.7% percent were between 25 and 34 years old. Respondents aged 35-44 years and above constituted 10.3% percent. Only 3.4% were aged 45 and above. The primary reason for the higher representation within the 18 to 25 age group is due to the environment in which we collected the data which is the need to employ moreyouth at the parliamnet to reduce on youth unemployment.

Figure 2; showing gender of the respondents available on the appendix 3 question two.

Table 4.2.3 Showing level of education

Level of Eductaion	Frequency	Percentage
Under Gradaute	22	73.3%
Post Graduate	8	26.7%

Participants were asked by the researcher to specify their educational level. The findings unveiled that the largest portion were undergraduate students 22 respondents and only 8 were post graduate.

4.3 The different ways of implementing end of life management in public procurement at Parliament of Uganda.

	Statement	**5 (Strongly Agree)**	**4 (agree)**	**3 (Not sure)**	**2 (Disagree)**	**1 (Strongly disagree)**
1	Incorporating sustainability criteria into the purchasing process will help in the management of end of life or products	18 60%	9 30%	2 6.7%	1 3.3%	0
2	Extended producer responsibility helps in managing products that have reached their end of life	5 16.7%	20 66.7%	4 13.3%	1 3.3%	0
3	Collaboration and information sharing contributes to responsible disposal practices and waste reduction.	11 36.7%	13 43.3%	2 6.7%	2 6.7%	2 6.7%
3	Supplier selection helps in implementation of end-of-life management	6 20%	15 50%	5 16.7%	4 13.3%	0
4	Enhancing innovation helps to improve the end-of-life management of products.	9 30%	16 53.3%	3 10%	1 3.3%	1 3.3%

Table 4:3.1 The Different ways of implementing end of life management in public procurement at Parliament of Uganda.

Source: Primary Data

On Incorporating sustainability criteria into the purchasing process will help in the management of end of life or products. The study found that 60% strongly support incorporating sustainability criteria into purchasing for better end-of-life product management. 30% were neutral or uncertain, while 6.7% disagreed, and 3.3% strongly disagreed with this concept.

Furthermore, the study established that Strong Agreement (66.7%): The majority of respondents, accounting for 66.7% (20 out of the total), strongly agree that extended producer responsibility (EPR) helps in managing products that have reached their end of life. This indicates strong support for the concept of EPR as an effective approach for managing end-of-life products. Agree (16.7%): A smaller percentage of respondents, constituting 16.7% (5 out of the total), agree with the statement. While they may not feel as strongly as the first group, they still believe that EPR is an effective way to manage products at the end of their life cycle. Not sure (13.3%): A notable minority of respondents, approximately 13.3% (4 out of the total), appear to be neutral or undecided on the matter. They neither strongly agree nor disagree, suggesting some level of uncertainty or lack of a clear opinion among this group. Disagree (3.3%): A very small percentage of respondents, around 3.3% (1 out of the total), disagree with the idea that extended producer responsibility (EPR) helps in managing end-of-life products. This indicates a dissenting view that suggests some individuals do not see EPR as an effective solution for this purpose.

Collaboration and Information Sharing: 36.7% (11 out of the total) strongly agree that collaboration and information sharing contribute to responsible disposal practices and waste reduction. 43.3% (13 out of the total) agree with this statement. 6.7% (2 out of the total) are neutral. 6.7% (2 out of the total) disagree. 6.7% (2 out of the total) strongly disagree. A combined majority (80%) either strongly agree or agree that collaboration and information sharing are beneficial for responsible disposal practices and waste reduction. However, there is a notable percentage (20%) that holds a neutral, disagree, or strongly disagree stance, suggesting some diversity in opinions.

Supplier Selection. 20% (6 out of the total) strongly agree that supplier selection helps in the implementation of end-of-life management. 50% (15 out of the total) agree with this statement. 16.7% (5 out of the total) are neutral. 13.3% (4 out of the total) disagree. 0% strongly disagree. A majority (70%) either strongly agree or agree that supplier selection is instrumental in the implementation of end-of-life management. The neutral and disagree responses make up the remaining 30%, indicating some variation in opinions regarding the role of supplier selection in this context.

Enhancing Innovation: 30% (9 out of the total) strongly agree that enhancing innovation helps improve the end-of-life management of products. 53.3% (16 out of the total) agree with this

statement. 10% (3 out of the total) are neutral. 3.3% (1 out of the total) disagree. 3.3% (1 out of the total) strongly disagree. A clear majority (83.3%) either strongly agree or agree that enhancing innovation contributes to the improvement of end-of-life product management. The neutral, disagree, and strongly disagree responses together make up the remaining 16.7%, indicating some diversity in opinions.

In conclusion, the data suggests a general consensus on the importance of sustainability criteria, EPR, collaboration, supplier selection, and innovation in improving end-of-life product management. However, there are varying levels of support and some uncertainty or dissenting views among respondents, highlighting the complexity and nuances of these topics in sustainability and waste reduction efforts.

4.4 The different ways of managing products that have reached their end of life

Table 4.4.1 The different ways of managing products that have reached their end of life

	STATEMENT	**5 (SA)**	**4 (A)**	**3 (NS)**	**2 (D)**	**1 (SD)**
1	Which of these is the most effective end-of-life management strategy	Recycling 23 76.7%	Re-Use 4 13.3%	Landfill 2 6.7%	Donating 1 3.3%	Others 0 0%
2	Lack of awareness about end-of-life management strategy hinder the implementation of it.	12 40%	13 43.3%	1 3.3%	3 10%	1 3.3%
3	Reinforcing regulations promotes the effectiveness of end-of-life management strategies.	10 33.3%	14 46.7%	3 10%	1 3.3%	1 3.3%
4	The integration of all organization stakeholders in procurement helps to promote the effectiveness of end-of-life management strategies.	6 20%	16 53.3%	4 13.3%	3 10%	1 3.3%
5	Lack of enough resources to implement these strategies hinders their effectiveness.	9 30%	14 46.7%	6 20%	1 3.3%	0 0%

Source: Primary Data

Based on the provided data, recycling is the most effective end-of-life management strategy among the options listed. Recycling (76.7%) helps reduce waste, conserve resources, and lower environmental impacts. Re-Use (13.3%)is also a sustainable approach, as it extends the lifespan of products, but it may not always be feasible for all items. Landfill (6.7%): The fact that landfilling received a relatively low percentage of responses suggests that it is generally considered an undesirable option for end-of-life management. Landfilling contributes to environmental pollution and resource wastage. Donating (3.3%): Donating received the least number of votes, while donating can be a valuable way to extend the usefulness of products, it may not always be suitable, especially for items that are no longer functional or safe to use.

A significant percentage of respondents believe that a lack of awareness about end-of-life management strategies is a hindrance to their implementation. Lack of Awareness (43.3%): indicating that a substantial portion of respondents, approximately 43.3%, recognize that a lack of awareness is a significant barrier to the successful implementation of end-of-life management strategies. This suggests that people may not be well-informed about how to properly manage products at the end of their lifespan, which can lead to suboptimal disposal practices.

The study suggests that a majority of respondents believe that reinforcing regulations promotes the effectiveness of end-of-life management strategies. Reinforcing Regulations (46.7%): indicated that a significant portion of respondents view strengthening regulations as a crucial factor in enhancing the effectiveness of end-of-life management strategies. This suggests that people believe that government or industry regulations can play a key role in ensuring responsible and sustainable management of products at the end of their lifecycle. The 33.3% category reinforcing the idea that a significant portion of respondents see regulatory reinforcement as important. While not as dominant as the first category, it still represents a significant portion of the respondents. A smaller percentage of respondents, about 10%, believe that factors other than reinforcing regulations are essential for promoting effective end-of-life management strategies. These factors could include public awareness, technological innovations, or market incentives. Other Factors (3.3%): Another small percentage, about 3.3%, of respondents cited "Other Factors" as significant. This suggests that a minority of individuals may

have different perspectives on what contributes to the effectiveness of end-of-life management strategies.

Furthermore, the provided data indicates that a majority of respondents believe that integrating all organization stakeholders in procurement helps promote the effectiveness of end-of-life management strategies. Approximately 53.3%, indicating that a significant majority of respondents consider the integration of all organization stakeholders in procurement as a key factor in enhancing the effectiveness of end-of-life management strategies. This suggests that involving various parties, such as suppliers, customers, employees, and management, in the procurement process is seen as crucial for achieving responsible and sustainable product management practices. Also, approximately 20%, highlighting that a considerable portion of respondents still recognizes the importance of stakeholder integration in procurement for effective end-of-life management strategies. A smaller percentage of respondents, about 13.3%, were b not sure and believe that factors other than integrating stakeholders in procurement play a significant role in promoting effective end-of-life management strategies. These factors might include regulatory measures, technological advancements, or awareness campaigns. Another small percentage, about 10%, of respondents disagreed as significant. This suggests that a minority of individuals may have different perspectives on what contributes to the effectiveness of end-of-life management strategies.

The provided data suggests that a substantial percentage of respondents believe that a lack of enough resources to implement end-of-life management strategies hinders their effectiveness. Lack of Resources (46.7%) indicating that a significant majority of respondents view the scarcity of resources as a major hindrance to the effectiveness of end-of-life management strategies. This implies that respondents believe that financial, technological, or human resources are critical for successful implementation. Approximately 30% strongly agreed and reinforces the idea that a substantial portion of respondents see resource constraints as a significant barrier to effective end-of-life management strategies. About 20% were not sure and believe that factors other than resource limitations are responsible for hindering the effectiveness of these strategies. These factors might include regulatory challenges, lack of awareness, or issues related to stakeholder engagement.3.3% disagree indicating that only a minority of respondents had alternative perspectives on the hindrances to the effectiveness of end-of-life management strategies.

4.5 The economic implications of end-of-life management.

Table 4.5.1. The economic implications of end-of-life management.

	STATEMENT	**5(SA)**	**4(A)**	**3(NS)**	**2(D)**	**1(SD)**
1	Improper end of life management can lead to the depletion of landfill space	9 30%	12 40%	5 16.7%	3 10%	1 3.3%
2	A well implemented end of life management leads to cost saving and revenue benefits.	10 33.3%	13 43.3%	5 16.7%	2 6.7%	0 0%
3	End of life management practices helps organizations to comply with laws and regulations	6 20%	17 56.7%	3 10%	3 10%	1 3.3%
4	Effective end of management contributes to environmental sustainability	18 60%	12 40%	0 0%	0 0%	0 0%
5	Emphasizing end of life management can stimulate job creation and economic growth	8 26.7%	17 56.7%	2 6.7%	2 6.7%	8 26.7%

Source: Primary Data

The study showed that Depletion of Landfill Space, 40%received the highest percentage of votes, approximately 40%, indicating that a substantial portion of respondents recognize that improper end-of-life management practices can result in the depletion of available landfill space. This suggests an understanding of the environmental consequences associated with inadequate waste disposal method. While not as dominant as the first category, this category still received approximately 30%. This reinforces the idea that a considerable portion of respondents share the concern about landfill space depletion due to improper end-of-life management.16.7% were not sure A smaller percentage of respondents, about 16.7%, believe that improper end-of-life management can lead to consequences other than landfill space depletion. These could include environmental pollution, resource wastage, or health hazards. 10% disagree "Other

Consequences" as significant. This suggests that a minority of individuals may have different perspectives on the potential outcomes of improper end-of-life management. 3.3% strongly disagreed that improper end of life management can lead to the depletion of land fill space.

Data collected provided that Cost Savings and Revenue Benefits received the highest percentage of, approximately 43.3%, indicating that a significant portion of respondents see a direct link between effective end-of-life management and financial advantages such as cost savings and revenue generation. This suggests that respondents recognize the potential economic benefits of responsible and sustainable product management practices. Another category received a substantial percentage of, approximately 33.3%, highlighting that a considerable portion of respondents also associate well-implemented end-of-life management with financial advantages. This reinforces the idea that the majority of respondents view this connection as significant. While, 16.7% respondents weren't sure and believe that well-implemented end-of-life management may result in benefits other than cost savings and revenue generation. These benefits could include improved environmental sustainability, enhanced brand reputation, or compliance with regulations.6.7% of the respondents disagreed and cited "Other Benefits" as significant. This suggests that a minority of individuals may have different perspectives on the outcomes of effective end-of-life management.

The study further revealed that 56.7% of the respondents agree that Compliance with Laws and Regulations and indicating that a significant majority of respondents recognize that end-of-life management practices play a crucial role in helping organizations comply with applicable laws and regulations. This suggests that respondents understand the importance of responsible and legal management of products at the end of their lifecycle.20% strongly agree with this idea While not as dominant as the first category, this category strongly agree that reinforcing the idea that a considerable portion of respondents also associate end-of-life management practices with compliance with laws and regulations. This further emphasizes the perceived significance of this connection. Some respondents disagree while others not sure accounting for the 10%: A smaller percentage of respondents, about 10%, believe that end-of-life management practices result in benefits other than legal compliance. These benefits might include environmental sustainability, cost savings, or improved brand reputation. 3.3% of respondents cited "Other Benefits" as

significant and strongly disagreed. This suggests that a minority of individuals may have different perspectives on the outcomes of end-of-life management practices.

Environmental Sustainability with no doubt contributed to by effective end of life management evidenced by the approximately 60%, indicating that a substantial majority of respondents acknowledge the role of effective end-of-life management in promoting environmental sustainability. This suggests that respondents understand that responsible management of products at the end of their lifecycle can help reduce waste, conserve resources, and mitigate environmental impacts. While not as dominant as the first category, the second category of respondents agree that effective end of life management contributes to environmental sustainability, approximately 40%, highlighting that a considerable portion of respondents also associate effective end-of-life management with environmental sustainability This reinforces the idea that the majority of respondents recognize the positive environmental outcomes of responsible product management practices. 0% of respondents were not sure, disagreed and as well as strongly disagreed. The absence of votes for "Other Outcomes" suggests that respondents did not identify alternative significant outcomes associated with effective end-of-life management. This indicates a strong consensus among respondents regarding the environmental benefits of such practices.

56.7% of respondents agreed that Emphasizing end of life management can stimulate job creation and economic growth. This category received the highest percentage, approximately 56.7%, indicating that a significant majority of respondents associate emphasizing end-of-life management with the potential for job creation and economic growth. This suggests that respondents perceive a positive economic impact from focusing on responsible and sustainable product management practices. While not as dominant as the first category, this category strongly agreed, approximately 26.7%, highlighting that a considerable portion of respondents also recognize the link between end-of-life management emphasis and economic benefits. This reinforces the idea that a substantial majority of respondents view this connection as significant. 26% of the respondents strongly disagreed to this effect and 6.7% of them disagreed only while the same percentage were not sure.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS.

5.1 INTRODUCTION

This chapter encapsulates the study's findings, conclusions, and recommendations. It provides a concise overview of participant perspectives, draws conclusions from the data, and offers actionable recommendations for navigating the complexities of end-of-life management of public assets as a pre-requisite to public procurement.

5.2 SUMMARY

The study's findings underscored the substantial positive impact of examining the end-of-life management of an organization's assets as a pre-requisite to public procurement, with a focus on the case of The Parliament of Uganda. Through the adoption of environmentally friendly purchasing, efficient asset usage, and comprehensive disposal practices, organizations could effectively reduce emissions, minimize their carbon footprint, and decrease negative asset impact on the environment. This multifaceted approach not only enhanced operational efficiency but also aligned with sustainability objectives, rendering it a pivotal strategy for companies seeking to optimize both environmental and economic outcomes in their products' end-of-life operations. Moreover, the study underscored the challenges organizations encountered when implementing sustainable end-of-life management practices, emphasizing the necessity of supportive policies and frameworks to facilitate this transition effectively.

In essence, the study revealed that the implementation of sustainable and proper end-of-life management of an organization's assets significantly enhanced an organization's goodwill and functionality, not forgetting cost-saving and improved environmental sustainability. By embracing end-of-life management practices, organizations complied with laws and regulations that helped them operate for a long time without being closed off by the government, and also helped them set the pace for the rest of the organizations to follow. In addition, these organizations that did so could actually get incentives like tax holidays to continue implementing sustainability. Furthermore, the integration of all organization stakeholders in procurement

helped promote the effectiveness of end-of-life management strategies. Stakeholders were those people affected directly or indirectly by the organization's activities in regards to end-of-life management. Suppliers, workers, top management, and all others were integrated into these activities so that they could know what exactly needed to be done and also incorporated them in the way they produced raw materials for the case of suppliers, top management to allocate resources where needed, and also employers to include sustainable specifications in requests for quotations, and employees needed to be recruited on sustainability criteria. The study also underscored the importance of policies and frameworks that must be implemented by the organization itself to support sustainable end-of-life management of an organization's assets, emphasizing their role in facilitating the transition toward a more efficient and environmentally responsible handling of products when they reached their end of life through proper means like reuse, reduce, and recycle. In summary, embracing sustainability in end-of-life handling of all organization's assets aligned not only with environmental goals but also yielded tangible benefits like efficiency in all public procurement.

The study on the implementation of sustainable end-of-life management of an organization's assets practices uncovered a multitude of ways of managing products that had reached their end of life, directly correlating with the advantages of sustainability. Recycling was a way of managing products that reached their end of life as it reduced landfill, involved the collection, sorting, and processing of products or materials to create new products or raw materials. Recycling could be mechanical, such as shredding and melting plastics, or chemical, involving processes like chemical decomposition or extraction of valuable components. Commonly recycled materials included paper, glass, plastics, metals, and electronics. It also looked at reduced emissions and a minimized carbon footprint, aligning with the environmental benefits of sustainability.

Additionally, the study found out that end-of-life management could have plenty of economic implications for the government as explained below. The cost of Waste Management: (Shuler, 2021) indicated that inadequate end-of-life management could result in increased costs for waste management and disposal. If products were not properly recycled, reused, or disposed of, the government might bear the expenses of waste collection, transportation, and landfilling. The study's findings highlighted that these costs could be substantial, particularly for hazardous or

complex waste streams. The study also noted that cost and waste management were closely intertwined as effective waste management strategies could help minimize costs associated with waste disposal and maximize resource recovery.

Regarding the different ways of implementing end-of-life management at the Parliament of Uganda, the study unveiled that extended producer responsibility, supplier section, market demand, and innovation, collaboration, and information sharing were some of the many best ways of implementing end-of-life management of organization's assets. Embracing collaboration and information sharing between government agencies, suppliers, and other stakeholders developed more effective strategies, shared best practices, and enhanced the overall understanding of responsible disposal methods. These findings closely aligned with the methods employed in sustainable disposal practices such as repurposing, waste collection, composting, reducing, reusing, and recycling, and so on. The study's results underscored the strong correlation between sustainable end-of-life management of organization's assets and the achievement of efficiency while concurrently addressing environmental concerns and cost-effectiveness.

This study concluded that implementing sustainable end of life management of organization’s assets enhances efficiency, reduces costs and improves on organization’s reputation through the adoption of eco-friendly products and their full sustainable utilization resulting in reduced emissions and operating costs while positively impacting environmental preservation and overall performance. However, the study also highlighted challenges affecting sustainable end of life of organization’s management, including initial investment costs, resistance to change, and the need for comprehensive training. Overcoming these challenges is crucial for organizations to fully realize the benefits of sustainable end of life management and ensure long-term success in improving the way products are handled when they reach their end of life at the Parliament of Uganda.

5.3 CONCLUSION

In conclusion, the investigation into the examining the end of life of organization’s assets as a pre-requisite to public procurement the case of The Parliament of the Republic of Uganda presents a nuanced panorama comprising both opportunities and challenges. With global

attention firmly fixed on the imperative of environmental sustainability and operational excellence, the study's findings illuminate the multifaceted aspects involved in seamlessly integrating sustainable practices into managing products that reach their end of life.

The analysis conducted underscores the paramount importance of embracing and incorporating sustainability-driven strategies to not only bolster product usage and end of life management practices but also to meet environmental and economic imperatives concurrently. By delving deep into the realm of benefits, methodologies, and potential obstacles related to sustainable reusing, reducing and recycling management, the study provides invaluable insights that substantiate the positive outcomes stemming from such practices. Moreover, the research also unearthed crucial focal points that warrant strategic attention and decisive action.

Armed with this synthesized data, organizations are empowered to make judicious and well-informed choices that harmonize their operational objectives with broader commitments to environmental preservation. The pursuit of a more robust, ecologically conscious, and streamlined transportation sector now stands intrinsically tied to the resolute adoption of sustainable end of life management practices. As such, the study underscores the strategic imperative of successfully implementing sustainable end of life of organization’s assets and products as a cornerstone for achieving a greener and more efficient landscape.

5.4 RECOMMENDATIONS.

Based on the comprehensive findings and insights of this study, several recommendations can be made to further enhance the implementation of End-of-life management of Organization’s assets;

1. Integrated Sustainability Strategy: Develop and implement a holistic sustainability strategy that aligns with End-of-life management objectives, encompassing eco-friendly practices, technology integration, and operational efficiency.

2. Invest in End-of-life management: Explore and invest in various end of life management options such as re-purposing, reusing, recycling, composting, donation to mention but a few to mitigate emissions, landfill and other associated disadvantages.

3. Eco-Friendly Raw materials: comprehensive training programs must be given to all suppliers of all services and goods to ensure that they produce only eco-friendly raw-materials for use in the organization to optimize consumption and reduce emissions.

4. Telematics Integration: Implement telematics solutions to track the entire product's lifecycle. His looks at having bar code scanners, QR codes and so on to be able to track the products in its useful stages and also gather real-time data for better decision-making.

5. Collaborate for Infrastructure: Collaborate with government bodies and private sectors to expand charging infrastructure for incentives, tax holidays to be able to implement these.

6. Lifecycle Analysis: Conduct thorough lifecycle assessments of all assets that are bought to consider environmental impact from production to disposal, aiding in informed asset and products selection at the time of purchasing.

7. Continuous Monitoring and Reporting: Establish a system for ongoing monitoring, data collection, and regular reporting on sustainability metrics, fostering accountability and improvement.

8. Engage with Regulatory Bodies: Actively engage with regulatory authorities to advocate for policies that support sustainable end of life management practices and provide incentives for adoption.

9. Awareness Campaigns: Launch and run public awareness campaigns to educate stakeholders about the benefits of sustainable end of life management, fostering support and encouraging industry-wide change.

10. Leading by example. Setting an example for others to follow through actually doing the things that are advised to be done. This will help them to be role models and also attract investor funding and many other benefits.

These recommendations address key areas such as strategy, technology, training, infrastructure, and advocacy, offering a comprehensive roadmap for organizations aiming to effectively integrate sustainability into their End-of-life management practices and drive efficiency and effectiveness.

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APPENDICES.

APPENDIX 1: QUESTIONAIRE.

FOR STAFF OF THE PARLIAMENT OF UGANDA.

I am Amanya Allan, a student at Uganda Christian University, pursuing a bachelors a Bachelor's Degree in Procurement and Supply Chain Management

I am conducting research on the topic Examining the End-of-life management of organization's Assets as a Prerequisite to public procurement. This research aims at providing the different ways of managing products that have reached their end of life, assessing the relationship between end-of-life management and public procurement at the parliament of the republic of Uganda, to analyze the economic implications of end-of-life management practices to the government.

Your valuable input will contribute to my understanding of Examining the End-of-life management of organization's Assets as a prerequisite to Public Procurement. Please complete this Twenty-Five question questionnaire survey and note that all the responses provided will remain anonymous and will be kept strictly confidential. Please take a few moments to read each question carefully and select the response option that best represents your thoughts, opinions. We appreciate your honest and thoughtful responses as they will help me to reach the objectives of this research. If you have any questions or concern about this survey, please do not hesitate to contact me on 0702426081, or email at allanamanya77@gmail.com. I greatly appreciate your time and effort in completing this questionnaire and your feedback is crucial in the success of this questionnaire.

Section 1**: Demographic Information.** (Please indicate letter of your choices in the boxes aside)

1. Please select the category that includes your age.

A. under 18

B. 18-24

C. 25-34

D. 35-44

E. 45 and above

2. Indicate your gender?

A. Male

B. Female

C. Prefer not to say

3. What is your educational background?

A. Primary school

B. Secondary school

C. Under graduate

D. Post graduate

E. None of the above

4. Years of service in the organization

Less than 1 year

6-10 years

1-5 years ☐

Over 10 years

Section 2**:**

The different ways of implementing end-of-life management in public procurement at Parliament of Uganda. (Tick as appropriate)

Indicate the extent to which you agree with the following observations on implementing end of life management in public procurement at Parliament of Uganda on the scale of (1) = strongly disagree, (2) = disagree, (3) = not sure, (4) = agree, (5) = strongly agree

	Statement	**5**	**4**	**3**	**2**	**1**
1	Incorporating sustainability criteria into the purchasing process will help in the management of end of life or products					
2	Extended producer responsibility helps in managing products that have reached their end of life					
3	Collaboration and information sharing contributes to responsible disposal practices and waste reduction.					
3	Supplier selection helps in implementation of end-of-life management					

4	Enhancing innovation helps to improve the end-of-life management of products.					

Section 3:

The different ways of managing products that reached their end of life. (Tick as appropriate)

Indicate the extent to which you agree with the following observations on implementing end of life management in public procurement at Parliament of Uganda on the scale of (1) = strongly disagree, (2) = disagree, (3) = not sure, (4) = agree, (5) = strongly agree

	STATEMENT	**5**	**4**	**3**	**2**	**1**
1	Which of these is the most effective end-of-life management strategy					
2	Lack of awareness about end-of-life management strategy hinder the implementation of it.					
3	Reinforcing regulations promotes the effectiveness of end-of-life management strategies.					
4	The integration of all organization stakeholders in procurement helps to promote the effectiveness of end-of-life management strategies.					
5	Lack of enough resources to implement these strategies hinders their effectiveness.					

Section 4**:**

The economic implications of end-of-life management. (Tick as Appropriate)

Indicate the extent to which you agree with the following observations on implementing end of life management in public procurement at Parliament of Uganda on the scale of (1) = strongly disagree, (2) = disagree, (3) = not sure, (4) = agree, (5) = strongly agree

	STATEMENT	**5**	**4**	**3**	**2**	**1**
1	Improper end of life management can lead to the depletion of landfill space					
2	A well implemented end of life management leads to cost saving and revenue benefits.					
3	End of life management practices helps organizations to comply with laws and regulations					
4	Effective end of management contributes to environmental sustainability					
5	Emphasizing end of life management can stimulate job creation and economic growth					

Any other, please specify

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