EXTERNAL FACTORS AFFECTING THE ADOPTION OF GREEN PROCUREMENT IN PUBLIC INSTITUTIONS IN KENYA: A CASE STUDY OF KINAMBA SUB-COUNTY OFFICE

BY

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RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF DEGREE IN MANAGEMENT AND LEADERSHIP (PURCHASING AND SUPPLIES MANAGEMENT OPTION) OF THE MANAGEMENT UNIVERSITY OF AFRICA.

AUGUST 2018
DECLARATION

This project is my original work and has not been presented to any other institution. No part of this research should be reproduced without the author’s consent or that of The Management University of Africa.

Sign…………………………. Date…………………………

JEREMY M. KANYARU

ODL-BML/8/00367/1/2016

DECLARATION

SUPERVISOR

This research has been submitted with my approval as The Kenya Institute of Management Supervisor.

Sign: ……………………. Date…………………………

DR. PAUL MACHOKA
DEDICATION

I would like to dedicate this work to my parents, brothers and sisters for their encouragement and material support throughout my studies not forgetting my friends both at the work place and classmates. Thank you all.
ACKNOWLEDGEMENT
Special thanks and appreciation to the almighty living GOD for it is due to his able hand that he has taken me through this journey. Special thanks to my wife and my parent for the support they showed me throughout my study period by providing my school fees and molar guidance. Special thanks to my lecturer too Dr. PAUL MACHOKA for his valuable guidance and encouragement his efforts cannot go unappreciated may the almighty God bless him abundantly. Special thanks and appreciation to the Management University of Africa School of Management and leadership and lastly but not least my workmates at Kenya police service my almighty GOD bless you abundantly.
The title of the study was “External factors affecting the adoption of Green procurement in Public Institutions: A case study of Kinamba Sub-county office. The general objective of the study was to determine the factors affecting the adoption of green procurement in public institutions in Kenya. The specific objectives of the study were: to determine the extent which regulatory compliance affects the adoption of green procurement in Kinamba sub-county office, to establish the effect of pressure from customers on the adoption of green procurement in Kinamba sub-county office, to analyze the effect of the price of green products on the adoption of green procurement in Kinamba sub-county office. The study focused on the factors affecting the adoption of green procurement and was conducted in the public institutions located in Kinamba town Laikipia County in May 2015. The research designs used in this study was a descriptive research design that enabled the researcher collect detailed information from the respondents. The researcher targeted 39 employees of public institutions with the capacity to answer questions on green procurement. The researcher used a census in the study. Therefore in this study, all the 39 employees were involved in the study. The researcher personally administered closed ended questionnaires during working hours so as to get as many of the target respondents as possible. Instrument validity was done by soliciting the supervisor’s expert judgment on the structure and content of the questionnaire. The researcher conducted a pilot study at the Sub-County office in Nyahururu to assess the reliability of the questionnaire by issuing 10 questionnaires to randomly selected employees. Difficult and poorly framed questions were identified for correction. The data collected was subjected to descriptive statistics where totals and percentages were computed. The findings were presented in the form of tables and charts that were easy to understand. The response rate was 100% since all the questionnaires were duly filled and returned. They were then used for analysis. The researcher ascertained that the adoption of green procurement is affected by the existing legal and regulatory framework. The procurement activities in public institutions was done in line with established procurement rules, policies and procedures. The majority of the respondents at 92% said the organizations including county governments experienced pressure from the customers and clients to exercise environment friendly purchasing. The customer pressure had effect on green procurement to a very large extent and the respondents occasionally came across customers or clients who bought only environment friendly products. Government showed initiative by providing training on environment friendly procurement products since 87% of the respondents said they were trained. It was further revealed from the findings that financial viability of green procurement initiatives affected the adoption of green procurement among public institutions to a moderate extent. This implied that the price of green product affected the adoption of green procurement through the financial viability aspect to a large extent.
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<th>ACRONYM</th>
<th>FULL FORM</th>
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<tbody>
<tr>
<td>AFDB</td>
<td>African Development Bank</td>
</tr>
<tr>
<td>CSR</td>
<td>Corporate social responsibility</td>
</tr>
<tr>
<td>EPEAT</td>
<td>Electronics Product Environmental Assessment Tool</td>
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<tr>
<td>GP</td>
<td>Green Procurement</td>
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<td>GGP</td>
<td>Global Green Procurement</td>
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<td>ICT</td>
<td>Information Communication and Technology</td>
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<td>IBRD</td>
<td>International Bank for Reconstruction and Development.</td>
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<td>UN</td>
<td>United Nations</td>
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<td>WEF</td>
<td>World Economic Forum</td>
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<td><strong>OPERATIONAL DEFINITION OF TERMS</strong></td>
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<td>------------------------------------</td>
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<tr>
<td><strong>Green procurement</strong></td>
<td>Green procurement is the purchasing goods or products and services of high quality that meets the needs of the consumer and has minimal or no effect to the consumer or the environment that may in future harm the habitant of the same in future.</td>
</tr>
<tr>
<td><strong>Procurement</strong></td>
<td>Is the acquisition of goods, services or works from an outside external source. It is favourable that the goods, services or works are appropriate and that they are procured at the best possible cost to meet the needs of the acquirer in terms of quality and quantity, time and location</td>
</tr>
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<td><strong>Regulatory compliance</strong></td>
<td>Public procurement activities are subject to the legal requirements and are from time to time checked for compliance with the law. The government has initiated measures to ensure that procurement is done in a legal and fair manner and therefore all the procedures must be followed.</td>
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<td><strong>Cost</strong></td>
<td>The cost of green products is higher that those perceived not environment friendly, then it will be difficult to promote adoption of green procurement. The financial aspects of green procurement should be considered when advocating for green procurement since many suppliers perceive green production to be relatively costly.</td>
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CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter presents the background of the study, the statement of the problem, the significance, the general and specific objectives and the scope of the study.

1.1 Background to the study

Green procurement refers to procurement that is made in consideration of the environment and seeks to minimize the impact of procurement activities on the environment. It involves buying those products that have no negative impact on the environment thus the term ‘green procurement’. Prior to procurement, entities are advised to carry out an assessment of the impact the products will have on the environment at all stages of the product lifecycle. While considering the cost of raw materials among other costs such as freight, storage, processing, handling and product disposal, the organizations should also consider the cost of the environmental impact of such products. Basically, green purchasing is concerned with pollution prevention and management of health related risks that humans are exposed to. Therefore all the purchases are evaluated based on some established benchmarks ranging from analyzing the necessity of the purchase, considering available alternatives and even thinking of how the waste products will be disposed. There is increasing demand from various stakeholders such as product users, investors, enforcement agencies and shareholders for environment conscious procurement. Further, green purchasing shows the entities seriousness and concern in trying to minimize environmental negative impact and consequences therefore making procurement to have both economic and environmental implications (Bjorklund, 2011).

Theyel et al, (2001) noted that green products consume comparatively less resources such as forests and in a more sustainable manner, uses less energy during manufacturing and when being consumed and have been found to contain and emit less toxic wastes to the environment. The production of green products also considers reduced wastes because most of them are recyclable,
they require less packaging materials and can be taken back to manufacturer after use in what is referred to as ‘take-back’ programmes. Further, green purchasing can drastically reduce costs by buying goods which are easy to recycle, long lasting and emit less waste, require fewer resources in the manufacturing process, consume less energy, water, gasoline and other inputs. Its further stated that green procurement oriented activities can increase profit margins which has made the concept receive lots of attention in the recent past (Theyel et al, 2001).

Carter et al (2000), established that organizations were able to enhance their productivity by large margins when they adopted green purchasing. Such improvements were attributed to reduced operating costs and increased revenues. It’s worth noting that for effective green procurement initiatives, efforts have to be directed towards private as opposed to public procurement. That is because private procurement forms a substantial proportion of the total procurement activities which if not monitored can negatively impact on the environment. Also Walker et al., (2008) identified what is referred to as common drivers to green procurement. Such drivers include establishment of regulations, complying with those regulations, stakeholder pressure, risk management and evaluation as well as monitoring of progress in implementing the green procurement initiatives. Early studies in the field of green procurement concentrated on manufacturers of products that were perceived to negatively impact on the environment but that came to change and focus shifted to buyers and consumers. For example, a Swedish study revealed that consumers and distributors had a major role to play in ensuring green procurement and in reducing the environmental impact of products purchased by preferring green products over others. However the challenges to green procurement seem to vary based on various circumstances and conditions such as availability of resources to implement and monitor the progress of green procurement initiatives and in evaluating suppliers to engage only those that can comply with green procurement policies, a task that requires resources such as tolls and expertise in the evaluation process (Zsidisin&Siferd, 2001).

1.2 Statement of the Problem
The enactment of the Public Procurement and Disposal Act of Kenya 2005 has helped streamline the procurement in the public sector making it possible to enforce green procurement oriented activities. The relevance of the Act has been accelerated by the climatic conditions that have been faced making it worthwhile to realize the importance of having environmental conservation
measures. Further because it has been realized that green procurement has benefits to the practicing company, there is increasing effort from various companies and stakeholders to embrace green procurement (Green et al., 2006). Involving the manufacturers and distributors will go a long way in realizing the benefits of green products but the cooperation of the consumers is also necessary because all the parties need to reduce costs, obtain quality goods and comply with environmental conservation initiatives from the government, pressure groups and other agencies (Vachon&Klassen, 2006). Despite the efforts, green procurement is still experiencing challenges and therefore this study will seek to fill the knowledge gap by exploring the external factors which affect the adoption of green procurement in the public institutions in Kenya.

1.3 General objective
To determine the external factors affecting the adoption of green procurement in public institutions in Kenya

1.4 Specific objectives
i. To determine the extent which regulatory compliance affects the adoption of green procurement in public institutions,
ii. To establish the effect of pressure from customers on the adoption of green procurement in public institutions,
iii. To investigate how government incentives affect the adoption of green procurement in public institutions,
iv. To analyse the effect of the price of green products on the adoption of green procurement in public institutions,

1.5 Research questions
i. To what extent does regulatory compliance affect the adoption of green procurement in public institutions?
ii. What is the effect of pressure from customers on the adoption of green procurement in public institutions?
iii. How do government incentives affect the adoption of green procurement in public institutions?

iv. What is the effect of price of green products on the adoption of green procurement in public institutions?

1.6 Significance of the study
The findings of the study will enable the various stakeholders in the public and private entities appreciate the need for green procurement in making the environment more habitable and to reduce the consequences of a polluted environment on the populations thus creating harmonious coexistence.

The government both national and county will apply the recommendations of the study to put in place effective policies that will promote green procurement and enhance environmental conservation and also to work in partnership with other agencies engaged in promoting green procurement. Lastly the study will be used as a basis for further research in green procurement related aspects and on the relationship between green procurement and environmental conservation and reduction of pollution.

1.7 Limitations of the study
The researcher came across limitations in the course of the study but managed to overcome them. One of the limitations was the unwillingness to release information on procurement issues by the staff for fear of victimization. The researcher however assured them of the use of information for purely academic purposes.

Some of the respondents had a busy routine schedule which was interrupted by the research activity. The researcher arranged for an appointment in advance that enabled the respondents to make prior arrangements to engage in the research.

1.8 Scope of the study
The content scope was external factors affecting the adoption of green procurement such as regulatory compliance, pressure from customers, government incentives and price of green products. The research was conducted in the public institutions located in Kinamba town Laikipia County in June 2018
1.9 Chapter summary

The chapter focused on highlighting the background of the study on green procurement, presents the problem of study and the general objective of the study. The researcher also presented the specific objectives and the corresponding research questions. The significance of the study and limitations of study as well as the scope of study were also presented in that order.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction
This chapter covers a summary of theoretical and empirical literature relevant to this study, summary and gaps to be filled as well as the conceptual framework.

2.2 Theoretical Review

2.2.1 Agency Theory
The theory is based on the law of contract which states that an agency relationship is an a mutually binding agreement between two parties, one called the principal and the other party the agent. The agent accepts instructions and conditions from the contracting party/principal who also is the decision making party. It is assumed that the agent will act in good faith, rationally, and subordinate self interestan promote the interests of the principal (Jensen & Meckling, 2006). However it is assumed that th principal and agent don’t have same information and the agent may use the available information to them at the expense of the principal leading to conflict of interest.

The theory is relevant n this study because the enforcement and implementation of green procurement policy will require various parties who can be classified under the agents and principal and is subject to potential conflict of interest when agents such as law enforcers, the producers and distributors fail to adhere to laid down policies (Eisenhardt, 2009). This is particularly relevant to public procurement functions as staff may have conflicting interests contrary to laid down procedures thus affecting adoption of green procurement as espoused in the Public Procurement Policy of 2009.

2.2.2 Stakeholder Theory
Stakeholders are persons, groups or parties that affect or may be affected by the company’s actions or inactions (Freeman, 2004). The operations of companies have diverse consequences to the external environment in the form of externalities. Such externalities affect stakeholders both
positively and negatively. The negative effect externalities are the cause of increased pressure from various stakeholders to companies to reduce negative impacts and increase positive ones. Therefore any company ought to engage in activities which minimize negative effects and maximize on positive effects (Freeman 2004). The companies should not just focus on financial well-being but think of their role to the society and its stakeholders (Jones, 2010). Therefore the obligations of a company are not limited to shareholders only but to customers, employees, suppliers and residents of the surrounding community (Jones, 2010). Clarkson (2005) noted that the companies operated within the confines of the law for the benefit of the community in their pursuit to creating wealth or value to owners of equity.

The public sector is obligated to meet the diverse needs of stakeholders in as far as environmental issues are concerned (de Brito et al., 2008). Boyne (2002) stated that public entities are community owned and they are often under pressure to meet the interests of such communities that they serve. Environmental regulators and enforcers are formed by the state to formulate policies and monitor to ensure compliance and otherwise penalize defaulters or even have their permits revoked or suspended (Henriques & Sadorsky, 2006). In conclusion, the pressure from the stakeholders will lead to adoption of green procurement practices. Donaldson & Preston (2005) stated that the success of green procurement rested on pressures from parties such as the state, consumers, the community, suppliers and employees (Carter & Jennings, 2004).

2.2.3 Theory of Transformation
The theory of transformation states that the organizational structures change leading to the formation of a new entity. In the case of the county government procurement entities, knowledge on green procurement is needed to facilitate transformation (Parry, 2006). For transformation to take place there has to be questions on the status quo, new discoveries, innovations, tests on the existing system, monitoring the progress and challenges and formation and application of the company’s management theory. When transforming an entity, the results are just anticipated they are not certain because that is like a road that has never been travelled before. The process is not certain and cannot be predicted and should utilize new learning and taking actions based on new discoveries (Parry, 2006).
2.3 Review of Past Studies
In 2002, the world summit on sustainable development advocated for a public procurement policy that promotes the production and use of green products (Walker & Brammer, 2009). As a result of that advocacy, many governments, companies and other international bodies have adopted in their procurement plans green procurement policies as a way of contributing to sustainable development and conservation of the environment as well as reduction of pollution (Nijaki & Worrel, 2012).

Green procurement can be used as a supplier selection tool whereby only those suppliers who offer products that are environment friendly, easy to dispose, less waste and comply with the environment regulations are contracted since green procurement has become globally acknowledged. Therefore companies obtain their goods and services based on the ability to get value for money as measured by price, quality of goods and services, availability and functionality as well as environmental friendliness throughout the lifecycle of the product.

2.3.1 Regulatory Compliance
Public procurement activities are subject to the legal requirements and are from time to time checked for compliance with the law. The government has initiated measures to ensure that procurement is done in a legal and fair manner and therefore all the procedures must be followed. The public sector is characterized by bureaucracy and several sources of authority which make it difficult to implement effective green procurement policies. Despite the challenge, green procurement policy is used by the governments as a tool for promoting environmental pollution reduction. Kenya has formulated and adopted a green procurement policy in public procurement (Akech 2005).

Companies have embraced green procurement by focusing on supply chain checks but the sustainability of the initiative is in question. However with collective action from the concerned parties such as consumers, manufactures, government agencies and pressure groups the greening of the procurement process will be realized (Awasthi, Chauhan & Goyal, 2010). Basically, green purchasing involves procurement of goods and services that have minimum effect of the environment throughout their lifecycle of processing, transportation, use and recycling or disposal. It implies inculcating environmental aspects to price and using environment
friendliness as a criteria when making a buying decision. It seeks to reduce the impact of goods on the environment and to increase the usage efficiency (Shah, 2008).

Zhu Qinghua et al. (2002) stated that green procurement requires every department in an organization re-thinking their purchasing decisions and including in their selection criteria the environment aspect of the goods and services which will enhance the reputation of the organization, improve its performance and efficiency and reduce the operating costs. Martha and Houston (2010) on their part noted that green procurement seeks to minimize waste, add value and reduce costs through waste disposal activities.

The source of supply chain is used to reduce waste instead of using the end of the supply chain that is waste reduction strategy works well when measures are put in place at the beginning of the supply chain rather than at the end of the supply chain. Therefore green procurement strategy should lay emphasis at the supply point not usage point. To reduce cost it is easier to eliminate waste at the starting point not end point. Environmental monitoring and evaluations in form of audits are essential as well as pre-certification audits (Hsu & Hu, 2008), so that they buying companies can buy green materials.

According to Watson et al., (2008) suppliers should be involved in the environmental management initiative since environmental issues have become an integral part of the manufacturing process while establishing their strategic agenda. They should be environmentally responsible and accountable. They should seek to reduce their operating costs but integrate environmental aspects in the process so as to improve on their customer service. Finally effective green procurement requires an evaluation of the suppliers environmental consciousness and helping the suppliers enhance their performance.

2.3.2 Customer pressure

To have environment friendly products, customer pressure is necessary because they make a decision of either to buy or reject the product which does not meet the environment friendly criteria. The businesses are more concerned about their reputation in the eyes of their customers so the concerns of such customers are taken seriously. The businesses further engage in corporate social responsibility activities to promote eco-friendly environment and be more competitive.
The fear of loss of potential business made Apple Company to adopt a green technology tool which they did not want to adopt initially. Therefore businesses fear to lose revenues and are forced due to customer pressure to adopt environment friendly strategies (Carter & Jennings, 2004).

Brammer and Walker (2011) also noted that customers do business with organizations that are environment conscious and promote green procurement. Some customers listed energy efficiency, for example, as a key evaluation criterion. With increasing awareness of sustainability and, therefore, the demand on ICT outsourcing because of its inherent efficiency, green is no doubt of increasing importance in the datacenter industry.

### 2.3.3 Government incentives
Governments should offer incentives to companies that adopt and promote green procurement and inculcate green procurement policies in their production strategy plans. The government of Kenya provides incentives to companies that become certified under certain programmes that promote green products. That in itself is a commitment by the government that certification creates value to the company. The businesses are persuaded to become certified and for them to continue being certified have to conform to environment friendly operations (Shah, 2008).

Promotion and marketing are probably the most common and easily recognized benefits that are offered to businesses to encourage them to become certified. In some cases, certification programs charge certified businesses an additional fee for marketing assistance. Technical and financial assistance can be powerful incentives to encourage businesses to become certified. This is especially true for small and medium-sized enterprises and community or indigenous-based enterprises that may lack such support.

At the same time, local and national governments, as well as companies and socially/environmentally responsible organizations are implementing environmental preferable purchasing policies. These policies require or encourage the purchase of goods and services that fulfill a specific set of criteria. The criteria of many certification programs qualify, thereby conveying preferred status to businesses certified under these programs. Examples of these preferred status incentives are: Governments giving longer term permissions or preferential
access to government-managed resources (cultural and natural assets such as are found in national parks) (Carter & Jennings, 2004).

Governments offering tax or other financial incentives Government endorsements for exemptions from certain policies or limited access regulations, Travel agencies prioritizing certified or quality-rated businesses because they are organizational members or through selective reservation systems, Tour operators or travel agencies requirements that members have an environmental policy, a first step towards conferring partiality on “green” certified businesses, Green Hotel Initiatives to increase the demand for environmentally responsible hotel services and help purchasers and suppliers determine a hotel’s environmental performance. State or national programs to help industries (e.g. hotels) adopt sustainable practices (Shah, 2008).

The extent of support from senior management of companies influence the implementation of green procurement not forgetting the degree of support from structures and processes (Ashenbaum, 2008). However, public sector managers tend to focus on utilizing their procurement budget disregarding the aspect of green procurement to avoid future budget cuts due to competitive procurement procedures. This according to Teutemann, (1990) is not professional and does not promote green procurement. According to De Boer & Telgen (2008) public sector managers are agents of the state in the public sector, procurement officers are the agents of the principal (the state) to realize the goals and objectives of the state and should therefore work to facilitate the achievement of the green procurement initiative therefore their goals and objectives should be in line with those of the principal. Bjorklund (2011) found that priorities among the top/middle management are important drivers in the environmental purchase. Without high level support employees are often unwilling or unable to pursue GPP initiatives (Ashenbaum, 2008). Further, lack of trained staff to implement GPP programs has also been identified as a barrier to GPP initiatives.

2.3.4 Cost of green products

Bouwer et al. (2006) noted that if the cost of green products is higher than those perceived not environment friendly, then it will be difficult to promote adoption of green procurement. The financial aspects of green procurement should be considered when advocating for green procurement since many suppliers perceive green production to be relatively costly.
Brammer & Walker (2011) say that often sustainable products simply cost more than conventional products and the governments should introduce subsidies to help cut the production costs and make green products cheaper and those companies to carry out an evaluation of environmental consequences of their products. Therefore, the aim of green procurement is to prevent pollution and minimize hazards to health of persons by using the minimum cost so it has to look at cost of obtaining inputs materials, storage costs, freight charges among other cost (Vachon & Klassen, 2006).

Users of products and other parties are more aware today than before and are putting a lot of pressure on organizations to be environment friendly in their production and procurement activities. They state that it’s only through environment friendliness that organizations can show their willingness to minimize and control the impact of their activities on the environment as they pursue their economic objective. The green products basically consume less natural resources and are more sustainable.

Meeting these and other environmental regulations is easier for organizations that already practice green procurement. Green procurement also has benefits for health and safety, both of workplaces and of the wider community. Organizations that practice green procurement will also be recognized as good 'corporate citizens', and influence those around them. As markets gradually change, the availability of green products will increase and prices will fall.

2.4 Review of critical/ Analytical literature
While environmental assessment of suppliers has grown in importance over the past years, there is still a lack of tools that facilitates the assessment of suppliers. One example is a benchmarking tool, which can support companies in improving their environmental considerations in purchasing. A study conducted among Swedish procurement managers reveals, that management, customers and carriers are among the most influential aspects for greening the performance of procurement. The barriers for green procurement seem to vary more depending on specific cases; however costs and lack of resources occur more commonly. In green procurement, as in general, supplier evaluations of different types are important and efficient tools can be helpful in the evaluation process. (Large et al., 2011) suggest that a high level of supplier assessment influences the environmental performance.
The steps involved in implementing a green procurement program are outlined here. It is not comprehensive, but rather is intended to provide an overview: Organizational support: Implementing a green procurement program means changing policies and procedures. For it to be successful, it is essential that management support the initiative fully. In addition, those charged with making purchasing decisions must be involved in the implementation process. Their suggestions and support are critical. Self-evaluation: An important step in implementing green procurement is conducting an evaluation of present purchasing practices. This process will help to clarify what is purchased, in what quantities, from where and at what price. The evaluation will provide a baseline, in order to measure future success and to focus the development of green procurement goals, Set goals: A broad policy should be established, and specific priorities and targets set (Bjorklund, 2011) Develop a strategy: It is now to time to identify and implement changes, both short and long-term, identify suitable products and services, and evaluate the environmental performance of suppliers, Run a pilot project: A pilot project can provide practical experience in purchasing green products and services, by applying green procurement principles to a specific product or service. Pilot projects can be used to generate more detailed guidance on purchasing practices and Implementing the green procurement program will require an assignment of accountability, plus a well-designed communications plan addressing employees, customers, investors, suppliers and the public and finally as with all business practices, it is important that a systematic review of the green procurement program be carried out, in order to establish whether the scheme is meeting its goals and objectives. The review should take into account changing environmental goals (Vachon & Klassen, 2006).

2.5 Summary and gaps to be filled
Most of the existing studies have focused on the product suppliers rather than service suppliers. Among the latter, third party logistics service providers (3PLs) are known to make a substantial contribution to the environmental stress that is considered harmful for the environment. In fact, transport and logistics activities contribute substantially to greenhouse gas emission at global level, (World Economic Forum, 2009). For this reason, it is of critical importance to incorporate green considerations into purchasing decisions when companies source transport and logistics
services, (Foerstl et al., 2010). The past studies have not focused on a critical assessment of logistics variables such as packaging logistics, distribution logistics and information sharing especially on a public procurement scale. The need to lower costs against inflationary trends and the pressure to acquire quality goods and services to meet consumer needs amid climate change due to environmental degradation are some but a few of the new set of challenges. This study therefore comes in to bridge this gap in knowledge by assessing the factors affecting the adoption of green procurement in the public institutions in Kenya.

2.6 Conceptual Framework

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Dependent variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory compliance</td>
<td>Adoption of green procurement</td>
</tr>
<tr>
<td>Customer pressure</td>
<td></td>
</tr>
<tr>
<td>Government incentives</td>
<td></td>
</tr>
<tr>
<td>Cost of green products</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2.1 Conceptual Framework


Public procurement is undertaken in an environment of legal restrictions and detailed scrutiny of its compliance with regulation, with mechanisms in place to govern to ensure that the solicitation of vendors proceeds in a fair way. This means that procurement is undertaken with considerable attention to procedural detail.

Consumer pressure is usually considered as one of the major drivers for more environmental friendly products. During the last decade an increasing focus on public procurement has emerged
as an important contributor to that pressure. Businesses’ growing concerns over their public profile and the need to meet corporate social responsibility (CSR) obligations mean vendors and suppliers are increasingly under pressure to be eco-friendly to stay competitive.

The degree to which GP is implemented in organizations concerns organizational attitudes and incentives for GPP. Other issues includes the extent to which there is support for GPP at senior levels in an organization and the degree to which organizational processes and structures support, or retard, the development of GP.

The role of financial aspects attached to GGP, particularly perceptions of the financial viability of implementing GPP play crucial role in shaping the degree to which SP policies are acted upon since green/socially responsible production methods are often perceived of as being inherently more expensive than other methods.

### 2.7 Operationalization of the Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable Type</th>
<th>Operationalization</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent</strong></td>
<td>Adoption of green procurement</td>
<td>Environmental Impact assessment</td>
<td>Assessment activities</td>
</tr>
<tr>
<td><strong>Dependent variable</strong></td>
<td>Regulatory compliance</td>
<td>Licensing</td>
<td>Licenses and permits</td>
</tr>
<tr>
<td></td>
<td>Customer pressure</td>
<td>Pressure groups</td>
<td>Oversight</td>
</tr>
<tr>
<td></td>
<td>Government incentives</td>
<td>Tax exemption</td>
<td>Refunds</td>
</tr>
<tr>
<td></td>
<td>Cost of green products</td>
<td></td>
<td>preferential treatment</td>
</tr>
</tbody>
</table>

### 2.8 Chapter summary

The chapter contains the review of theories related to the study, the empirical literature of past studies, the critical literature review and the summary of gaps to be filled by the study followed by the conceptual framework which summarizes the study variables diagrammatically as well the operationalization of the variables.
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction
The Chapter covers sections such as research design, target population, sampling method, data collection, data analysis and presentation.

3.2 Research design
Research design means the general plan or roadmap of how one goes about answering the research questions. It is a structure that helps to obtain answers to research questions (Cooper & Schindler, 2006). The research designs used in this study was a descriptive research design (Mugenda & Mugenda, 2003). This method was considered appropriate as it was capable of highlighting unique aspects of the selected case. It is used when collecting information about people’s attitudes, opinions and habits, including protection of bias and reliability (Orodho & Kombo, 2002; Kothari, 2008).

3.3 Target Population
Kombo and Tromp (2006) define population as a group of individuals, objects or items from which samples are taken for measurement or it is an entire group of persons, or elements that have at least one thing in common. The researcher targeted 39 employees of Kinamba Sub-county office with the capacity to answer questions on green procurement.

Table 3.1 Target Population

<table>
<thead>
<tr>
<th>Department</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement department</td>
<td>7</td>
</tr>
<tr>
<td>Ministry of agriculture, livestock and extension services</td>
<td>12</td>
</tr>
<tr>
<td>Public health</td>
<td>16</td>
</tr>
<tr>
<td>Treasury</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>39</td>
</tr>
</tbody>
</table>

Source: Laikipia County office (2018).
3.4 Sampling Technique and sample size
No sampling was done because the researcher used a census technique where all the target respondents were engaged in the study. Kombo and Tromps (2006) stated that in a situation where the population is small, a census study was adequate where all the subjects are involved in the study. Therefore in this study, all the 39 employees were involved in the study.

3.5 Data collection procedures and instruments of the study
The researcher personally administered closed ended questionnaire during working hours so as to get as many of the target respondents as possible. A questionnaire is a statistical tool used to gather data from respondents by answering the questions asked (Mugenda&Mugenda (1999).

3.5.1 Validity of the instrument
Mugenda and Mugenda (1999) further state that validity is concerned with establishing whether the content of the research instrument is measuring what it is supposed to measure. Instrument validity was done by soliciting the supervisor’s expert judgment on the structure and content of the questionnaire.

3.5.2 Reliability of the instrument.
Research instrument was piloted to increase the reliability of the responses according to Mugenda and Mugenda (1999). The researcher conducted a pilot study at the Sub-County office in Nyahururu to assess the reliability of the questionnaire by issuing 10 questionnaires to randomly selected employees. Difficult and poorly framed questions were identified and corrected.

3.6 Data analysis procedure
The data collected was subjected to descriptive statistics where totals and %s were computed. The findings were presented in the form of tables and charts that are easy to understand.
3.7 Chapter summary

The chapter focused on the operationalization of the study through identification of research design used. Explanation on what type of research this is about, defined study population and specific sampling methods to be used data analysis and collection methods.
CHAPTER FOUR

PRESENTATION OF FINDINGS

4.1 Introduction
This chapter comprises of the presentation of collected data into a more logical meaningful approach that can have general understanding. The collected data was analyzed, resented in a tabular graphs and pie charts form.

4.2 Presentation of findings

4.2.1 Response Rate
The researcher personally administered 39 questionnaires to the respondents for the study during the working hours. They were filled and returned to the researcher for analysis as indicated in figure 4.1

Table 4.1 Response rate

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>39</td>
<td>100</td>
</tr>
<tr>
<td>Non- response</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>39</td>
<td>100</td>
</tr>
</tbody>
</table>


The response rate was 100% since all the questionnaires were duly filled and returned. They were then used for analysis.
4.2.3 Gender of the respondents
The researcher sought to establish the gender composition of the respondents at the Sub-county offices and the information obtained was as indicated in table 4.2

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>24</td>
<td>62</td>
</tr>
<tr>
<td>Female</td>
<td>15</td>
<td>38</td>
</tr>
<tr>
<td>TOTAL</td>
<td>39</td>
<td>100</td>
</tr>
</tbody>
</table>


The findings indicated that the male employees were the majority at 62% while female respondents were only 38% at the Laikipia county, Kinamba Sub-county government.

4.2.4 Age group of the respondents
The study investigated the age group of the respondents and the information in table 4.3 was obtained.

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-20 years</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>20-30 years</td>
<td>14</td>
<td>36</td>
</tr>
<tr>
<td>30-40 years</td>
<td>8</td>
<td>21</td>
</tr>
<tr>
<td>40-50 years</td>
<td>9</td>
<td>23</td>
</tr>
<tr>
<td>50 years and over</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>TOTAL</td>
<td>39</td>
<td>100</td>
</tr>
</tbody>
</table>

The researcher found out that the majority of the respondents at 36% were aged between 20-30 years, 21% were between 30-40 years, 23% were aged between 40-50 years, 12% were over 50 years and only 8% were aged between 18-20 years.

4.2.5 Marital status
The other demographic aspect that the researcher wanted to investigate was the marital status of the respondents and the information obtained was as indicated in table 4.4

Table 4.4 Marital status

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>21</td>
<td>54</td>
</tr>
<tr>
<td>Single</td>
<td>15</td>
<td>38</td>
</tr>
<tr>
<td>Divorced</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Widowed</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>39</td>
<td>100</td>
</tr>
</tbody>
</table>

The respondents at Kinamba Sub-county office were 54% of them married, 38% were single, 3% were divorced and only 5% were widowed.

4.2.6 Highest level of education
The researcher sought to establish the highest level of education of the respondents and obtained the information in table 4.5

Table 4.5 Highest level of education

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate</td>
<td>8</td>
<td>21</td>
</tr>
<tr>
<td>Diploma</td>
<td>11</td>
<td>28</td>
</tr>
<tr>
<td>Degree</td>
<td>18</td>
<td>46</td>
</tr>
<tr>
<td>Masters</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>39</td>
<td>100</td>
</tr>
</tbody>
</table>

The findings indicated that the majority of the respondents at 46% were degree holders while 28% had diploma, 21% had certificate and 5% of the respondents had a master’s degree.

4.2.7 Experience in the public sector
The researcher investigated the number of years the respondents had worked in the public sector and obtained the information in figure 4.1

![Figure 4.1 Experience in the public sector](image)

**Figure 4.1 Experience in the public sector**

**Source: Researcher (2018).**
The respondents had diverse work experience in the public sector since those who had work experience of less than 1 year were 25%, between 2-5 years were 43%, those between 6-10 years were 30% and only 2% had work experience of over 10 years.

4.2.8 Experience in procurement
The researcher also sought to establish the duration the respondents had worked either in the procurement or with the procurement section and the information obtained was summarized in figure 4.2
The respondents who had worked in procurement for less than a year were 21%, between 2-5 years were 44%, those who had worked for between 6-10 years comprised 28% and over 10 years were only 7%. This indicated that the respondents were I a position to respond to green procurement related issues of study.

4.3.1 Operations in conformity with rules and regulations
The researcher investigated whether the sub-county government operated under established procurement rules, policies and procedures. The respondents had the following information
The majority of the respondent at 96% admitted that the sub-county office had its procurement activities in line with the established procurement rules, policies and procedures while only 4% said they were not aware of such policies, rules and regulations.

4.3.2 Number of responses of policy review
The researcher sought to determine how often the policies and procurement laws were reviewed to ensure environment friendly procurement. The findings were as indicated in figure 4.4
The respondents admitted that there was review of the policies, rules and regulations since 77% said it was rarely done, 8% said it was occasionally reviewed, 7% said it was often done, 5% very often and only 3% said the review was never done.

### 4.3.3 Extent decisions were based on environmental laws

The study investigated the extent the procurement decisions were influenced by the existing policies and laws on environment friendly procurement. The findings were as shown in figure 4.5.
The procurement and purchasing decisions were made based on the existing policies and laws on environment friendly procurement since 4% said the decisions were made to a very large extent, 6% to a large extent, and 56% to a moderate extent while only 22% said to a little extent and only 2% said it was never based on such policies, rules and procedures.

4.3.4 Public procurement and legal restrictions
The study further sought to establish the respondents’ agreement with the statement that Public procurement was undertaken in an environment of legal restrictions and detailed scrutiny of its compliance with regulation. The findings were as shown in table 4.5
Table 4.5 Public procurement and legal restrictions

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Agree</td>
<td>26</td>
<td>67</td>
</tr>
<tr>
<td>Neutral</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Disagree</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>39</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>


67% of the respondents agreed that Public procurement was undertaken in an environment of legal restrictions and detailed scrutiny of its compliance with regulation, while 5% strongly agreed, 20% disagreed and 5% strongly disagreed. Only 3% of the respondents were neutral on the statement.

4.3.5 Regulatory compliance and green procurement

The researcher sought to establish the extent which regulatory compliance affected the adoption of green procurement in public institutions and obtained the information I table 4.6

Table 4.6 Regulatory compliance and green procurement

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very large extent</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Large extent</td>
<td>24</td>
<td>62</td>
</tr>
<tr>
<td>Moderate extent</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Little extent</td>
<td>9</td>
<td>23</td>
</tr>
<tr>
<td>Not at all</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>39</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>


The research findings indicated that regulatory compliance affected the adoption of green procurement in public institutions since 62% of the respondents said it affected to a large extent,
5% to a very large extent, 7% to a moderate extent and 23% to a little extent with only 3%
saying it had no effect at all.

4.4.1 Customer pressure
The researcher sought to establish whether customers put pressure on the organization to
exercise environment friendly purchasing and obtained information in table 4.7

Table 4.7 Customer pressure

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>36</td>
<td>92</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>39</td>
<td>100</td>
</tr>
</tbody>
</table>

The majority of the respondents at 92% said the organizations including county governments
experienced pressure from the customers and clients to exercise environment friendly purchasing
while 3% said they never experienced such pressure.

4.4.2 Effect of customer pressure on green procurement
The researcher further sought to establish the extent which the pressure from the customers
affected the adoption of green procurement and obtained the information in table 4.8 Table

4.8 Effect of customer pressure on green procurement

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very large extent</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Large extent</td>
<td>25</td>
<td>64</td>
</tr>
<tr>
<td>Moderate extent</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Little extent</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Not at all</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>39</td>
<td>100</td>
</tr>
</tbody>
</table>
**Source: Researcher (2018).**

The researcher established that customer pressure had effect on green procurement since 64% of the respondents thought that customer pressure had effect on green procurement to a large extent, 3% to a very large extent and 15% to a moderate extent. Fifteen percent said it affected to a little extent and only 3% said it had no effect on green procurement at all.

### 4.4.3 Customers who buy environment friendly products

The researcher sought to know from the respondents how often they came across customers who buy environment friendly products only and the information obtained was as indicated in figure 4.6

![Figure 4.6 Customers who buy environment friendly products](image)

**Figure 4.6 Customers who buy environment friendly products**

**Source: Researcher (2018).**

The findings revealed that 71% of the respondents occasionally came across customers or clients who bought only environment friendly products, 12% came across them often, another 12% rarely encountered such customers and only 5% said they very often came across such customers.
4.4.5 Customer preference of “green” products
The researcher sought to establish whether customers preferred to do business with environmentally responsible companies were incorporating green standards as part of their procurement requirements. The findings were summarized as shown in figure 4.7

![Graph showing customer preferences of “green” products]

**Figure 4.7 Customer preferences of “green” products**

**Source: Researcher (2018).**

Eleven percent of the respondents strongly agreed that customers preferred to do business with environmentally responsible companies were incorporating green standards as part of their procurement requirements, 67% agreed, 3% were neutral and 12% disagreed. Only 7% strongly disagreed.

4.5.1 Training on “green” procurement
The researcher sought to know from the respondents whether the government provided training on environment friendly procurement and they responded as shown in figure 4.8
The respondents said that the government provided training on environment friendly procurement products since 87% of them said so while only 13% said the government never provided training.

4.5.2. Government rewards
The researcher further asked the respondents whether the government rewarded environment friendly procurement activities and they gave the information provided in table 4.9

Table 4.9 Government rewards

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>16</td>
<td>41</td>
</tr>
<tr>
<td>No</td>
<td>23</td>
<td>59</td>
</tr>
<tr>
<td>TOTAL</td>
<td>39</td>
<td>100</td>
</tr>
</tbody>
</table>

The majority of the respondents said the government never gave rewards to organizations that promoted green procurement or the purchase of environment friendly products since 59% of them said no while 41% said they thought the government provided enough rewards to such organizations.

4.5.3. Effect of government incentives on green procurement

The study investigated the extent which the government incentives affected the adoption of green procurement in public institutions and obtained the information in Table 4.10

Table 4.10 Effect of government incentives on green procurement

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very large extent</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Large extent</td>
<td>32</td>
<td>82</td>
</tr>
<tr>
<td>Moderate extent</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Little extent</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Not at all</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>39</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>


A large majority of the respondents at 82% said that the government incentives affected the adoption of green procurement in public institutions to a large extent while 10% said it affected to a very large extent, 4% to a moderate extent and another 4% to a little extent.

4.5.4 Role of procurement officer in green procurement

The researcher sought to establish the level of agreement of the respondent on the statement that “In the public sector, procurement officers are the agents of the principal (the government) to realize the goals and objectives of the government in enhancing environment friendly procurement” and the responses were as shown in table 4.11
Table 4.11 Role of procurement officer in green procurement

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>11</td>
<td>28</td>
</tr>
<tr>
<td>Agree</td>
<td>26</td>
<td>67</td>
</tr>
<tr>
<td>Neutral</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>39</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>


The researcher asked the respondents to state their level of agreement on the statement that in the public sector, procurement officers are the agents of the principal (the government) to realize the goals and objectives of the government in enhancing environment friendly procurement and 67% agreed with the statement, 28% strongly agreed and only 5% disagreed.

4.5.5. Willingness to pursue green procurement

The researcher further sought to determine the extent the following statement was true. “Without high level government support, employees are often unwilling or unable to pursue Green Procurement initiatives”. The findings were as in table 4.12

Table 4.12 Willingness to pursue green procurement

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very large extent</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Large extent</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>Moderate extent</td>
<td>24</td>
<td>62</td>
</tr>
<tr>
<td>Little extent</td>
<td>3</td>
<td>8</td>
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<tr>
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33
The study sought to establish the extent the government was willing to pursue green procurement issues and 10% of the respondents said there was willingness to a very large extent, 20% to a large extent and 8% to a little extent.

4.6.1 Effect of price of green products
The research also investigated the extent which the price of green products can affect the adoption of green procurement in public institutions and the findings were as shown in figure 4.9

![Bar chart showing the effect of price of green products](image)

**Figure 4.9 Effect of price of green products**

The findings indicated that the price of green products affected the adoption of green procurement in public institutions to a very large extent by 22%, 67% to a large extent, 4% to a moderate extent, 5% to a little extent and only 2% said it had no effect on the adoption of green procurement.
4.6.2. Effects of financial viability
The researcher sought to establish the extent of the effect of financial viability of green procurement initiatives on the adoption of green procurement among public institutions and obtained the information in figure 4.10

![Bar chart showing the extent of the effect of financial viability on green procurement]

**Figure 4.10** Effects of financial viability

**Source:** Researcher (2018).

It was revealed from the findings that financial viability of green procurement initiatives affected the adoption of green procurement among public institutions to a very large extent by 5%, 4% to a large extent, the majority at 56% to a moderate extent, 33% to a little extent while only 2% said it had no effect at all.

4.7 chapter summary

This chapter presented the findings of the study from the field which was divided into the respondent rate, demographic information and the variables for the study. The findings were presented on tables and graphs for easy analysis. The summary of the findings was established and limitations of the study also identified.
CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Introduction
This chapter comprises of summary of finding based on the study findings obtained in chapter four. It also contains conclusion and the recommendations for further studies.

5.2 Summary of Findings

5.2.1 Summary of personal information
The response rate was 100% since all the questionnaires were duly filled and returned. They were then used for analysis.
The findings indicated that the male employees were the majority at 62% while female respondents were only 38% at the Laikipia county Kinamba Sub-county government. The researcher found out that the majority of the respondents at 36% were aged between 20-30 years, 21% were between 30-40 years, 23% were aged between 40-50 years, 12% were over 50 years and only 8% were aged between 18-20 years.
The respondents at Kinamba Sub-county office were 54% of them married, 38% were single, 3% were divorced and only 5% were widowed. The findings indicated that the majority of the respondents at 46% were degree holders while 28% had diploma, 21% had certificate and 5% of the respondents had a master’s degree.
The respondents had diverse work experience in the public sector since those who had work experience of less than 1 year were 25%, between 2-5 years were 43%, those between 6-10 years were 30% and only 2% had work experience of over 10 years. The respondents who had worked in procurement for less than a year were 21%, between 2-5 years were 44%, those who had worked for between 6-10 years comprised 28% and over 10 years were only 7%. This
indicated that the respondents were in a position to respond to green procurement related issues of study.

5.2.2 Regulatory Compliance
The majority of the respondents at 96% admitted that the sub-county office had its procurement activities in line with the established procurement rules, policies and procedures while only 4% said they were not aware of such policies, rules and regulations.

The respondents admitted that there was review of the policies, rules and regulations since 77% said it was rarely done, 8% said it was occasionally reviewed, 7% said it was often done, 5% very often and only 3% said the review was never done.

The procurement and purchasing decisions were made based on the existing policies and laws on environment friendly procurement since 4% said the decisions were made to a very large extent, 6% to a large extent, and 56% to a moderate extent while only 22% said to a little extent and only 2% said it was never based on such policies, rules and procedures.

67% of the respondents agreed that public procurement was undertaken in an environment of legal restrictions and detailed scrutiny of its compliance with regulation, while 5% strongly agreed, 20% disagreed and 5% strongly disagreed. Only 3% of the respondents were neutral on the statement.

The research findings indicated that regulatory compliance affected the adoption of green procurement in public institutions since 62% of the respondents said it affected to a large extent, 5% to a very large extent, 7% to a moderate extent and 23% to a little extent with only 3% saying it had no effect at all.

5.2.3 Pressure from customers
The majority of the respondents at 92% said the organizations including county governments experienced pressure from the customers and clients to exercise environment friendly purchasing while 3% said they never experienced such pressure.
The researcher established that customer pressure had effect on green procurement since 64% of the respondents thought that customer pressure had effect on green procurement to a large extent, 3% to a very large extent and 15% to a moderate extent. Fifteen percent said it affected to a little extent and only 3% said it had no effect on green procurement at all. The findings revealed that 71% of the respondents occasionally came across customers or clients who bought only environment friendly products, 12% came across them often, another 12% rarely encountered such customers and only 5% said they very often came across such customers.

Eleven percent of the respondents strongly agreed that customers preferred to do business with environmentally responsible companies were incorporating green standards as part of their procurement requirements, 67% agreed, 3% were neutral and 12% disagreed. Only 7% strongly disagreed

5.2.4 Government incentives
The respondents said that the government provided training on environment friendly procurement products since 87% of them said so while only 13% said the government never provided training.

The majority of the respondents said the government never gave rewards to organizations that promoted green procurement or the purchase of environment friendly products since 59% of them said no while 41% said they thought the government provided enough rewards to such organizations.

A large majority of the respondents at 82% said that the government incentives affected the adoption of green procurement in public institutions to a large extent while 10% said it affected to a very large extent, 4% to a moderate extent and another 4% to a little extent.

The researcher asked the respondents to state their level of agreement on the statement that in the public sector, procurement officers are the agents of the principal (the government) to realize the goals and objectives of the government in enhancing environment friendly procurement and 67% agreed with the statement, 28% strongly agreed and only 5% disagreed.
The study sought to establish the extent the government was willing to pursue green procurement issues and 10% of the respondents said there was willingness to a very large extent, 20% to a large extent and 8% to a little extent.

5.2.5 **Price of green products**
The findings indicated that the price of green products affected the adoption of green procurement in public institutions to a very large extent by 22%, 67% to a large extent, 4% to a moderate extent, 5% to a little extent and only 2% said it had no effect on the adoption of green procurement.

It was revealed from the findings that financial viability of green procurement initiatives affected the adoption of green procurement among public institutions to a very large extent by 5%, 4% to a large extent, the majority at 56% to a moderate extent, 33% to a little extent while only 2% said it had no effect at all.

5.3 **Answers to Research Questions**
The study sought to provide answers to four research questions which included;

5.3.1 **To what extent does regulatory compliance affect the adoption of green procurement at Kinamba sub-county office in Laikipia county?**
The researcher ascertained that the adoption of green procurement affected by the existing legal and regulatory framework. The procurement activities in public institutions was done in line established procurement rules, policies and procedures.

The policies and procurement laws were occasionally reviewed to ensure environment friendly procurement and that the Public procurement was undertaken in an environment of legal restrictions and detailed scrutiny of its compliance with regulation. Therefore regulatory compliance affected the adoption of green procurement in public institutions by up to 96%.
5.3.2 What is the effect of pressure from customers on the adoption of green procurement at Kinamba sub-county office in Laikipia county?
The majority of the respondents at 92% said the organizations including county governments experienced pressure from the customers and clients to exercise environment friendly purchasing. The customer pressure had effect on green procurement a very large extent and the respondents occasionally came across customers or clients who bought only environment friendly products.
Eleven percent of the respondents strongly agreed that customers preferred to do business with environmentally responsible companies that were incorporating green standards as part of their procurement requirements.
Therefore, customer pressure affected the adoption of green procurement in public institutions to a large extent.

5.3.3 How do government incentives affect the adoption of green procurement at Kinamba sub-county office in Laikipia county?
Government showed initiative by providing training on environment friendly procurement products since 87% of the respondents said they were trained.

The government gave rewards to organizations that promoted green procurement or the purchase of environment friendly products by up to 41% and that together with other incentives affected the adoption of green procurement in public institutions.

Further, the public sector procurement officers were agents of the government in realizing the goals and objectives of the government in enhancing environment friendly procurement. The government was willing to pursue green procurement issues to a moderate extent as shown by 10% of the respondents.

Therefore, government incentive affected adoption of green procurement through its initiative of training on green procurement, provision of incentives and rewards and showing willingness to pursue green procurement initiatives though policy formulation and implementation.
5.3.4 What is the effect of price of green products on the adoption of green procurement at Kinamba sub-county office in Laikipia county?

The findings indicated that the price of green products affected the adoption of green procurement in public institutions to a large extent.

It was further revealed from the findings that financial viability of green procurement initiatives affected the adoption of green procurement among public institutions to a moderate extent. This implied that the price of green product affected the adoption of green procurement through the financial viability aspect to a large extent.

5.4 Conclusions

From the study findings, the following conclusions can be drawn as per the specific objectives;

Sustainable development involves using the Earth's natural resources (i.e. both renewable and non-renewable resources) to fulfill our present needs without affecting the needs of next generations. "Green Purchasing" is an important element to achieve sustainable development. Consequently, when one considers buying something, he/she should think about the adverse environmental impacts associated with the product during its full life-cycle. Therefore green purchasing cannot be alienated from the legal and regulatory framework. All procurement decisions are effective when based on the existing laws and regulations.

It was established that the consumers of goods and services had a bearing on the adoption of green procurement in public institutions. Consumers, investors, shareholders and regulatory agencies are increasingly demanding that organizations behave in an environmentally responsible manner. Practicing green procurement demonstrates an organization's commitment to considering and minimizing the environmental consequences of its activities. It thus makes both environmental and economic sense.

However, environmentally preferable products are sometimes more expensive to purchase than alternative products. This circumstance can discourage green purchasing by consumers seeking lower costing products without significant environmental benefits. Nevertheless, buying "greener products" doesn't necessarily mean paying more, especially when other cost factors are considered.
5.5 Recommendations

To ensure adherence to green procurement, the Number of responses of procurement cycle audits, procurement professionals’ pay, get-rich quick culture and lack of fair competition practices within the procurement cycle must be addressed. Political influence in the public procurement which affects the decision-making by the public procurement officers and hence diminishes the ethical integrity of their actions should be looked into.

The internal politics within the organization which also play a role in undermining the adoption of green procurement should be minimized.

Independent Procurement Audits and rigorous monitoring to ensure compliance to the procurement Code of Conduct must be done regularly. There should be audits performed to verify that all procurement activities were conducted ethically and in accordance with the public procurement act procedures and the code of conduct.

Accurate written records of the different stages of the procedure are essential to maintain transparency, provide an audit trail of procurement decisions for controls, serve as the official record in cases of administrative or judicial challenge and provide an opportunity for citizens to monitor the adoption of green procurement.

Agencies need procedures in place to ensure that green procurement decisions are well documented, justifiable and substantiated in accordance with relevant laws and policies in order to promote accountability.

Procurement professionals’ pay (reward) should be reviewed to ensure that the opportunity cost for engaging in green procurement is significantly reduced. The salaries payable to the procurement officials in the public sector that adopts green procurement should reflect the complexities and rigor required of the procurement mandate.

5.6 Suggestion for further study

The study focused on the external factors affecting green procurement in public institutions. There are several other factors including internal factors which affect the adoption of green
procurement which the study did not capture. The researcher therefore suggests for further studies in the following areas:

i. The effect of employee training on effective adoption of green procurement in public institutions.

ii. The effect of management style in promoting the adoption of green procurement,

iii. the role of quality certification bodies in enhancing the adoption of green procurement in public institutions
REFERENCES


APPENDIX 1: INTRODUCTION LETTER
My name is Jeremy Kanyaru, a student at The Management University of Africa undertaking a undergraduate degree in Management and leadership (Purchasing and Supplies Management Option). As a requirement I’m required to do a research and my topic is “External factors affecting the adoption of Green procurement in Public Institutions: A survey of public institutions in Kinamba Town”.

You have been selected as one of the respondents and I request you to answer the questions to the best of your knowledge and ability. The information you will give will be used solely for academic purpose and will be confidential.

Thank you

Jeremy m.Kanyaru

MANAGEMENT UNIVERSITY OF AFRICA
APPENDIX II: QUESTIONNAIRE

Dear respondent, you have been selected as one of the respondents. Please answer the questions as honestly as you can. The information given will be used for academic purpose only.

PART A: GENERAL INFORMATION

1. What is your gender?
   - Male ( )
   - Female ( )

2. What is your age group?
   - 18-20 year ( )
   - 20-30 years ( )
   - 30-40 year ( )
   - 40-50 years ( )
   - 50 years and over ( )

3. What is your marital status?
   - Single ( )
   - Married ( )
   - Divorced ( )
   - Widowed ( )

4. Please indicate your highest level of education?
   - Primary school certificate ( )
   - Secondary school certificate ( )
   - College certificate ( )
   - University degree ( )
5. For how many years have you worked in the public sector?

0-1 year ( )

2-5 years ( )

6-10 years ( )

Over 10 years ( )

6. For how long have worked in procurement?

0-1 year ( )

2-5 years ( )

6-10 years ( )

Over 10 years ( )

Part B: REGULATORY COMPLIANCE

1. Does the organization operate under established procurement rules, policies and procedures?

Yes ( ) No ( )

2. How often are the policies and procurement laws reviewed to ensure environment friendly procurement?

Very often ( )

Often ( )

Occasionally ( )

Rarely ( )

Never ( )

3. To what extent are your procurement decisions influenced by the existing policies and laws on environment friendly procurement?

Very great extent ( )

Great extent ( )
4. Public procurement is undertaken in an environment of legal restrictions and detailed scrutiny of its compliance with regulation. What is your level of agreement with the statement?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

5. To what extent does regulatory compliance affect the adoption of green procurement in public institutions?

- Very great extent
- Great extent
- Moderate extent
- Little extent
- Not at all
PART C: PRESSURE FROM CUSTOMERS

1. Do your customers put pressure on the organization to exercise environment friendly purchasing?
   Yes ( ) No ( )

2. To what extent does the pressure from the customers affect the adoption of green procurement?
   Very great extent ( )
   Great extent ( )
   Moderate extent ( )
   Little extent ( )
   Not at all ( )

3. How often do you come across customers who buy environment friendly products only?
   Very often ( )
   Often ( )
   Occasionally ( )
   Rarely ( )
   Never ( )

4. Customers prefer to do business with environmentally responsible companies and are incorporating green standards as part of their procurement requirements. To what extent is the statement true?
   Very great extent ( )
   Great extent ( )
PART D: GOVERNMENT INCENTIVES

1. Does the government provide training on environment friendly procurement?
Yes ( )  No ( )

2. Does the government reward environment friendly procurement activities?
Yes ( )  No ( )

3. To what extent do the government incentives affect the adoption of green procurement in public institutions?
Very great extent ( )
Great extent ( )
Moderate extent ( )
Little extent ( )
Not at all ( )

4. In the public sector, procurement officers are the agents of the principal (the government) to realize the goals and objectives of the government in enhancing environment friendly procurement?
Very often ( )
Often ( )
Occasionally ( )
Rarely ( )
Never ( )
5. Without high level government support, employees are often unwilling or unable to pursue Green Procurement initiatives. To what extent do you think the statement is true?

Very great extent ( )
Great extent ( )
Moderate extent ( )
Little extent ( )
Not at all ( )

PART E: PRICE OF GREEN PRODUCTS

1. “The price of green products can affect the adoption of green procurement in public institutions”. To what extent do you agree with the statement?

Very great extent ( )
Great extent ( )
Moderate extent ( )
Little extent ( )
Not at all ( )

2. “The financial viability of green procurement initiatives affects its adoption among public institutions”. To what degree do you agree with this statement?

Strongly agree ( )
Agree ( )
Neutral ( )
Disagree ( )
Strongly disagree ( )

3. Increased cost of green products compared to those not environmentally friendly as a major barrier to adoption?

True ( ) False ( )
4. Sustainable products simply cost more than conventional products where there is little regard to either the environmental or social implications. What is your level of agreement with the statement?

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