

**DETERMINANTS OF COMPLIANCE WITH ACCESS TO  
GOVERNMENT PROCUREMENT OPPORTUNITIES  
REGULATIONS FOR SPECIAL GROUPS BY PUBLIC  
UNIVERSITIES IN KENYA**

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**Determinants of compliance with access to government procurement opportunities  
regulations for special groups by public universities in Kenya**

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**DECLARATION**

This research thesis is my original work and has not been presented for award of a degree in any other University.

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## **DEDICATION**

This work is dedicated to my mother Santina Wanjiru and my late dad Michael Mwangi for instilling the value of education in me . To my son Robert Mwangi and daughter Joan Waithira may you go beyond this!

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

<b>AGPO</b>	Access to Government Procurement Opportunities
<b>GDP</b>	Gross Domestic Product
<b>ICT</b>	Information Communication Technology
<b>KACC</b>	Kenya Anti-Corruption Commission
<b>KPA</b>	Kenya Ports Authority
<b>MSEs</b>	Medium and Small Enterprises
<b>PAPI</b>	- Paper and pencil Interview
<b>PPAB</b>	Public Procurement Advisory Board
<b>PPARB</b>	Public Procurement Administrative Review Board
<b>PPCRAB</b>	Public Procurement Complaints, Review and Appeals Board
<b>PPD</b>	Public Procurement Directorate
<b>PPDA</b>	Public Procurement and Disposal Act
<b>PPOA</b>	Public Procurement Oversight Authority
<b>PWD</b>	Persons with Disability
<b>SMEs</b>	Small and Micro-Enterprises
<b>SPSS</b>	Statistical Packages for Social Sciences
<b>VFM</b>	Value for Money



## DEFINITION OF TERMS

- Access to Government Procurement Opportunities (AGPO):** it is a program whose aim is to facilitate the youth, women and persons with disability-owned enterprises to be able to participate in government procurement (Government of Kenya, 2013).
- Compliance:** refers to conformity with rules and procedures set down in guidelines, regulations or directives (National Public Procurement Policy Unit, 2007).
- Contract Management:** involves service delivery management, relationship management, and contract administration and change management. It pertains to the preparation of procurement documentation, the processing and approval of such documentation, monitoring contract implementation, approving and administering contract variations and modifications, and possibly cancelling or terminating contracts (Banaitiene & Banaitis, 2006).
- Internal Controls:** comprises of accountability, information communication technology adoption, internal processes and ethics (Ngugi & Mugo, 2010).
- Pre-Qualification:** is the preliminary stage in a bidding process where it is determined if an applicant has the requisite resources and experience to complete the job as required (Ngai, Drew, Lo & Skitmore, 2002).
- Public Procurement:** refers to the acquisition of goods, services and works by a procuring entity using public funds (World Bank, 1995a).
- Selection Procedures:** it is the process to clearly select those suppliers that best meet the organization's sourcing strategy (Monczka et al., 2005).
- Special Groups:** this refers to youths and persons with disability (Government of Kenya, 2013)

## ABSTRACT

Public procurement has become an issue of public attention and debate. It has been subjected to reforms, restructuring, rules and regulations. Despite statutory provisions and internal controls, public sector institutions have not fully complied with Access to Government Procurement Opportunities regulations for special groups. Millions of shillings are wasted due to non compliance. Little is known on determinants of compliance with Access to Government Procurement Opportunities regulations. This study sought to analyze the determinants of compliance with Access to Government Procurement Opportunities regulations for special groups by Public Universities in Kenya. The main objective of this study was to analyze the determinants of compliance with Access to Government Procurement Opportunities regulations for special groups by Public Universities in Kenya. This study used a mixed research design as it allowed the researcher to use both quantitative and qualitative research methods. The target population consisted of supply chain officers in all public universities in Kenya. The sample size for this study was therefore 62 respondents from all the public universities. Data was collected using two instruments; a semi-structured questionnaire and an interview guide. The questionnaires were self-administered. Quantitative data was analyzed using descriptive and inferential statistics correlation and regression. The Statistical Packages for Social Sciences (IBM SPSS Statistics 20) was used to aid in data analysis. Quantitative data analysis results were presented in tables and charts. Qualitative data was analyzed using content analysis. Results of qualitative data analysis were presented in descriptive narrative form. The results revealed that prequalification criteria negatively contributed to level of compliance with Access to Government Procurement Opportunities regulations. The results also show that selection procedures positively contributed to level of compliance with Access to Government Procurement Opportunities regulations. The study findings revealed that contract management negatively contributed to level of compliance with Access to Government Procurement Opportunities regulations but it was not statistically significant. The study established that internal processes positively contributed to level of compliance with Access to Government Procurement Opportunities regulations. The study conclude that higher threshold of prequalification criteria leads to a lower level of compliance with Access to Government Procurement Opportunities regulations for special groups while an elaborate selection procedure leads to a higher level of compliance with Access to Government Procurement Opportunities regulations for special groups. This study also concludes that the contracting management has significant influence level of compliance Access to Government Procurement Opportunities with regulations for special groups. The study also concludes that a higher threshold of internal controls leads to a higher level of compliance with regulations for special groups. From the results the study recommends that public procurement entities should review their prequalification criteria to ensure that they are not excluding special groups' enterprises. Public procurement entities should have elaborate selection procedures to ensure that there is a higher level compliance with regulations. The study recommends that government agencies should strengthen contract management to ensure they have complied with regulations. Further government agencies

should maintain a high threshold of internal controls to ensure a high compliance with regulations.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background of the Study**

Public institutions are prominent actors in the modern economy and it follows that by their choices in public procurement, governments can have a discernible influence on trade patterns. Public procurement has been used as a tool to promote the government's economic, social or environmental objectives (Wanderi, 2014). Public institutions have one of the highest procurement budgets. Their procurement budgets can have a significant impact on trade in the areas they operate in (Zadawa, 2015). Government policy can be used to skew procurement opportunities in favor of certain interest groups such as youth, women and persons with disability (special groups). This can be done through public procurement preference practices such as Access to Government Procurement Opportunity (AGPO) program. Out of 149 State Corporations in Kenya, public universities are 31 thus take a large portion of public procurement budget. It is therefore important to understand their compliance with AGPO regulations for special groups (Onsongo, Okioga, Otieno & Mongare, 2012).

##### **1.1.1 Global Perspectives on Access to Government Procurement Opportunities**

Worldwide, public procurement has become an issue of public attention and debate, and has been subjected to reforms, restructuring, rules and regulations. Public procurement refers to the acquisition of goods, services and works by a procuring entity using public funds (World Bank, 1995a). According to Roodhooft and Abbeele (2006), public bodies

have always been big purchasers, dealing with huge budgets. Mahmood (2010) also reiterated that public procurement represents 18.42% of the world GDP.

Various countries both in developed and least developed countries have instituted procurement reforms involving laws and regulations. The major obstacle however, has been inadequate regulatory compliance. De Boer and Telgen (1998) confirm that non-compliance problem affects not only the third world countries but also countries in the developed world. This position is further supported by Gelderman, Ghijsen and Brugman (2006) who contend that compliance in public procurement is still a major issue. Public procurement is an integral function of governments in both developed and developing countries as the gigantic financial outflows has a great impact on their economies that needs prudent management. Thus prudent handling of public procurement functions is fundamental to achieving economic, socio-political and other objectives of government (Thai, 2001).

In Australia, the requirements such as an additional cost on suppliers, effort involved in demonstrating compliance form part of pre-qualification contract terms with only 30% of the enterprises owned by disadvantaged groups. Compliance with AGPO was capable of increasing the MSEs owned by disadvantaged group participation in public procurement. Adhering to necessary pre-qualification requirements influence compliance with procurement policies on access to government procurement by disadvantaged groups in developed countries like Australia. Compliance with AGPO in manufacturing companies in countries such as Japan is influenced by situations such as new product development, modifications to a set of existing suppliers due to a bad performance, the end of a

contract, expansion to different markets, current suppliers' capacity is not sufficient to satisfy increases in demand that triggers the need for supplier selection (Monczka *et al.*, 2005).

Procurement is central to the government service delivery system, and promotes aims which are, arguably, secondary to the primary aim of procurement such as using procurement to promote social, industrial or environmental policies (Cane, 2004). Public policy makers recognize the importance of the role of Small and Medium Enterprises (SMEs) in the economy, including the importance of their participation in the public procurement market. Public procurement can help in the development of an effective and efficient SME sector by providing appropriate opportunities for SMEs to demonstrate their skills and capabilities, including the purchase of goods and services which allows SMEs to develop and demonstrate innovative goods and services. In the past, procurement was considered mainly as an operational activity rather than as a key strategic function in the business planning process. Public purchasers concentrated on compliance with rules and procedures set down in guidelines, regulations or directives to seek value for money outcomes from procurement while observing necessary standards of probity and ethics (National Public Procurement Policy Unit, 2007).

In Brazil, for instance, a new legislation introduced in 2006 provided special treatment for MSEs. The Brazilian Government faced a new paradigm: to buy of prominent and strategic segments in order to promote the sustainable social and economic development.

The new legislation was capable of increasing the MSEs participation in public procurement to 30% of the total government's purchases and in 500% in value in a four

year period (Teixeira, 2012). In most developing countries, the procurement function is transitioning from a clerical non strategic unit to an effective socio-economic unit that is able to influence decisions and add value (Mulwa, Kalai & Migosi, 2013). Developing countries in one way or another have reformed their public procurement regulations. The reforms have not been limited to regulations only but also include public procurement process, methods, procurement organizational structure, and the workforce.

### **1.1.2 Regional Perspectives on Access to Government Procurement Opportunities**

In developing countries, public procurement is increasingly recognized as essential in service delivery (Basheka & Bisangabasaija, 2010), and it accounts for a high proportion of total expenditure. For instance, public procurement accounts for 60% in Kenya (Akech, 2005), 58% in Angola, 40% in Malawi and 70% of Uganda's public spending (Government of Uganda, 2006) as cited in Basheka and Bisangabasaija (2010). This is very high when compared with a global average of 12-20 % (Froystad *et al.*, 2010).

Public procurement has its origins in the fiduciary obligation of government administrations to deliver goods, infrastructure and services to the population of a country or a specific geographic region, city or town (Odhiambo & Kamau, 2003). According to the World Bank (2006) a Public procurement system is said to be well functioning if it achieves the objectives of transparency, competition, economy, fairness and accountability. Odhiambo and Kamau (2003) have defined public procurement as the purchase of commodities and contracting of construction works and services if such acquisition is effected with resources from state budgets, local authority budgets, state funds, domestic loans or foreign loans guaranteed by the state, foreign aid as well as

revenue received from the economic activity of the state. Public procurement refers to the government activity of purchasing the goods and services needed to perform its functions (Arrowsmith, 2010).

In developed as well as developing countries, a sound procurement system has to accomplish two sets of requirements which are the management and policy requirements. The procurement management requirements normally include quality, timeliness, cost, maximizing competition and maintaining integrity. The procurement policy requirements normally include economic goals for example preferring domestic or local firms, environmental protection or green procurement social goals which include assisting the minority, youth and women owned business concerns and international trade agreements. It is therefore very difficult for policy makers and public procurement practitioners to make an optimal decision as there are always tradeoffs among these goals (Thai et al., 2005).

Unlike private sector business and commercial entities, procurement and purchasing procedures of public sector bodies are governed by laws, regulations and national guidelines. The prime objective of the rules and procedures of the public procurement regime are to achieve value for public money in the award of public contracts by use of an open, non – discriminatory and fair competitive process. Public procurement is an important function of government (Thai, 2001). It has to satisfy requirements for goods, works, systems, and services in a timely manner. Furthermore, it has to meet the basic principles of good governance: transparency, accountability, and integrity (Wittig, 2003;



Callender & Schapper, 2003). Another main principle of governments is to achieve value for money in procurement.

### **1.1.3 Local Perspectives on Access to Government Procurement Opportunities**

In the past decades, the public procurement system in Kenya has undergone significant developments. The Public Procurement System in Kenya has evolved from a crude system with no regulations to an orderly legally regulated procurement system. The Government's Procurement system was originally contained in the Supplies Manual of 1978, which was supplemented by circulars that were issued from time to time by the Treasury. The Director of Government Supply Services was responsible for ensuring the proper observance of the provisions of the Manual. The Manual created various tender boards for adjudication of tenders and their awards (Onsongo, Okioga, Otieno & Mongare, 2012).

A review of the country's public procurement systems was undertaken in 1999 and established that: There was no uniform procurement system for the public sector as a whole. It did not have sanctions or penalties against persons who breached the regulations in the Supplies Manual, other than internal disciplinary action. Consequently application of the rules was not strict and many of the norms were not followed. The Supplies Manual did not cover procurement of works. The dispute settlement mechanisms relating to the award procedures as set out in the Manual were weak and unreliable for ensuring fairness and transparency. Records of procurement transactions in many cases were found to be inaccurate or incomplete or absent, which led to suspicions of dishonest dealings at the tender boards. The systems had other institutional weaknesses that not only

undermined its capacity for carrying out their mandates effectively but also led to a public perception that the public sector was not getting maximum value for money spent on procurement (Ombuki, Arasa, Ngugi & Muhwezi, 2014).

In view of the above shortcomings it was found necessary to have a law to govern the procurement system in the public sector. This was to establish the necessary institutions to ensure that all procurement entities observe the provisions of the law for the purpose of attaining the objectives of an open tender system in the sector. Consequently the establishment of the Exchequer and Audit (Public Procurement) Regulations 2001 which created the Public Procurement Directorate (PPD) and the Public Procurement Complaints, Review and Appeals Board (PPCRAB) (Onsongo *et al.*, 2012).

The PPD and PPCRAB, though largely independent in carrying out their activities, had been operating as departments in the Ministry of Finance on which they relied on staff, facilities and funding. Since these institutional arrangements have a potential for undermining the impartiality of these bodies in the long run, it was found necessary to create an oversight body whose existence was based on a law. The Public Procurement and Disposal Act, 2005 was thus enacted and it became operational on 1<sup>st</sup> January, 2007 with the Gazettement of the Public Procurement and Disposal Regulations of 2006 (Onsongo *et al.*, 2012).

The Public Procurement and Disposal Act, 2005 created the Public Procurement Oversight Authority (PPOA), the Public Procurement Advisory Board (PPAB) and the continuance of the Public Procurement Complaints, Review and Appeals Board as the Public Procurement Administrative Review Board (PPARB). The PPAB and PPARB are

autonomous bodies. The PPOA is mandated with the responsibility of ensuring that procurement procedures established under the Act are complied with; monitoring the procurement system and reporting on its overall functioning. Initiating public procurement policy assisting in the implementation and operation of the public procurement system by preparing and distributing manuals and standard tender documents, providing advice and assistance to procuring entities, and develop, promote and support training and professional development of staff involved in procurement (Onsongo *et al.*, 2012).

Ombuki, Arasa, Ngugi and Muhwezi (2014) summarized the metamorphosis of Public Procurement in Kenya. In 1963-1978, Public Procurement in Kenya was characterized by Treasury Circulars while 1978 – 1983 it entailed Supplies Manual and Treasury Circulars. In 1983-2001 there were Supplies Manual embedded in District Focus for Rural Development Strategy. In 2001-2007, Exchequer & Audit (Public Procurement) Regulations were in place while from 2007 Public Procurement and Disposal Act, 2005 was enacted. The introduction of the Public Procurement and Disposal Act (PPDA) of 2005 and the Procurement Regulations of 2006 introduced new standards for public procurement in Kenya. In 2010 Public Procurement was anchored in the New Constitution under Article 227 and in 2013 Preference and Reservations came into place.

On 18<sup>th</sup> June 2013, a policy directive was introduced that required the procurement rules be amended to allow 30 per cent of contracts to be given to the youth, women and persons with disability without competition from established firms. The Access to Government Procurement Opportunities (AGPO) Program aim is to facilitate the youth,

women and persons with disability-owned enterprises to be able to participate in government procurement. This will be made possible through the implementation of the Presidential Directive that 30% of government procurement opportunities be set aside specifically for the procuring entities. It is affirmative action aimed at empowering youth, women and persons with disability-owned enterprises by giving them more opportunities to do business with Government. The Public Procurement Directorate under the Ministry of Finance is in charge of the AGPO initiative. The Cabinet Secretary for the National Treasury published the Public Procurement (Preference & Reservations) (Amendment) Regulations 2013. The objective of these regulations is to accord the youth and other disadvantaged groups in Kenya preference in the supply of goods and services to the government.

This is in line with one of the key promises of the government to give the youth, persons with disability (PWD) and women at least 30% of all supply contracts in public procurement. The significance of these regulations is that the National Treasury and all the Treasuries in the 47 County governments shall be required to register and maintain a database for all Small or Micro-Enterprises (SME) or disadvantaged groups that wish to participate in public procurement (Wanderi, 2014).

The regulations also make it possible for procuring entities to divide supplies in lots of goods, works and services into practicable quantities which the youth SMEs and other disadvantaged groups can afford. A new Regulation enjoins the National, County governments and other agencies of government to allocate at least 30% of their procurement to the youth, SMEs and other disadvantaged groups. To enhance compliance

with this regulation these procuring entities will now be required to make budgets, issue tender notices and award contracts with at least 30% participation by the youth, SMEs and other disadvantaged groups. They will also be required to submit quarterly reports to the Public Procurement Oversight Authority for compliance audits (Wanderi, 2014).

Kenya's Vision 2030 and other government policies require public procurement to be carried out in a manner that is not only compliant to established laws and regulations, but also strategic in approach to ensure higher levels of efficiency and effectiveness. This calls for representation of 'professional procurement' in the county's top leadership to ensure that the nation as a whole leverages upon 'procurement practice and profession to deliver Kenya Vision 2030 economic development goals and objectives. In Kenya, ever since the implementation of the Public Procurement and Disposal Act 2005 and Regulations 2006, compliance has been an issue. In a study conducted by the PPOA (2007), it was noted that although procedures supporting systematic procurement planning had been established, the research showed that there was a low level of compliance with the law and regulations in the sense that a low share of procurements were done through open tendering. In another study by KPMG International after the introduction of the Regulations, it was still found that public procurement still suffers from fraud and misconduct (KPMG, 2008).

A study by the Kenya Anti Corruption Commission in 2009 was also consistent with the above findings in that it noted that misconduct exists whereby public officials distort the regulations to restrict the participation of interested firms in procurement or still direct the outcome of others (KACC, National Enterprise Survey on Corruption, 2009). Several

Procurement Reviews by the PPOA has also established that most of the public entities exhibit a below minimum level of compliance level of 60% as set out in their performance monitoring plan. In a review of Kenya Ports Authority (KPA) by KACC, External Audit Report and the PPOA in 2009 it was found out that there were deviations by the said entity in terms of general and specific areas of procurement. PPOA concluded that KPA's compliance level is low in major areas of the Act and Regulations. It is therefore an undeniable fact that the rate of compliance with the procurement law and regulations is still low in the country.

The Access to Government Procurement Opportunity Program is an affirmative action aimed at empowering youth, women and persons with disability-owned enterprises by giving them more opportunities to do business with Government (Gatere & Shale, 2014). It was introduced by government to facilitate the youth, women and persons with disability-owned enterprises to participate in government procurement (Republic of Kenya, 2013). A Presidential Directive was issued that 30% of government procurement opportunities be set aside specifically for enterprises owned by youths, women and people with disabilities.

Government tenders amount to billions each year hence it is a great opening for the Youth, Women and Persons with Disability. In 2013, procurement rules were amended to allow 30 percent of contracts to be given to the youth, women and persons with disability without competition from established firms (Gatere & Shale, 2014). Ngeno, Namusonge and Nteere (2014) investigated the effects of discriminatory public procurement practices on organizational performance in public sector. This study sought to evaluate the effect of

reservation practices on the performance of State Corporations in Kenya. The findings of the study revealed that a combination of preservation practices and preferencing practices led to high variations in State Corporations performance. Public procurement opportunities reservations and preferences positively influenced the performance of State Corporations in Kenya.

## **1.2 Statement of the Problem**

The regulations provide that a procuring entity shall allocate at least thirty percent of its procurement spend for the purposes of procuring goods, works and services from youth, women and persons with disability owned enterprises (Onyinkwa, 2013). The criterion for this allocation is centered on compliance with AGPO regulations. Registration and pre-qualification of Youth, Women and Persons with Disability owned enterprises is done for basic foundation of accessibility to government tenders and contracts (Simayi, 2005). Although many enterprises owned by youth, women or persons with disabilities are legal entities, registered with the relevant government body; and have at least seventy percent membership failed to be prequalified (Public Procurement and Disposal Regulations, 2013). Many MSE owned by youth, women and persons with disability in Kenya have been applying to access government procurement opportunities (Wanderi, 2014). There will be a need to determine the extent to which pre-qualifications influence access to government procurement opportunities (AGPO) regulations for special groups by public universities in Kenya which are the procuring entities.

Well-defined selection criteria allow suppliers to produce a response that is appropriately aligned with the requirements and the value of the contract. According to Monczka, Trent

and Handfield (2005) selection criteria that Allows an appropriate timeframe for responses elicits higher quality responses and allows suppliers to include more intricate details of their bid to improve the evaluation and selection process and provides a better outcome (Zadawa, 2015). However, the set of criteria to be selected prominently depends on the organization's objectives and the type of industry in which the organization competes. The current study sought to determine the extent to which selection procedures has a significant influence on compliance with Access to Government Procurement Opportunities (AGPO) regulations for special groups by public universities in Kenya.

Adequate contract management is indicator that access to government procurement opportunities by special interest groups is successful. Effective contract management influence accessibility to government procurement opportunities by small and medium enterprises (SMEs) run by specialized groups playing a significant role in development of national economy (Orwa, 2007). However, access to public sector contracts by smaller entities and cooperatives is often unsuccessful, at national and global level, for many organizations in different sector of an economy. Gatere and Shale (2014) observes that contract management influence implementation of access to government procurement opportunities for special interest groups. However, based on government report by the Authority, there was zero compliance to AGPO by all county government entities, public schools, public universities; co-operative societies a number of parastatals reported their contract awards. All central government ministries reported their contracts and it was noted there was 100% non-compliance of submission of procurement plans. This study seeks to determine whether there exist a significant relationship between contracting



management process and compliance with AGPO regulations for special groups by Public Universities in Kenya (GOK, 2015).

The internal controls at an institution affect compliance with public procurement laws (Mwangi & Kariuki, 2013). Despite statutory provisions and internal controls, youth, women and persons with disability owned enterprises have not adequately accessed government procurement opportunities (Adhiambo & Kamau, 2003). This means that public institutions such as public universities have not fully complied with AGPO regulations. Ntayi (2009) observed that millions of shillings are wasted due to non compliance. Little is known on determinants of compliance with AGPO regulations.

Previous studies have only focused on challenges with little or no regard on determinants of compliance. Badaso (2014) revealed that political interference, information technology, quality of personnel greatly undermine effective implementation of procurement policies in State Corporation. Onsongo, Okioga, Otieno and Mongare (2012) investigated the challenges facing secondary schools procurement committees in Kisii County in implementing the procurement Act. They observed that lack of technical capabilities and external influences are key challenges of secondary schools procurement committees. This study sought to analyze the determinants of compliance with AGPO regulations for special groups by public institutions with a focus on Public Universities in Kenya.

### **1.3 Research Objectives**

#### **1.3.1 General Objective**

The general objective of this study was to analyze the determinants of compliance with AGPO regulations for special groups by Public Universities in Kenya.

#### **1.4 Specific Objectives**

1. To analyze the effect of pre-qualification criteria on compliance with AGPO regulations for special groups by Public Universities in Kenya
2. To determine effect of selection procedures on compliance with AGPO regulations for special groups by Public Universities in Kenya
3. To analyze the effect of contracting Management on compliance with AGPO regulations for special groups by Public Universities in Kenya
4. To examine effect of internal Compliance controls on compliance with AGPO regulations for special groups by Public Universities in Kenya

#### **1.5 Research Questions**

1. What are the effects of prequalification criteria on compliance with AGPO regulations for special groups by Public Universities in Kenya?
2. How do the selection procedures affect compliance with AGPO regulations for special groups by Public Universities in Kenya?

3. What are the effects of contracting process on compliance with AGPO regulations for special groups by Public Universities in Kenya?
4. How effective are the internal controls in Public Universities in Kenya?

### **1.6 Research Hypotheses**

H<sub>01</sub> There is no significant effect of prequalification criteria on compliance with AGPO regulations for special groups by Public Universities in Kenya

H<sub>02</sub> Selection procedures have no significant effect on compliance with AGPO regulations for special groups by Public Universities in Kenya

H<sub>03</sub> There is no significant effect of contract management on compliance with AGPO regulations for special groups by Public Universities in Kenya

H<sub>03</sub> There is no significant effect of internal compliance control on compliance with AGPO regulations for special groups by Public Universities in Kenya

### **1.7 Significance of the Study**

This study is relevant to the government of Kenya. Kenya, like other developing economies requires prudent management of public resources in order to spur investments and growth. The extent to which these objectives can be realized on a sustainable basis is dependent on the degree of efficiency with which critical factors of production are made available and combined with each other to produce desired results. Public procurement is an important function that allocates resources in the economy. Its efficiency is therefore critical and can be achieved through complying with the laid down rules and regulations.

The findings of this study would be of value to Public Universities. The issue of procurement is critical in the efficiency of any organization. This study would provide useful insights on the determinants of compliance with AGPO regulations for special groups (youth, women and people with disabilities) in Public Universities in Kenya and this will go a long way in improving compliance. Public Universities in Kenya are part of State Corporations with one of the highest procurement budgets. Their procurement budgets can have a significant impact on special group residents from the areas they operate in. It is therefore important to understand their compliance with AGPO regulations for special groups.

This study would also be relevant to other public sector organizations. Through Public Universities, the study will make an interesting contribution to the understanding of the general and specific contribution to the determinants of compliance with AGPO regulations for special groups.

The study will also benefit special groups owned enterprises as well as members of the general public as a source of enlightenment since it will enlarge existing literature on the directive that 30% public procurement opportunities be reserved for youth and people with disabilities. Given the existing empirical data on access to government public procurement opportunities for youth and people with disabilities in the public sector, the study results and literature reviewed would form additional important basis for reference by future researchers and scholars interested in the area of study.

This study is beneficial to Public Procurement Oversight Authority in terms of capacity building in public sector organizations. The findings of this study will assist in implementation of directive that 30% public procurement opportunities for youth, women and people with disabilities related policies. They will create capacity building in public sector organizations hence enhancing service delivery. The findings would be significant in promoting confidence and trust to the general public in respect to public procurement.

### **1.8 Scope of the Study**

This study covered the statutory provisions and internal controls in an attempt to enhance compliance with government public procurement regulations for special groups by Public Universities in Kenya. There are 149 State Corporations in Kenya of which 31 are Public Universities (GOK, 2016). This accounts for 20.8% of all State Corporations in Kenya. Given that the Public Universities account for a large portion of State Corporations in Kenya, their procurement budgets are also large. This can have a significant impact on not only public policy but also on the economy. The study was limited to the procurement activities for the calendar year 2013/2014.

The procurement rules were amended in 2013 to allow for 30 percent of contracts to be given to the youth, women and persons with disability without competition from established firms. The study focused on statutory provisions prequalification criteria, selection procedures and contracting process and internal controls in Public Universities. Statutory provisions and internal controls can provide an environment enhancing or restricting compliance with public procurement regulations.

## **1.9 Limitation of the Study**

The study came across some limitations whereby the study anticipate some limitations as discussed below. This study focused on public universities and may not be generalized to reflect the entire public institutions including the Kenya schools of government. In addition, there are unique issues affecting different universities that would influence compliance with AGPO practices and their performance. Since this study used mixed method, these unique issues could not be factored in the study. Another limitation of this study was the scope. There are other determinants that affect compliance with public procurement regulation, AGPO. Isolation of the effect of discriminatory public procurement practices on procurement compliance performance though possible does not reflect reality accurately.

Some respondent were uncooperative and decide not to provide information required to answer to research questions. The respondents also ignored to listen to the study and even ignore to answer the questionnaire as it may be expected. In this limitation the study tried to make the respondents to understand the reason as to why the study is being carried out and informed them that the study will be for academic purpose only.

There was always fear that the information captured in this study can be used by other competing forces in the region and even globally. The researcher assured the respondents that all information and data provided was to be held with utmost confidentiality.

The targeted staffs were busy to go out of their routine schedule and have the questionnaires filled. The researcher left the questionnaires for three days for the staff to have sufficient time for filling the questionnaires. The government state corporations

management could have denied the permission to collect data from their institution as it is expected, but instead restrict what to be collected and what not to be collected. This was mitigated by use of permit from the University for necessary support in data collection to collect adequate information.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents a review of literature. It presented the theoretical framework, the conceptual framework, literature review in line with the study variables, empirical review, critique of the literature and research gap.

#### **2.2 Theoretical Framework**

As cited by Defee *et al* (2010), good research should be grounded in theory (Mentzer *et al.*, 2008). This study was grounded on preferential procurement model, transaction cost theory and theory of public purchase.

##### **2.2.1 Preferential Procurement Model**

Procurement can be used to support socio-economic policies using a number of approaches that includes reservation, preferencing, indirect strategies and supply side measures. A preferential procurement policy is a procurement policy that promotes objectives additional to those associated with the immediate objective of the procurement itself (Simayi, 2005). The procurement of supplies, services and engineering and construction works has been used internationally to support a number of socio-economic or political (secondary) objectives. For example, in the United States, reservation schemes and supply side schemes are used to ensure market share of small business enterprises and minority business enterprises. Legislation in Botswana (Republic of Botswana, 2001) made provision for both reservation and preferencing schemes to promote citizen contractors companies that are wholly owned by Botswana citizens. In



South Africa, the Department of Trade and Industry operates in terms of a cabinet memorandum, an indirect scheme (Industrial Participation Programme) whereby successful tenderers on certain high value contracts are required to participate in the South African economy to the extent that the total of all commercial or industrial activity (subject to the Department's crediting criteria) equals or exceeds 30% of the imported content within a period of 7 years. South Africa has also used preferential procurement to implement its Black Economic Empowerment agenda (Watermeyer, 2003).

There are four generic schemes for using procurement to attain socio-economic objectives. They include reservation, preferencing, indirect strategies and supply side measures. Under reservation schemes, contracts or portions thereof are reserved for contractors who satisfy certain prescribed criteria for instance contractors who: are owned, managed and controlled by a target population group; are classified as being a small business enterprise; have equity ownership by companies with prescribed characteristics; or are joint ventures between non-targeted and targeted joint ventures (Arrowsmith, 2010).

Under preferencing schemes, although all contractors who are qualified to undertake the contract are eligible to tender, tender evaluation points are granted to those contractors who satisfy prescribed criteria or who undertake to attain specific goals in the performance of the contract (Wanderi, 2014). Under indirect schemes, procurement strategies and requirements are used to promote policy objectives by constraining the manner in which the procurement is delivered or by being used to generate offsets in parallel to the procurement for example. Specifications require that work associated with

the contract is undertaken in a manner that supports policy objectives or offsets whereby undertakings such as the provision of bursaries, participation in an economy, the provisions of community centres among others that are unrelated to the procurement itself are, in order to secure the contract, committed to (Roodhooft & Abbeele, (2006). Supply side measures are provided to targeted enterprises to overcome barriers to competing for tenders or for participating in procurements within the supply chain, for example. Access to bridging finance or securities, mentorship, capacitating workshops among others (Arrowsmith, 2010).

The Public Procurement Research Group, which is based at Nottingham University in the United Kingdom identified 9 basic methods to implement preferential procurement policies (Arrowsmith, 2010). Typically there have been concerns raised by stakeholders such as the international community which revolve around the risk of the following occurring when implementing a preferential procurement policy: loss of economy and inefficiency in procurement; the exclusion of certain eligible tenderers from competing for tenders; a reduction in competition; unfair and inequitable treatment of contractors; lack of integrity or fairness; lack of transparency in procurement procedures; and failure to achieve socio-economic objectives through procurement (Simayi, 2005). However, risks associated with a programme of procurement can be minimized should the implementation methodology that has the least negative impact be adopted and this methodology be implemented within a well defined framework.

Under reservation schemes, methods used to implement preferential procurement policies include set asides, qualification criteria, contractual conditions and offering back. Under

preferencing schemes, methods used to implement preferential procurement policies include preference at the short listing stage and award criteria (Osei-Tutu, 2011) Under indirect measures, methods used to implement preferential procurement policies include product or service specification and design of specifications, contract conditions and procurement to benefit particular contractors. In supply side measures, methods used to implement preferential procurement policies involve general assistance. This is providing support for targeted groups to compete for business, without giving these parties any favorable treatment in the actual procurement (Simayi, 2005).

### **2.2.2 The Social Bond Theory**

The social bond theory that did an exploration on the deviant behaviour of human beings. Social control theory was developed by Travis Hirschi in 1969, and it is also known as the social bond theory. According to Hirschi (1969), social control theory proposes that people's relationships, commitments, values, norms and beliefs encourage them not to break the law. The theory assumes that individuals fail to comply with the law due to a breakdown within their societal bond and maintain that weak containing social systems results in deviant behaviour. This theory supports the ethical behaviour in procurement as one of the critical guidance to enhancement mechanism to procurement regulation compliance (Dintwa, 2012).

However, contrary to the social control theory, Tittle (1995) criticise and posited that control theory generally focus on the determinants that control the behaviour of individuals such as societal norms, values and customs, however it does not consider the control exercised by these individuals over their social environment. The view were

supported by Badaso (2014) who indicated that a person is so isolated in contemporary society so free to move from one context of external control to the other or even to escape from most of it that internal control is the more basic factor in conformity. This theory support and advocate for the notion of internalisation control which the refers to it as the internal process by which social norms are taken so deeply into the self as to become a fundamental part of the personality design.

The theory support the study in that the establishment of different procurement laws and regulations that led to procurement regulation enforcement agencies, empowerment of procurement officers, and development of procurement policies and strategies aimed at dealing with corruption and foster compliance with compliance with the instituted procurement regulations (Snell, 2004). There is a need for institutions and employees to reawaken the internal controls that will enhance compliance with set procurement regulations. The theory postulates that if moral codes are internalised and procurement officers are tied into, and have a stake in their wider community, they will voluntarily limit their propensity to commit deviant acts (Tukamuhabwa, 2012). This implies that the power of internal means of control, such as training, improve accountability are as a results of controlling individual ego and sensibilities about compliance with AGPO.

### **2.2.3 Institutional Theory**

Theory of institution is proposed by Scott (2004) support the organizational cultural regulations governing organizations. Institutions are composed of cultural-cognitive and regulative elements that, together with associated activities and resources give meaning to life. The theory proposed three pillars of institutions as regulatory, normative and cultural

cognitive (Sutinen & Kuperan, 2009). The regulatory pillar emphasizes the use of rules, laws and sanctions as enforcement mechanism, with expedience as basis for compliance. The normative pillar refers to norms how things should be done and values that is preferred or desirable, social obligation being the basis of compliance. The cultural-cognitive pillar rests on shared understanding that is common beliefs, symbols, shared understanding (Brammer & Walker, 2007).

This is the old approach used checking public procurement elements (Luhmann, 2010). Scott (2004) states institution pillars as regulatory, normative and cultural cognitive. Each pillar addressed different issue such as use of rules, laws and sanctions that is regulatory pillar as enforcement mechanism to be complied with. Scott (2004) advances that institutes are consist of regulative elements and cultural cognitive comprised of cultural-cognitive, regulative elements with associated activities and resources that give life meaning.

The institutional theory is critical as it inform the implementation of sustainable procurement policy, regulatory framework and practice in institutions that serve the public. This is a matter of firm culture and the degree to which the prevailing climate in an organization is supportive of sustainability and/or of compliance with the set out regulations. There are various mechanisms introduced by government to enhance compliance to procurement processes. According to Naidoo (2012) institutions are charged with ensuring that not only procurement officials, but public service in its entirety should conduct and comply with the values and principles enshrined in

procurement legal framework and thus geared to promoting good procurement governance.

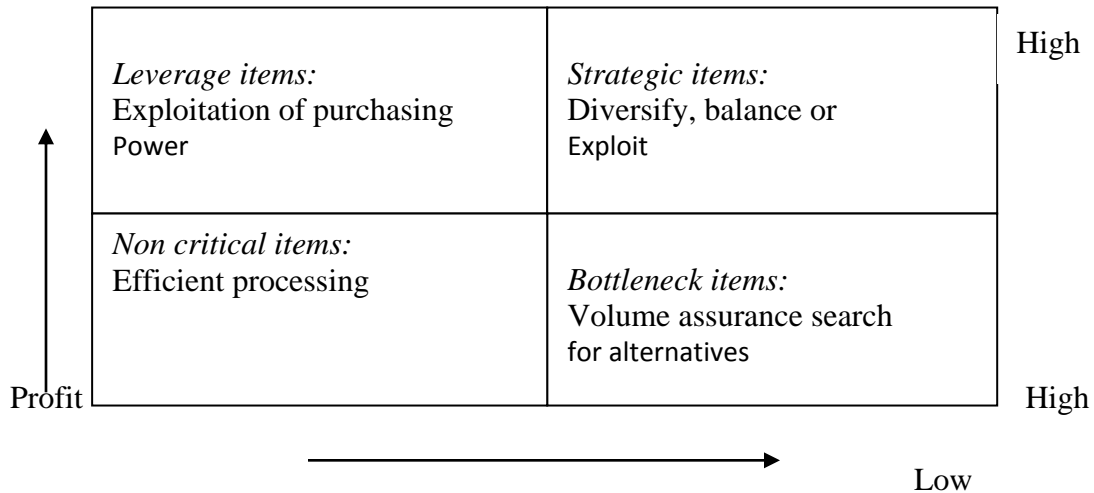
In Kenya, public procurement is under guidance of the PPDA Act 2015. The Act spells out the regulations and guidelines issued by the PPOA (Barrett, 2010). Institutions such as Kenya National audit and Public Procurement Regulatory Authority foster compliance with procurement regulations such as AGPO. These institutions are established in terms of chapter six of the Constitution of the Republic of Kenya 2010. They are regarded as watchdogs which keep government in checks and transform the society, thus safeguarding our constitutional democracy. Institutional theory asserts that if organizations complied with the Public procurement regulations then they would be assured of competition in bids, transparent processes, and professional approach in procurement process (Andrew, 2008). In respect to the current study, this dimension includes the extent to which there is support for internal controls, competency of senior levels and support governance in organization and the degree to which organizational procurement processes and structures support is supported compliance with procurement regulations.

#### **2.2.4 The Kraljic Portfolio Purchasing Model**

The Kraljic Portfolio Purchasing Model was created by Peter Kraljic and it first appeared in the Harvard Business Review in 1983 (Weele, 2005). Despite its age, it's a popular and useful model used in companies worldwide. Its purpose is to help purchasers maximize supply security and reduce costs, by making the most of their purchasing power. Kraljic (1983) suggested that selecting the best procurement strategy is a function of the level of supply exposure, technical risk and the strategic nature of the product or service that is its value or cost to the buying firm. In doing so, procurement moves from being a transactional activity to a strategic activity because, as Kraljic (1983) who opined,

procurement must become procures management. Virtually every Procurement department and consultancy firm uses this matrix today and it is the main strategic positioning tool for thinking about supply management decisions.

The matrix’s simplicity belies its power and usefulness to supply professionals when formulating optimal procurement approaches. According to Gelderman and Weele (2005), Kraljic’s approach includes the construction of a portfolio matrix that classifies purchased products and services on the basis of two dimensions: profit impact and supply risk (“low” and “high”). The result is a 2 x 2 matrix and a classification into four categories: bottleneck, noncritical, leverage and strategic items; see Figure 1. Each of the four categories requires a distinctive approach toward supplier management.



Under Kraljic’s approach context, this study’s goal is to evaluate the determinants that should inform the compliance with procurement regulations for instance contracting of goods and services. The procurement portfolio approaches are systematic that enable the evaluation of the strategic significant of a procurement in many ways, as well as the difficulties in managing procurement process. These portfolio methods also consist in the need for managers in organizations to develop different procurement methods and strategies for each type of supplier market and each category of purchased item in order for the institutions to comply with guidelines and achieve returns in the procurement management (Weele, 2002).

According to Tukamuhabwa (2012) the issue of public procurement non-compliance has triggered a lot of debate in recent years approaching. Karjalainen, *et al*, (2009) contend that organizational misbehaviors and non-compliance in procurement. This supports compliance with procurement regulations as public procurement has been employed as a vital tool for achieving economic, social and other objectives. The theory of Kraljic (1983) model introduces a procurement portfolio model where procurement of the government is set aside for the disadvantage group in procurement through AGPO .

### **2.2.5 Principal Agent Theory**

The principal agent theory as advocated by Donahue (1989) explains that procurement managers in the public sector play the relationship role. It helps to explain the role of public procurement personnel in discharging their mandate (Mahmood, 2010). Prier (undated) explains that an agency relationship is a contract under which one or more persons (principals) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent. It is merely assumed that the principal and the agent do not share the same levels of information, and as such, the agent can opportunistically take advantage of the situation, sometimes to the detriment of the principal. Therefore, procurement managers take on the role of agent for elected representatives, (Eyaa *et al*, 2011).

This theory holds that shirking is likely to occur when there is disagreement between policy makers and bureaucracy. The democratic perspective focuses on responsiveness to citizens and their representatives (Strom, 2000). However, Sundry (2007) identifies this



principle-agent relationship among the possible risks whereby procurement managers show apathy towards principal preferred outcomes or even overriding of the principal's preferences thus resulting into non-compliance. Njiraini *et al* (2006) states that the proponents of this theory argue for increasing participation of the publics in the procurement processes. Such participation is likely to enhance the scope of monitoring and enforcement of procurement decisions by public agents and shift the responsibility from the elected representatives to the taxpayers, who are the main principals.

According to this theory, the agent and the principal conflict on a number of areas given that each party the institutions and disadvantage group (PLWD) in Kenya has a differing objective. For instance, the principal, the PLWD expects the agent, institutions to carry out the procurement responsibilities in accordance with the set procurement regulation. This kind of relationship is evident in relationships such as employer and employee, the association of the buyer and the supplier. Therefore, agency theory is highly adopted and applied in areas where contracting is taking place hence contract management critical in compliance with AGPO.

#### **2.2.6 UNCITRAL Procurement Model**

The UNCITRAL approach to unification and harmonization of international trade is through various means, including the development of model trade laws. The UNCITRAL Model Law on Public Procurement (UNCITRAL Model Law) is one such model law (Bukhala, 2003).As a model law, the UNCITRAL Model Law foster evaluation and modernization of procurement laws and practices, and establishment of compliance

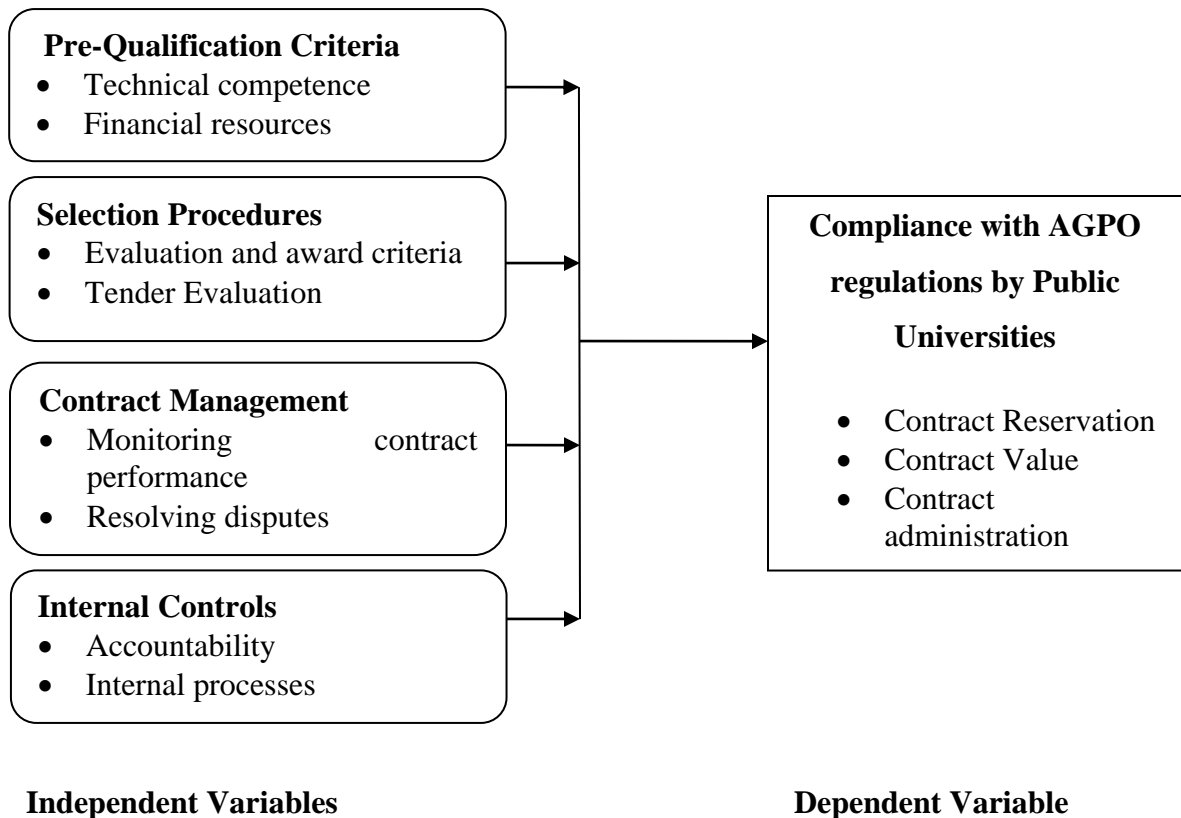
framework for procurement legislation to support harmonization of procurement regulation and so to promote local and international trade (Odoyo & Lipindi, 2012).

States may choose to enact some or all parts of the Model Law, although in order to increase the likelihood of achieving a satisfactory degree of unification and to provide certainty about the extent of unification, States are encouraged to make as few changes as possible when incorporating a model law into their legal system. The UNCITRAL Model Law is applicable in Kenya as it covers public procurement, which is described as the acquisition of goods, construction or services by a procuring entity (Wanderi, 2014). In turn, the UNCITRAL Model Law provides options for enacting States to consider in drafting national legislation as to the meaning of procuring entity (Wittig, 2003). The application of UNCITRAL Model Law support compliance with public procurement system of an institution. That a public procurement system can have features or can be a mechanism which can help achieve a higher level economic and social development hence the need to foster compliance with the procurement regulations (Nge'no, 2014). The Model Law support compliance with Public Procurement regulation contains procedures and principles aimed at achieving value for money and avoiding abuses in the procurement process.

### **2.3 Conceptual Framework**

A conceptual framework is very important in any research study. According to Mugenda and Mugenda (2003), a conceptual framework refers to a conceptualization of the relationship between independent variables Pre-Qualification Criteria, selection

procedure, contract management and internal control while dependent variable is compliance with AGPO as presented in Figure 2.1. Other than showing the direction of the study, a researcher can also be able to show the relationships of different constructs that he/she investigates.



**Figure 2. 1: Conceptual Framework**

### 2.3.1 Prequalification Criteria

Pre-qualification is the preliminary stage in a bidding process where it is determined if an applicant has the requisite resources and experience to complete the job as required. Pre-qualification is used to identify contractors who would be allowed to tender for certain

contracts (Khosrowshahi, 2001). Therefore, an advertisement for pre-qualification does not amount to an advertisement of a tender for a contract because all the former does is allow those interested to express their desire to be eligible to tender. Once a company is pre-qualified for a particular contract it is then eligible to tender for that contract (Gelderman, Ghijsen & Brugman, 2006).

Offer Back reservation schemes offer the tenderers that satisfy criteria relating to policy objectives an opportunity to undertake whole or part of the contract if that tenderer is prepared to match the price and quality of the best tenderer received. The Special Contract Arrangement (SBA) introduced by Britain to support disabled people in the European economic area is an example of the offer back discriminatory policy (Erick, 2006). The SBA requires contracting authorities to give special consideration to suppliers registered with the scheme. The scheme involves 'offer back' under which a registered supplier whose tender is unacceptable on price alone should be given an opportunity to submit a revised tender for part or the entire contract (Eyaa & Oluka, 2011). The shortcoming with this method is it awards contracts to those who are not necessarily capable of performing the contract within the nominated contract price. This unfairness makes the procurement process unattractive to some tenderers leading to reduced competition (Hefner, 1997).

A firm applying for pre-qualification has no expectation to be awarded any contract based on the application for pre-qualification. Its only expectation is that once it has been approved for pre-qualification, then it is free to bid for the contract. Pre-qualification therefore precedes the tender and an advertisement for pre-qualification should not be

confused with an advertisement inviting tenders for the award of the substantive contract (Ngai, Drew, Lo & Skitmore, 2002).

Most public organizations adopt a selective approach for inviting tenders for projects. This help to prevent contractor default and associated overhead costs of contractors. It enables the clients to assess the liability, competency and capability of potential contractors to satisfactorily carry out the contract. It also minimizes the potential risks involved in the project (Ng & Skitmore, 1999).

According to Lam, Hu, Ng, Skitmore and Cheung (2001) contractor's pre-qualification can be regarded as a complicated two – group non – linear classification problem. It involves a variety of subjective and certain information extracted from various parties such as contractors, prequalification and project teams. Non-linearity, uncertainty, and subjectivity are the three predominant characteristics of contractor pre-qualification. This makes the process more of an art than a scientific evaluation.

Efforts have been made to cope with the non-linearity existing between contractor attributes and the corresponding pre-qualification decisions made by the owner (Fong & Choi, 2000). These efforts include the development of a range of nonlinearity models such as programmed evaluation review technique (PERT), the artificial neural network model (Lam *et al*, 2002), the analytical hierarchy process (AHP) (Fong and Choi, 2000) and the multi – attribute utility model. In an attempt to reduce the subjectivity and uncertainty involved in the process of contractor prequalification, a number of techniques have been investigated, involving varying degree of complexity.

Lam *et al.* (2005) applied fuzzy set theory to the evaluation and selection of bidders based on cost, the presentation of bid information and past experience. While Russell *et al.* (1990) develop a prototype knowledge based expert system that aids construction owners in performing contractor prequalification. It provides an automated contractor evaluation process through which rational and consistent prequalification decisions could be made. Lam *et al.* (2005) developed a case – based reasoning system and found that it could capture and reuse experimental knowledge pertinent to contractor prequalification decisions, and thus help decision makers to produce more reliable and expeditious decisions for contractor prequalification. According to Khosrowshahi (1999) the ability to optimize the short listing from a large number of potential contractors is as important to the final selection of the right bidder. This is because the quality of the final bidder is as good as those shortlisted (Cane, 2004).

Pre-qualification is not used for all contracts. In fact, it is only used in certain cases where it is felt necessary to do so. The vast majority of contracts are publicly advertised without the need for prequalification which is often reserved for large contracts and those with requiring highly technical expertise (Basheka & Bisangabasaija, 2010). One of the advantages of prequalification is to reduce the need to evaluate unqualified contractors. It is a way of narrowing the field to only those who have the requisite ability to comply with the terms of the contract and the financial capability to undertake the work. Thus for certain contracts, particularly large contracts or those involving highly technical work, a procurement entity will before advertising for bidders for the contract, first ask for invitations for pre-qualified bidders (Barden, 2012).

### **2.3.2 Selection Procedures**

According to Monczka, Trent and Handfield (2005), the first step in supplier selection usually implies the identification of the need for a specific product or service. Different situations may trigger the need for supplier selection. For example, new product development, modifications to a set of existing suppliers due to a bad performance, the end of a contract, expansion to different markets, current suppliers' capacity is not sufficient to satisfy increases in demand (Akech, 2005). These situations are particular to every organization. Although all contractors who are qualified to undertake the contract are eligible to tender, tender evaluation points are granted to those contractors who satisfy prescribed criteria or who undertake to attain specific goals in the performance of the contract (Abouzeedan & Busler, 2002).

Preferences at short listing stage are one of the practices in preferenceing schemes (Martin *et. Al.* 1999). Among the nine different methods for using public procurement to promote non-commercial objectives, preferenceing schemes are the most practiced. Arrowsmith (2000) gives two categorizations in which preference schemes can be applied. Under preferences at short listing stage a number of suppliers / service providers who are invited to tender are limited on the basis of qualification. Weighting is given to policy objectives along with the usual commercial criteria, such as quality, at the short listing stage.

Sourcing requires that organizations to clearly define the strategy approach to be taken during the supplier selection process. Examples of sourcing strategies are: single versus multiple suppliers, domestic versus international and short term versus long term supplier

contracts. Single sourcing may not be an appropriate strategy in most purchasing situations. Single sourcing tends to minimize total costs by determining the best supplier for each purchased part or product. However, dependency on a single supplier exposes the buying organization to a greater risk of supply interruption. An example of realized supply risk resulting from a single sourcing strategy is the case of Toyota's 1977 brake valve crisis. Toyota's assembly plants in Japan were forced to shut down for several days after a fire at its only supplier's (Aisin Seiki) main plant. This facility was the only source for valves that were used in all Toyota vehicles (Nishiguchi & Beaudet, 1998). The estimated cost of this single event was \$195 million and 70,000 units of production. Thereafter, Toyota sought at least two suppliers for each part (Treece, 1997).

Multiple sourcing strategies provide a greater flexibility due to the diversification of the organization's total requirements. In addition to ensuring product availability, working with multiple suppliers is important because suppliers are motivated to be competitive in factors such as price and quality (Jayaraman, Srivastava & Benton, 1999).

The importance of the item under consideration influences the resources spent on identifying potential suppliers. For example, major resources are spent when potential suppliers are needed for an item of high strategic importance (Monczka *et. al.* 2005). Given the limited resources of an organization, a purchaser needs to pre-screen the potential suppliers to reduce their number before proceeding with a more detailed analysis and evaluation. The supplier selection criteria determined in Step 2 plays a key role in this reduction process. Howard (1998) defined this reduction process as the process by which suppliers satisfy certain 'entry qualifiers' before further analysis. There



exists many different ways to evaluate and select suppliers. The final step of the supplier evaluation and selection process is to clearly select those suppliers that best meet the organization's sourcing strategy. This decision is often accompanied with determining the order quantity allocation to selected suppliers (Akech, 2005).

Tenders are assessed against the criteria set out in the advertisement or tender documentation. The assessment should follow the pre-defined evaluation strategy and be consistent with the ultimate objectives of the project/procurement. The financial and qualitative elements of tenders are assessed separately. Weightings may be applied to the criteria to allow price and non-price factors to be scored to reflect their importance to the project and to arrive at a final value for money (VFM) judgment. For complex procurements, this process requires skilled and experienced staff. The final selection should be the tender which offers best overall VFM (Monczka *et. al.* 2005).

### **2.3.3 Contract Management**

Contractual relationships play a central and fundamental part in the delivery of public sector services and touch the lives of every citizen. Suppliers' actions are often critically important, and when things go wrong, the failure can be expensive in human, financial and reputational terms. Good management of the operational phase of the procurement is therefore key to successful service delivery (Banaitiene & Banaitis, 2006).

Contract management activities can be broadly grouped into three areas: Service delivery management – ensures that the goods or services are being delivered as agreed, to the required level of performance and quality, and are supporting the business and

operational need for the contract. Relationship management– keeps the relationship between the two parties open and constructive, and aims to resolve or ease tensions and identify problems early. Contract administration & change management– handles the formal governance of the contract and changes to the contract documents (Banaitiene & Banaitis, 2006). Accessing government procurement opportunities through effective contract management led to sustaining development as the majority at grassroots that accelerate and sustain poverty reduction efforts (Gichure, 2007), hence the need to target the rural poor to achieve overall economic growth by funding them to be able to access public procurement.

According to Public Procurement and Disposal General Manual (2009) in Kenya, contract administration pertains to the preparation of procurement documentation, the processing and approval of such documentation, monitoring contract implementation, approving and administering contract variations and modifications, and possibly cancelling or terminating contracts. Weak contract administration is an invitation to corrupt practices. If a procuring entity fails to ensure that the vendor or contractor delivers to the specification or quantities of the contract this can lead to substantial losses. If a procuring entity approves contract variations that lead to significant deviations from original agreed costs, this undermines effective competition since for example an increased volume of delivery addressed at the time of tender could have led to significantly lower per unit prices from the competing bidders.

Poor documentation and records management, along with weak coordination between the Government's representative, the procuring unit and the accounting unit undermine

payment controls and lead to payments in excess of contract ceilings, especially in multi-year contracts. It is imperative that the Accounting Unit maintain accurate and up to date ledgers that properly track all contract payments and record contract totals and approved contract variations to serve as payment ceilings. Several procurement reviews in Kenya and elsewhere around the world have identified weak contract administration as a major source of loss and a significant area of abuse and corruption (Public Procurement and Disposal General Manual, 2009).

A procurement Contract is a written agreement between a procurement entity and a supplier, contractor or consultant which is enforceable by law. Administration is defined as the activities involved in managing a business organization or institution. Management is defined as the process being responsible for a business organization or institution. In this part, contract administration and contract management shall have the same meaning and may be used interchangeably.

#### **2.3.4 Internal Controls in Compliance**

The internal controls at an institution affect compliance with public procurement laws (Mwangi & Kariuki, 2013). This is very important especially where other alternative methods of procurement other than open tender system are applied. Low utilization of consultants and procurement experts created vulnerability of the system to misuse and corruption. Weak internal controls may lead to increasing non-compliance and loss of substantial public revenue due to inefficient and ineffective procurement structure, policies and procedures and failure to impose sanctions for violation of such rules resulting to poor service delivery (Adhiambo & Kamau, 2003 : Ntayi, 2009).

Internal controls comprises of accountability, information communication technology adoption, internal processes and ethics (Ngugi & Mugo, 2010). Accountability is government's obligation to demonstrate effectiveness in carrying out goals and producing the types of services that the public wants and needs (Segal & Summers, 2002). Lack of accountability creates opportunities for corruption. Brinkerhoff (2004) identifies three key components of accountability, including the measurement of goals and results, the justification or explanation of those results to internal or external monitors, and punishment or sanctions for non-performance or corrupt behavior. Strategies to help increase accountability include information systems which measure how inputs are used to produce outputs; watchdog organizations, health boards or other civic organizations to demand explanation of results; performance incentives to reward good performance; and sanctions for poor performance.

In South Africa, a district health planning and reporting system was used to improve management control and hold government agents accountable for their decisions. By combining financial and service data, the reporting system drew attention to clinics and programmes that had unusual indicators, and helped officials to explore root causes for performance differences, including possible corruption (Vian & Collins, 2006).

Public agencies must utilize ICT in order to enhance the procurement processes in the public sector. Faced with tight budgets and a retiring workforce, today's government agencies are operating in an environment defined by the need to 'do more with less'. Public authorities are expected to provide excellent service to their constituents in an effective and transparent manner, all the while working under constant resource

constraints by adopting ICT (Hagén, & Zeed, 2005). Governments are turning to ICT to enhance the services for residents, businesses and visitors, and improve internal efficiencies by lowering costs and increasing productivity. Public organizations are implementing scalable communication infrastructures to promote economic development, attract new businesses and residents, and above all, provide excellent service to constituents (Abouzeedan & Busler, 2002). From a business perspective, implementing scalable communication infrastructures such as wide area networks (WANs) accommodates the various types of services government agencies require on a day to day basis, including provision of broadband internet access for online services and internal collaboration, handling administrative data.

Public procurement has been, for long, overshadowed with inefficiency, corruption and disregard of fundamental "value for money" considerations. This has adversely impacted the rate and quality of progress in realizing the objectives of national development, especially in developing countries (Tan *et. al.* 2009). Employees may neither engage in, nor give the appearance of engaging in, dishonest or unethical actions. Both are injurious to the public's perception of honest government. Government employees might have access to procurement and other non-public information that could affect a contract bid or the award process (Wymer & Regan, 2005). Improper disclosure of such protected information could violate numerous laws, as well as ethics rules. It also could subject such an employee to administrative actions, as well as civil or criminal penalties. Management in contracting authorities should ensure that there is an appropriate focus on

good practice in purchasing and, where there is a significant procurement function that procedures are in place to ensure compliance with all relevant guidelines.

Officials involved in procurement must not make improper use of their position (Tan *et al.*, 2009). Officials may have access to very confidential and/or market sensitive information. It is unethical to use inside information provided to the agency as part of a tender process, either for the material benefit of the official or for another person. Criminal sanctions apply to such behavior.

Wee (2002) perceived ethics as the moral principles or values that guide officials in all aspects of their work. Ethical behavior encompasses the concepts of honesty, integrity, probity, diligence, fairness, trust, respect and consistency. Ethical behavior includes avoiding conflicts of interest, and not making improper use of an individual's position. Ethical behavior is important in public procurement as it involves the expenditure of public money, and is subject to public scrutiny. Public officials should always behave ethically and fairly, including in their business undertakings. Ethical behavior supports openness and accountability in a procurement process and gives suppliers confidence to participate in the Government marketplace. Ethical behavior can also reduce the cost of managing risks associated with fraud, theft, corruption, and other improper behavior; and enhance confidence in public administration (Wee, 2002).

### **2.3.5 Compliance**

According to Mrope, Namusonge, Iravo (2017) compliance is critical to the achievement of the objectives of the procurement legal framework and its attendant regulations such as transparency, competition, and value for money, accountability and the efficient use of

public resources. Institutions are composed of cultural-cognitive and regulative elements that, together with associated activities and resources give meaning to life (Scott, 2004). The three pillars of institutions as regulatory, normative and cultural cognitive. The regulatory pillar emphasizes the use of rules, laws and sanctions as enforcement mechanism, with expedience as basis for compliance (Zadawa, 2015). Non-compliance with the procurement guidelines by the stakeholders is allied with the inadequacy of their familiarity with them, and it has been identified as a major challenge to the moves for effective procurement reform in many African countries despite the fact that they have since enacted their respective Public procurement law (Nge'no, 2014). While other stakeholders especially contractors and suppliers are looking at it as a merely an outmoded protocol to slowing the procurement processes and suppliers have wrong perception on the objectives of the entire guidelines.

Gelderman *et. al.* (2006) stipulate that compliance occurs when the target performs a requested action, but is apathetic about it, rather than enthusiastic, and puts in only a minimal or average effort. However, as an organizational outcome, compliance has traditionally been understood as conformity or obedience to regulations and legislation Lisa, (2010). For instance in Uganda, a wave of procurement reforms that begun in 1997, culminated into the enactment of the Public Procurement and Disposal of Public Assets (PPDA) Act 2003, and regulations 2003. Unfortunately, many central government ministries and agencies have since then not followed prescribed practices (Agaba & Shipman, 2007). Gelderman et al., (2006) in his study on compliance with EU observed that many entities do not comply with the procurement regulations because they are not

familiar with them or the organizations are still burgeoning. The researcher of this project agrees that familiarity to procurement regulations can affect compliance but disagrees on the lifecycle of an organization being a reason enough for organizations not to comply with the regulations. Zubcic (2011) delves into enforcement mechanisms to enhance compliance to Public procurement regulations. According to the study, enforcement actions and increased penalties lead to greater levels of compliance with procurement laws

According to Zubcic and Sims (2011), enforcement of regulations could be broadly viewed as any actions taken by the regulators to effect enforcement on compliance. Cunningham and Kagan (2007) also agree that enforcement also improves compliance. According to Zubcic and Sims (2007), enforcement actions and increased penalties lead to greater levels of compliance with the laws. According to Nwabuzor (2005), corruption among government procurement officials in developing countries such as Bangladesh, India, Sri Lanka and Nigeria have been linked to weak enforcement of the rule of law. In countries with strong bidding mechanisms, bidders are allowed to participate in all procurement process and can lodge review complaint if they deem the procurement process was not in consonance with the regulations (Mrope, Namusonge, Iravo, 2017). Gunningham and Kagan (2005) observes that the threat of legal sanctions is essential to regulatory compliance and that enforcement action has cumulative effect on the consciousness of regulated companies and it reminds companies that circumvention of law will never go unpunished.



## **2.4 Empirical Review**

Zadawa, Hussin and Osmadi, (2015) examined determinants of compliance with public procurement guidelines in the Nigerian Construction Industry. The Nigerian Construction industry through its procurement activities was contributing immensely to the economic development of the country. The study adopted descriptive survey research design. Nigeria as a developing nation is still working hard to strengthening the public procurement sector through which public infrastructural facilities are developed. Public Procurement Guidelines are the procedural manual guiding public procurement processes. The guidelines are as provided by the public procurement Act PPA 2007, since then compliance with the guidelines has been facing a lot of obstacles. The findings revealed determinants of compliance with the procurement guidelines to include Familiarity with the procurement guidelines, Fraudulent Practices, and Influencing Projects awards. The study focus on construction industry in Nigeria while the current study focused on public universities in Kenya.

Jaafar, Ramli and Aziz (2014) investigated the extent of compliance with Government Procurement Policy in public institutions in Malaysia. Although compliance with the Government Procurement Policy is mandated by regulations, cases of non-compliance, irregularities and frauds in government procurement do still occur. Mandating compliance with procurement standards by law does not necessarily result in full compliance without concerning other relevant factors. This research focuses on voluntariness of compliance behaviour and factors that affect compliance with Government Procurement Policy among procurement practitioners in Malaysia. A factor

relating to procurement ethics is also introduced to increase the scope and going beyond the proposed framework from prior studies. Survey questionnaires were administered to 104 government organizations, and 177 responses were received from procurement officers. Based on multiple regression analysis, the results indicate that familiarity with the policies; enforcement, professionalism and ethics have a positive impact on compliance. However, perceived inefficiency of the policies was found insignificantly negative impact on procurement compliance. The findings may be useful in ensuring the accomplishment of procurement best practices in Malaysia.

Osei-Tutu, Mensah, and Ameyaw (2011) examined the level of compliance with the Public Procurement Act (Act663) in Ghana. The objective of the law was to promote fairness, transparency and ensure that public procurement is non-discriminatory. The purpose of the study was to observe and compare the extent to which selected public procurement entities have complied with the processes and requirements of the Law during the year 2008. The implementation of the Public Procurement Act 2003 (PPA) has been quiet challenging coupled with a number of inefficiencies. The entities were chosen from the Ashanti and Brong Ahafo regions of Ghana. Structured questionnaire and face-to-face interviews were used to obtain data for this study. The overall compliance levels in the Ashanti and Brong Ahafo Regions lies at 19.58% and 17.8% respectively. This indicates low compliance levels of public entities. The study confirms that the Public Procurement Act 2003 (Act 663) was observed to proffer solutions but not without challenges. Fenster (2003) argues that set asides are easy for officials to understand and introduce, simple to explain to tenderers and transparent but they may be the least cost

effective, the least competitive and the least equitable. For a country determined to discriminate in favour of local firms directly regardless of additional cost, set asides may present the best option, he concludes.

A study by McCrudden (2007) determine the preference of minority in the enterprises to secure 10% of the public works in USA as the Public Works Act 1977 provided that at least 10% of each grant for local works project be expended for minority business enterprise. This came to be known in the United States as Set Asides. In Malaysia, in order to uplift the entrepreneurial capacity of the local Malays (called the Bumiputera), all supplies contracts with value between RM10, 000-RM100, 000 (ksh 260,000-2,600,000) and work contracts up to RM100, 000 (Ksh 2,600,000) were reserved to them.

Nancy and Muturi (2015) investigated determinants of compliance in public procurement regulations in the public sector focusing on Kisii county government in Kenya. The concerns were that compliance levels to supplier continue to be low in Kenya despite efforts by the public procurement oversight authority (PPOA). The study was guided by specific objectives which were to establish the extent to which ethics, awareness levels and supplier training on compliance of public procurement regulations influence performance in the public sector. The study adopted a descriptive research design approach. The target population was made of 260 staff working in Kisii County government. The study employed a descriptive statistic analysis and inferential statistics. The results revealed that existed a significant correlation between procurement ethics and compliance increases the performance of the public sector.

Nduta, Ayuma, Langat, and Yego (2015), carried out a study on the factors affecting youth participation in public procurement. The independent variable of analysis was opportunity awareness, finance availability, regulatory requirements and patronage perception whereas youth participation was the dependent variable. The researcher used descriptive and inferential statistics. A population of 345 youth owned enterprises operating within Mombasa County were used with a sample size of 135 enterprises. The study adopted stratified and systematic random sampling as well as snowballing data collection techniques. The study revealed that Pearson's correlation between the youth Participation with awareness and Finances was .600 and .510 respectively. Whereas Patronage perception and regulatory requirements had a negative correlation of - .445 and -.260 respectively with the Dependent Variable. Multiple linear regressions was used to analyze the relations between the variables at a 0.05 significance level. This study however failed to determine factor affecting compliance with AGPO regulations for special groups in public universities.

Achura, Arasa and Ochiri (2005) undertook a study on the effectiveness of public procurement audits for constituency development funds in Kenya. The study adopted a survey of constituencies in Kenya. The effectiveness of public procurement audits will determine the effective use of constituency development funds in Kenya. The study recommended that the government should put in place effectiveness public procurement audit system to ensure effectiveness use of constituency development funds. The study failed to determine factors that influence compliance with AGPO regulation for special groups such as women and youth accessing to government procurement opportunities.

Barden (2012) carried out a study on challenges of procurement in South Africa. An exploration of challenges experienced in the field of procurement within the South African public sector. Granting procurement process constitutional status has helped so much in addressing past inequitable policies and practices. The development of competency through customized training materials and programs in the involvement of stakeholders in the bidding process and the employment of good strategic sourcing practices. The study does not examine youth access to government

Nkonge (2013) carried out a study on challenges facing Small and Medium Enterprise Suppliers in Thika when bidding for tenders. The study adopted a descriptive and exploratory research design. The study established that clear Legal/Regulatory framework established in the country to knob public procurement, but the guidelines are not open to public scrutiny, Second, the conditions for tendering were not the same for each entrepreneur, SMEs encounter financial challenges which include financial regulations and shortage of own financial resources and that information on public procurement and tendering to the SMEs is not adequately available as most respondents were not aware of its existence. The study concluded that the existence of the legal framework makes it difficult for upcoming SMEs to compete with the established players thus discouraging their participation. Ethical aspect hinders the SMEs from participating in tendering due to in-transparency in the process. Financial requirement is a hindrance. Information on public procurement and tendering was inadequate available to the SMEs leading to poor accessibility of government tender.

Lagat, Namusonge and Berut, (2016) carried a study to determine the factors affecting youth, women & persons with disabilities on accessing procurement opportunities in Transzoia County Government. The objectives of the study were to determine the effect of availability financial resources by youth, women and persons with disabilities on accessing procurement opportunities in Transzoia county government, to establish the effect of procurement procedures on youth, women and persons with disabilities in accessing procurement opportunities in Transzoia county government and to ascertain the effects of enforcement and compliance on youth, women and persons with disabilities in accessing procurement opportunities in Transzoia county government. The study adopted descriptive research design with target population of the twenty (20) Procurement Practitioners working under supply chain department and one hundred and twenty five (125) youth, women & persons with disabilities' enterprises in Transzoia County Government. A questionnaire was the primary source of collection of data from the respondents. The study employed descriptive analysis to determine the factors and factor analysis was used to identify the underlying factors. By identifying the factors affecting youth, women and persons with disabilities in accessing procurement opportunities in Transzoia County Government. The study revealed that availability of financial resources, procurement procedures and enforcement and compliance contributes to accessing procurement opportunities in Transzoia County Government. This study failed to determine determinants of compliance with AGPO for special groups in public entities motivating the carrying of the present study.

Onyinkwa (2015) carried out a study on factors influencing compliance of procurement regulations in public secondary schools in Nyamache Sub-County, Kenya. Nyamache sub-county was selected because public schools within the district are worst hit by non-compliance to public procurement regulations. This study concentrated on three variables; ethics in public procurement Act, knowledge/training and committee s awareness as factors deemed to influence compliance of procurement regulations in public secondary schools in Nyamache Sub-County. This study was conducted through a descriptive survey research design. The study involved 15 public secondary schools in Nyamache Sub-County. This research project was guided by research questions based on the variables aforementioned. Literature related to this study was reviewed based on the variables; ethics, staff training and awareness as factors deemed to influence compliance on procurement regulations in public secondary schools in Nyamache Sub-County. Data was collected by use of the questionnaire and reliability of research instruments was tested using test-retest technique and validated by experts in academic research. Stratified random sampling and simple random sampling was used to select the sample size of 135 respondents. The study revealed that ethics, awareness and training affected compliances of procurement regulations in public secondary schools. The study focuses on factors influencing compliance of procurement regulations in public secondary schools but failed to focus on examining determinants of compliance with AGPO regulations in public universities in Kenya.

Mwendwa (2011) examined factors influencing compliance with the public procurement legislation in Kenya. The objective of the study was sought to evaluate the factors

influencing compliance with the public procurement legislation in Kenya. The study adopted descriptive survey research design. Data was collected using a semi-structured questionnaire from government ministries and departments. A total of 36 questionnaires were administered to various government ministries and departments but the researcher managed to obtain 31 completed questionnaires representing a response rate of 86.1% .The researcher adopted a drop-and –pick-later approach where questionnaires were issued in the morning and picked in the evening to allow the respondents to complete the questionnaires. Both descriptive and inferential statistics were used. The study revealed that provision of public procurement, top management support, staff training and institutional factors. Component two comprises of internal processes and ICT. This study failed to focus on compliance with AGPO regulation in higher learning institutions in Kenya.

Rebecca (2007) sought to pursue the understanding of current business-to-business procurement practices by describing the success factors and challenges to its implementation in the corporate setting. The study through factor analysis resulted in three procurement success factors: supplier and contract management; end-user behavior and procurement business processes; and information and e-procurement infrastructure. Three challenge-to-implementation factors also emerged lack of system integration and standardization issues; immaturity of procurement-based market services and end-user resistance; and maverick buying and difficulty in integrating commerce with other systems.

Ngeno, Namusonge and Nteere (2014) investigated the effects of discriminatory public procurement practices on organizational performance in public sector. This study sought



to evaluate the effect of reservation practices on the performance of State Corporations in Kenya. The study was guided by the following objectives; to determine the effect of preferencing practices on the performance of State Corporations in Kenya; ascertain the effect of indirect practices on the performance of State Corporations in Kenya and; assess the effect of supply side practices on the performance of State Corporations in Kenya. This study adopted a mixed research design and a target population of 139 procurement managers sampled through a simple random sampling. Data analysis methods a multiple linear regression model was applied to examine the relationship between the variables. The model treated organizational performance as the dependent variable while the independent variables were discriminatory public procurement practices including; reservations, preferences, indirect practices and supply side practices. The findings of the study showed that a combination of preservation practices and preferencing practices explained 75.7% of variations in State Corporations performance. The study concluded that reservations, preferences and indirect practices, positively influenced the performance of State Corporations in Kenya. This study however failed to indicate the extent to which preservation practices and preferencing practices determine compliance with AGPO for special groups in public sector organizations and more specifically public universities in Kenya.

## **2.5 Critique of Existing Literature**

From the review of the past studies Ngeno, Namusonge and Nteere (2014), pre-qualification allows for unqualified bidders to be weeded out and thus helps to speed up evaluation of bids since only a limited number of pre-qualified bids have to be examined.

This means that only those firms pre-qualified would be eligible to bid on the contract. The pre-qualification is merely for companies to demonstrate that they have the ability to undertake the work or supply of whatever it has to be sourced (Ngai, Drew, Lo & Skitmore, 2002).

Empirical studies such as Mummalaneni, Dubas & Chao, (1996) and Monczka, Trent and Handfield (2005) observed that supplier selection is complicated because of the multiple criteria involved in the decision process. Additionally, many times these criteria may conflict each other. Therefore, defining the proper criteria becomes critical. In countries such as Most studies on compliance with public procurement regulations are done in developed counties such as Malaysia studies by Jaafar, Ramli and Aziz (2014) revealed that perceived inefficiency of the procurement policies was found insignificantly negative impact on procurement compliance Some of the most widely used criteria in supplier selection are supplier's capacity, quality, and purchasing price. However, the set of criteria to be chosen largely depends on the organization's objectives and the type of industry in which the organization competes.

In a procuring contract the contractor has the responsibility of performing the contract as per the terms and conditions of the contract. The procuring entity has the responsibility of meeting its obligation of paying the contractor as per terms and conditions of the contract. These are the basic responsibilities of the parties. For ensuring both parties perform and meet their obligations, procurement contracts must be managed. On the part of the procuring entity the procurement contract must be managed with an aim of

obtaining goods, works and services as per contract and achieve value for money (ROK, 2009).

Further studies such as Badaso (2014) and Okioga, Otieno and Mongare (2012) indicate internal controls such as governance and employee competencies in critical compliance with procurement regulations. Providing training for employees is an important and effective way to maintain ethics awareness in government agencies (Amos & Weathington, 2008). Ethics training and seminars can be provided, along with training in more specific areas, such as procurement procedures, record keeping, records management, and accountability and administrative law. Regular reviews or audits of procurement processes can be done to ensure probity is being considered and achieved (Jaafar, Ramli & Aziz, 2014). Zubcic Sims (2011) delves into enforcement mechanisms to enhance compliance to Public procurement regulations. According to the study, enforcement actions and increased penalties lead to greater levels of compliance with procurement laws. In countries with strong bidding mechanisms, bidders are allowed to participate in all procurement process and can lodge review complaint if they deem that the process was not in consonance with the provisions of the regulations. Such bidder participative mechanisms are a strong force for procurement officials to abide by the regulations (Hui et al, 2011). That much said, the researcher did not delve into how effective are prequalification criteria mechanisms in enhancing compliance levels to AGPO.

## **2.6 Research Gaps**

Whereas previous studies have always looked at compliance and non-compliance of public procurement procedures not all factors have been dealt with and statutory provisions have been left out. According to Lam, Hu, Ng, Skitmore and Cheung (2001) contractor's pre-qualification can be regarded as a complicated two – group non – linear classification problem. It involves a variety of subjective and certain information extracted from various parties such as contractors, prequalification and project teams. According to Monczka, Trent and Handfield (2005), the first step in supplier selection usually implies the identification of the need for a specific product or service. Different situations may trigger the need for supplier selection. The internal controls at an institution affect compliance with public procurement laws (Mwangi & Kariuki, 2013). This is very important especially where other alternative methods of procurement other than open tender system are applied. Government employees might have access to procurement and other non-public information that could affect a contract bid or the award process (Wymer & Regan, 2005). Improper disclosure of such protected information could violate numerous laws, as well as ethics rules.

The aim of the Public Procurement Regulations of 2006 was to promote fairness, transparency and nondiscrimination in procurement in public institutions with the main aim of ensuring efficient use of public funds. However, studies reveal that even after the enactment of the regulations, there is little compliance with these regulations. Further, studies indicate dissatisfaction among stakeholders brought about by loopholes left by the regulations, which may be used by dishonest people to make the process inefficient. If

nothing is done, it is highly likely that procurement law non-compliance with AGPO regulations would continue to thrive at the expense of youth, women and people with disabilities.

From the review of the past studies indicate compliance with procurement regulations in public and private sectors has not been successful. Most studies on compliance with public procurement regulations are done in developed countries such as Malaysia by Jaafar, Ramli and Aziz (2014) who revealed that perceived inefficiency of the procurement policies was found insignificantly negative impact on procurement compliance. The studies failed to clearly demonstrate determinants that impact on compliance with procurement regulations in public sectors. In Africa, studies such as Osei-Tutu, Mensah, and Ameyaw (2011) examined the level of compliance with the Public Procurement Act (Act663) in public sector in Ghana and revealed that compliance with Public Procurement Act 2003 (Act 663) was faced by challenges. Locally, few studies have been done by Adhiambo & Kamau, (2003) and Nduta, Ayuma, Langat, and Yego (2015) who focused on determining factors that affected youth participation in public procurement. Badaso (2014) did a study on the challenges of implementing procurement policies in State Corporations in Kenya. He established that political interference, information technology, quality of personnel greatly undermine effective implementation of procurement policies in State Corporation. Other local studies focus on determining challenges faced during implementation of procurement regulations in organizations.

For instance Badaso (2014) and Okioga, Otieno and Mongare (2012) who revealed that here were challenges facing secondary schools in implementing the procurement Act.

Compliance, however little is known on determinants of compliance with AGPO regulations which has been affecting efficiency and effectiveness in public procurement. This study focus on filling the existing research gaps by assessing determinants of compliance with AGPO regulations for special groups by Public Universities in Kenya.

## **2.7 Summary**

Public procurement is increasingly recognized as a key concept that plays a significant role in the successful management of public resources. For this reason, several countries have become more aware of the importance of procurement as an area vulnerable to mismanagement and corruption, and have thus instituted efforts to integrate procurement in a strategic position of government efforts.

Public procurement primarily aims to be fair, equitable, transparent and cost-effective. Because of its importance, it can also be used at a secondary level as a problem solver. Due to the huge problems faced in Kenya, especially because of the country's inequality in the past, public procurement is of particular significance and has been granted constitutional status. In this regard, there are categories of preference in the allocation of contracts as well as the protection or advancement of persons, or categories of persons, disadvantaged by unfair discrimination. These categories include youth, women and people with disabilities who are supposed to access 30% of public procurement opportunities.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter presents research design, population, sample and sampling techniques, a description of data collection techniques, the measurement of variables and the technique that were used in analyzing data.

#### **3.2 Research Philosophy**

Literature review indicate that there two major research philosophies as indicated by May (2001) namely positivist also known as scientific and interpretivist or subjectivism According to positivists, reality is stable and can be observed from an objective viewpoint. In order to identify relationships, manipulation of independent variables is performed. In positivism, predictions can be made on the basis of the previously observed and explained realities and their inter-relationships (Levin, 1988). Positivism is said to be in the realm of theory, where the data is theory driven and research design is utilized to test the accuracy of the theory (May 2001).

Subjectivism or interpretivists argue that reality can only be understood through subjective interpretation and intervention. The study of phenomena in their natural environment is crucial to the interpretivist philosophy. The approach also acknowledges that researchers cannot avoid affecting the phenomena they study (Kothari, 2004). Subjectivism focuses on the meaning the individuals give to their environment and not the environment itself (May, 2001).

The current research will adopt a positivistic philosophical perspective. It will utilize an empirical setting to investigate the theoretical relational paths drawn from literature and tested them through hypotheses. The conceptual framework will seek to quantify the data for the purposes of explaining the causal relationships. This study will be based on the premise that knowledge is founded on facts and that no abstractions or subjective status of individuals is considered. This study therefore, seeks to derive a quantitative perspective, which holds that there is an objective reality that can be expressed numerically, with explanatory and predictive power (Neuman, 2006).

According to positivism the most logical, dominant or relevant framework is consistently utilized and the objective reality exists beyond the human mind (Hjorland, 2004). This study adopt a positivistic philosophy as it aimed to offer explanations and it also started from hypotheses statements backed by facts which will contained in data sourced from respondents self-reporting, and secondary data of compliance with AGPO in public universities in Kenya. The data will be then analyzed to test the accuracy of the theory. The approach also will comprise of quantitative research tools and techniques.

### **3.3 Research Design**

This study used a mixed research design as recommended by Saunders, Lewis and Thornhill (2009). This allowed the researcher to use both quantitative and qualitative research methods to establish the determinants of compliance with AGPO for special groups regulations. Quantitative methods emphasizes data analysis using measurements and in numerical form. Statistical measures were used to test hypothesis and make predictions. Qualitative methods on the other hand emphasizes on data analysis based on



content or words rather than in numerical form. Qualitative methods provide verbal descriptions rather than numerical. These two approaches complemented each other (Kothari, 2004).

### **3.4 Target Population**

The target population consisted of supply chain officers in all public universities in Kenya. According to the Commission for University Education, there are 31 public universities in Kenya. There are four positions in a procurement department comprising of chief procurement officer, principal procurement officer, senior procurement officer, and procurement officer. However, some constituent colleges do not have all the positions filled. The sampling frame for this study was all supply chain officers in public universities.

### **3.5 Sample , Sampling Technique and Sampling Procedure**

Cooper and Schindler (2003) explained that the basic idea of sampling is selecting some of the elements in a population, so that the same conclusions can be drawn about the entire population. This results in reduced cost and greater accuracy of results. Nassiuma (2000) formula for sample determination was used. To obtain the desired sample size for the study with the population of 106, Nassiuma (2000) formula was used as shown;

$$n = N (cv^2)/Cv^2 + (N-1) e^2$$

Where  $n$ = sample size

$N$  = population (106)

$Cv$ = coefficient of variation (take 0.6)

$e$ = tolerance of desired level of confidence (take 0.05 at 95% confidence level)

$$n = 106 (0.6^2) / \{0.6^2 + (106-1) 0.05^2\} = 61.3 \text{ (rounded to 62 respondents)}$$

The sample size for this study was therefore 62 respondents from all the public universities. Two supply chain officers were selected from each public university. The following sampling matrix shows the sampling procedure.

### 3.6 Sampling Frame

A sampling frame is the source material or device from which a sample is drawn. It is a list of all those within a population who can be sampled, and may include individuals, households or institutions. The sampling frame for the personnel working in the department of supply chain management and procurement was provided from the human resource registry at the university.

**Table 3. 1: Sampling Frame**

<b>University</b>	<b>Target</b>	<b>Sample</b>
University of Nairobi	4	2
Moi University	4	2
Kenyatta University	4	2
Egerton University	4	2
Maseno University	4	2
Jomo Kenyatta University of Agriculture and Technology	4	2
Masinde Muliro University of Science and Technology	4	2
Dedan Kimathi University of Technology	4	2
Chuka University	4	2
Technical University of Kenya	4	2
Technical University of Mombasa	4	2
Pwani University	4	2
Kisii University	4	2
University of Eldoret	4	2

Maasai Mara University	4	2
Jaramogi Oginga Odinga University of Science and Technology	4	2
Laikipia University	4	2
South Eastern Kenya University	4	2
Multimedia University of Kenya	4	2
University of Kabianga	4	2
Karatina University	4	2
Meru University of Science and Technology	4	2
Murang'a University College	2	2
Kirinyaga University College	2	2
The Cooperative University College of Kenya	2	2
Machakos University College	2	2
Embu University College	2	2
Rongo University College	2	2
Kibabii University College	2	2
Garissa University College	2	2
Taita Taveta University College	2	2
Total	106	62

### 3.7 Data Collection Methods

Primary and secondary data was collected. Secondary data was obtained from publications and reports. Primary data was collected using two instruments; a semi-structured questionnaire and an interview guide. The semi-structured questionnaires were administered to principal procurement officers, senior procurement officers and procurement officers. The questionnaire had five sections. The first section had questions seeking general information of the respondents and the second section sought information on the prequalification criteria factors affecting compliance. The third section focused on selection factors while the fourth section sought information on the contract management factors affecting compliance. The fifth section dealt with the level of compliance with the access to public procurement for youth, women and people with disabilities.

Interview guide was used to collect data from chief procurement officers. This category of respondents was selected purposively owing to their experience as decision and policy

makers in public procurement. The interview guide questions had five thematic areas; prequalification criteria, selection criteria, contract management, the internal compliance control and level of compliance with the access to public procurement for youth, women and people with disabilities.

### **3.8 Pilot Testing**

Prior to the actual study, pilot test was conducted against prospective sample population. Pre-testing the questionnaire is significant in this study. The questions was re-examined to ensure that they are not ambiguous or confusing to the respondents which lead to biased responses and the errors that may exists are corrected.

The pilot study also help the researcher to determine the level of non-response expected as well as secure command of possible co-operation of the respondents. The study selected 15 respondents which was a 10% of the study target population. According to Mugenda and Mugenda (2003) the recommended pilot sample is one percent to ten percent (1% to 10%) of the study population. Fifteen officers from selected public universities were selected for the purpose of pilot testing. Piloting also enabled the researcher to ascertain the validity and reliability of the instrument.

#### **3.8.1 Reliability of the Instrument**

Reliability is defined as the consistency of scores or answers provided by an instrument (Saunders, Lewis & Thornhill, 2007). Reliability measures the degree to which a research instrument yields consistent results or data after repeated trials. It refers to the consistency of scores or answers provided by an instrument.

A Cronbach's alpha (Cronbach coefficient alpha), which is based on internal consistency, was determined using SPSS to establish the reliability of the survey instrument. This methodology measures the average of measurable items and its correlation. Cronbach's alpha formula was used in calculating the reliability of data. A coefficient of at least 0.7 or higher is accepted (Kothari, 2004). Reliability was obtained by correlating the scores of items in each variable in the questionnaire. This made the questionnaire designed to enable reliability by providing consistent, stable and repeatable results.

### **3.8.2 Validity of the instrument**

Validity is the extent to which a scale or set of measures accurately represents the concept of interest. Validity is the degree to which an instrument measures what it purports to measure. It estimates how accurately the data in the study represents a given variable or construct in the study (Saunders, Lewis, & Thornhill, 2009). According to Gay (2002), validity is established by expert judgment. Validity refers to the accuracy or truthfulness of a measurement in terms of the likelihood that research questions was understood or misinterpreted and on whether the research instruments provided adequate coverage of research objectives. Mugenda and Mugenda, (2003), states that to enhance validity of a questionnaire, data should be collected from reliable sources, the language used in the questionnaire should be kept simple to avoid any ambiguity and misunderstanding.

The validity of data collected was ensured through collecting data from the relevant respondents having been permitted by the University and the universities management.

The validity of the instrument was established by being given to experts with experience in procurement processes in public universities, who could evaluate the items in relation to the study objectives which was to investigate the influence of strategic information systems on procurement performance in the selected public universities.

### **3.9 Data Collection Procedure**

#### **3.9.1 Administration of Questionnaires**

The questionnaires were self-administered. Drop-and-pick later method was used to enhance response rate. These self-administered questionnaires were used for principal procurement officers, senior procurement officers and procurement officers because they are many and have busy schedule owing to the nature of their work.

#### **3.9.2 Face to Face Interviews**

The personal interview is a face-to-face, interpersonal role situation in which an interviewer asks respondents questions designed to elicit answers pertinent to the research objective (Patton, 2002). This study used paper and pencil interview (PAPI) in which the interviewer recorded answers on paper questionnaires. Since the respondents selected are known to have been involved in public procurement, the study used focused interview. It was primarily focused on respondents experience regarding compliance with access to public procurement for youth, women and people with disabilities. However, the respondents were given considerable liberty in expressing their definition of a situation that is presented to them. Focused interview permitted the researcher to obtain details of personal reactions, specific emotions and attitudes of supply chain officers on compliance with access to public procurement for youth, women and people with

disabilities. This method was used for chief procurement officers owing to their immense experience in public procurement.

### **3.10 Data Analysis and Presentation**

Quantitative data was analyzed using descriptive and inferential statistics. Descriptive statistics such as frequencies, mean scores, percentages and standard deviation were used to analyze quantitative data. Correlation and multiple regression analysis were also used to analyze quantitative data. Quantitative data analysis results were presented in tables and charts. The Statistical Packages for Social Sciences (IBM SPSS Statistics 20) was used to aid in data analysis. Qualitative data was analyzed using content analysis. Results of qualitative data analysis were presented in descriptive narrative form.

There were four independent variables namely pre-qualification criteria, selection procedure, contract management and internal controls. The indicators of pre-qualification were technical competence, financial resources, equipment, physical facilities, managerial capability and experience. Selection procedure had four indicators that include evaluation and award criteria, tender opening, complaints system, and communication of awards. There were five indicators for contract management. They included monitoring contract performance, resolving disputes, negotiation, conducting a final accounting, and closing out the contract. Internal controls had four indicators namely accountability, ICT adoption, internal processes, and ethics.

The p-value obtained based on alpha level or significance level of 0.05 was used for hypothesis testing. Inferential data analysis was done using Pearson correlation coefficient and linear multiple regression analysis. Pearson correlation coefficient was

used to measure the strength and direction of the relationship between dependent variable and independent variables. Correlation technique allowed the researcher to analyze the degree and direction of the relationship between two variables. Computation of a correlation coefficient yields a statistic ranging from -1 to +1 (correlation coefficient r) and indicates the relationship of the two variables under comparison. The direction of the relationship is indicated by a positive (+) or a negative (-) sign. A positive relationship means that when one variable increases the other one it is being compared with also increases. A negative relationship means an increase in one variable yields a decrease in the other variable that is being compared with. If there is no relationship, the correlation coefficient (r) is equal to zero.

Linear multiple regression analysis was used to establish the relations between the dependent and independent variables. Multiple regression analysis is a tool that uses two or more independent variables to predict a dependent variable. There were four independent variables in this study and the following linear multiple regression analysis model was used:

$$Y = \beta_0 + X_1 \beta_1 + X_2 \beta_2 + X_3 \beta_3 + X_4 \beta_4 + \varepsilon$$

Where Y is compliance with AGPO regulations

X<sub>1</sub> = Pre-qualification criteria

X<sub>2</sub> = Selection procedure

X<sub>3</sub> = Contract management

X<sub>4</sub> = Internal controls



$\beta_0 =$  a constant

$\beta_1 - \beta_4$  are changes in Y as a result of corresponding variables

$\varepsilon$  is the error term.

### 3.11 Operationalization of the Variables

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<b>Variable</b>	<b>Indicators</b>
Pre-Qualification Criteria	<ul style="list-style-type: none"><li>• Technical competence</li><li>• Financial resources</li></ul>
Selection Procedures	<ul style="list-style-type: none"><li>• Evaluation and award criteria</li><li>• Tender Evaluation</li></ul>
Contract Management	<ul style="list-style-type: none"><li>• Monitoring contract performance</li><li>• Resolving disputes</li></ul>
Internal Controls	<ul style="list-style-type: none"><li>• Accountability</li><li>• Internal processes</li></ul>
Compliance with AGPO regulations by Public Universities	<ul style="list-style-type: none"><li>• Contract Reservation</li><li>• Contract Value</li><li>• Contract administration</li></ul>

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## **CHAPTER FOUR**

### **RESEARCH FINDINGS AND DISCUSSION**

#### **4.1 Introduction**

The chapter presents the research findings and discussion. It reports the response rate, pilot results, general information and descriptive results.

#### **4.2 Response Rate**

The study targeted 62 respondents from 31 public universities in Kenya. All the administered questionnaires were filled and returned. This translated into 100% response rate. This excellent response rate can be attributed to the fact that the researcher administered the questionnaires personally and took ample time to conduct the study.

#### **4.3 Pilot Study Results**

Reliability for all the five variables was tested using Cronbach's Alpha. The results show an overall reliability of 0.832. The number of items tested for reliability was 21 distributed across the five variables of the study. The variables include prequalification criteria, selection procedure, contract management, internal controls and level of compliance. The results are presented in the following sections according to variables and items comprising these variables.

Four items on prequalification criteria were tested for reliability. Reliability test results on prequalification criteria shows that overall reliability for prequalification criteria was

.815. This figure is above the minimum threshold of 0.7 based on which we can conclude that items on prequalification criteria were reliable.

**Table 4. 1: Reliability results for Pre-qualification Criteria**

<b>Pr-equalification Criteria</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
Availability of equipment for the work	.359	.843
Physical facilities of the enterprises	.787	.795
Enterprises work experience	.748	.810
Enterprises' personnel capacity	.748	.810
<b>Overall reliability for Pre-qualification Criteria</b>		<b>.815</b>

Five items were tested for reliability on selection procedure. Reliability test results show that overall reliability for selection procedure is .824. This is above the threshold of .7 based on which a research instrument is considered reliable. The items on selection procedure are therefore reliable.

**Table 4. 2: Reliability Results for Selection Procedure**

<b>Selection Procedure</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
The regulations concerning tendering process for special groups is inadequate	.748	.810
The regulations on tender evaluation and award criteria	.247	.840

for special groups such as the youth is inadequate		
The regulations on submission, receipt and opening of tenders for special groups is inadequate	.261	.847
The regulations concerning the complaints system structure for special groups is inadequate	.748	.810
The regulations on communication of awards for special groups is inadequate	.835	.815
<b>Overall reliability for selection procedure</b>		<b>.824</b>

Five items on contract management were tested for reliability. Results show that overall reliability for contract management is .848. Cronbach's Alpha value for contract management is above the recommended threshold of .7 and therefore we can conclude that items on contract management in the research instrument were reliable.

**Table 4. 3: Reliability results for Contract Management**

<b>Contract Management</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
Monitoring contract performance (technical, schedule and cost)	.056	.857
Modifying the contract to accommodate changing needs or circumstances (negotiation)	.416	.839
Resolving disputes	.369	.841
Conducting a final accounting	.204	.850
Closing out the contract	.190	.851
<b>Overall reliability for contract management</b>		<b>.848</b>

Four items on internal controls were tested for reliability. The results show that overall reliability for internal controls is .841. Cronbach's Alpha value for internal controls shows that items on internal controls in the research questionnaire are reliable.

**Table 4. 4: Reliability results for Internal Control**

<b>Internal Control</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
The regulations have addressed accountability in procurement	.643	.830
ICT adoption has eased the procurement process	.247	.850
The regulations have addressed improper disclosure of protected information	.818	.831
There is ethics training and seminars to increase awareness on ethical behavior	.182	.851
<b>Overall reliability for Internal Controls</b>		<b>.841</b>

Three items on level of compliance were tested for reliability. Results show that overall reliability for level of compliance .832. The Cronbach's Alpha value is above the recommended threshold of .7 for a reliable research instrument. We can therefore conclude that items on level of compliance in the questionnaire were reliable.

**Table 4. 5: Reliability results for Level of Compliance**

<b>Level of Compliance</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
Total contracts awarded in the last financial year	.464	.830
Contracts reserved for special groups in the last financial year awarded to special groups	.631	.832
Contracts awarded to special groups in the last financial	.633	.833

**4.4 General Information**

The respondents were requested to indicate whether there was a procuring unit in public university and results presented in Table 4.6. From the findings, all (100%) of the respondents indicated that there was a procuring unit in place in public universities. The researcher sought to know the duration that the procuring unit has been in place. The results show that 41.9% of the respondents indicated that procuring unit in their organization had been in place for 1-2 years while 35.5% indicated 3-4 years. The respondents who indicated that procuring unit in their organization had been in place for 5 years and above were 16.1% while only 6.5% indicated less than 1 year.

**Table 4. 6: Duration Procuring Unit in place**

<b>Duration Procuring Unit in place</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Less than 1 year	4	6.5	6.5
'1-2 years'	26	41.9	48.4
'3-4 years'	22	35.5	83.9
'5 years and above'	10	16.1	100.0
Total	62	100.0	

The respondents were requested to indicate whether they understand AGPO regulations and results presented in Table 4.7. The results show that all the respondents (100%) indicated that they understand AGPO regulations. The researcher sought to know whether the institutions experienced challenges in compliance with AGPO regulations. The results



show that all respondents (100%) indicated that they have experienced challenges in compliance with AGPO regulations.

**Table 4. 7: Understanding of AGPO and challenges in Compliance With Regulations**

<b>Understanding of AGPO and challenges in Compliance With Regulations</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Understands AGPO regulations	62	100.0	100.0
Experience challenges in compliance with AGPO regulations	62	100.0	100.0

The respondents who requested indicated whether their institution had experienced challenges in compliance with AGPO regulations were asked to use a likert scale of 1-5 to rate the areas where most challenges in compliance with AGPO regulations were experienced. The results in table 4.8 show that challenges in compliance with AGPO regulations were experienced to a great extent in contract management (M=3.63, SD=.487). The respondents indicated that selection procedures and internal control was a challenge to compliance with AGPO regulations to a moderate extent as indicated by a mean (M=3.48, SD=1.127) and (M=3.37, SD=1.012) respectively.

The results indicated that challenges in compliance with AGPO regulations were experienced to a little extent in pre-qualification criteria. The findings show that contract management poses the most challenges in compliance with AGPO regulations followed by selection procedures, internal controls and pre-qualification criteria. On whether the institution had complied with AGPO regulations for special groups, the study established that all universities had not complied with AGPO regulations for youth, women and people living with disabilities.

**Table 4. 8: Challenges in Compliance With Regulations**

<b>Determinant of Compliance with AGPPO</b>	<b>Mean</b>	<b>Stad Dev</b>
Pre-qualification criteria	2.65	1.010
Selection procedures	3.48	1.127
Contract management	3.37	1.012
Internal controls	3.63	0.487

#### **4.5 Descriptive Results**

##### **4.5.1 Pre-qualification Criteria and Compliance with AGPO Regulations**

The respondents were requested to indicate whether pre-qualification criteria affect compliance with AGPO regulations in their institution. All (100%) of the respondents indicated that pre-qualification criteria affect compliance with AGPO regulations in their institution. The finding were supported by Lam, Hu, Ng, Skitmore and Cheung (2001) who revealed that efficient contractor’s pre-qualification influence compliance with procurement regulations in organizations. The respondents were asked to indicate how often their institution prequalified vendors. The results in table 4.9 show that the respondents indicated that their institution prequalified vendors annually (58.1%) while 41.9% indicated that they prequalified vendors biannually. The respondents were requested to indicate other issues of pre-qualification criteria that affected compliance with the AGPO regulations for special groups.

The respondents indicated that inadequate advertisement for prequalification, incompetency and lack of capability of the youth, women and disabled entrepreneurs, failure in involvement in pre-qualification decisions and lack of information sharing hinder compliance with AGPO regulations. All the interviewees acknowledge that pre-

qualification criteria affects compliance with the AGPO regulations for special groups as prequalification process decisions were made without involving the special group members.

**Table 4. 9: Pre-qualification Criteria and Compliance with AGPO Regulations**

<b>Pre-qualification Criteria and Compliance with AGPO Regulations</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Pre-qualification criteria affect compliance with AGPO regulations	62	100.0	100.0
Institution prequalify vendors			
Annually	36	58.1	58.1
Biannually	26	41.9	100.0
Total	62	100.0	

#### **4.5.2 Pre-Qualification Criteria for Procurement Opportunities For special groups owned enterprises**

The study sought the extent to which pre-qualification for AGPO influence compliance with AGPO Regulations. The results in Table 4.10 indicated that allowing submission of tender with unacceptable price from special groups and assessment of financial capability of the suppliers from special groups determine the compliance with AGPO regulations in public universities to a very great extent as indicated by a Mean 4.63 and 5.51 with standard deviation, SD=0.59 and 0.55 respectively. The results show that special groups owned enterprises to a great extent experienced challenges in financial resources (M=4.26, SD=.828) and equipment (M=4.00, SD=.724). The results also show requisite ability for special groups who had to comply with the terms of the contract and financial resources limitation facing special groups owned enterprises influenced

compliance with AGPO Regulations to a great extent as indicated by  $M=4.30$  ,  $SD=0.45$  and  $M=4.26$  ,  $SD=0.801$  respectively.

The results also indicated that inadequacy in Equipment to carry out the work ( $M=4.00$ ,  $SD=0.724$ ), limited managerial capability ( $M=3.86$ ,  $SD=0.803$ ) and enterprises experience technical competence ( $M=3.84$  and  $SD=0.729$ ) determine the compliance with AGPO regulation for special groups enterprises in public universities to a great extent. The findings also indicated that inadequate enterprise personnel influence compliance with AGPO regulations in the public universities to a great extent as indicated by a mean,  $M=3.58$  with  $SD=1.127$ . The findings further showed that lack of availability of physical facilities for the enterprises and low experience on the assigned tender assignment affects compliance with AGPO in public universities to a great extent as indicated by  $M=3.52$  ,  $SD=0.897$  and  $M=3.51$  with  $SD=0.493$ . The findings indicated Z-score was found to be ( $Z\text{-score}=0.001$ ) .This indicated that Z-Score was on the mean and deviation from the standard deviation zero. The Z-score  $=2.817$  indicate that the finding were significant as the variance was low .This clearly indicated that pre-qualification for AGPO influence compliance with AGPO Regulations in public university to a great extent. This implied that condition for prequalification determine the extent of compliance with AGPO regulation in public universities and ineffective prequalification would affects compliance with AGPO regulations

**Table 4. 10: Pre-Qualification for Procurement Opportunities Conditions experienced by special groups owned enterprises**

<b>Pre-Qualify For Procurement Opportunities Conditions</b>	<b>Mean</b>	<b>Std Dev</b>	<b>Z-Score</b>
Enterprises experience technical competence	3.84	.729	-0.916
Financial resources are limited	4.26	.801	2.812
Equipment to carry out the work are not available	4.00	.724	0.571
Physical facilities of the enterprises are not available	3.51	0.498	0.001
Managerial capability is limited	3.86	.803	1.628
Enterprises are not experience for the work	3.52	0.897	2.317
Enterprises do not have enough personnel	3.58	1.127	1.013
Allow submission of tender with unacceptable price from special groups	4.63	0.59	1.437
Special groups who have requisite ability to comply with the terms of the contract	4.30	0.45	0.739
Financial capability of the suppliers from special groups are assessed	4.51	0.55	1.477

#### **4.5.3 Selection Procedures and compliance with AGPO Regulations**

The respondents were requested to indicate the extent to which selection procedures influence compliance with AGPO regulations for special groups in public universities in Kenya. The results in Table 4.11 show that inadequate of the regulations concerning tendering process for special groups and inadequate regulations concerning tendering process for special groups affected compliance with AGPO regulation in public universities to a very great extent as indicated by a mean of M=4.67, SD=.981 and M=4.58 and SD=0.627. The results in Table 4.11 also show that inadequate regulations

on tender evaluation and award criteria for special groups such as the youth, favourism in awarding the contract enterprises owned by special group affected compliance with AGPO in public universities to a great extent as indicated by a mean,  $M=4.24$ ,  $SD=0.432$ , and  $M=4.12$  with  $SD=0.721$  respectively.

Evaluating responses to the solicitation and publishing or advertising the procurement opportunity affected compliance with AGPO to a great extent as indicated by a mean of,  $4.02$   $SD=0.713$  and  $3.82$  with  $SD=0.838$  respectively. The findings also indicated that inadequate communication of awards for special groups affected compliance with AGPO regulation in public universities to a great extent as indicated by a mean,  $M=3.71$  ,  $SD=0.833$  and disseminating the solicitation of tender documents to interested parties also affected compliance with AGPO regulation for special group to a great extent ( $M=3.65$ ,  $SD=0.705$ ) and that unfair selection of a contracting partners also affected compliance with AGPO regulations to a great extent ( $M=3.54$ ,  $SD=0.553$  The findings further indicated that the inadequate submission, receipt and opening of tenders for special groups affected compliance with AGPO regulation for special groups to a great extent ( $M=3.50$ ,  $SD=1.113$ ). The findings indicated Z-score was found to be ( $Z\text{-score}=0.000$ ) .This meant that meaning Z-Score was on the mean and deviation from the standard deviation zero. The  $Z\text{-score}=2.812$  indicated that the finding were significant as the variance was low .This clearly indicated that Selection procedures based on evaluation and award criteria and tender opening procedures had an influence on compliance with AGPO regulation for special group in public universities to a great extent.

The respondents further explained that identification of the need for a specific product or services, product specifications, suppliers' capacity, quality, resources availability and purchasing price and sourcing strategy influence compliance with compliance with AGPO regulations for special group in public universities in Kenya. The results were supported by views of interviewees who agreed that selection procedures affected compliance with the AGPO regulations for special groups at the universities. The interviewees indicated that multiple criteria involved in selection process, conflicts during selection of the contracts, poor sourcing and sourcing types, lack of flexibility in selection of suppliers, inadequate resources coupled with complicated procurement process affected compliance with AGPO for special groups at public university. The finding were supported by Nancy and Muturi (2015) who revealed that there existed positive and significant correlation between procurement ethics in selection of vendors and compliance with public procurement regulations in public sector organizations.

**Table 4. 11: Selection Procedures and compliance with AGPO Regulations**

<b>Selection Procedures and compliance with AGPO Regulations</b>	<b>Mean</b>	<b>Std Dev</b>	<b>Z-Score</b>
The regulations concerning tendering process for special groups is inadequate	4.58	0.627	1.021
The regulations on tender evaluation and award criteria for special groups such as the youth is inadequate	4.24	0.432	-0.531
The regulations on submission	3.50	1.113	0.000
The regulations concerning the complaints system structure for special groups is inadequate	4.67	0.982	1.488
The regulations on communication	3.71	.833	2.920
Publishing or advertising the procurement opportunity	3.82	0.838	1.870
Disseminating the solicitation of tender documents	3.65	.705	2.436
Evaluating responses to the solicitation	4.02	.713	1.254
Unfair Selection of a contracting partner	3.54	.553	1.409
Favourism in awarding the contract enterprises owned by	4.12	0.721	2.001



#### **4.5.5 Contract Management and Compliance with AGPO Regulations**

The respondents were requested to indicate the extent to which contract management influence compliance with AGPO regulations for special groups in public universities in Kenya. From the results in Table 4.12, respondents indicated that modifying the contract to accommodate changing needs or circumstances (negotiation) and Monitoring contract performance in terms of technical, schedule and cost influence compliance with the AGPO regulation for special group to a very great extent as indicated by a mean  $M=4.71$  and  $M=4.54$  with  $SD= 0.843$  and  $0.724$  respectively. The respondents also indicated that resolving disputes that arise in procurement process and allocation of resources to indentify the rightful special suppliers influence compliance with AGPO regulations for special groups in public universities to a very great extent as indicated by mean,  $M=4.51$  and  $4.50$  with  $SD=0.825$  and  $0.93$  respectively. The respondents also indicated that the categorizations in which preference schemes can be applied influence compliance with AGPO to a great extent ( $M=4.24$ ,  $SD=0.371$ ), that adhering to multiple sourcing strategy for flexibility influence compliance with AGPO for special groups in public universities to a great extent ( $M=4.05$  and  $SD=0.521$  ).The results also indicated that elimination of policy objectives on quality and weighting for special groups influence compliance with AGPO regulations for special groups to a great extent as indicated by a mean ,  $M=3.73$ ,  $SD=0.747$ . The findings also indicated that existence of multiple criteria involved in the suppliers' selection decision process and closing out the contract influence compliance

with AGPO regulations for special groups in the universities to a great extent as indicated by  $M=3.69$  and  $3.66$  with  $SD=0.619$  and  $0.508$  respectively.

Further results indicated that conducting a final accounting on contracts influence AGPO regulations for special groups in the public universities to a moderate extent as  $M=3.37$  with  $SD=0.794$ . The respondents also indicated that monitoring contract performance in terms of technical, schedule and cost affected compliance with AGPO regulations to a moderate extent ( $M=3.34$ ,  $SD=.723$ ). The findings indicated Z-score was found to be ( $Z\text{-score}=0.008$ ). This indicated that Z-Score was on the mean and deviation from the standard deviation zero. The  $Z\text{-score} =2.920$  indicate that the finding were significant as the variance was low. This clearly indicated that Contract management influence compliance with AGPO regulations for special groups in the public universities procurement functions.

The respondents were requested to indicate other elements of contract management that influence compliance with the AGPO regulations for special groups in public universities. The respondents indicated that service delivery management, relationship management and contract governance and change management, documentation, monitoring contract implementation, contract documentation, record management, monitoring contract implementation influence compliance with the AGPO regulations for special groups in public universities in Kenya. The results were further supported by interviewees who indicated contract management affected compliance with AGPO for special group in universities was weak coordination of contracts, poor record keeping,

ineffective payment, poor service delivery management, poor documentation of contracts as well as poor relationship between procurement units and account units.

The findings concurred with Onyinkwa (2013) who found that adhering to public procurement ethics, contract management awareness and contract training affected compliances of procurement regulations in public secondary schools in Nyamache Sub-County.

**Table 4. 12: Contract management and compliance with AGPO Regulations**

<b>Contract management and compliance with AGPO Regulations</b>	<b>Mean</b>	<b>Std Dev</b>	<b>Z-Score</b>
Monitoring contract performance (technical, schedule and cost)	4.54	.724	1.647
Modifying the contract to accommodate changing needs or circumstances (negotiation)	4.71	.843	0.649
Resolving disputes	4.51	.825	2.587
Conducting a final accounting	3.37	.794	-0.395
Closing out the contract	3.66	.508	0.008
The categorizations in which preference schemes can be applied	4.24	0.37	1.795
Elimination of policy objectives as quality and weighting for special groups	3.73	0.747	1.082
There exist multiple criteria involved in the suppliers' selection decision process	3.69	0.619	1.542
Adhering to multiple sourcing strategy for flexibility	4.05	0.521	1.746
Allocation of resources to indentify a suppliers	4.50	0.93	2.920

#### **4.5.6 Internal controls and compliance with AGPO Regulations**

The respondents were requested to indicate the extent to which internal controls aspects influence compliance with AGPO regulations in the public universities and results presented in Table 4.13. From the results, the respondents indicated that effective record management and documentation promote governance and adherence to ethical behavior influence compliance with AGPO regulations for special groups in selected public universities to a great extent (M= 4.53 and 4.52, SD=0.415 and .462) respectively. The respondents also indicated that addressing improper disclosure of protected information influence compliance with AGPO regulations in the public universities in Kenya to a great extent ( M=4.48 , SD= 0.504) and that ICT adoption in internal procurement process eased the procurement process and influence compliance with AGPO regulations for special groups to a great extent (M=4.24 and SD=0.432). The findings indicated that defined responsibility and obligations for procurement officers, enhanced accountability in procurement process and high level of suppliers qualification for government tenders influence compliance with AGPO regulation to a great extent as indicated by a mean 4.18, 3.98 and 3.85 with standard deviation 0.460, 0.608 and 0.738 respectively. The results also indicated ethics training and seminars to increase awareness on procurement ethical behavior and payment in excess of contract ceilings affected compliance with AGPO regulations to a great extent as indicated by mean of 3.72 and 3.50 with standard deviation of 0.713 and 0.614 respectively.

The results further indicated that promotion of coordination between public universities procurement units and suppliers from Special groups affects compliance with AGPO

regulation to a moderate extent (M=3.43 and SD=0.729). The findings indicated Z-score was found to be (Z-score=0.001) implying that Z-Score was on the mean and deviation from the standard deviation was zero. The Z-score =2.552 indicate that the finding were significant as the variance was low. This clearly indicated that internal procurement controls influence compliance with AGPO regulations for special groups in the public universities procurement functions. The results were supported by Jaafar, Ramli and Aziz (2014) who revealed that executing public procurement operation governed by adhering to governing policies, enforcement, professionalism and ethics have a positive impact on compliance with procurement regulations in public sector organizations.

The results from the interview guide indicated that accountability in procurement affects compliance. The interviewees also indicated that ICT adoption in procurement in public universities improve efficiency in procurement process and eased the procurement process. The findings from the interview guide further indicated that lack of adhering to confidentiality leading to improper disclosure of protected information affects compliance of AGPO regulation for special groups. The findings were supported by Mwendwa (2013) who revealed that that provision of public procurement, top management support, staff training, ICT adoption in public procurement process, and institutional supports influencing compliance with the public procurement legislation in Kenya.

**Table 4. 13: Internal Procurement controls and compliance with AGPO Regulations**

<b>Internal procurement controls Ratings</b>	<b>Mean</b>	<b>Standard Dev</b>	<b>Z-Score</b>
The regulations have addressed accountability in procurement	3.98	.608	1.344
ICT adoption has eased the procurement process	<u>4.24</u>	.432	<u>2.552</u>

The regulations have addressed improper disclosure of protected information	4.48	.504	0.893
There is ethics training and seminars to increase awareness on ethical behavior	3.72	.713	1.001
Adherence to ethical behavior	4.52	.462	0.649
Effective Record management and documentation promote governance	4.53	0.415	1.692
Suppliers meet their qualification for government tenders	3.85	0.738	0.001
Define responsibility and obligations	4.18	0.460	1.298
Promote coordination between public universities and special suppliers	3.43	0.729	0.611
Payment in excess of contract ceilings	3.50	0.614	1.283

#### **4.5.7 Level of Compliance**

The respondents were requested to indicate what determines whether public universities comply with the AGPO regulations for special groups or not and presented in Table 4.14. The respondents indicated that effective contract administration, proper prequalification, efficiency sourcing and elimination of discrimination and effective internal contract controls determine compliance with AGPO regulations for special groups in public universities in Kenya. This was further supported by interviewees who indicated that contract awarded, value of contract awarded to the special groups, number of contracts, effective coordination between procurement units and account units, effectiveness in contract management and administration, adhering to selection criteria and promote professionalism in public procurement determines whether an institution complies with the AGPO regulations for special groups. The respondents were asked to indicate the total number of contracts awarded in previous financial year. The results show that 29% of the respondents indicated total contracts awarded in the previous financial year were 51-60 while 25.8% of the respondents indicated 21-30 and 41-50 each. The results also show that 8.1% of the respondents indicated that in their institutions total contracts awarded in previous financial year were 81-90 while 6.5% and 4.8% of the respondents indicated 61-70 and 71-80 respectively.

**Table 4. 14: Total contracts awarded in the last financial year**

<b>Total contracts awarded in the last financial year</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
'21-30'	16	25.8	25.8
'41-50'	16	25.8	51.6
'51-60'	18	29.0	80.6
'61-70'	4	6.5	87.1
'71-80'	3	4.8	91.9
'81-90'	5	8.1	100.0
<b>Total</b>	<b>62</b>	<b>100.0</b>	

The respondents were asked to indicate the value of contracts awarded in the last financial year. The results show that 47.5% of the respondents indicated that value of contracts awarded in the last financial year as 501 millions to 1 billion while 27.5% indicated 100-500 millions. The results also show that 12.5% of the respondents indicated value of contracts awarded in the last financial year as 1.1 billions to 1.5 billions and 1.6 billions to 2 billions each. These findings are shown in table 4.

**Table 4. 15: Value of Contracts Awarded In the Last Financial Year**

<b>Value of Contracts Awarded In the Last Financial Year</b>	<b>Freq uency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
100-500 millions	17	27.5	27.5
501 millions -1 billion	29	47.5	75.0
1.1 billion -1.5 billions	8	12.5	87.5
1.6 billions -2 billions	8	12.5	100.0
<b>Total</b>	<b>62</b>	<b>100.0</b>	

The researcher sought to establish the contracts reserved for special groups in the last financial year as presented in Table 4.16. The results show that 62.9% of the respondents indicated that contracts reserved for special groups in the last financial year were 11-20 while 29% indicated 21-30. The results also show that 8.1% of the respondents indicated



that contracts reserved for special groups in the last financial year awarded to special groups were 31-40.

**Table 4. 16: Contracts reserved for special groups in the last financial year awarded to special groups**

<b>Contracts Reserved for Special Groups</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
'11-20'	39	62.9	62.9
'21-30'	18	29.0	91.9
'31-40'	5	8.1	100.0
Total	62	100.0	

The researcher also sought to know the value of contracts reserved for special groups in the last financial year awarded to special groups and results presented in Table 4.17. The results show that the respondents indicated value of contracts reserved for special groups in the last financial year awarded to special groups as 50-100 millions while 43.8% indicated 100-500 millions.

**Table 4. 17: Value of contracts reserved for special groups in the last financial year awarded to special groups**

<b>Value of contracts reserved for special groups</b>	<b>Frequency</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
50-100 millions	34	56.3	56.3
100-500 millions	28	43.7	100.0
Total	62	100.0	

The respondents were asked to indicate the number of contracts awarded to the special groups in the last financial year and presented in Table 4.18. The results show that the respondents indicated 1-10 (75.8%) while 16.1% of the respondents indicated 11-20. The

results also show that 8.1% of the respondents indicated that contracts awarded to the special groups in the last financial year in their institutions were 21-30.

**Table 4. 18: Contracts Awarded To Special Groups in the Last Financial Year**

<b>Contracts Awarded To Special Groups in</b>	<b>Frequency</b>	<b>Percent</b>
'1-10	47	75.8
'11-20'	10	16.1
'21-30'	5	8.1
Total	62	100.0

The respondents were asked to indicate the value of contracts awarded to special groups in the last financial year. The results in Table 4.19 show that the respondents indicated that value of contracts awarded to special groups in the last financial year was 50-100 millions (68.9%) while 31.1% indicated below 50 millions.

**Table 4. 19: Value of contracts awarded to special groups in the last financial year**

<b>Value of Contracts Awarded to Special Groups</b>	<b>Frequenc y</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Below 50 millions	20	31.1	31.1
50-100 millions	42	68.9	100.0
Total	62	100.0	

The respondents were requested to suggest how to achieve compliance with the AGPO regulations for special groups in public universities. The respondents indicated that offering value of contracts awarded to special groups being higher, increase in number of contract given special groups, increase in suppliers by special groups in public universities. This was further supported by interviewee’s results as they indicated that to achieve compliance with the AGPO regulations for special groups the universities need to

lessen prequalification criterion, promote governance in administration of contract and promote effectiveness in management of contracts, adhering to procurement ethics and ensuring effective internal control of compliance. The interviewees also indicated that compliance with AGPO regulations for special groups in the universities could be achieved through promoting relationship management among the parties, proper documentation and record management of contracts and enhance coordination between the Government's representative, the procuring unit and the accounting unit ensuring effective and timely payment of contracts. The findings were supported by McCrudden (2007) who argued that in the United States of America, the Public Works Act 1977 provided that at least 10% of each grant for local works project is expended for minority business enterprise.

#### **4.6 Factor Analysis**

The study sought to determine determinants (Factors) that had significance variance on compliance with access to government procurement opportunities (AGPO). The study undertook confirmatory factor analysis to reduce the number of determinants based on correlation strength of factor loading between variables.

#### 4.6.1 Communalities

The study sought to estimate the communalities for each variance to Compliance with access to government procurement opportunities (AGPO) regulations explained.

**Table 4. 18: Communalities**

<b>Communalities</b>	<b>Initial</b>	<b>Extraction</b>
Enterprises experience technical competence	1.000	.996
Financial resources are limited	1.000	.987
Equipment to carry out the work are not available	1.000	.984
Physical facilities of the enterprises are not available	1.000	.992
The regulations concerning tendering process for special groups is inadequate	1.000	.993
The regulations on tender evaluation and award criteria for special groups such as the youth is inadequate	1.000	.995
The regulations on submission, receipt and opening of tenders for special groups is inadequate	1.000	.994
The regulations concerning the complaints system structure for special groups is inadequate	1.000	.993
Publishing or advertising the procurement opportunity	1.000	.998
Disseminating the solicitation or tender documents to interested parties	1.000	.995
Evaluating responses to the solicitation	1.000	.986
Selecting a contracting partner	1.000	.998
Modifying the contract to accommodate changing needs or circumstances (negotiation)	1.000	.893
Resolving disputes	1.000	.632
Conducting a final accounting	1.000	.850
Closing out the contract	1.000	.213

Extraction Method: Principal Component Analysis.

This is the proportion of variance that each item has in common with others. From the finding, publishing or advertising the procurement opportunity influence compliance with access to government procurement opportunities (AGPO) regulations as indicated by 99.8% communality. This value has the greatest communality with others, while closing

out the contract and 'resolving disputes and has least influence compliance with access to government procurement opportunities (AGPO with communality or relationship with others of 21.3% and 63.2% respectively

#### **4.6.2 Total Variance Explained**

The confirmatory factor analysis, total variance explained was determined to extract the number of determinants that have significance variance with compliance with access to government procurement opportunities (AGPO). This is done through determining the Initial Eigenvalues of the operationalized determinants of compliance with access to government procurement opportunities (Factors).

**Table 4. 19: Total Variance Explained**

Component	Total Variance Explained					
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.041	37.757	37.757	6.041	37.757	37.757
2	4.300	26.876	64.634	4.300	26.876	64.634
3	2.612	16.328	80.961	2.612	16.328	80.961
4	1.545	9.658	90.619	1.545	9.658	90.619
5	.862	5.386	96.005			
6	.503	3.143	99.149			
7	.136	.851	100.000			
8	1.241E-015	7.755E-015	100.000			
9	7.590E-016	4.744E-015	100.000			
10	3.398E-016	2.124E-015	100.000			
11	7.926E-017	4.954E-016	100.000			
12	-1.971E-017	-1.232E-016	100.000			
13	-1.260E-016	-7.874E-016	100.000			
14	-4.036E-016	-2.522E-015	100.000			
15	-6.092E-016	-3.808E-015	100.000			
16	-1.641E-015	-1.026E-014	100.000			

In the above table, the researcher used Kaiser Normalization Criterion, which allows for the extraction of components that have an Eigen value greater than 1. Factor (Determinant) 1 had Eigenvalue 6.041, Factor (Determinant) 2 had Eigenvalue 4.300, Factor (Determinant) 3 had Eigenvalue 2.612 while Factor (Determinant) 4 had Eigenvalue of 1.545. The factors in the principal component analysis show individual relationships, much like the beta values in regression. In fact, the factor loadings here are the correlations between the factors and their related variables. The Eigenvalue used to establish a cutoff of factors is a value like R in regression. As with regression, the Eigenvalue represents the strength of a factor. The Eigenvalue of the first factor is such that the sum of the squared factor loadings is the most for the model. The reason the

Eigenvalue is used as a cutoff is because it is the sum of the squared factor loadings of all variables (the sum divided by the number of variables in a factor equals the average percentage of variance explained by that factor). Since the squared factor loadings are divided by the number of variables, an Eigenvalue of 1 simply means that the variables explain at least an average amount of the variance. A factor with an Eigenvalue of less than 1 means the variable is not even contributing an average amount to explaining the variance.

The principal component analysis was used and four factors were extracted. As the table shows, these four factors explain 61.35% of the total variation. Factor 1 contributed the highest variation of 37.757%, factor 2 contributed 26.877% of variation, and Factor 3 contributed a variation of 16.327% while Factor Four contributed variation of 9.658%. The contributions decrease as one move from one factor to the other up to factor 4.

#### **4.6.3 Component Matrix (a)**

Further confirmatory factors analysis, component Matrix was carried out to examine the factor matrix (Component matrix) to determine what variables could be combined (those that load together) and if any variables should be dropped. This is accomplished through the Factor Loading Value.

**Table 4. 20: Component Matrix (a)**

Component Matrix <sup>a</sup>	Component			
	1	2	3	4
Enterprises experience technical competence	-.949	.269	-.135	-.074
Financial resources are limited	-.500	.227	.825	-.073
Equipment to carry out the work are not available	.513	.491	.680	-.133
Physical facilities of the enterprises are not available	.772	.611	.000	-.153
The regulations concerning tendering process for special groups is inadequate	.861	.480	-.085	-.117
The regulations on tender evaluation and award criteria for special groups such as the youth is inadequate	-.695	.691	-.019	-.183
The regulations on submission, receipt and opening of tenders for special groups is inadequate	.976	-.117	-.164	.039
The regulations concerning the complaints system structure for special groups is inadequate	.861	.480	-.085	-.117
Publishing or advertising the procurement opportunity	-.223	.487	-.835	-.116
Disseminating the solicitation or tender documents to interested parties	.220	.912	-.247	-.231
Evaluating responses to the solicitation	-.500	.699	.460	-.190
Selecting a contracting partner	.682	-.443	.570	.112
Modifying the contract to accommodate changing needs or circumstances (negotiation)	-.097	.701	.146	.609
Resolving disputes	.424	.243	-.188	.598
Conducting a final accounting	-.232	.504	.094	.730
Closing out the contract	.239	.226	.224	-.233

Extraction Method: Principal Component Analysis.  
a 4 components extracted.

It is also important in the extraction phase to examine the communality. The communality is represented by the sum of the squared loadings for a variable across factors. The communalities can range from 0 to 1. A communality of 1 means that all of the variance in the model is explained by the factors (variables). This is shown in the “Initial” column of Table 4.24. The initial values are where all variables are included in the model. They have a communality of 1 because there are as many variables as there



are factors. In the “Extraction” column, the communalities are different and less than 1. This is because only the 4 factors used above (with Eigenvalues greater than 1) are taken into account. Here the communality for each variable as it relates to one of the four factors is taken into account. Although there are no 0 values; if there were, it would mean that variable (factor) contributed nothing to explaining the common variance of the model.

This is the correlation between a variable and a factor where only a single factor is involved or multiple factors are orthogonal (in regression terms, it is the standardized regression coefficient between the observed values and common factors). Since the first four factors were the only ones that had Eigenvalues  $> 1$ , the final factor solution only represented 61.8% of the variance in the data. The loadings listed under the "Factor" headings represent a correlation between that item and the overall factor. Like Pearson correlations, they range from -1 to 1. The four factors are the only significant with Eigenvalues values  $-1 > 0 < 1$

#### **4.6.4 Rotated Component Matrix (a)**

Rotated Component Matrix was carried out to determine determinants (Factors) that fall under the indentified (factors). The initial component matrix was rotated using Varimax (Variance Maximization) with Kaiser Normalization. The above results allowed the researcher to identify what variables indicators fall under each of the 4 major extracted factors.

**Table 4. 21: Rotated Component Matrix (a)**

<b>Rotated Component Matrix<sup>a</sup></b>	<b>Component</b>			
	1	2	3	4
Enterprises experience technical competence	-.514	.583	.623	.061
Financial resources are limited	-.119	.937	-.295	.089
Equipment to carry out the work are not available	.778	.399	-.446	.143
Physical facilities of the enterprises are not available	.976	-.135	.024	.143
The regulations concerning tendering process for special groups is inadequate	.942	-.305	-.019	.108
The regulations on tender evaluation and award criteria for special groups such as the youth is inadequate	-.030	.725	.664	.165
The regulations on submission, receipt and opening of tenders for special groups is inadequate	.607	-.719	-.328	-.037
The regulations concerning the complaints system structure for special groups is inadequate	.942	-.305	-.019	.108
Publishing or advertising the procurement opportunity	.086	-.179	.976	.082
Disseminating the solicitation or tender documents to interested parties	.759	.166	.591	.206
Evaluating responses to the solicitation	.167	.932	.233	.186
Selecting a contracting partner	.248	-.234	-.936	-.084
Modifying the contract to accommodate changing needs or circumstances (negotiation)	.175	.285	.139	.873
Resolving disputes	.245	-.420	-.037	.628
Conducting a final accounting	-.086	.211	.109	.887
Closing out the contract	.406	.170	-.103	-.091

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with

Kaiser Normalization.

a Rotation converged in 16 iterations.

Each of the 16 variables placed to one of the 4 factors depending on the percentage of variability; it explained the total variability of each factor. A variable is said to belong to a factor to which it explains more variation than any other factor. From the findings, the

study group the factors based on the factors that loads to and indentify common determinants influencing Compliance with Access to Government Procurement opportunities (AGPO) regulations. The variables that load highly on Factor 1 are therefore labeled as prequalification criteria. The questions that relate highly on factor 2 all relates on selection procedure and so Factor 2 is therefore labeled Factor Selection Procedure. The questions that relate to factor 3 relates contract management label Factor 3 Contract Management. The question relate to internal control therefore Factor 4 is label Internal Processes .From the above table, the individual variables constituting the four factors extracted are summarized and identified below-

#### **Factor1: Prequalification Criteria**

Factor loading on Factor 1 related to prequalification Criteria. These included assessment of equipment to carry out the work, physical facilities of the enterprises are not available, the regulations concerning tendering process for special groups is inadequate, the regulations on submission, receipt and opening of tenders for special groups is inadequate, the regulations concerning the complaints system structure for special groups is inadequate, disseminating the solicitation or tender documents to interested parties, selecting a contracting partner and closing out the contract.

#### **Factor 2 Selection Criteria**

Under Factor 2, the following indicators were extracted and related to selection criterion and included financial resources being limited, the regulations on tender evaluation and

award criteria for special groups such as the youth is inadequate and evaluating responses to the solicitation

### **Factor 3: Contract Management**

Under Factor 3, the factor loading or correlating related to contract management which included Enterprises experience technical competence and publishing or advertising the procurement opportunity.

### **Factor 4: Internal Control process**

Under Factor 4, the factor loading or correlating was modifying the contract to accommodate changing needs or circumstances (negotiation), resolving conflicts and conducting a final accounting that influence compliance with access to government procurement opportunities (AGPO) regulations.

From the factor analysis, the study reduced to four determinants of compliance with access to government procurement opportunities (AGPO) regulations which included prequalification Criteria, selection Criteria, contract management and internal control process. This were then used in the regression analysis to establish whether there existed a significant relationship between compliance with AGPO regulations and Pre-Qualification, Selection Procedures, contract management and internal controls.

### **4.7 Normality Test of Compliance with AGPO**

Inferential analysis is done on assumption that data were sampled from a gaussian distribution. According to Indiana, (2011) best way to evaluate how far data are from

gaussian is to look at a graph and see if the distribution deviates grossly from a bell-shaped normal distribution. The testing of normality of dependent variable in this study could be done using the Kolmogorov-Smirnov or Shapiro Wilk test. Since the sample population is less than 2000, Kolmogorov-Smirnov was suitable for the study. Such that given  $H_0$  and  $H_1$ , set  $\alpha = 0.05$ , the rule is that reject  $H_0$  if P-value is less than  $\alpha$  else fail to reject  $H_0$  : where

$H_0$ : The data is normal

$H_1$ : The data is not normal.

**Table 4. 24: Normality Test of Compliance with Access to Government Procurement Opportunities**

Variables	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Compliance with Access to Government Procurement Opportunities	.213	14	.085	.893	14	.090

The study findings in Table 4.39 indicates that using the two tests of normality that is Kolmogorov-Smirnov and Shapiro-Wilk, Compliance with Access to Government Procurement Opportunities (AGPO) data is normal .The Kolmogorov-Smirnov test, the P-value =.085 > 0.05 and Shapiro-Wilk test P= .090>0.05. Since the study sample is less than 2000, the study adopted results on Kolmogorov-Smirnov test, the P-value =.085 > 0.05. This implied that Compliance with Access to Government Procurement Opportunities (AGPO) variable is normal in distribution and hence subsequent analysis could be carried out.

## 4.8 Correlation Analysis

### 4.8.1 Influence of pre-qualification Criteria compliance with AGPO for special groups by Public Universities in Kenya

The study sought determinants of compliance with AGPO regulations for special groups by Public Universities in Kenya. The study was guided by four variables where each of the objectives and hypothesis were analyzed to test conformity or deviation from researcher expectations. The first objective of the study was to analyze the effects of pre-qualification criteria on compliance with AGPO regulations for special groups by Public Universities in Kenya. From Table 4.25, it is clear that there is a significant positive linear correlation between pre-qualification criteria and compliance with AGPO regulations for special groups by Public Universities in Kenya.

**Table 4. 22: Correlation Between Pre-qualification criteria and Compliance with AGPO Regulations**

pre-qualification criteria	Pearson	1	
	Correlation Sig. (2-tailed)		
Compliance with AGPO regulations	Pearson	.576*	1
	Correlation Sig. (2-tailed)	.011	

Table 4.26 indicates that there was a positive significant linear relationship between pre-qualification criteria and compliance with AGPO regulations for special groups by Public Universities in Kenya. This relationship had been illustrated by the correlation coefficient

of 0 as  $r=0.576$ ,  $P= 0.011<0.05$ . This demonstrated that there existed a strong positive relationship between pre-qualification criteria and compliance with AGPO regulations for special groups by Public Universities in Kenya. Pre-qualification criteria are critical in influencing compliance with AGPO regulation in public universities. The findings were similar to Jaafar, Ramli and Aziz (2014) who revealed that perceived inefficiency of the procurement pre qualification guidelines was found to significantly negatively impact on procurement compliance with procurement regulations in public sector organizations in Malaysia.

#### **(a) Linear Regression Analysis**

The study sought whether there existed a relationship between pre-qualification criteria on compliance with AGPO regulations for special groups by Public Universities in Kenya. From the results in Table indicated that there was a positive relationship between the variables as indicated by unstandardized beta coefficient (Table 4.8) where  $r= .627$ ,  $P=0.001$ ,  $t= 10.175$  .

$$H_0: \beta_1=0$$

$$H_1: \beta_1 \neq 0$$

Table 4.26 shows that the P-Value is less than 0.05 therefore the study reject the null hypothesis and accepted the alternative hypothesis that;  $\beta_1 \neq 0$ , which implies that pre-qualification criteria has a significance influence on compliance with AGPO regulations for special groups by Public Universities in Kenya.

**Table 4. 23: Regression Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	Pre qualification	.627	.036	.583	10.175	.001

**(b) Goodness of fit**

In order to test the research objectives, regression analysis was employed. The model equation  $Y = \beta_1 X_1 + \varepsilon$  explained 66.42% as measured by the goodness of fit (R-square) in Table 4.9. The results of the analysis are represented in Table 4.27 (model summary). This demonstrated that pre-qualification criteria explained 65.47 % (adjusted R- square = 0.6547) of the variance in compliance with AGPO regulations for special groups by Public Universities in Kenya was explained by the model  $Y = \beta_1 X_1 + \varepsilon$ . This revealed that pre-qualification criteria influence compliance with AGPO regulations for special groups by Public Universities in Kenya.

**Table 4. 24: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.815	.6642	.6547	3.6879
Predictor: Pre-qualification criteria				



The univariate model was significant and therefore, supported the objective that pre-qualification criteria influenced compliance with AGPO regulations for special groups by Public Universities in Kenya.

#### **4.8.2 Selection procedures has no effect on compliance with AGPO regulations for special groups by Public Universities in Kenya**

The second objective of the study was to determine how selection procedures affect compliance with AGPO regulations for special groups by Public Universities in Kenya. From Table 4.28, it is clear that there is a significant positive linear correlation between selection procedures and compliance with AGPO regulations for special groups by Public Universities in Kenya.

**Table 4. 25: Selection Procedures and Compliance with AGPO Regulations**

<b>Selection Procedures</b>	<b>Pearson Correlation</b>	<b>1</b>	<b>.614*</b>
	<b>Sig. (2-tailed)</b>		<b>.000</b>
<b>Selection Procedures</b>	Pearson	.614*	1
	Correlation		
	Sig. (2-tailed)	.000	

Table 4.29 indicates that there was a positive significant linear relationship between selection procedures and compliance with AGPO regulations for special groups by Public Universities in Kenya. This relationship had been illustrated by the correlation coefficient of 0 as  $r=0.614$ ,  $P= 0.001 < 0.05$ . This demonstrated that there existed a strong positive relationship between selection procedures and compliance with AGPO regulations for

special groups by Public Universities in Kenya. Selection procedures are critical determinant of compliance with AGPO regulation in public universities.

**(a) Regression line fitting**

The study sought whether there exist a relationship between selection procedures on compliance with AGPO regulations for special groups by Public Universities in Kenya and results presented in Table 4.26. The unstandardized beta coefficient (Table 4.26) where  $r=0.754$ ,  $P=0.003$ ,  $t= 12.465$ . Therefore the study reject the null hypothesis and accepted the alternative hypothesis accepted which implies that selection procedures has a significance effects on compliance with AGPO regulations for special groups by Public Universities in Kenya. The findings concurred with Zadawa, Hussin and Osmadi, (2015) who revealed that determinants of compliance such as selection procurement guidelines Influence procurement performance in public organizations in Nigeria.

**Table 4. 26: Regression Coefficients**

Mode l		Unstandardized Coefficients		Standardized Coefficients	t	Sig .
		B	Std. Error	Beta		
1	selection procedures	.754	.036	.736	12.465	.003

**(b) Goodness of fit**

In order to test the research objectives, regression analysis was employed. The model equation  $Y= \beta_1X_1 + \varepsilon$  explained 57.61% as measured by the goodness of fit (R-square) in

Table 4.30. The results of the analysis are represented in Table 4.27 (model summary). This demonstrated that selection procedures explained 57.61 % (adjusted R- square = 0...5761) of the variance in compliance with AGPO regulations for special groups by Public Universities in Kenya. This revealed that selection procedures had an effect on compliance with AGPO regulations for special groups by Public Universities in Kenya.

**Table 4. 27: Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.759	.5761	.5548	3.657
Predictor:		Selection Procedures		

The univariate model was significant and therefore, supported the objective that selection procedures influenced compliance with AGPO regulations for special groups by Public Universities in Kenya.

#### **4.8.3 Contracting Management on Compliance with AGPO regulations for special groups by Public Universities in Kenya Performance**

The third objective of the study was to analyze the effects of contracting Management on compliance with AGPO regulations for special groups by Public Universities in Kenya. From Table 4.28, it is clear that there is a significant positive linear relationship between contracting Management and compliance with AGPO regulations for special groups by Public Universities in Kenya.

**Table 4. 28: Contract Management and Compliance with AGPO Regulations Correlation**

<b>Contract Management</b>	<b>Pearson</b>	<b>1</b>	<b>.498*</b>
	<b>Correlation Sig. (2-tailed)</b>		<b>.0011</b>
Compliance with AGPO regulations	Pearson	.498*	1
	Correlation Sig. (2-tailed)	.0011	

Table 4.28 indicates that there was a positive significant linear relationship between contract management and compliance with AGPO regulations for special groups by Public Universities in Kenya. This relationship had been illustrated by the correlation coefficient matrix of where  $r=0.498$ ,  $P= 0.0011<0.05$ . This clearly indicated that there existed a strong positive correlation between contract Management and compliance with AGPO regulations for special groups by Public Universities in Kenya. Contract Management is critical determinant of compliance with AGPO regulation in public universities.

**(a) Regression line fitting**

The study sought whether there existed a relationship between contract management on compliance with AGPO regulations for special groups by Public Universities in Kenya. The results were presented in Table 4.33 the findings revealed that  $r=. .692$ ,  $P=0.001$ ,  $t= 27.68$ . Therefore the study reject the null hypothesis and accepted the alternative hypothesis accepted which stated that contract Management has a significance effects on compliance with AGPO regulations for special groups by Public Universities in Kenya.

**Table 4. 29: Regression Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	Contracting Management	.692	.025	.671	27.68	.001

**(b) Goodness of fit**

In order to test the research objectives, regression analysis was employed. The model equation  $Y = \beta_1 X_1 + \varepsilon$  explained 57.61.42% as measured by the goodness of fit (R-square) in Table 4.30. The results of the analysis are represented in Table 4.8 (model summary). This demonstrated that contract Management explained 57.61 % (adjusted R- square = 0.5761) of the variance in compliance with AGPO regulations for special groups by Public Universities in Kenya was explained by the model  $Y = \beta_1 X_1 + \varepsilon$ . This revealed that contract Management had an effect on compliance with AGPO regulations for special groups by Public Universities in Kenya.

**Table 4. 30: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.659	.5761	.4342	3.055
Predictor:		Selection Procedures		

The univariate model was significant and therefore, supported the objective that Contract Management has effects on compliance with AGPO regulations for special groups by Public Universities in Kenya.

#### **4.8.4 Internal control on Compliance with AGPO regulations for special groups by Public Universities in Kenya Performance**

The fourth objective of the study was to analyze the effects of internal compliance controls on compliance with AGPO regulations for special groups by Public Universities in Kenya. From Table 4.31, it is clear that there is a significant positive linear correlation between internal control and compliance with AGPO regulations for special groups by Public Universities in Kenya.

**Table 4. 31:** Internal control and Compliance with AGPO Regulations Correlation

<b>Internal control and Compliance with AGPO Regulations Correlation</b>		<b>Contracting Management</b>	<b>Compliance with AGPO regulations</b>
Contract Management	Pearson	1	.517*
	Correlation		
	Sig. (2-tailed)		.0011

Table 4.35 indicates that there was a positive significant linear relationship between Contract Management and compliance with AGPO regulations for special groups by Public Universities in Kenya. This relationship had been illustrated by the correlation coefficient matrix of where  $r=.517$ ,  $P= 0.000<0.05$ . This clearly indicated that there existed a strong positive correlation between internal control and compliance with AGPO

regulations for special groups by Public Universities in Kenya. Internal control is a critical determinant of compliance with AGPO regulation in public universities.

**(a) Regression line fitting**

The study sought whether there existed a relationship between internal controls on compliance with AGPO regulations for special groups by Public Universities in Kenya. The findings revealed that  $r = .438$ ,  $P = 0.032$ ,  $t = 14.728$  as presented in Table 4.32. Therefore the study reject the null hypothesis and accepted the alternative hypothesis which stated that Internal control has a significance effects on compliance with AGPO regulations for special groups by Public Universities in Kenya.

**Table 4. 32: Regression Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	Internal Compliance Controls	.438	.025	.425	17.52	.032

In order to test the research objectives, regression analysis was employed. The model equation  $Y = \beta_1 X_1 + \epsilon$  explained 35.64% as measured by the variation between variable (R-square) in Table 4.33. The results of the analysis are represented in Table 4.37(model summary). This demonstrated that Internal control explained 34.92% (adjusted R- square = 0.3492) of the variance in compliance with AGPO regulations for special groups by Public Universities in Kenya was explained by the model  $Y = \beta_1 X_1 + \epsilon$ . This revealed that internal control had an effect on compliance with AGPO regulations for special groups

by Public Universities in Kenya.

**Table 4. 33: Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.597	.3564	.3492	3.456
Predictor: Internal compliance controls				

The univariate model was significant and therefore, supported the objective that internal control has an effects on compliance with AGPO regulations for special groups by Public Universities in Kenya.

#### **4.9 Hypothesis Results**

The study sought to test four hypotheses. Table 4.34 indicates the results of the hypotheses, the variables that were tested, the results of the hypotheses and the explanation of the results.

**Table 4. 34: Results of Hypothesis Testing**

<b>Hypothesis Number</b>	<b>Hypotheses Variables</b>	<b>Hypotheses Results Decision</b>	<b>Explanation</b>
H1	Pre-qualification criteria	Accepted	Pre-qualification criteria significantly and positively influences compliance with AGPO regulations for special groups by Public Universities
H2	Selection Procedures	Accepted	Selection Procedures significantly and positively influences compliance with AGPO regulations for special groups by Public Universities
H3	Contract Management (IP)	Accepted	Contracting Management significantly and positively influences compliance with AGPO regulations for special groups by Public Universities



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H <sub>4</sub>	Internal control	Accepted	Internal compliance controls significantly and positively influences compliance with AGPO regulations for special groups by Public Universities
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#### **4.9 Correlation Matrix Analysis**

Pearson Correlation analysis was used to examine whether there existed correlation between variables. Correlation coefficient is a measure of bivariate association between two variables. Values of the association coefficient lies between  $-1 < 0 < +1$ . A correlation coefficient of +1 indicates that two variables are perfectly related in a positive linear model; a correlation coefficient of -1 indicates that two variables are perfectly related in a negative linear sense, and a correlation coefficient of 0 indicates the variables have no linear relationship between the two variables (Indiana, 2011).

The correlations between compliance with AGPO regulations and Pre-Qualification, Selection Procedures, contract management and internal controls are indicated by Table 4.35. The findings were in agreement with Lam *et al.* (2002) and Fong and Choi (2000) who found fault with subjectivity and uncertainty of prequalification criteria hinders compliance with public procurement regulations. The results also concurred with Ng'eno (2014) who revealed that combination of preservation practices and preferencing practices explained 75.7% of variations in State Corporations performance in Kenya.

**Table 4. 35: Correlation Matrix Analysis**

		Compliance	Prequalification Criteria	Selection Procedure	Contract Management	Internal Processes
Compliance	Pearson Correlation Sig. (2- tailed)	1				
Prequalification Criteria	Pearson Correlation Sig. (2- tailed)	.391*	1			
Selection Procedure	Pearson Correlation Sig. (2- tailed)	.548*	.782**			
Contract Management	Pearson Correlation Sig. (2- tailed)	.442	.391**		1	
Internal Processes	Pearson Correlation Sig. (2- tailed)	.597**	.376**	.329**		1
		.000	.003	.009	0.0897	1

\*\* : Significant at 0.01 and \* Significance at 0.05

Table 4.40, indicated there exist positive and significant association between prequalification criteria and compliance with AGPO regulations ( $r=0.391$ ,  $P=0.002<0.05$ ). The results revealed that there existed a positive and significant correlation between Selection Procedure compliance a Pearson correlation ( $r$ ) =0. 548·  $P=0.000<0.05$ . This implied there would be a positive relationship between selection procedure and compliance with AGPO regulations. The results were supported by Osei-Tutu, Mensah, and Ameyaw (2011) who revealed that level of compliance with the Public Procurement Act (Act 663) in Ghana was promoted by fairness, transparency and enhance public procurement non-discriminatory. Results in Table indicate there exist

correlation between contract management and compliance with AGPO regulations a Pearson correlation ( $r$ ) =0.442·  $P=0.003>0.05$ . This implied there would be no relationship between contract management and compliance with AGPO regulations. However, the study established strong, positive correlation between contract management and pre-qualification criteria as  $r=0.782$ ,  $P=0.000<0.05$ .

The findings depict that there exist correlation between internal processes and compliance with AGPO regulations. The Pearson correlation was weak, positive and significant ( $r$ ) =0.597·  $P=0.000< 0.05$ . This implied that internal control significantly effects on compliance. However, the study established strong, positive correlation between contract management and pre-qualification criteria as  $r=0.782$ ,  $P=0.000<0.05$

The results of this study ranked internal control as having the highest determinant that correlate highest to compliance with AGPO regulations. The second contributor to compliance is Selection Procedure ( $r=0.548$ ·  $P=0.000$ ). The finding was supported by Lagat, Namusonge and Berut (2016) who revealed that procurement procedures and enforcement and compliance contributes to accessing procurement opportunities in Transzoia County Government affecting youth, women & persons with disabilities on accessing procurement opportunities in Transzoia County Government

#### 4. 10 Multi Regression Analysis Results

Multiple linear regression analysis was conducted to establish the contribution of each independent variable to level of compliance with AGPO regulations and results presented in Table 4.36. The results in model summary show that independent variables that comprised of internal controls, selection procedures, contract management and prequalification explain 80.7% of change in level of compliance with AGPO regulations by public universities (Adjusted  $R^2=.807$ ).

**Table 4. 36: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.906 <sup>a</sup>	.820	.807	1.23810

a. Predictors: (Constant), Internal Processes, Selection Procedures, Contract Management, Prequalification Criteria

Analysis of variance (ANOVA) was used to test whether the multiple linear regression analysis model used was fit for the analysis. The results are shown in Table 4.37. F statistics was used to establish model fitness. Statistically significant F value meant that model is fit while vice versa meant model was not fit. In this case, it was established that the model used for the analysis was fit as F value was statistically significant ( $F=64.962$ ,  $p=0.000$ ). .

**Table 4. 37: ANOVA**

<b>Model</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1	Regression	398.318	4	99.580	64.962	.000 <sup>b</sup>
	Residual	87.375	57	1.533		
	Total	485.694	61			

a. Dependent Variable: Compliance

b. Predictors: (Constant), Internal Processes, Selection Procedure, Contract Management, Prequalification Criteria

The coefficients table shows the individual contribution of independent variables to the dependent variable. The results in Table 4.38 show that prequalification criteria contributed negatively to level of compliance with AGPO regulations by a factor of -0.968. This contribution was also found to be statistically significant ( $\beta=0.968, p=0.000$ ). This implied that efficient prequalification criteria positively contribute to level of compliance with AGPO regulations in public universities. Although prequalification criteria was found to be beneficial to the procuring entity in compliance with procurement regulations by Ngai, Drew, Lo and Skitmore (2002), Lam, Hu, Ng, Skitmore and Cheung (2001), poor formulation of prequalification criterion disadvantages the special groups in public procurement process.

The results also reveal that selection procedures contributed positively to level of compliance with AGPO regulations by a factor of 0.970. This contribution was found to be statistically significant ( $\beta=.970, P=.000$ ). This implied that adhering to specifications of products and services required by a procuring entity help in selection procedures of contractors. The findings of this study therefore confirms observations by Monczka,

Trent and Handfield (2005) that elaborated selection procedures positively contribute to level of compliance with public procurement regulations.

The study findings revealed that contract management contributed positively to level of compliance with AGPO regulations by a factor of -0.180. This contribution was however found not to be statistically significant ( $\beta=-0.480$ ,  $P=.631$ ,  $t=7.483$ ). This implied that contract management is supposed to play a central and fundamental part in the delivery of public sector services. The findings of this study revealed that contract management positively contributed to level of compliance with AGPO regulations this relationship was statistically significant. This could be attributed to a strong contract administration. This was supported by as Banaitiene and Banaitis, (2006) who revealed that major source of loss and a significant area of abuse as well as corruption hinder compliance with AGPO regulations in public sector organizations.

The study established that internal processes contributed positively to level of compliance with AGPO regulations by a factor of 1.001. This contribution was also found to be statistically significant ( $\beta=0.591$ ,  $P=.000$ ,  $t=11.356$ ). The findings of this study have shown that internal controls are critical in complying with public procurement regulations. These findings are congruent with observations by Mwangi and Kariuki (2013) that the internal controls at an institution affect compliance with public procurement laws while weak internal controls may lead to increasing non-compliance and loss of substantial public revenue. This could be due to inefficient and ineffective procurement structure, policies and procedures. Failure to impose sanctions for violation of such rules may result to poor service delivery as demonstrated by Adhiambo and

Kamau (2003) and Ntayi (2009). Ngugi and Mugo (2010) elaborated the key elements of internal controls as comprising of accountability, information communication technology adoption, internal processes and ethics. The importance of internal controls for compliance with public procurement laws is also supported by Segal and Summers (2002), Brinkerhoff (2004), Vian and Collins (2006).

**Table 4. 38: Regression Results**

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	3.268	1.569		2.083	.042
	Prequalification Criteria	.968	.100	.819	9.631	.000
	Selection Procedure	.970	.074	.857	13.192	.000
	Contract Management	.480	.373	.431	7.483	.001
	Internal Control	.591	.088	.568	11.356	.000

a. Dependent Variable: Compliance

#### 4.10 Overall Discussion of Results

This section present an analysis and discussion of findings based on the objectives of the study. The objectives of the study were to analyze the effects of pre-qualification criteria on compliance with AGPO regulations for special groups by Public Universities in Kenya, to determine effects of selection procedures on compliance with AGPO regulations for special groups by Public Universities in Kenya and to analyze the effects of contracting Management on compliance with AGPO regulations for special groups by



Public Universities in Kenya and to examine the effects of internal control on compliance with AGPO regulations for special groups by Public Universities in Kenya

#### **4.10.1 Influence of pre-qualification criteria on compliance with AGPO regulations for special groups by Public Universities in Kenya**

It has been ascertained that pre-qualification criteria had an influence on compliance with AGPO regulations in public institutions. However, all (100%) of the respondents indicated that pre-qualification criteria affected compliance with AGPO regulations in public universities. The results demonstrated that inadequate advertisement for prequalification, incompetency and lack of capability of the youth, women and disabled entrepreneurs, failure in involvement in pre-qualification decisions and lack of information sharing hinder compliance with AGPO regulations. Therefore efficient contractor's pre-qualification has a great influence on enforcing compliance with procurement regulations for special group in public organizations. The findings were supported by interview guide findings that revealed that fraudulent prequalification process characterized by Non-linearity existing between contractor attributes and correspondence, uncertainty, and subjectivity complicate compliance with AGPO regulation for special groups in public universities.

Effective undertaking of pre-qualification process through allowing submission of tender with acceptable price from special groups and assessment of financial capability of the suppliers from special groups, prequalifying experienced suppliers from the special groups influence compliance with AGPOS regulations in public universities to a great extent. The results also show requisite ability for special groups as well as ensuring

prequalifying special group with adequate equipment to carry out the work (M=4.00, SD=0.724), limited managerial capability (M=3.86, SD=0.803) and enterprises experience technical competence (M=3.84 and SD=0.729) determine the compliance with AGPO regulation for special groups enterprises in public universities to a great extent. The findings also indicated that inadequate enterprise personnel, lack of availability of physical facilities for the enterprises and low experience on the assigned tender assignment affects compliance with AGPO in public universities to a great extent.

Correlation analysis illustrated that there existed a strong positive relationship between pre-qualification criteria and compliance with AGPO regulations for special groups by Public Universities in Kenya (as  $r=0.576$ ,  $P=0.011 < 0.05$ ). The findings were similar to Jaafar, Ramli and Aziz (2014) who revealed that perceived inefficiency of the procurement pre qualification guidelines was found to significantly and positively impact on procurement compliance in public sector organizations in Malaysia. The multiple regression results revealed that effective prequalification criteria contributed significantly and positively to compliance with AGPO regulations ( $\beta=0.968$ ,  $p=0.000$ ). The study therefore accepts the alternative hypothesis that Pre-qualification criteria significantly and positively influences compliance with AGPO regulations for special groups by Public Universities. Although prequalification criteria was found to be beneficial to the procuring entity in compliance with procurement regulations by Ngai, Drew, Lo & Skitmore (2002), Lam, Hu, Ng, Skitmore and Cheung (2001).

#### **4.10.2 Selection procedures has no effects on compliance with AGPO regulations for special groups by Public Universities in Kenya**

Effective selection procedures promote compliance procurement regulation in public organizations. The results of this study indicated that selection procedures influence compliance with AGPO regulations for special groups in public universities in Kenya. The inadequacy of the regulations concerning tendering process for special groups and inadequate regulations concerning tendering process for special groups and inadequate regulations on tender evaluation and award criteria for special groups such as the youth, favourism in awarding the contract enterprises owned by special group affected compliance with AGPO in public universities to a great extent.

Selection procedures such as evaluating responses to the solicitation and publishing or advertising the procurement opportunity, inadequate communication of awards for special groups, disseminating of the solicitation of tender documents to interested parties also affected compliance with AGPO regulation for special group to a great extent. The findings also indicated that unfair selection of a contracting partners , inadequate submission, receipt and opening of tenders for special groups affected compliance with AGPO regulation for special groups to a great extent The respondents further explained that identification of the need for a specific product or services, product specifications, suppliers' capacity, quality, resources availability and purchasing price and sourcing strategy influence compliance with compliance with AGPO regulations for special group in public universities in Kenya. More insight on the extent to which selection procedure affected compliance with AGPO were provided by interview guide results that indicated

that multiple criteria involved in selection process, conflicts that arise during selection of the contracts, poor sourcing and sourcing types, lack of flexibility in selection of suppliers, inadequate resources coupled with complicated procurement process affected compliance with AGPO for special groups at public university. The findings were supported by Nancy and Muturi (2015) who revealed that there existed positive and significant correlation between procurement ethics in selection of vendors and compliance with public procurement regulations in public sector organizations.

Correlation matrix analysis revealed that there existed a strong positive relationship between selection procedures and compliance with AGPO regulations for special groups by Public Universities in Kenya ( $r=0.614$ ,  $P= 0.001<0.05$ ). Selection procedures therefore play a critical determinant of compliance with AGPO regulation in public universities. The findings concurred with Zadawa, Hussin and Osmadi, (2015) who revealed that selection procurement guidelines influence procurement performance in public organizations in Nigeria.

Multiple regression results reveal that selection procedures contributed positively to compliance with AGPO regulations ( $\beta=.970$ ,  $P=.000$ ). This study therefore accepts alternative hypothesis that selection procedures significantly and positively influence compliance with AGPO regulations for special groups by Public Universities. This implied that adhering to specifications of products and services required by a procuring entity help in selection procedures of contractors. The findings of this study therefore confirm observations by Monczka, Trent and Handfield (2005) that elaborated selection

procedures positively contribute to level of compliance with public procurement regulations.

#### **4.10.3 Contract Management on Compliance with AGPO regulations for special groups by Public Universities in Kenya Performance**

Contract management plays a critical role on fostering compliance with procurement regulations in public sectors organizations. Quantitative data collected from the questionnaires revealed that modification of the contract to accommodate changing needs or circumstances through negotiation and monitoring contract performance in terms of technical, schedule and cost influence compliance with the AGPO regulation for special group to a very great extent (M=4.71 and M=4.54 with SD= 0.843 and 0.724) respectively. The results as indicated by respondents indicated that effective contract management through resolving disputes that arise in procurement process and allocation of resources to indentify the rightful special suppliers, proper categorizations in which preference schemes can be applied as well as adherence to multiple sourcing strategy for flexibility influence compliance with AGPO for special groups in public universities to a great extent. Elimination of ineffective policy objectives on quality and weighting for special groups, existence of multiple criteria involved in the suppliers' selection decision process and closing out the contract influence compliance with AGPO regulations for special groups in the universities to a great extent (M=3.69 and 3.66 with SD=0.619 and 0.508) respectively.

More insight was provided by interview guide that revealed that contract management through effective service delivery management, relationship management, contract governance and change management, documentation, monitoring contract implementation, contract documentation, record management, monitoring contract

implementation influence compliance with the AGPO regulations for special groups in public universities in Kenya. The results from interview guide revealed that ineffective contract management through weak coordination of contracts, poor record keeping, ineffective payment, poor service delivery management, poor documentation of contracts as well as poor relationship between procurement units and account units hinders compliance with AGPO for special group in public universities in Kenya. The findings concurred with Onyinkwa (2013) who found that lack of adhering to public procurement ethics, lack of contract management awareness and contract training affected compliances of procurement regulations in public secondary schools in Nyamache Sub-County.

The correlation coefficient matrix analysis established that there existed a strong positive correlation between contract Management and compliance with AGPO regulations for special groups by Public Universities in Kenya ( $r=0.498$ ,  $P= 0.0011 < 0.05$ ) demonstrating contracting management is critical determinant of compliance with AGPO regulation in public universities. Multiple regression analysis results revealed that contract management contributed positively to level of compliance with AGPO regulations ( $\beta=0.480$ ,  $P=.631$ ,  $t=7.483$ ). The study accepts the alternative hypothesis that indicated that contract management significantly and positively influences compliance with AGPO regulations for special groups by Public Universities. This implied that contract management play a central and fundamental part in the delivery of public sector services. The findings of this study revealed that contract management positively contributed to level of compliance with AGPO regulations this relationship was statistically significant.

This could be attributed to a strong contract administration. This was supported by as Banaitiene and Banaitis, (2006) who revealed that major source of loss and a significant area of abuse as well as corruption hinder compliance with AGPO regulations in public sector organizations.

#### **4.10.4 Internal Compliance controls on Compliance with AGPO regulations for special groups by Public Universities in Kenya Performance**

The quantitative data collected using questionnaires revealed that effective record management and documentation, good governance and adherence to ethical behavior as determinants of success in compliance with AGPO regulations for special groups in public universities to a great extent ( $M= 4.53$  and  $4.52$ ,  $SD=0.415$  and  $.462$ ) respectively.

The results found that poor internal procurement controls results into improper disclosure of protected information, lack of ICT adoption in internal procurement process, failure to define responsibility and obligations for procurement officers and lack of accountability in procurement process and low level of supplier's qualification for government tenders hinder compliance with AGPO regulation to a great extent. Training and increasing awareness on procurement ethical behavior and payment in excess of contract ceilings affected compliance with AGPO regulations to a great extent ( $M= 3.72$  and  $3.50$  ) respectively.

The results revealed that promotion of coordination between public universities procurement units and suppliers from Special groups determine success in compliance with AGPO regulation to a moderate extent ( $M=3.43$  and  $SD=0.729$ ). The results were supported by Jaafar, Ramli and Aziz (2014) who revealed that executing public



procurement operation governed by adhering to governing policies, enforcement, professionalism and ethics have a positive impact on compliance with procurement regulations in public sector organizations.

More insight was provided by interviewees who indicated that accountability in procurement, ICT adoption in procurement in public universities improve efficiency in procurement process and eased the procurement process and adhering to confidentiality leading to proper disclosure of protected information promoting compliance of AGPO regulation for special groups. The findings were supported by Mwendwa (2013) who revealed that provision of public procurement, top management support, staff training, ICT adoption in public procurement process, and institutional supports influencing compliance with the public procurement legislation in Kenya. correlation coefficient matrix results revealed that there existed positive significant relationship between Contracting Management and compliance with AGPO regulations for special groups by Public Universities in Kenya ( $r=0.517$ ,  $P=0.000<0.05$ ). Multiple regression results indicated internal procurement processes contributed positively to level of compliance with AGPO regulations ( $\beta=0.591$ ,  $P=0.000$ ,  $t=11.356$ ). The study therefore accept alternative hypothesis that Internal compliance controls significantly and positively influences compliance with AGPO regulations for special groups by Public Universities. The findings of this study have shown that internal controls are critical determinants that affects complying with AGPO regulation in public universities. These findings are congruent with observations by Mwangi and Kariuki (2013) that the internal controls at an institution affect compliance with public procurement laws while weak internal

controls may lead to increasing non-compliance and loss of substantial public revenue. This could be due to inefficient and ineffective procurement structure, policies and procedures. Failure to impose sanctions for violation of such rules may result to poor service delivery as demonstrated by Adhiambo and Kamau (2003) and Ntayi (2009). Ngugi and Mugo (2010) elaborated the key elements of internal controls as comprising of accountability, information communication technology adoption, internal processes and ethics. The importance of internal controls for compliance with public procurement laws is also supported by Segal and Summers (2002), Brinkerhoff (2004), Vian and Collins (2006).

#### **4.10.5 Level of Compliance**

The findings revealed that effective contract administration, proper prequalification, efficiency sourcing and elimination of discrimination and effective internal contract controls determine compliance with AGPO regulations for special groups in public universities in Kenya. This was further supported by interviewees who indicated that contract awarded, value of contract awarded to the special groups, number of contracts, effective coordination between procurement units and account units, effectiveness in contract management and administration, adhering to selection criteria and promote professionalism in public procurement determines whether an institution complies with the AGPO regulations for special groups. The respondents indicated that contracts awarded in previous financial year were 51-60 constituting 29% of the tender awarded but decline to 25.8% with the least 4.8 % tender given to youth being 61-71.

The value of tender awarded to special group in public universities was between 501 millions to 1 billion. The study revealed that contracts reserved for special groups in the last financial year were 11-20 failed to secure approximately 30% as required by AGPO regulations.

Interview guide results indicated that achieved compliance with the AGPO regulations for special groups the universities need to promote prequalification criterion, promote governance in administration of contract and promote effectiveness in management of contracts, adhering to procurement ethics and ensuring effective internal control of compliance to achieve approximately 30% of the total tenders for the universities. The interview guide results indicated promoting relationship management among the parties, properly documentation and record management of contracts and enhance coordination between the Government's representative, the procuring unit foster compliance with AGPO regulation and approximate 30% of tender value assigned to special groups as required by procurement law. The findings were supported by McCrudden (2007) who argued that in the United States of America, the Public Works Act 1977 provided that at least 10% of each grant for local works project is expended for minority business enterprise.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter covers the summary of the study, conclusions and recommendations. The study sought to meet four objectives. These include analyze the effects of pre-qualification criteria on compliance with AGPO regulations; to determine how selection procedures affect compliance with AGPO regulations; to analyze the effects of contracting process on compliance with AGPO regulations; and to determine the effectiveness of internal controls in Public Universities in Kenya.

#### **5.2 Summary of Findings**

##### **5.2.1 Effect of Pre-qualification Criteria on Compliance with AGPO regulations**

The results show that pre-qualification criteria have significant and positive influences on compliance with AGPO regulations for special groups by Public Universities. The findings revealed that prequalification criteria contributed significant variance in compliance with AGPO regulations. Correlation analysis results revealed that there existed a strong, positive and significant relationship between pre-qualification criteria and compliance with AGPO regulations for special groups by Public Universities in Kenya. Based on multiple regression analysis, the alternative hypothesis was accepted that prequalification criteria have significant effect on compliance with AGPO regulations for special groups by Public Universities in Kenya.

### **5.2.2 Effect of Selection Procedures on compliance with AGPO Regulations**

The results showed that selection procedures have a significant influence on compliance with AGPO regulations explained by 97.0% of variance in compliance with AGPO regulations. Results on correlation matrix analysis depicted that there existed a strong positive relationship between selection procedures and compliance with AGPO regulations for special groups by Public Universities in Kenya and hence selection procedures play a critical determinant of compliance with AGPO regulation in public universities. The results on multiple regressions revealed acceptance of alternative hypothesis that selection procedures significantly and positively influences compliance with AGPO regulations for special groups by Public Universities. Selection procedures determine compliance with AGPO regulations for special groups in public universities in Kenya by ensuring adequacy of the regulations concerning tendering process, effective tendering process, tender evaluation and award criteria for special groups, effective communication of contract awards, disseminating of the solicitation of tender documents to interested parties also affected compliance with AGPO regulation for special group to a great extent.

### **5.3.3 Contract management and compliance with AGPO Regulations**

The results revealed that contract management had a significant positive influence on compliance with AGPO regulations in public universities in Kenya. Correlation ( $r$ ) findings depicted that there existed a significant relationship between contract management and compliance. The study findings revealed that contract management positively and significantly contributed to level of compliance with AGPO regulations.

Regression results showed that contract management contributed significantly and positively to compliance with AGPO regulations .Therefore, poor negotiation, ineffective modification of contract to accommodate changing needs or circumstances and inadequate resolving of conflicts involving special groups owned enterprises hinders compliance with AGPO regulations for special groups by Public Universities in Kenya to a moderate extent .

#### **5.2.4 Internal control and compliance with AGPO Regulations**

The results showed that effective record management and documentation, good governance and adherence to ethical behavior as determinants of success in compliance with AGPO regulations for special groups in public universities to a great extent. The findings on correlation coefficient matrix results established that there existed positive significant relationship between contracting management and compliance with AGPO regulations for special groups by Public Universities in Kenya ( $r=.517$ ,  $P= 0.000<0.05$ ). Results on regression revealed that internal procurement processes significantly contributed positively to compliance with AGPO regulations ( $\beta=0.591$ ,  $P=.000$ ,  $t=11.356$ ). Internal control operations procurement operation governed by adhering governing policies, enforcement, professionalism and adoption of ICT in procurement has a positive impact on compliance with procurement regulations in public sector organizations.

### **5.3 Conclusions**

This section present conclusions of the study based on specific objective as per the findings.

#### **5.3.1 To analyze the effects of pre-qualification criteria on compliance with AGPO regulations for special groups by Public Universities in Kenya**

Based on the findings, the study concluded that pre-qualification criteria would have significant and positive influences on compliance with AGPO regulations for special groups by Public Universities. Therefore failure to adhere to set Pre-qualification criteria such as evaluation for adequate financial resources, adequacy of equipment and technical competence technical competence, inadequacy physical facilities, low managerial capability, experience and personnel negatively affects compliance with AGPO regulations for special groups in public universities in Kenya.

#### **5.3.2: To determine how selection procedures affect compliance with AGPO regulations for special groups by Public Universities in Kenya**

Based on the results of the study, the study concluded that selection procedures have significant effects on compliance with AGPO regulations for special groups in public universities in Kenya. Lack of effective regulations on tendering process for special groups and inadequate regulations concerning tendering process for special groups and ineffective regulations on tender evaluation and award criteria for special groups such as the youth, favourism and solicitation and publishing or advertising the procurement opportunity, inadequate communication of awards for special groups, disseminating of the solicitation of tender documents affected compliance with AGPO regulation for

special group to a great extent. Based on the results, the study concluded that unfair selection of a contract partners, inadequate submission, receipt and opening of tenders for special groups affected compliance with AGPO regulation for special groups to a great extent.

### **5.3.2: To analyze the effects of contract management on compliance with AGPO regulations for special groups by Public Universities in Kenya**

Based on the findings, the study concluded that contract management has significant effects on compliance with AGPO regulations for especial groups in public universities in Kenya. Lack of effective contract management by failing to resolve disputes that arise in procurement process and lack of allocation of resources to wrong selection of special suppliers, poor categorizations in which preference schemes and lack of multiple sourcing strategy for flexibility and failure to eliminate ineffective policy objectives on quality and weighting affected compliance with AGPO for special groups in public universities in Kenya to a great extent.

### **5.3.4: To determine the effectiveness of internal control in Public Universities in Kenya**

Based on the results, the study concluded that internal procurement control process in public universities play a significant role in promoting compliance with AGPO regulations for special groups by Public Universities in Kenya. The results depicted that lack of accountability, inefficiency in internal procurement processes and lack of adhering to ethical behavior significantly affected compliance with AGPO regulations for special groups by Public Universities in Kenya. The slow adoption of ICT and improper



disclosure of protected information affects compliance with AGPO regulations for special groups by Public Universities in Kenya. The findings revealed that internal compliance controls had a significant influence on level of compliance with AGPO regulations.

## **5.4 Recommendations**

### **5.4.1 Policy**

From the conclusions, the study recommends that public procurement entities should review their prequalification criteria and address the needs of special groups' enterprises. The government of Kenya should gain insight on the critical role of pre-qualification criteria on compliance with AGPO regulation in public entities in Kenya strive to improve on successful execution of Public procurement and ensure compliance with set procurement laws. The government should ensure sufficient allocation of financial resources, adequacy of equipment and technical competence, adequate physical facilities, high managerial capability, experience and personnel to achieve high level of compliance with AGPO regulations for special groups in public institutions in Kenya

This study recommends that public procurement entities should have elaborate selection procedures to ensure that there is a higher level compliance with AGPO regulations. The public entities such as public Universities and state corporations should develop measures to reduce complexities in selecting contract partners and awarding of contract, reduce complex evaluation responses and improve on adequacy and relatively simple publishing or advertising the procurement opportunities and disseminating the solicitation of tender documents to interested parties to improve on compliance with AGPO regulations and accessibility of AGPOs to special groups by Public organizations in

Kenya. The regulations also provide that the Procurement Unit in procuring entity shall select suppliers through appraisal of potential suppliers in order to compile and maintain a suppliers' database or list for award of contracts for supply of specific goods and or services (Public Procurement and Disposal Regulations, 2013). There have been concerns by procuring entities because small and micro enterprises are not consistent and are also not known to produce quality goods and services

The study recommends that government agencies should strengthen contract management to ensure they have complied with AGPO regulations. Measures should be devised to improve efficiency in conflict management among special groups owned enterprises, enhance accountability and efficient contract management special groups owned enterprises improve compliance with AGPO regulations and improve accessibility to AGPOs by special groups in public organizations in Kenya.

The study recommends that government agencies should maintain a high threshold of internal controls to ensure a high compliance with AGPO regulations. The management in public entities should improve effectiveness in accountability in procurement process, fast adoption of ICT and institute proper disclosure of protected information to enhance compliance with AGPO regulations for special groups in public sectors organizations in Kenya.

#### **5.4.2 Managers**

From the conclusion, the study recommend that management in public universities in Kenya should strive to adhere to set pre-qualification criteria by ensuring adequate

financial resources, provide equipment and technical competence , physical facilities, high level of managerial capability, experience and personnel to improve level of compliance with AGPO regulations for special groups in public universities in Kenya. The management of the universities should also foster effective selection procedures to promote effective and efficient tender evaluation, promote effective communication, promote proper submission and opening of tenders as this would improve special group success in securing AGPOs and promote compliance with the AGPO regulations that improve procurement performance.

From the finding, the study recommend that management of the public entities should foster effective contract management by resolving disputes that arise in procurement process, ensure sufficient allocation of resources to rightful special suppliers, foster proper categorizations, promote multiple sourcing strategy for flexibility and eliminate ineffective policy objectives on quality and weighting to achieve compliance with AGPO for special groups in public entities in Kenya.

The findings of this study would be of value to Public Universities. The issue of procurement is critical in the efficiency of any organization. This study would provide useful insights on the determinants of compliance with AGPO regulations for special groups (youth, women and people with disabilities) in Public Universities in Kenya and this will go a long way in improving compliance. Public Universities in Kenya are part of State Corporations with one of the highest procurement budgets. Their procurement budgets can have a significant impact on special groups residents from the areas they

operate in. It is therefore important to understand their compliance with AGPO regulations for special groups.

According to the results, the study recommend that special groups owned enterprises focus on gaining insight on meeting the pre-qualification set to secure AGPO hence ensure that they have adequate financial resource, foster gaining of technical competency and improve on their level of capacity so as to secure AGPO in government institutions. The special group members should also focus on tender process adheres to set rules in the tender advertisement and promote effective communication to ensure compliance with procurement regulations and improve chance of participating in government procurement opportunities. Based on the results, the special group members should focus on effective contract management, proper categorizations, promoting multiple sourcing strategies for flexibility and ensure elimination of ineffective policy objectives on quality and weighting to increase chances of Access to Government Procurement Opportunities for special groups in public institutions.

The study recommends public procurement oversight Authority should use the results of the study to develop effective prequalification criteria for special group such as securing adequate funding of special groups. Effective selection procedures should be developed to foster tendering process, tender evaluation and improve on following advertising tender regulations. The results inform the Public Procurement Oversight Authority on areas to improve capacity building to special group in public sector organizations to achieve 30% public procurement opportunities for youth, women and people with

disabilities related policies. A similar research with a moderating variable could also be conducted.

### **5.5 Area for Further Research**

The study focused on of this study was to analyze the determinants of compliance with regulations for special groups by Public Universities in Kenya. The study analyzed pre-qualification criteria, selection procedures, contracting Management and internal Compliance controls. A further study should be carried out to determine other determinants of compliance with Access to Government Procurement Opportunity regulations for special groups by other public sector organizations in Kenya. The study explains 80.7% of the compliance with Access to Government Procurement Opportunities regulations for special group. A further study should be carried out to determine other factors that constitute 19.3% note addressed by the study that affects compliance with Access to Government Procurement Opportunity regulations in public institutions in Kenya.

A further study should be carried out to determine influence of determinants of compliance with Access to Government Procurement Opportunities regulations and level of participation of Disadvantaged Groups in Public procurement public sectors in Kenya. This would establish whether there is significant influence of determinants such as Pre-qualification criteria and selection procedures of compliance with regulations and level of participation of special groups in Access to Government Procurement Opportunities.

The study recommends that a further study to be carried to determine the relationship between contract management and compliance with AGPO regulations in public sectors in Kenya. This would determine whether effective contract management promotes access to AGPOs by special groups owned enterprises. This would lead to improve poverty alleviation and improve employment among the youth and improve economic development.

The study revealed that internal compliance controls influence compliance with AGPO regulations by Public Universities. A further study should be carried out to determine the relationship between internal procurement governance compliance with AGPO regulations for special groups in public sectors organization in Kenya. The results would determine influence of procurement auditing, efficiency in internal processes, accountability and transparency, training and adherence to procurement ethics compliance with AGPO regulations for special groups in public organizations such as state corporations.

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## APPENDICES

### APPENDIX I: Introduction Letter

Dear Respondent,

RE: Support on Data Collection

I am a PhD student at Jomo Kenyatta University of Agriculture and Technology. As part of the requirement for graduation, I am undertaking a research to establish the **DETERMINANTS OF COMPLIANCE WITH ACCESS TO GOVERNMENT PROCUREMENT OPPORTUNITIES REGULATIONS FOR SPECIAL GROUPS BY PUBLIC UNIVERSITIES IN KENYA**. In this regard, I am kindly requesting for your support in terms of time, and by responding to the attached questionnaire. Your accuracy and candid response will be critical in ensuring objective research.

It will not be necessary to write your name on this questionnaire and for your comfort, all information received will be treated in strict confidence. In addition, the findings of the study will exclusively be used for academic research purposes and to enhance knowledge in the field of procurement and supply chain. If need be the research report may be presented to your organization for information and record.

Thank you for your valuable time on this.

Yours faithfully,

Peter N. Mwangi



## APPENDIX II: Questionnaire

Kindly tick or fill in the spaces provided as appropriate.

### Part A: General Information

1. Does your institution have a Procuring Unit in place?

Yes  No

2. If yes above, how long has it been in place?

Less than 1 year

1-2 years

3-4 years

5 years and above

3. Do you understand AGPO regulations for special groups in Kenya?

Yes  No

4. Has your institution experienced challenges in compliance with AGPO regulations?

Yes  No

5. If yes above, in a scale of 1-5 where 1 is 'Not at all', 2 is 'To a little extent', 3 is 'To a moderate extent', 4 is 'To a great extent', and 5 is 'To a very great extent', rate areas where most challenges in compliance with AGPO regulations are experienced.

**1      2      3      4      5**

Pre-Qualification Criteria

Selection Procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contract Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internal Controls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Part B: Effects of Pre-Qualification Criteria on Compliance with AGPO regulations**

6. In your opinion, do pre-qualification criteria affect compliance with AGPO regulations?

Yes  No

7. How often does your institution prequalify vendors?

Annually

Biannually

Every 3 years

On a rolling basis

8. To pre-qualify for procurement opportunities, prospective contractors must qualify by meeting technical, financial and other criteria necessary to fulfill the contract, such as technical competence, financial resources, equipment and other physical facilities, managerial capability, experience, and personnel. In a scale of 1-5 where 1 is 'Not at all', 2 is 'To a little extent', 3 is 'To a moderate extent', 4 is 'To a great extent', 5 is 'To a very great extent', to what extent do special groups owned enterprises experience challenges in the following areas?

	1	2	3	4	5
i. Enterprises experience technical competence					
ii. Financial resources are limited					
iii. Equipment to carry out the work are not available					
iv. Physical facilities of the enterprises are not available					
v. Managerial capability is limited					
vi. Enterprises are not experience for the work					
vii. Enterprises do not have enough personnel					
viii. Allow submission of tender with unacceptable price from special groups					
ix. Special groups who have requisite ability to comply with the terms of the contract					
x. Financial capability of the suppliers from special groups are assessed					

9. What are the other issues of pre-qualification criteria that affect compliance with the AGPO regulations for special groups?

.....  
 .....

**Part C: Effects of Selection Procedures on Compliance with AGPO regulations**

10. In a scale of 1-5 where 1 is ‘Not at all’, 2 is ‘To a little extent’, 3 is ‘To a moderate extent’, 4 is ‘To a great extent’, 5 is ‘To a very great extent’, to what extent do you think the following statements are true in regard to AGPO regulations for special groups?

	1	2	3	4	5
i. Selection Procedures and compliance with AGPO Regulations					
ii. The regulations concerning tendering process for special groups is inadequate					
iii. The regulations on tender evaluation and award criteria for special groups such as the youth is inadequate					
iv. The regulations on submission, receipt and opening of tenders for special groups is inadequate					

v. The regulations concerning the complaints system structure for special groups is inadequate					
vi. The regulations on communication of awards for special groups is inadequate					
vii. Publishing or advertising the procurement opportunity					
viii. Disseminating the solicitation of tender documents to interested parties					
ix. Evaluating responses to the solicitation					
x. Unfair Selection of a contracting partner					
xi. Favourism in awarding the contract enterprises owned by special group					

11. What are the other issues of selection procedure that affect compliance with the AGPO regulations for special groups?

.....  
.....  
.....

**Part D: Effects of Contract Management on Compliance with AGPO regulations**

12. In a scale of 1-5 where 1 is 'Not at all', 2 is 'To a little extent', 3 is 'To a moderate extent', 4 is 'To a great extent', 5 is 'To a very great extent', to what extent do you think AGPO regulations for special groups have affected the following in contract management?

	1	2	3	4	5
i. Monitoring contract performance (technical, schedule and cost)					
ii. Modifying the contract to accommodate changing needs or circumstances (negotiation)					
iii. Resolving disputes					
iv. Conducting a final accounting					
v. Closing out the contract					

13. What are the other elements of contract management that affect compliance with the AGPO regulations for special groups?

.....  
 .....  
 .....

**Part E: Effects of Internal Controls on Compliance with AGPO regulations**

14. How would you rate the following in public universities?

	<b>Very Low</b>	<b>Low</b>	<b>Moderate</b>	<b>High</b>	<b>Very High</b>
i. Accountability					
ii. ICT adoption					
iii. Internal processes					
iv. Ethical behavior					

15. In a scale of 1-5 where 1 is 'Not at all' and 5 is 'To a very great extent', to what extent do you think the following internal controls apply to your university?

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
i. The regulations have addressed accountability in procurement					
ii. ICT adoption has eased the procurement process					
iii. The regulations have addressed improper disclosure of protected information					
iv. There is ethics training and seminars to increase awareness on ethical behavior					
v. New development of products influence selection of special groups					
vi. The categorizations in which preference schemes can be applied					
vii. Elimination of policy objectives as quality and weighting for special groups					
viii. There exist multiple criteria involved in the suppliers' selection decision process					
ix. Adhering to multiple sourcing strategy for flexibility					
x. Allocation of resources to identify a suppliers					
xi. Assessing tender documentation					



**Part F: Level of Compliance**

16. In your opinion, what determines whether an institution complies with the AGPO regulations for special groups or not?

.....  
 .....  
 .....

17. Kindly provide the following information in regard to procurement contracts in your institution.

	<b>Number of contracts</b>	<b>Value of the contracts</b>
i. Total contracts awarded in the last financial year		
ii. Contracts reserved for special groups in the last financial year awarded to special groups		
iii. Contracts awarded to special groups in the last financial year		
iv. Promotion of relationship management among the suppliers		
v. Contract administration promote execution of contracts		
vi. Effective Record management and documentation promote governance		
vii. Suppliers meet their qualification for government tenders		
viii. Define responsibility and obligations		
ix. Promote coordination between government and special suppliers		
x. Payment in excess of contract ceilings		

18. What would you suggest should be done to achieve compliance with the AGPO regulations for special groups in your institution?

.....  
 .....  
 .....

## **APPENDIX III: Interview Guide**

### Questions to interviews guide

1. How has your institution complied with the AGPO regulations for special groups?
2. From your experience, what determines whether an institution complies with the AGPO regulations for special groups or not?
3. Do pre-qualification criteria affect compliance with the AGPO regulations for special groups?
4. If yes above, what are the elements of pre-qualification criteria that affect compliance with the AGPO regulations for special groups and how?
5. Does selection procedures affects compliance with the AGPO regulations for special groups?
6. If yes, what are the elements of selection procedures criteria that affect compliance with the AGPO regulations for special groups and how?
7. Does contract management affects compliance with the AGPO regulations for special groups?
8. If yes, what are the elements of contract management that affect compliance with the AGPO regulations for special groups and how? If no, why?
9. What would you suggest should be done to achieve compliance with the AGPO regulations for special groups in your institution?
10. How would you describe participation by special groups in public procurement?

## **APPENDIX IV: List of Public Universities**

The University of Nairobi

Address: University Way, Nairobi, Kenya  
Phone: +254 20 318262

Technical University of Kenya

Address: Haile Selassie Ave, Nairobi, Kenya  
Phone: +254 20 3436

Dedan Kimathi University of Technology

Address: B 5, Nyeri, Kenya

1. Multimedia University of Kenya  
Address: P. O. Box 30305, Nairobi, Kenya
2. University of Eldoret  
Location Uasin Gishu County.  
Address: Mussco Towers, Off Elgeyo Road, Eldoret, Kenya
3. Meru University of Science and Technology,  
Address: Meru, Kenya
4. South Eastern Kenya University  
Address: Kitui County, Kenya  
Phone: +254 736 116989

Karatina University

Address: C74, Karatina, Kenya

Murang'a University of Technology

University in Kenya

Address: , MURANGA TOWN Kenya

Phone: +254 771 370824

Kenyatta University

.

Address: Kenya Drive, Nairobi City, Kenya

Egerton University

Address: Nakuru, Kenya

Phone: +254 722 341566

Moi University

University in Eldoret, Kenya

Phone: +254 53 43363

Maseno University

University in Kisumu, Kenya

Maseno University is a university based in Maseno, near Kisumu, Kenya,

Address: Maseno, Kenya

Phone: +254 57 351620

Jomo Kenyatta University of Agriculture and Technology

University in Kenya

SuperHighway

Phone: +254 67 52028

Masinde Muliro University of Science and Technology

University in Kakamega, Kenya

Phone: +254 56 31375

Location : Kakamega

Laikipia University

Located in Nyahururu.

Phone: +254 53 2033635

Technical University of Mombasa

Technical university in Mombasa, Kenya

Address: Tom Mboya Street, Mombasa, Kenya

Phone: +254 41 2492222

Jaramogi Oginga Odinga University of Science and Technology

Address: Ukwala-Bondo Rd, Bondo, Kenya

Phone: +254 57 2501804

Founded: 2009

The Co - Operative University Of Kenya

Government school in Nairobi, Kenya

Address: Nairobi, Kenya

Phone: +254 702 587959

Rongo University

School in Rongo, Kenya

Address: Migori - Rongo Rd, Rongo, Kenya

Kisii University

Kisii University College

Location: Kisii, Kenya

Phone: +254 712 326047

Kibabii University

Located: Bungoma County

Telephone Number- 0202028660

Chuka University

Location: Tharaka Nithi County, Kenya.

Address: Chuka, Kenya

Phone: +254 731 620266

Kirinyaga University

Location Kerugoya in Kirinyaga County

Address: C74, Kenya

Phone: +254 709 742000

Machakos University

Public university in Machakos, Kenya

Location : Along The Highway, Machakos Wote Rd, Machakos, Kenya

Phone: +254 723 805829

Pwani University

P. O. Box 195, 80108

Location KILIFI County, KENYA. ...

Taita Taveta University

Address : P.O. Box 635-80300  
Voi Kenya

University of Embu

Contacts. . P.O. BOX 6 - 60100.

Location: Embu, Kenya.

Garissa University College

Location: Bazaar Building 15th Floor.

Postal Address: P.O Box 1801, Garissa.

Maasai Mara University is located in Narok in Kenya.

Address: Narok, Kenya

Phone: +254 729 470025

31 University of Kabianga

Address: Kabianga Rd, Kericho, Kenya

Phone: +254 705 480004.