

**PUBLIC PROCUREMENT PRINCIPLES AND THE  
PERFORMANCE OF COUNTY GOVERNMENTS IN  
KENYA**

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**Public Procurement Principles and the Performance of County  
Governments in Kenya**

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the Degree of Doctor of Philosophy in Supply Chain Management of  
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## DECLARATION

This thesis is my original work and has not been presented for a degree in any other university.

Signature..... Date.....

**Mary Alwoka Andika**

This thesis has been submitted for examination with our approval as the university supervisors.

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## **DEDICATION**

I dedicate this research study to my beloved husband and children, you are my inspiration.

## **ACKNOWLEDGEMENTS**

My acknowledgement go to my husband for his support financially and encouragement. I am grateful to my supervisor Prof. Mike A Iravo and Dr Noor Ishmael for their perfect guidance and invaluable assistance he accorded to me throughout the study period. I express my hearty gratitude to my family for the support they accorded me throughout the entire process. Lastly it has not been possible to mention all the people who helped me in completion of this research proposal. I say to you all thank you very much.

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## **ACRONYMS AND ABBREVIATIONS**

**ICT-** Information communication technology

**KISM-** Kenya institute of supplies management

**PP-** Public procurement

**TI-** Transparency International

**VFM-** Value for money

## DEFINITION OF TERMS

- Management support** is an art of providing good leadership committed and willing to provide necessary resource in executing in implementing public procurement and asset disposal act of 2015. (Wu & Pagel, 2011)
- Open Tender** is a desired procurement method where opening competition is encouraged in the market without restricting participants (PPADA, 2015).
- Performance** is the final output or outcome. Procurement performance can be measured using price/cost dimension where the relationship between the standard/baseline and the actual price of the items delivered are measured (Richardson & Sevenesson, 2018)
- Procurement ethics** are generally accepted principles and rules of conduct that are accepted in a given industry and is an important principle of public procurement (Lysons & Farrington, 2020).
- Public procurement principles** are procurement guidelines that are applied to attain procurement objectives of an organization.
- Transparency** the ability to conduct all procurement processes or activities in a free and fair manner without prejudicing the overall outcome. This can be by displaying or disclosing all the books of account and successful names of tenderers for public scrutiny (PPADA, 2015).
- Value for money** It is getting equivalent return for goods, services or works from suppliers or contractors for money paid to buy acquire them (Bauld & McGuinness, 2006).

## ABSTRACT

Organizations nowadays are required to observe and adhere to public procurement principles if they are to achieve good performance. An audit report for the financial year 2014/2015 revealed that most county governments have unsupported expenditure on purchasing assets amounting to about Ksh 2 billion, failing to publish awarded tender contracts and submitting them to the Public Procurement Regulatory authority. Equally, the report established non-compliance with the Public Procurement and Asset Disposal Act of 2015 on assets acquisitions. In addition, the report showed most counties unbudgeted for expenses and irregular procurement of projects, leading to the stall of projects across the counties. Thus, the rationale of this research study was to investigate the influence of public procurement principles on the performance of devolved county governments in Kenya. This study applied a cross-sectional survey design with a target population of ten counties ranked top ten in corruption malpractices by Ethics and Anti-Corruption Commission in 2018. County governments were stratified using region, and simple random sampling was used to pick a sample size of 229 respondents drawn from finance/audit and procurement/supply chain departments. The data was collected using a closed, open-ended questionnaire supplemented by secondary data. The data collected were analyzed using both descriptive and inferential statistics. The analyzed data was presented in tables, charts and graphs. The relationship between independent and dependent variables was established using the Pearson correlation and regression model. The study established that county governments split tenders to avoid appropriate procurement processes. The study also established that the county governments adopted procurement ethics to ensure good quality of goods and services are procured as per specifications. On value for money, the study found out that the county governments in Kenya had fairly adopted the public procurement and asset disposal act of 2015 by discouraging fake competition and using the aggregation method appropriately in order to take advantage of economies of scale. Equally, regarding competitive tendering, the study noted that competitive tendering helped the county governments to instill trust with the public and provided them with a fair chance to participate in the tendering process, enhancing accountability and building public confidence in a manner in which tenders are awarded. Concerning transparency, the study established that county governments had promoted transparency by keeping appropriate procurement records, publication of contracts awarded and constant communication between procuring entity and the bidders. Further, the study noted that top management support significantly moderates the relationship between public procurement principles and the performance of county governments in Kenya. Thus the study recommended that top management support is required in the county governments to coordinate public procurement principles and increase the performance of county governments. The study's major limitation was that the targeted population was drawn from ten county governments and ranked top ten in National Ethics and Corruption survey report in March 2018. Future studies should examine the validity of the findings in all forty-seven county governments.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background of the study**

Worldwide, Governments have been progressively outsourcing public services to local citizens (Alonso et al., 2015). This approach has necessitated public procurement to be given special attention by governments, which has led to changes and reforming rules and regulations to suit their needs. In addition, public entities are expected to achieve high-performance standards for their respective citizens (Boyne & Walker, 2010).

Through public procurement, county governments in Kenya can be able to provide better provision of various services such as roads, healthcare, and education (Errigde & McIlrory, 2002). Therefore, the county governments should adhere to the public procurement and asset disposal act of 2015 to effectively manage the procurement process (Barrett, 2000). Equally, public entities can consider alternative best procurement approaches to meet their needs (UK Treasury, 2013). This is because public procurement is gradually known as necessary in delivering services both in developed and developing countries (Basheka & Bisangabasaija, 2008). World Bank (2004) indicated that public procurement represents eighteen percent (18.42%) of the world's gross domestic product (GDP). Most developed countries spend at least ten percent (10%) of their GDP on public procurement (UNCTAD, 2009), although public procurement often creates the largest domestic market in third-world countries. In state corporations, governments across the globe have continued establishing procurement systems, rules, and regulations to curb public expenditures. The primary aim of public procurement is to promote the accountability and wise use of scarce public resources (Edgar & Nigel, 2006), and it is vital to procure goods, services and works at low and affordable prices to secure value for money. Therefore, procurement officers should have adequate skills to negotiate on behalf of procuring entities (Abouzeedan & Busler, 2002).

In procurement, devising strategies to create value for money in public entities is a crucial guideline. It is strengthened by supporting attributes of efficiency and effectiveness, competition, accountability and transparency, ethics, and industry development (Commonwealth Procurement Guidelines, 2005). Likewise, procurement could focus opportunistically on the short-term superiority of bargaining power (Cox, 1999, 2005) and extract maximum cost reductions (Nollet & Beaulieu, 2005). Public procurement should respond to the needs and desires of county governments by reducing the costs of acquiring goods, services, or works. It should also help them achieve long-term community resilience.

### **1.1.1 Global perspective on public procurement principles**

Internationally, implementation and guidelines of public spending have rapidly gained debate. Procurement has been promoted by the availability of international and national standards, Acts, and regulations, providing principles or requirements for managing procurement processes (Joseph *et al.*, 2012; Ntayi *et al.*, 2012). For example, public procurement (PP) accounts for more significant portions of their financial budgets in Western countries such as the United Kingdom, France, and Germany. It is estimated to be around twenty percent of the gross domestic product (European Commission, 2012). It is the only recognized way in which central, regional, and local governments and public authorities, bodies, and agencies governed by public law and regulation purchase and commission services, public works, and associated goods and materials (Aschhoff & Sofka, 2009). Public procurement was introduced as a formal process aimed at non-discrimination, cost efficiency, and the achievement of transparency goals of governments (European Commission, 2004).

However, in less developed countries, public procurement is progressively taking root as crucial in-service delivery to its citizens (Hunja, 2011), and it contains a more significant percentage of whole expenditure. In East, Central, and West African countries, McGinity (2014) noted that these countries have established procurement acts and regulations based on the justification that a regulated public expenditure is a basis for effective and efficient public service delivery and satisfaction. For example,

Uganda 2003 enacted the public procurement and asset disposal assets authority (PPDAA). This body was mandated to provide public procurement guidelines for public entities in Uganda (Eyal, 2011). Also, in Tanzania, the Public Procurement Act No 3 of 2001 was effected on the first of July, 2001. This act provided a comprehensive guideline on public procurement in Tanzania (Eyal, 2011).

Moreover, advanced and less advanced countries must have a vibrant public procurement system (World Bank, 2011). World Bank also indicated that in most developed countries, public procurement should occur within global commitments (UNCTAD, 2009). However, the majority of the developing countries retained the procurement system of their colonial masters and have slightly transformed the new public procurement for the public to get the value of their money. In essence, developing countries' procurement systems always amount to a high proportion of total expenditure; for example, in Malawi, procurement expenditure accounts for forty percent (40%) and seventy percent (70%) in Uganda, compared with the international average of 12-20%, (World Bank, 2011).

### **1.1.2 Status of public procurement in Kenya**

Public procurement has undergone several reforms in Kenya to promote efficiency and effectiveness. The major reform dates back to the pre-colonial period when public procurement was under the ministry of public works. In 1960 the treasury issued financial regulations and provided standard user services in the government ministries. The chief storekeeper was appointed chairperson, and members were drawn from various ministries to oversee procurement activities. In 1974 public procurement was conducted by Crown Agents on behalf of the government. This is because there was inadequate personnel in procurement and the treasury, which changed the secretariat from the ministry of public works back to the treasury. Again in 1978, the government adopted the East African manual and replaced Crown Agent. However, in the same year, the East Africa Community collapsed, and the government-issued procurement manual guide was to be used together with East Africa Manual. These reforms continued until 1989, when the government decided to restructure public procurement, which followed the drafting of the public



procurement act in 2005 and was implemented in January 2007. After that, the act was reviewed, and the public procurement and asset disposal act of 2015 was implemented in January 2015 to address public procurement activities in the county governments in Kenya. Therefore, all public entities such as public schools, public hospitals, public universities and colleges, state corporations, government departments, ministries, and many others must adhere to the public procurement and asset disposal Act of 2015 when procuring goods and services.

Also, PPADA can regulate the private sector indirectly. There are instances where private sectors have used this activity for procuring goods, services, or works. The PPADA was enacted by the government of Kenya in order to: make use of public resources, encourage stiff competition among the suppliers and contractors for fairness, promote reasonable procurement procedures to be followed during procuring of goods, services, or work, propel openness in the procurement of goods, services, and works (PPADA, 2015). To realize these objectives, the act provided an avenue for disposing of excesses, redundant or obsolete items in the public procuring entity. The act spelled out various methods of disposing of items, such as burning/burying, transferring to other public entities, trade-in, auctioning, and many others. (PPADA, 2015). The Public Procurement and asset disposal act cannot be used without regulation. Thus regulations and manuals are required to complement the act and outline various issues regarding the threshold matrix to be followed when using the act in procuring goods, services, and works. The government can also, from time to time, amend the act and issuing of manual procurement manuals to supplement the act (Andrew, 2010).

Kihara (2009) established that public procurement is essential for the economy's contribution. This is because public procurement in these countries consumes a lot of revenue, close to 60 percent. Thus, public procurement systems in developing countries ought to be aligned with the goals and objectives of the state. Public procurement entities should adhere to public procurement principles in guiding the purchase of goods, services, and works. Nowadays, governments worldwide use public procurement to spur economic growth, overcome regional balance, and administer vital services to the citizens (Kihara, 2009). In Kenya, Public

Procurement and assets Disposal Act 2015 has outlined procurement principles that should be used to guide decisions on achieving sound procurement principles. Some procurement principles encompass compliance with law and regulation, economy and efficiency, value for money, fairness, non-discrimination, transparency and accountability, comprehensive records management, ethics and avoidance of corruption, safety and environment protection, and separation of authority (PPADA, 2015).

In addition, public procurement in Kenya is projected to cost approximately sixty percent of the gross domestic product both in national and county governments. This figure is slightly higher than what the world has stipulated as a guideline. Therefore public procurement should focus opportunistically on the short-term superiority of bargaining power (Cox, 1999, 2005) and extract maximum cost reductions (Nollet & Beaulieu, 2005). Also, county governments' public procurement should consider a more strategic standpoint, reflecting its uniqueness from the private sector to make public procurement work through stakeholders' patho accelerateenders, 2003) to accelerate economic recovery. Tummala et al. (2006) and Murray (2007, 2009) noted that public procurement managers should develop and adopt the best procurement principles outlined in PPADA 2015 to achieve sound objectives.

### **1.1.3 Historical perspective of county governments in Kenya**

The declaration of the new constitution introduced the county governments. Before then, the Kenyan system of government was based on local or town and city councils. The nation over sighted these local governments. The leaders were elected directly by the people to govern the council. Nevertheless, the beginning of the new constitution created the way for the formation of 47 county governments which previously were demarcated as Districts. Creating these counties aimed to move a closer governance system from Nairobi to the local citizens and allow citizens to champion the development agenda. Thus, the people in the county governments were mandated to participate directly in the governance of the issues affecting them. The constitution gave people the power to participate actively in governance.

The devolved government in Kenya (also referred to as democratic decentralization) shows the transfer of power and resources to lower (sub-national) levels of government that are both (relatively) independent of the national government and democratically elected. Therefore, the constitution highlighted that fifteen percent of national resources are to be shared among 47 county governments. This was an excellent gesture to decentralize development across the country. In addition, the constitution gave counties from arid and semi-arid areas equalization funds to boost them to be like other county governments. These counties were believed to marginalize since independence (Kenya constitution 2010). In line with chapter two of the Kenyan constitution of 2010, "decentralization (devolution) and access to services" is the third of eight items defining the Republic of Kenya. Chapter Eleven of the constitution also spells out, in thorough detail, the substances and principles of devolved government, the functions and powers, boundaries and relationships with the central government, and how a county government can be dissolved or suspended. Furthermore, it contains general issues, including county assembly powers and gender balance and diversity (Kenya constitution 2010).

However, nothing much has changed since the inception of county governments. County governments have failed to legislate laws and bills which touch on issues that affect citizens and creative development. Also, most counties have ignored public participation in the legislation of laws, bills, and budgets, except Makuen County. Although all 47 counties have functional procurement departments, little has been achieved in creating value for money spent in county governments. Reports from the auditor general office and Ethics and Anti-corruption commission imply counties in major scandals of swindling public resources across all counties. In addition, county governments have become a conduit through which public funds have been lost for the last five years. Through the auditor-general reports, almost all county governments have been implicated in procurement scandals through which billions of monies have been lost (Auditor-General Report, 2016). Also, the Ethics and Anti-Corruption Commission survey of 2018 established that county governments had increased corruption index. The survey has also implicated county governments in dubious procurement dealings, and some procurement officers, county cabinet secretaries, and governors have been prosecuted in court to answer charges.

However, the county governments across 47 counties have established procurement functions to implement the public procurement and asset disposal act of 2015. Nevertheless, nothing much has been achieved in the county governments. Reports from various quotas implicate county governments in sporadic plundering of public resources. For example, Ethics and Anti-corruption commission survey 2018 established that county governments' corruption index keeps increasing. The report indicates that public members were forced to pay bribes to access services from the county governments. Also, a report from the Auditor General Report of 2017 showed that county governments had lost around 21 billion Kenyan shillings since their inception of county governments. The report further showed that county government officials collude with vendors inflating the prices of goods, services, and works and others pay vendors who have not supplied goods.

## **1.2 Statement of the problem**

The county government was meant to play a significant role in spurring economic growth and development in Kenya during the promulgation of the new constitution in 2010. This was to be achieved through sharing and distribution of national resources equitably and allowing public participation directly in the affairs of counties government (Kenya Constitution, 2010). Moreover, the enactment of the Public Procurement and Asset Disposal Act (2015) in January 2016 was to promote openness, full disclosure, and attainment of value for money in devolved county governments' expenditures.

However, county governments have been experiencing significant impediments in executing public procurement principles. The audit report for the financial year 2014/15 revealed that a considerable chunk of the monies was lost through the payment of unscrupulous workers or fictitious firms and non-existence suppliers in the county governments. Further, a study by Njeru (2015) noted that county government procurement sections and other public entities in Kenya are inefficient and lack knowledge in implementing public procurement as laid down in the act. For example, many tertiary public training institutions in Kenya lost close to Ksh.50 million annually through dubious procurement. Kenya Institute of Supplies

Management (KISM) reports of 2010 and 2015 established that on annual bases, the government of Kenya losses close to Ksh. 21 billion, about 9 percent of the national budget, due to inflated procurement quotations in central and county governments. The report also revealed that external forces influence the majority of the county governments' procurement departments in awarding contracts and thereby compromise the adherence to public procurement principles. Similarly, a study conducted by Ethics and Anti-Corruption Commission (2015; 2016) noted that over 81% of respondents indicated corruption, poor service delivery, tribalism, shoddy implementation of projects, and embezzlement of funds are rampant in the county governments.

Although some studies have been carried out on public procurement principles, such as Odhiambo and Kamau (2013) established that less advanced countries have taken steps to change their public procurement systems. The process is still shrouded by a high degree of secrecy, inefficiency, corruption, and undercutting, which has resulted in a considerable amount of resources into wastage (Hagén & Zeed, 2005). Ogutu and Were (2014) found that accountability, information communication, and technology influence the procurement process in county governments. However, non-of these studies address public procurement principles such as procurement ethics, value for money, competitive tendering, transparency, and accountability in county governments. Thus, this study aimed to fill the gaps identified above.

### **1.3 Objectives of the study**

The general objective of this study was to investigate the influence of public procurement principles on the performance of county governments in Kenya.

### **1.3.1 Specific objectives of the study**

The following objectives guided the study:

1. To determine the influence of procurement ethics on the performance of county governments in Kenya.
2. To establish the influence of value for money on the performance of county governments in Kenya.
3. To analyze the influence of competitive tendering on the performance of county governments in Kenya.
4. To examine the influence of transparency on the performance of county governments in Kenya.
5. To evaluate the moderating effect of top management support on the relationship between public procurement principles and the performance of county governments in Kenya.

### **1.4 Hypothesis of the study**

**H<sub>01</sub>** There is no statistically significant influence between procurement ethics and the performance of county governments in Kenya.

**H<sub>02</sub>** There is no statistically significant influence between value for money and the performance of county governments in Kenya.

**H<sub>03</sub>** There is no statistically significant influence between competitive tendering and the performance of county governments in Kenya.

**H<sub>04</sub>** There is no statistically significant influence between transparency and the performance of county governments in Kenya.

**H<sub>05</sub>** Top management does not moderate the statistically significant influence between public procurement principles and the performance of county governments in Kenya.

## **1.5 Justification of the study**

This study sought to assist and benefits the following users:

### **1.5.1 County governments**

Knowledge in line with the county government supply chain or procurement managers in formulating policy framework on efficient and effective management of public procurement process in county governments would primarily be derived from the findings of the study. Also, this study would provide procurement managers and top managers in the county governments with how to apply better public procurement principles in acquiring goods, services, and works through recommendations that the study would provide. This would enhance better management of county government resources.

### **1.5.2 Research institutions**

The study would increase information in the field of public procurement principles. Also, the study would contribute to the ongoing research on public procurement principles. The literature review reveals that this research area is new and has not been exhausted, despite some researchers have already pointed out its importance. Most of these studies have been conducted in developed countries. In addition, researchers and scholars can use this information to add to their understanding of issues that influence public procurement principles and the performance of county governments in the Kenyan context.

### **1.5.3 Community**

The findings of this study would provide crucial information to the public members regarding procuring goods, services, or works if carried out in public entities. This would enable the county governments to be accountable to the public members.

#### **1.5.4 Policy Makers**

Crucial information regarding procurement in county governments in Kenya would be provided to policymakers. Also, the strides the county governments have made towards executing the public procurement and asset disposal act of 2015 would be availed. The study would also provide relevant information to help the county government formulate and implement public procurement policies to facilitate effective county governments. Thus, this would help the central government and private sectors to review its policies with impediments to allow successful public procurement principles in devolved governments.

#### **1.6 Scope of the study**

The research study concentrated on public procurement principles, with specific reference to the county governments in Kenya. The study focused on procurement ethics, value for money, competitive tendering, and transparency as dependent variables. The study focused on ten counties: Murang'a, Tran Nzoia, Mandera, Kirinyaga, Tharaka Nithi, Meru, Laikipia, Machakos, Nyandarua, and Migori devolved county governments. These county governments were ranked top ten in National Ethics and Corruption survey report in 2016 in a report released in March 2018. This study was also supported by the damning audit report for the financial year 2014/15, which revealed that a considerable chunk of the monies is paid to unscrupulous workers or fictitious firms and non-existence suppliers in these devolved county governments. The study also targeted a population of 567 in procurement and finance departments as the primary respondents in the county, as mentioned above governments. These departments are deemed to have relevant information with regard to public procurement because procurement is bestowed with the responsibility of acquiring goods, services, and works on behalf of the devolved county governments. On the other hand, finance is responsible for allocating finance and paying the cleared invoices of suppliers.



## **1.7 Limitations of the study**

The study had some limitations.

### **1.7.1 Bulkiness of Data Collection Instrument**

The first notable limitation was the content of the questionnaire perceived to the respondents as long. The respondents felt that the questionnaire was too long and time-consuming when filling and hence preferred it to be collapsed into one page only. The researcher overcame this challenge by administering the questionnaires herself and with the help of research assistants by going through the questionnaires one-on-one with the respondents and ticking the appropriate answers as desired. This, in turn, took a shorter time.

### **1.7.2 Delayed Responses**

The second limitation was some respondents' delayed response to the questionnaires; some lost them in the process. To overcome this limitation, the researcher frequently provided additional questionnaires.

### **1.7.3 Negative Perception of the Respondents**

The third limitation was the hostile reception of the researcher by some respondents due to the subject matter of the research, and it was difficult for the researcher to obtain data from respondents. To address this, the researcher ensured that management supported the study entirely by involving Chief Executive Officers and Human Resource Managers. The researcher assured them that share the study findings. The fourth limitation was that the study respondents were adamant about filling out the questionnaire because they feared the information might be revealed to their competitors. Nevertheless, these fears were countered by assuring the respondents that the information was to be used for academic purposes with the assistance of a letter of authority to collect the data from the University.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter summarizes information from other researchers and scholars who have conducted research in the same area of public procurement and the performance of organizations. The study covers the theoretical discussions, conceptual framework, theories, literature review, critique of research gaps, and summary.

#### **2.2 The Theoretical Review**

This study was built on the theories such as the contingency theory, the principal-agent theory, and the legitimacy theory. These theories and how they interact with the performance of county governments in Kenya are discussed.

##### **2.2.1 Contingency Theory**

Warren (2005) improved contingency theory from Max Weber's bureaucracy and Fredrick Taylor's scientific management theory. About this contingency theory, there is no universally applicable set of management values to manage organizations under all circumstances. This theory opposes the theory of Fredrick Taylor's scientific management, who came up with the standard principles of management and alluded that for a firm to advance in terms of its objectives and goals, it must apply the 14 principles of management regardless of the type, the size, and environment it operates. Warren (2005) indicated that organizations are separately diverse, face different situations, and need different ways of managing. Therefore, contingency theory postulates that it is a class of behavioral theory that claims there is no best way to organize a corporation, lead a company, or make decisions.

Kinnie, Hutchinson, Rayton, and Swart (2007) indicated that contingency theory is about the need to achieve a fit between what the enterprise is and wants to become and what it does; how it is structured, and the processes, procedures, and principles it puts into effect. Hence, organizations are supposed to establish diverse strategies in

order to realize their objectives and goals. This is because a single strategy may not be suitable due to the environmental influences in the market. Rue and Byars (2004) allude that contingency theory is an extension of humanistic theories, whereas classical theories assumed a universal view in managing enterprises; whatever worked for one enterprise could work for another. However, this was an extension of Taylor and Max Weber's ideas.

According to Waren (2005), contingency theory explains that there is no universal principle to be found in the management of enterprises. However, one learns about management by experiencing many case problem situations and determining what will work for every situation. This is true because different county governments have a different unique challenges from one another. For example, a county government may be experiencing a shortage of materials, and another one may be experiencing go slow or boycotts of workers. The approach to solving these challenges may be quite different. This theory was significant to the county governments because it requires the county managers to adopt different managerial skills to effect procurement contracts properly.

### **2.2.2 The Principal Agent Theory**

This theory is concerned with relations between the agent (person who acts on behalf of the principal) and the principal. An agent can act on behalf of their client. Various agent and principal problems may arise, including conflicting objectives, differences in risk aversion, outcome uncertainty, behavior based on self-interest, and bounded rationality. Therefore, the contract between the principal and the agent governs the relationship between the two parties since it clearly outlines the duties and responsibilities of each party. The principal-agent theory aims to design a contract that can deter potential agency problems (Herbert *et al.*, 2007). The "most efficient contract" includes the right behavioral and outcome-based incentives to motivate the agent to act in the principal's interests (Logan, 2000). By creating contracts with supply chain partners and county governments that balance rewards and penalties, misalignment can reduce conflicts (Narayanan & Raman, 2004; Baiman & Rajan, 2002).

This theory is based on the idea that procurement officers are the agents of public procuring entities on behalf of accounting officers. Thus, they should diligently discharge their duties and responsibilities when procuring goods, services, and works. They should also manage suppliers' quality and quantity with public entities' local purchase orders. On the other hand, the accounting officer, regarded as the principal, should adequately remunerate procurement officers and should never delegate all duties because they should account for it. On the other hand, the agent should not earn secret profits and should not have a conflicting interest with the principal he/she serves. In case of conflict, he/she must declare (Xingxing, 2012).

In this study, principal agency theory determined how procurement managers would implement procurement policies on behalf of county governments. Procurement managers who are hired on behalf of governors are expected to discharge their duties diligently in order to meet the aspirations of members of the public. However, poor principal (top management of the county) and agent (procurement/supply chain officers) relationship leads to poor delivery of services in the county governments. For example, the agents (procurement officers) in the county governments do not serve the principal because they have conflicting interests which compete with the principal's interest. Some get profits they do not declare are gifts and hospitalities from the suppliers. A conflict of interest among the agents may lead to the collapse of relationships. The principal may seek legal address from the court of law for damages or contract termination. Thus it is essential for procurement managers of the county governments who have honored to act as buying agents to ensure that public money spent achieves the value for money and the betterment of the lives of the public.

### **2.2.3 Legitimacy theory**

The county governments are responsible for being accountable to their citizens regarding the procurement of goods, services, and works. Therefore, county governments should embrace public participation in project formulation (Wilmshurst & Frost, 2000). This will provide a good opportunity for public members to be involved in the development of their counties. Also, by setting activities to be

achieved by counties in a given time frame, they will be devoted to being accountable to the public. Lindblom (1993) alluded that any state that serves its people in line with their needs is a legitimate government.

Therefore, legitimacy is regarded as society's acceptable norms, values, beliefs, and behaviors (Suchman, 1995). In the actual situation, legitimacy should bring a good understanding between county governments' procurement systems and policies with the aspirations of the people they serve.

Thus, for county governments to be legitimate, they should avoid shroud activities in procuring goods, services, and works. Procurement malpractices like tender splitting, tender inflation, and collusion will make the county governments look illegitimate. The county governments should focus on meeting the needs and desires of its people (Deegan et al., 2002). Therefore, the legitimacy theory argues that procurement officers in the county government should practice procurement processes to be open, transparent, and accountable. This will build a good reputation between the county and society (Magness, 2006).

#### **2.2.4 Deontological theory**

According to deontology, all persons have certain obligations to perform (Wempe, 2017). For example, county governments have obligations to meet the need of the people they serve, and these obligations are non-negotiable: they cannot be bought off or disposed of. These absolute rights can form the basis of these obligations (Wempe, 2017). Deontology can be defined as the denial of utilitarianism that deontology asserts the good is not always prior to and determinant of the right (Holyoak & Powell, 2016). However, Zamir and Medina (2010) alluded that actions can be right or wrong in and of themselves, rather than their moral value solely dependent on their consequences. Deontology thus urges the moral agent to avoid aiming to harm. Hence county governments are expected to theme procurement malpractices that have become rampant. Nagel (1986) observed that to do well is good, but avoiding evil is necessary. The deontological emphasis on not harming focuses on negative obligations (Cushman, Young, & Hauser, 2006). Nonetheless, the guiding principle, in theory, is that a moral agent refrains from intentionally

doing wrong acts (Cushman, Young, & Hauser, 2006), which should be a precaution for county governments.

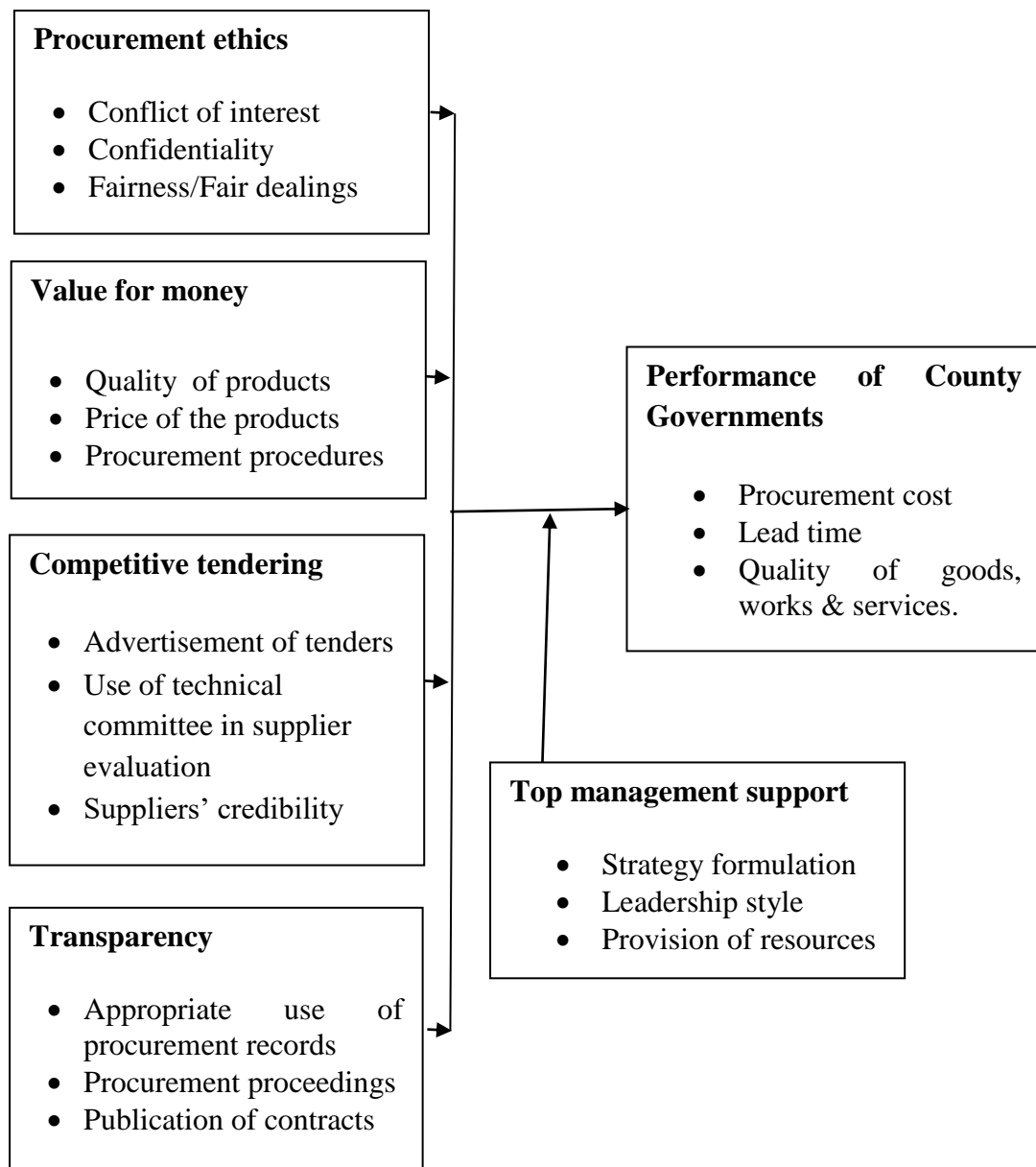
This theory applies to this study because procurement officers in county governments are expected to follow public procurement principles elaborated in the public procurement and asset disposal act of 2015 when procuring goods, services, and works. According to this theory, an action is morally good if it honors a given obligation (which does not depend on the consequence of the action) (Holyoak & Powell, 2016). Such a theory entitles procurement officers to rights or a claim to justice. Deontological theories stipulate duties that must be observed irrespective of consequences: legitimate rights must be respected, and unjust action is prohibited. In the commonsense morality of deontology, there are certain things procurement officers in the county governments must not do, or must do, to stay within acceptable moral bounds. Beyond that, we are free to lead our lives as we see fit (Holyoak & Powell, 2016).

### **2.3 Conceptual Framework**

A conceptual framework is a diagrammatic representation of the relationship between independent, moderating, and dependent variables (Orodho, 2008). According to Kothari (2009) is an idea whose quantitative values can differ, such as weight, height, or income. Moreover, according to Mugenda and Mugenda (2008), a variable is something that keeps on changing and can take different values. This study categorizes the critical variables as dependent, independent, and moderating. The independent variables include public procurement principles, the moderating variable will include top management support, and the dependent variable will include the performance of devolved county governments. The dependent variable is the variable manipulated by independent variables and is of interest, while the moderating variable changes the original relationship between independent and dependent variables (Frazier, Tix & Barron, 2004).

This study sought to explain how public procurement principles, procurement ethics, value for money, competitive tendering, and transparency influence the performance of the county governments. The relationship is moderated by top management use.

The variables in the conceptual framework were identified from the theories identified in the study and from the different scholars in the study.



**Independent Variable(s)**

**Moderating variables**

**Dependent Variable**

**Figure 2.1: Conceptual framework**

## **2.4 Review of Literature on Variables**

This section reviews literature from prior scholars regarding the influence of procurement ethics practice, value for money practice, competitive tendering practice, and transparency practice on the influence performance of county governments.

### **2.4.1 Procurement Ethics**

Procurement ethics are generally accepted principles and rules of conduct that govern a given industry (Lysons & Farrington, 2007). Ethics is a branch of philosophy that addresses questions about morality about concepts such as good and evil, right and wrong, and justice and virtue (Lyson & Farrington, 2007). Therefore, individuals acting professionally should take an additional burden of ethical responsibilities. For example, professional associations like the Kenya Institute of Supplies Management have created codes of ethics that guide procurement officers in public and private entities. These procurement professionals must behave within the context of professional practices such as impartiality/objectivity, openness/full disclosure, confidentiality, duty to care, and avoiding potential or apparent conflict of interest (Lyson & Farrington, 2007).

Therefore, managing ethical issues is essential because countries have lost resources due to unethical practices (Atkinson, 2003). This situation is worse in developing countries such as Kenya, where the majority of people who hold procurement offices in county governments are not professionals. Most of these officers are hired based on ethnicity and nepotism to appease their masters.

In Kenya, the Public Procurement and Asset Disposal Act of 2015 states that a procuring entity shall prepare an estimated budget for approval at the end of the financial year. Also, procurement officers are required to start procuring goods and services once monies have been approved. This is done to ensure that projects started are not stalled and to enhance transparency. However, despite these measures, procurement-related corruption tends to be a severe problem in developing countries rather than developed ones. For example, World Bank established that close to one



million US dollars had been lost due to procurement malpractices. Nigeria, Venezuela, and Sri Lanka ranked as the most corrupt countries in the world ranking in 2005. These countries have lost resources through procurement malpractices. However, countries such as Sweden, Netherlands, and Austria have enhanced public procurement systems which have contributed positively towards achieving economic growth.

In Kenya, public procurement is surrounded by scandals such as National Youth Service's loss of about two billion Kenyan shillings. The Kenya Power Lighting Company lost 30 billion Kenyan shillings dams project of close to 90 billion through procurement (EACC, 2018). Transparency International (2011), Auditor General Report (2016), and Ethics and Anti-corruption commission showed that the National Police Service and the county governments are the public institutions with the highest number of stalled procurement-related projects.

#### **2.4.2 Value for Money**

Value for money can be achieved in public entities through open competitive bidding, and the lowest bidder who meets other requirements is considered. Thus, county governments should conduct procurement through the procedures provided by the law to get value for money for goods and services procured. Also, the county governments are at liberty to consider other issues apart from the lowest price (Cummings & Qiao, 2003). To achieve value for money, the county governments should overcome barriers such as weak governing bodies, politics, poor traditional practices, and recruiting untrained procurement officers (Palmer & Butt, 1985). Value for money might entail many factors, such as the items' price, quality, timely delivery, terms of payments, and permissible discounts.

#### **2.4.3 Competitive Tendering**

Competitive tendering is acquiring goods, services and works into an organization using an open tendering process. In public procurement, competitive tendering is regarded as open tendering where all potential bidders are given equal opportunity to participate (PPADA, 2015). Therefore, open tendering is the favoured procurement

method for acquiring goods, works and services in organizations, particularly the public sector. This method provides equal chances for potential suppliers to participate. For example, in Kenya, the act has highlighted the procedures used for the open tendering method (PPADA, 2015). This invitation usually is given a grace period of 21 days if it is domestic tender and 40 days if it is international. This time is sufficient to allow potential bidders to submit their tenders. The advertisement can be done through many platforms such as government portals, organization websites, and at least two daily newspapers circulated widely. Then accounting officer may upload the tender to the portal. The accounting officer of a procuring entity may charge such fees as may be prescribed for copies of the tender documents but should not exceed three thousand shillings for catering for tender preparation expenses (PPADA, 2015).

Thus, the organization should constitute the opening tender committee once bids have been received from major suppliers. This committee is mandated to open the tender box and register all bids received in the presence of bidders. The evaluation committee, which constitutes financial and technical committees, is formed to evaluate bids received from potential suppliers (PPADA, 2015). Once the evaluation is complete, the organization must communicate to the supplier who has won the tender, and negotiations start immediately. Then the contract is signed for management and execution of the tender. During this exercise, all parties must disclose all the material facts regarding the contract, and if inaccurate, if given, it will result in misunderstandings, which might increase costs. Open tendering would prevent favoritism, allowing all potential suppliers to participate in the bidding process. These will make organizations acquire sound vendors to meet organizational needs and demands (Erridge et al., 1999).

#### **2.4.4 Transparency**

Transparency refers to unrestricted access to books of accounts by the public to timely and reliable information on decisions regarding the performance of a public procuring entity or organization (Armstrong, 2005). Transparency in the context of public procurement refers to the ability of stakeholders or public members to know

and understand the actual means and processes by which contracts are defined, awarded and managed (PPADA, 2015). The biggest challenge which emanates from transparency is the extent to which transparency covers. For example, across countries, there has been inadequate transparency to ensure fair and equal treatment of providers and integrity in public procurement.

Transparency in public procurement is essential and bears an immediate cost for the government, citizens and bidders or suppliers. Therefore, governments need to find adequate award processes based on the PPADA 2015 and known documented criteria.

Economic Cooperation and Development (OECD, 2009) observed that conditions for participation, such as selection and award criteria, as well as the deadline for submission, should be established in advance but openly and transparently. In addition, public entities should give adequate information to the potential bidders by publishing to provide sufficient time for potential suppliers to prepare tenders and record them in writing to ensure a balance between the objectives of ensuring transparency. It also requires the selection of a level playing field (PPADA, 2015).

This means that the criteria for assessing the suitability of bidders and the tenders to award a contract must form part of the minimum information contained in the letter of invitation or contract notice (PPADA, 2015). Moreover, where the award will be made to the most economically advantageous tender, all criteria the contracting authority intends to apply must be stipulated in order of importance, providing equal opportunities for bidders, and other concerns, particularly efficiency (PPADA, 2015). The PPADA (2015) sets out step-by-step procedures related to the various procurement methods, notice and advertisement of tenders, leaving little choice as to when, where, and how to advertise procurement events. The PPADA (2015) states that the accounting officer must use appropriate techniques to invite potential bidders to submit their tenders without prejudice. The accounting officer must be guided by the procurement act and regulations to decide on the procurement method to use.

Thus, the study concluded that countries with high corruption index tend to discourage foreign direct investment in those countries. For example, in developing

countries, grants and donations advanced to these countries ended up in the hands of individual personalities who work with the government. Also, a Transparency International study found that countries with less corruption index, like New Zealand and Mexico, attracted foreign direct investment (Petrie, 2001). Bribery and corruption emanating from exposure that aligns with globalization (Arminas, 2002).

Therefore, the demand for increased transparency is a global phenomenon and corruption was found to be very strongly linked to the award of government contracts in less advanced countries (Rothery, 2003). Best practices recognized internationally recognize that transparency can best be achieved through establishing transparent practices, steady regulations, and public tendering (Rothery, 2003).

#### **2.4.5 Top management support**

The top management should provide direction for the organization is going. The organization's objectives should be well spelt out and cascaded downwards to the junior officers for implementation. The top management of the county governments ought to come up with good leadership committed and willing to implement the public procurement principle as provided in the PPADA 2015. Thus, procuring entities' accounting officers should develop strategic values of counties and integrate public procurement principles with the organization's strategy and formulation for a competitive advantage. With such support from the top management, the dissemination and acceptance throughout the county of public procurement principles values would be much more quickly.

Holt and Ghobadian (2009) established that the chief executive officer (CEO) and overall company culture are fundamental drivers for implanting public procurement principles. Also, top management is the most basic category and can be considered imperative for engaging in public procurement principles. Wu and Pagell (2011) noted that top management could help organizations navigate information uncertainty and provide decision guidelines to cascade down in the organization structure. Therefore, counties with good leadership in terms of management would stick to PPADA regulations and provide a suitable environment for implementation.

Amaya and Ngugi (2013) established that leadership and management support positively influence organizational performance. Organizations with good leadership would motivate and provide ample time to implement organizational goals. Rossi (2010) in his study established that formal controls must first be well-defined, agreed and then cascaded downwards within the organization internally to be effective. An organization with an honest obligation to implement rules and regulations is demonstrated by top management's dedication to ethical corporate behaviour (Krawiec, 2003).

In a related argument, Obanda (2010) in his study observed that procurement personnel required robust institutional support at top management levels to promote integrity, monitor the public procurement process and apply procurement law appropriately. Roberto (2003) in his study argues that top management teams are composed of a stable core and dynamic periphery that changes with the decision-making of the situation. He eluded that for an organization to implement its strategic goals, it must have highly competent personnel in the top management to drive the organization.

In their study, Luke and Shale (2014) revealed that organizational performance could increase if top management provides good leadership. However, a study by Kalubanga (2012) found that managerial support might be a barrier to achieving good organizational performance if the management pursues personal interests and, therefore, the managers' interests.

#### **2.4.6 Performance of County government**

Organizational performance is regarded as the final output or outcome. In public entities, sound public procurement policies and principles are crucial attributes of good governance (KIPPRA, 2006; World Bank, 2002), which will yield good performance. In measuring public procurement performance, it is vital to evaluate the procurement system, which should focus on effectiveness, where procuring entities should meet the government's commercial, regulatory and socio-economic goals in a way that is in line with the procurement requirement. Wittig (1999) established that

any advancement in the public procurement system could have a direct or indirect beneficial outcome on the overall economic situation of the County.

Richardson and Sevenesson (2018) established that procurement performance can be measured using the price/cost dimension, where the relationship between the standard/baseline and the actual price of the delivered items is measured. They further found that product or quality dimensions of items of goods purchased as a critical performance measuring indicator. They also revealed that the efficiency of inventory flow of purchased materials and services in quantity control and timely delivery of supplies are essential when measuring procurement performance.

Moreover, a purchasing Magazine survey of consultants revealed several objectives that firms pursue when employing procurement strategy. They include driving the lowest possible purchase price, identifying high-quality product/service sources, simplifying the purchasing and supply management processes, and reducing transaction costs. In addition, a leading consulting firm reported that companies use strategies to reduce transaction costs, purchase price, purchase order processing cycle times, and speed up the time-to-market cycles, the standard measurement of procurement performance (Aberdeen, 2016). Thus, this study will adopt the lowest purchase price, high-quality products/services, simplified procurement processes, procurement order processing cycle times and reduced transaction costs to measure the performance of the devolved county government.

## **2.5 Empirical Literature Review**

The study by Malinga (2006) on ethics in public Procurement in Tanzania noted that the ethical standard in public procurement requires those involved in the procurement process to possess technical and ethical skills. A study by Murray (2009) found that public procurement has problems moving countries from the current global economic downturn and accelerating the economic recovery in the case of the UK. The study adopted secondary research for data collection from the established local government procurement. The study found that the English local government procurement strategy has generally remained unchanged for an extended period, and the function

cannot deal with the economic recession. Further, the study recommended that public procurement embrace reform address current and emerging issues.

A study by Benson and Busheka (2010) on the public procurement ethical standards in Uganda noted that organizational culture statistically contributes to the causes of public procurement corruption. Organizational structures which do not allow accountability and transparency contribute to corruption in an organization. Thus the study concluded that organizational structure determines and accounts for the increasing trends of procurement corruption. Equally, a study by Oguchi (2011) confirmed that public procurement professionals tended to observe the professional code of ethics with better pay and remuneration. The study further observed that corruption is perpetuated in public institutions when government officials abuse their power position for personal gains. He further revealed that corruption could take many forms, from soliciting bribes, hospitality and gifts, especially in big government projects.

Economic Cooperation and Development (2009) on public procurement established that environmental variables played an essential role in establishing ethical standards in the public sector and suggested applying the four-eye principle as a remedial measure. The study also points to political issues that affect the morality of public sector procurement. This is because procurement officials in government offices or departments are appointed based on political affiliation, especially in developing countries. The study recommended that to prevent political influence in public entities. There should be clear ethical standards for procurement officials, an adequate institutional framework, budgetary autonomy, and human resource management based on merit, as well as working independently for procurement officials, where procurement officials are solely responsible for decisions. Luke and Shale (2014), in their study on the role of strategic procurement principles on Organizational Performance; A Case Study of Kenya National Audit Office County using descriptive survey research design, established that majority of the employees were not well trained on records management, the firm had a cost management programme in place, management was committed to supplier relationship and

management made some efforts to encourage adherence to legislative procurement procedures.

Ogutu and Were (2014) studied the perception of regulation on the procurement process of devolved county governments in Kenya: a case study of Kajiado county. The study adopted a descriptive research design to gather quantitative and qualitative data. The study also adopted the target population of 595 employees of the Kajiado County Government, and a sample size of 119 was drawn from all cadres of staff. The populations were regarded as homogeneous. Descriptive and regression analyses were used to establish the relationship between the study variables. The study found that accountability, ICT adoption, and operating procedures affect the procurement process and ethics of devolved county governments in Kenya to a great extent.

## **2.6 Critiques of the existing literature**

Several studies on public procurement have been conducted both domestically and internationally. Nevertheless, the majority of the studies have been conducted in developed countries. For example, (Ntayi, Byabashaija & Eyal, 2010) conducted a study on factors affecting public procurement ethical standards in Africa and other parts of the world and researched Uganda. The study aimed to explain the causal factors for the unethical principles among public procurement officers in Uganda using Bandura's moral disengagement variables and Durkheim's notion of anomie. Nevertheless, this study failed to address public procurement principles, vital in inculcating morals in procurement officers.

The study by Malinga (2006) on ethics in public Procurement in Tanzania noted that the ethical standard in public procurement requires those involved in the procurement process to possess technical and ethical skills. However, this study only focused on procurement ethics, one of the public procurement principles, and did not look at the possible outcome in procurement performance in case of a lapse in ethical principles by procurement professionals. The study also focused on different sectors and not county governments, limiting the generalization of its findings.



A study by Murray (2009) found that public procurement has problems moving countries from the current global economic downturn and accelerating the economic recovery in the case of the UK. The study adopted secondary research for data collection from the established local government procurement. The study found that the English local government procurement strategy has generally remained unchanged for an extended period, and the function cannot deal with the economic recession. Further, the study recommended that public procurement embrace reform address current and emerging issues. However, the study had a limitation in addressing economic recession because secondary data was inadequate to collect current on emerging issues like the economic recession. Also, the study failed to address crucial public procurement principles such as value for money, tendering process, transparency, collaboration and contract management.

A study by Benson and Busheka (2010) on the public procurement ethical standards in Uganda noted that organizational culture statistically contributes to the causes of public procurement corruption. Organizational structures which do not allow accountability and transparency contribute to corruption in an organization. Thus the study concluded that organizational structure determines and accounts for the increasing trends of procurement corruption. However, the study failed to address how organizational structure contributes to corruption. Therefore, the findings of this study cannot be generalized that organizations with poor structure contribute to corruption in public entities. Corruption can even permeate those organizations with suitable structures of governance. Corruption is all about morals.

Equally, a study by Oguchi (2011) confirmed that public procurement professionals tended to observe the professional code of ethics with better pay and remuneration. The study further observed that corruption is perpetuated in public institutions when government officials abuse their power position for personal gains. He further revealed that corruption could take many forms, from soliciting bribes, hospitality and gifts, especially in big government projects. However, this study only focused on procurement ethics but failed to address other issues that may contribute to corruption in public entities, such as transparency and tendering. From the study, the author eluded that if procurement officers adhere to the corruption of professional

ethics can be curbed, but that is not the case. Even if procurement officers stick to professional ethics, corruption will continue unless several issues like the procurement process have been addressed.

Economic Cooperation and Development (2009) on public procurement established that environmental variables played an essential role in establishing ethical standards in the public sector and suggested applying the four-eye principle as a remedial measure. The study also points to political issues that affect the morality of public sector procurement. This is because procurement officials in government offices or departments are appointed based on political affiliation, especially in developing countries. The study recommended that to prevent political influence in public entities. There should be clear ethical standards for procurement officials, an adequate institutional framework, budgetary autonomy, and human resource management based on merit, as well as working independently for procurement officials, where procurement officials are solely responsible for decisions.

However, the study recommendations are based on the blanket because countries have already put up a procurement framework, such as the PPADA of 2015, which sets out procurement procedures when acquiring goods and services. However, ailing public procurement is the impunity and protection of senior government officers.

Luke and Shale (2014), in their study on the role of strategic procurement principles on Organizational Performance; A Case Study of Kenya National Audit Office County using descriptive survey research design, established that majority of the employees were not well trained on records management, the firm had a cost management programme in place, management was committed to supplier relationship and management made some efforts to encourage adherence to legislative procurement procedures. However, the study failed to address critical strategic principles such as negotiations and e-procurement. In addition, the study focused only on two variables, i.e. dependent and independent variables. The study did not use a moderating variable to check its effect on the organization's performance.

Ogutu and Were (2014) studied the perception of regulation on the procurement process of devolved county governments in Kenya: a case study of Kajiado county. The study adopted a descriptive research design to gather quantitative and qualitative data. The study also adopted the target population of 595 employees of the Kajiado County Government, and a sample size of 119 was drawn from all cadres of staff. The populations were regarded as homogeneous. Descriptive and regression analyses were used to establish the relationship between the study variables.

The study found that accountability, ICT adoption, and operating procedures affect the procurement process and ethics of devolved county governments in Kenya to a great extent. Nevertheless, this study failed to address public procurement's best principles and how it influences the performance of devolved government. Also, the study scope was narrow because it covered only one County government; thus, the study finding may not be generalized in all 47 counties.

## **2.7 Research Gaps**

Public procurement principles studies to date have been conducted extensively in the developed world context. Perhaps in developing countries, there are grounds for believing that most public procurement principles do not meet international requirements (World Bank, 2011). For example, in developed countries, public procurement is within a framework of international obligations (UNCTAD, 2009). In developing countries, significant reforms must be undertaken to streamline public procurement.

Although some studies have been carried out on local public procurement principles, none have adequately addressed the influence of public procurement principles on the performance of devolved county governments and the moderating effect of top management on independent and dependent variables. For example, in their study, Odhiambo and Kamau (2013) established that although developing countries have reformed their public procurement systems, the process is still shrouded by secrecy, inefficiency, corruption and undercutting, which has resulted in a vast amount of resources into wastage. Malinga (2006) established detailed findings but did not look at the possible outcome in procurement performance in case of a lapse in ethical

principles by procurement professionals. Singh (2015) also studied ethical procurement principles and supply chain performance. However, the study did not cover major public procurement principles such as the tender process, value for money, and transparency. The study was also conducted in developed countries where the findings may not be generalized because of the different uniqueness between developed and developing countries.

Lastly, Ogutu and Were (2014) found that accountability, information communication and technology adoption, operating procedure and ethics significantly influence the procurement process in devolved county governments. However, non-of these studies address public procurement principles such as procurement ethics, value for money, competitive tendering, transparency and accountability on the performance of devolved county government in Kenya. It is hence against this background that this study was to address these gaps by determining the influence of public procurement best procurement principles on the performance of county governments in Kenya.

## **2.8 Summary of Literature Review**

This chapter reviews the relevant literature and discusses public procurement's best principles. In the reviewed literature, a conceptual framework has been proposed to conceptualize or represent the relationships among variables in the study and shows the relationship diagrammatically. Independent variables such as procurement ethics, value for money, competitive tendering and transparency used in the study are the best public procurement principles because they are the most reviewed by scholars in the literature.

On the other hand, the study has adopted the performance of the devolved county government as the dependent variable. In addition, the study has adopted top management as a moderating variable that moderates the relationships between the dependent and dependent variables. Equally, the study has reviewed literature relating to the independent variables and how it influences the performance of devolved county governments with their various measurement metrics.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter presents a systematic description of the methodology applied to conduct the research study. It comprises research design, population, sampling frame, sample and sampling technique, instruments, data collection procedure, pilot test, data processing and measurement variables.

#### **3.2 Research Philosophy**

The research philosophy aims to create knowledge (Sesotho, 2015). On the other hand, research philosophy assists the study in building knowledge on what he believes in (Saunders, Lewis & Thornhill, 2009). There are three forms of epistemological philosophy: realism, positivism and interpretivist (Scotland, 2012). However, this study will adopt positivism by believing in theories already reviewed in the literature before the research justification findings of testable hypothesis (Cooper & Schindler, 2014).

#### **3.3 Research Designs**

Research design generally operationalizes how the information will be collected from the respondents and the procedures used. Research design is a blueprint for conducting research (Kothari, 2003). Therefore, this study used a cross-sectional survey research design. This design allowed the study to gather data at once, perhaps over days, weeks or months, to answer the research problem. This design used a statistic known as the correlation coefficient to measure the strength and direction of the linear relationship between the variables involved.

#### **3.4 Target Population**

The target population is the collection of entities where the researcher will draw his/her sample size to be studied (Kothari, 2003). The target population for this study

was 567 all employees working in finance/ audit and procurement departments in 10 counties (Human Resource Documents, 2021). The procurement department deals with the procurement of goods, works and services. The procurement staff were targeted since they are involved in executing critical procurement management decisions and have technical knowledge and skills in public procurement principles. Also, the finance and auditing departments were involved because they work closely with the procurement department, such that the finance department approves the budget fronted by the procurement department and pays invoices cleared by the procurement department.

County	Target Population	
	Finance/Auditing	Procurement
Murang'a	36	33
Trans-Nzoia	69	42
Mandera	31	14
Kirinyaga	32	24
Tharaka Nithi	26	16
Meru	25	19
Machakos	32	13
Nyandarua	21	11
Kilifi	37	26
Migori	43	17
<b>Total</b>	<b>352</b>	<b>215</b>

### 3.5 Sampling techniques and illustrations

#### 3.5.1 Sampling Frame

A sampling frame lists all items where a representative sample is drawn for research. In this study, the sampling frame was a list of all employees in finance/auditing and procurement departments in 10 counties: Murang'a, Tran Nzoia, Mandera,

Kirinyaga, Tharaka Nithi, Meru, Laikipia, Machakos, Nyandarua, Kilifi and Migori counties.

### 3.5.2 Sample and Sampling Technique

A sample is a portion or part of the population of interest. The purpose of sampling is to understand some features or attributes of the whole population based on the characteristics of the sample. The study used stratified random sampling, where the subjects were selected so that the existing subgroups in the population were more or less reproduced in the sample (Mugenda & Mugenda, 2003). Using the sampling frame, there were three subgroups/ strata that are procurement and finance departments. Then, a simple random sampling was used from each stratum to pick the sample size proportionately. Stratified sampling guaranteed that each stratum was represented in the sample and was more accurate in reflecting the characteristics of the population. Stratified random sampling guaranteed that every stratum was well represented in the sample; it was also more accurate in representing the population characteristics. Thus the study involved a sample size of 229.

The following formula was used to determine the sample size based on simple

random sampling.  $n = \frac{Z^2 pqN}{e^2(N-1) + Z^2 pq}$

$$n = \frac{1.96^2 * 0.5 * 0.5 * 567}{0.05^2 (567 - 1) + 1.96^2 * 0.5 * 0.5}$$

$$n = \frac{544.55}{2.3754} = 229$$

$$P=0.5, q=0.5, Z_{0.025}=1.96, e=0.05$$

Where

n = sample size

N= Entire Population

Z= Z score Corresponding to  $\alpha =0.05$  level of Significance.

E= Expected Error

p = Probability of public procurement principles used

q = Probability of Non- public procurement principles used

**Table 3.1: Sample size**

County	Strata		Formula	of Total sample
	Finance/Auditing	Procurement		
Murang'a	36	33	$(69/567) \times 229$	28
Trans-Nzoia	69	42	$(111/567) \times 229$	45
Mandera	31	14	$(45/567) \times 229$	18
Kirinyaga	32	24	$(56/567) \times 229$	23
Tharaka Nithi	26	16	$(42/567) \times 229$	17
Meru	25	19	$(44/567) \times 229$	17
Machakos	32	13	$(45/567) \times 229$	18
Nyandarua	21	11	$(32/1836) \times 229$	13
Kilifi	37	26	$(63/1836) \times 229$	26
Migori	43	17	$(60/1836) \times 229$	24
<b>Total</b>	<b>352</b>	<b>215</b>		<b>229</b>

Source: Adopted from County Governments human Resource department (2018)

### 3.6 Data Collection Instruments

The primary data collection instrument used in the study was a questionnaire. The questionnaire comprised structured and unstructured questions. Structured questions



restricted the respondents to several alternative answers from which they were to choose. Unstructured questions allowed the respondents to express their answers (Saunders, Lewis & Thornhill, 2009).

### **3.7 Data collection procedure**

Primary data was gathered through the questioning method in a semi-structured questionnaire (open and close-ended questions). The questionnaires were self-administered via email and hand delivery to 229 respondents, with the respondents having the option of emailing back the completed questionnaire or having it picked by the researcher for data analysis.

Secondary data was collected from documented sources such as books, journals, published and unpublished research works, and internet literature. For the main purpose of this research, the study collected primary data but relied on secondary data for the literature review.

### **3.8 Pilot Study**

In order to check the validity and reliability of the questionnaires. The rationale of pilot testing is to establish the appropriateness and accuracy of the research design and instrumentation (Saunders, Lewis & Thornhill, 2007). Newing (2011) states that the importance of pilot testing cannot be overemphasized; you will almost always find that there are questions that people fail to understand or interpret in different ways, places in the questionnaire where they are not sure where to go next, and questions that turn out not to elicit helpful information. Piloting was done to detect the weakness of the research instrument.

#### **3.8.1 Reliability of Research Instruments**

Jack and Clarke (1998) confirm that reliability is the stability of the measure of research instruments. In this study, Cronbach's alpha was used to test the reliability of the questionnaire. According to Cooper and Schindler (2006), the pilot was conducted on twenty-three respondents, who represent 10 % of the sample size. These respondents were not part of the sample size to be drawn. Then the filled

questionnaires were cleaned and coded into statistical software to assist in analysis. Cronbach's alpha coefficients were generated, and all alpha values were above 0.7; hence reliability was not an issue.

### **3.8.2 Validity of Research Instruments**

The study used both construct validity and content validity. Construct validity is the extent to which an operationalization measures the concept it purports to measure. Construct validity was necessary because of finding meaningful and interpretable research findings. Two randomly selected managers thoroughly examined the questionnaires to ensure content validity. The managers' and expert reviewers' comments were used to ensuring that content validity was enhanced.

### **3.9 Data Analysis and Presentation**

The data collected was analyzed using regression and correlation. The data was presented in tables, charts, and bar graphs. Descriptive and inferential statistics were used, including mean, standard deviations, and correlations analysis of variance. The correlation was used to establish the relationship among the study variables and test the formulated hypotheses at a 95% confidence level and 5% significance level. Preliminary associations among the study variables were assessed using correlations which was tested at a 95% confidence level (level of significance,  $\alpha = 0.05$ ). Data processing and analysis were finally done using quantitative and qualitative techniques.

### **3.10 Statistical measurement model**

According to Mugenda and Mugenda (2003), linear regression analysis attempts to determine whether a group of variables together predict a given dependent variable and in this way, attempt to increase the accuracy of the estimate. The general linear regression model for the study was:

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

For testing the moderating effect, the following model was used:

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

Where; Y= Performance of county

$\beta_0$ =constant

$\beta_i$  is the coefficient for  $X_i$  (  $i=1, 2,3,4$  )

$X_1$ =Procurement ethics

$X_2$ =Value for money

$X_3$ =Competitive tendering

$X_4$ =Transparency

M= Top management support (Moderating variable)

$\varepsilon$  = error term

### 3.11 Diagnostic Tests

#### a) Multicollinearity

According to Kothari (2004), the simplest means of identifying collinearity is an examination of the correlation matrix for independent variables. The presence of high correlations, usually higher than 0.90, is the first indication of substantial collinearity. The test for multicollinearity was conducted to assess whether one or more of the variables of interest is highly related to one or more of the other independent variables. The variance inflation factor was used to evaluate the correlation between variables and to estimate how much the variance of a coefficient is inflated because of linear dependence with other predictors. As a rule of thumb, if any of the VIFs is greater than 10, there is a probability of a problem with multicollinearity.

### **b) Homoscedasticity**

The study also checked the existence of homoscedasticity, which refers to the assumption that the variability in scores for one continuous variable is roughly the same at all values for another continuous variable, constituting another assumption of multivariate analysis (Marr, 2004). Breusch-Pagan and Koenker tests were conducted to test for homoscedasticity.

### **c) Normality test**

A normality test was done using a Q-Q probability plot for all the investigated variables. Kolmogorov-Smirnov test and the Shapiro-Wilk test were used. The Shapiro-Wilk test is more appropriate than Kolmogorov-Smirnov for sample sizes. It is a more reliable test for determining skewness and kurtosis values of normality. If it is below 0.05, the data significantly deviate from a normal distribution. Wheeler (2001) asserts that inferential parametric statistical procedures require that the assumptions of such normality tests are tested. This is to assist the graphical tests to be performed about the normality of the data to check for skewness and kurtosis coefficients. This test helped confirm whether the data follows a normal distribution. If the normality is not achieved, the results may not depict the genuine picture relationship among the variables.

### **d) Linearity**

Finally, the linearity of data was tested using kurtosis tests (Locke & Latham, 2002). The study employed univariate analysis to identify the determinants of effective disposal, bivariate to establish the relationships among the determinants, and multivariate to derive a model and validate it. Since the study used multivariate analysis to develop a model, an assumption like linearity was tested.

### **3.12 Operationalization of the study Variables**

This study used the following rating scales, that is, open-ended questions to allow the respondents to add information that might not be included in the closed-ended questions and the Likert scale, developed by Rensis Likert, to examine how strongly subjects agree or disagree with a statement (Cooper & Schindler, 2011). In this study, Likert scales dominated the questionnaire. China and Russel (2009) elucidated that the Likert scale is everywhere in nearly all fields of scholarly and business research that it is used in a wide variety of circumstances: when the value sought is a belief, opinion, or effect; when the value sought cannot be asked or answered definitely and with precision, and when the value sought is considered to be of such a sensitive nature that respondents would not answer except categorically in extensive ranges. The nature of the data collected in this study exhibited the majority of these features, so the Likert scale was the most suitable. A Likert Scale can be evaluated quickly through standard techniques like factor analysis and logistic regression analysis (Montgomery, Peck & Vining, 2001). A linear regression model measured all the hypotheses to test the relationship.

**Table 3.2: Measurement of study variables**

<b>Variable</b>	<b>Indicator</b>	<b>Scale</b>	<b>Questionnaire Reference/ Measurement</b>
Procurement ethics	<ul style="list-style-type: none"><li>• Conflict of interest</li><li>• Confidentiality</li><li>• Fairness</li><li>• Equal opportunity</li></ul>	Interval	Questions 1-2
Value for money	<ul style="list-style-type: none"><li>• Saving public fund</li><li>• Adoption of fair competition</li><li>• Use of aggregation method</li><li>• Use of life cycle cost in procurement procedures</li></ul>	Interval	Questions 3-4
Competitive tendering	<ul style="list-style-type: none"><li>• Advertisement of tenders</li><li>• Use of technical committee in supplier evaluation</li><li>• Suppliers' credibility</li></ul>	Interval	Questions 5-6
Transparency	<ul style="list-style-type: none"><li>• Appropriate use of procurement records</li><li>• Procurement proceedings</li><li>• Publication of contracts awards</li></ul>	Interval	Questions 7-8
Top management support	<ul style="list-style-type: none"><li>• Policies on public procurement principles</li><li>• Dissemination of public procurement information</li><li>• Involvement in decision making</li></ul>	Interval	Questions 9-10
Performance of county governments	<ul style="list-style-type: none"><li>• Procurement productivity</li><li>• Procurement cost saving</li><li>• Customer satisfaction</li></ul>	Interval	Questions 11-12

## **CHAPTER FOUR**

### **RESEARCH RESULTS AND DISCUSSION**

#### **4.1 Introduction**

This chapter presents the study's findings and refers to relevant research to support the study's findings. The findings include demographic information about the sample, results obtained from the descriptive statistics for the strategic procurement practices, correlations between the public procurement principles, and significant statistical differences between the performances of county governments in Kenya. In general, analysis was conducted using the regression model. Lastly, an overview of the results obtained in the study is presented and discussed in this chapter.

#### **4.2 Demographic Information**

The characteristics of the respondents that participated in the study were gathered and analyzed. The results were based on the information collected on the questionnaire. The demographic did not affect the high-level analysis but provided general information about the study population. The traits are discussed in the section below.

##### **4.2.1 Response Rate of Respondents in County**

The target population for this study was all employees working in procurement finance departments in 10 counties. A total of 229 questionnaires were issued to the respondents, and 226 were filled and returned, representing a response rate of 98.69%, as depicted in Table 4.1. This response rate was excellent and representative and confirmed Mugenda's (2008) stipulation that a response rate of 50% is adequate for analysis; a rate of 60% is reasonable, and a response rate of 70% and over is excellent. This reasonable response rate was attributed to the data collection procedure, where the researcher personally administered questionnaires to the respondents who filled them. The researcher collected the filled questionnaires later. This response rate demonstrated a willingness to respond to the study.

**Table 4.1: Response Rate of Respondents as per County**

<b>S/No.</b>	<b>County</b>	<b>Frequency</b>	<b>Percent</b>
1.	Trans-Nzoia	44	19.7
2.	Meru	17	7.4
3.	Tharaka Nithi	17	7.4
4.	kirinyaga	23	10
5.	Mandera	18	7.9
6.	Murang'a	28	12.2
7.	Machakos	17	7.9
8.	Nyandarua	13	5.7
9.	Kilifi	26	11.4
10.	Migori	23	10.5
	<b>Total</b>	<b>226</b>	<b>100</b>

#### **4.2.2 Education Level of Respondents**

Respondents' level of education was sought, and the majority, 51.5 percent of the respondents, indicated that they have an Undergraduate degree, while sizeable, 34.1 percent possess a Master's Degree, 14 percent have a college Certificate, and 0.4 percent have Ph.D. as indicate in Table 4.2. These results indicated that most employees working in the County governments have adequate skills, knowledge, and competencies. Likewise, it showed that the respondents were well informed and provided better information about the study.

**Table 4.2: Level of educational level of respondents**

<b>Level of Education</b>	<b>Frequency</b>	<b>Percent</b>
Certificate	31	14
Undergraduate	116	51.5
Masters	78	34.1
PhD	1	0.4
<b>Total</b>	<b>226</b>	<b>100</b>



### 4.2.3 Years of Service of the Respondents

The question sought to investigate the years each respondent has worked with the county governments in Kenya. The majority, 46.3 percent of the respondents, have a working experience of more than five years, and 44.5 percent have worked less than five years. This means that most respondents have adequate working experience with the county governments in Kenya. However, the study relied heavily on the wealth of experience of employees who have served more than five years to get accurate information, as shown in Table 4.3.

**Table 4.3: Year of Service of the respondents**

<b>Experience</b>	<b>Frequency</b>	<b>Percent (%)</b>
Less than 5 years	102	44.5
Over 5 years	106	46.3
<b>Total</b>	<b>226</b>	<b>100</b>

### 4.2.4 Departments from where respondents were drawn

The respondents were asked to indicate the department they work under, and 51.6 percent of the respondents indicated that they worked in procurement/supply chain, and 41 percent worked in finance/treasury. This information was crucial because the two departments are vital in procuring goods, services, and works in county governments in Kenya. Thus the study showed a fair representation of respondents in both departments, as shown in Table 4.4.

**Table 4.4: Department Representations of Respondents**

<b>Department</b>	<b>Frequency</b>	<b>Percent (%)</b>
Finance	88	38.4
Treasury	6	2.6
Procurement	86	37.6
Supply chain	32	14
<b>Total</b>	<b>212</b>	<b>92.6</b>

#### 4.2.5 Level of Management of Respondents

The study requested the respondent to indicate their level of management. From the study findings, it was revealed that the majority of the respondents were from the middle level (69.4%). Whereas 19.7% of the respondent were from the tactical level of management, 10.8% of respondents were drawn from top management. This indicates that middle-level managers are the majority in the organization, as proven in the pyramid of levels of management. It is evident from the study findings that middle and tactical levels of management are the majority in the procurement functions of devolved county governments in Kenya.

They are concerned with implementing procurement/ financial strategies crafted by top management and the daily execution of activities. They also constitute a big number in the procurement function.

**Table 4.5: Level of Management of Respondents**

<b>Level of Management</b>	<b>Frequency</b>	<b>Percent (%)</b>
Top management staff	23	10.8
Middle level management staff	148	69.4
Tactical level	42	19.7
<b>Total</b>	<b>213</b>	<b>100</b>

#### 4.3 Reliability Test of Study Instruments

Reliability is concerned with the consistency measurement or stability of measurement of an instrument and is able to overcome various conditions to produce the same results (Bollen, 1989). The internal consistency method was adopted because it is more stable than the other methods (Bryman, 2012; Cooper & Schindler, 2011). To measure the reliability of the gathered data, Cronbach's alpha was applied to the instrument as shown in Table 4.6.

**Table 4.6: Reliability Test of Study Instruments**

<b>Construct(s)</b>	<b>Cronbach's Alpha</b>	<b>N of Items</b>	<b>Decision</b>
Procurement ethics Principle	.852	5	reliable
Value for money principle	.729	5	reliable
Competitive tendering principle	.760	5	reliable
Transparency practice	.817	5	reliable
Top management support	.717	5	reliable
Measure of performance of county government	.793	5	reliable
<b>Overall</b>	<b>.856</b>	<b>30</b>	<b>reliable</b>

The reliability of the individual items was measured by examining the internal consistency values of the items on their corresponding constructs. The Cronbach's Alpha (Cronbach, 1979) measure of internal consistency was done to check the consistency of construct items. Reliability was conducted on each scale of the constructs. The overall Cronbach's alpha statistic attained 0.856, which was greater than the threshold of 0.7. The Cronbach's alpha value for the second-order variables ranged from 0.717 to 0.856, as indicated in Table 4.6. Therefore, all the retained scale items for the study variables were maintained for further analysis as they achieved the required thresholds for reliability.

#### **4.4 Validity Tests for Research Instruments**

The principal component analysis (PCA) and Promax rotation method were used to refine each construct. The PCA algorithm retained items of the constructs with factor loadings greater than 0.5 for further analysis (Hair *et al.*, 2011). The study used three-factor analysis measurement indicators to assess the factorability of items. (i.e., Kaiser Meyer-Olin Measure of Sampling Adequacy, Barlett 's Test of Sphericity and communalities). The study used KMO Measures of Sampling Adequacy threshold of above 0.6 (Kaiser, 1974), as well as a significant chi-square p-value for Barlett 's test of Sphericity (Bartlett, 1954). The Kaiser-Meyer-Olkin Measure of Sampling

Adequacy was 0.616, which was above 0.6. This meant that the sample was adequate for factor analysis. The Chi-Square value for Bartlett's Test of Sphericity was 4392.588, with degrees of freedom amounting to 435 and a p-value less than 0.05, indicating the suitability of data for structure detection.

**Table 4.7: KMO and Bartlett's Test**

<b>Test</b>	<b>Value</b>
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.616
Bartlett's Test of Sphericity	Approx. Chi-Square
	df
	Sig.
	4392.588
	435
	.000

#### **4.4.1 Communalities for Constructs**

Small values for communalities signify that the items of the construct do not fit well with the extracted factor solution and should certainly be dropped from further analysis. The extraction communalities for the retained items measuring the quality of service construct, as shown in Table 4.8, were all greater than 0.5, indicating that the retained items fitted well with other items in the factor solution (Pallant, 2010).

**Table 4.8: Communalities for constructs**

<b>Statement</b>	<b>Initial</b>	<b>Extraction</b>
Discourage fake competition	1.000	.722
Avoid collusion with suppliers	1.000	.765
Remove and arbitrariness from bid evaluation process	1.000	.762
Goods and services received reflect the precise qualities actual delivered	1.000	.774
Use splitting to avoid adopting the appropriate procurement process	1.000	.833
Adoption of fair completion in public procurement	1.000	.787
Discourage fake competition	1.000	.647
Use aggregation where appropriate in order to take advantage of economies of scale	1.000	.829
Use of life cycle costs in considering and selecting procurement alternatives	1.000	.757
Considering seasonality in prices especially where it pertains to procurement of commodities	1.000	.830
Technical committee for evaluation of suppliers	1.000	.890
Open tendering method for inviting suppliers	1.000	.680
Suppliers credibility in carrying out previous contracts awards	1.000	.705
Use advertisement as source of information of suppliers	1.000	.889
Award tender to the most competitive bidder	1.000	.801
Promote transparency through the appropriate recording of procurement procedures	1.000	.795
Promote transparency through maintaining a complete record of procurement procedures	1.000	.785
Promote transparency through publication of contract awards	1.000	.752
Promote transparency through writing of all communication between procuring entity and bidders	1.000	.684
Promote transparency through use of technology ie internet to disseminate information required suppliers and public	1.000	.719
Integrate public best principles in an organizational strategy	1.000	.811
Dissemination of public procurement best principles values of the organization	1.000	.779
Helping organization to navigate information uncertainty and provide decision guideline	1.000	.690
Trading-off the interest of public when pursuing conflicting procurement of goods and services	1.000	.697
Emphasize on strategic nature of public procurement best principles and should be proactive	1.000	.863
Use of procurement strategy to reduce transaction cost	1.000	.822
Use of procurement strategy that reduce purchase order process cycle times	1.000	.565
Use of procurement strategy in driving the lowest possible purchase price	1.000	.773
Use of procurement strategy that identify sources of high quality products/services	1.000	.708
Use of a procurement strategy that simplifies the procurement and supply management process	1.000	.793

Extraction Method: Principal Component Analysis.

#### **4.4.2 Total Variance Explained**

Kaiser's criterion was used to determine the number of factors extracted from each construct and retain the factors with an eigenvalue greater than 1.0 (Hair *et al.*, 2011). Based on Kaiser Criterion, nine factors were imputed out of 30 factors. The nine factors could explain 76.360% of the total variance in the study data, as indicated in Table 4.9. The nine factors imputed attained eigenvalues in the initial solution greater or equal to 1.0. The cumulative variability explained by these imputed nine factors in the extracted solution was 76.360%, showing that no explained variation by the initial eigenvalues is lost during the Promax rotation of the quality of the service factor solution (Hair *et al.*, 2010).

**Table 4.9: Total Variance Explained**

	<b>Extraction Sums of Squared Loadings</b>					
		<b>% of Variance</b>	<b>Cumulative %</b>	<b>Total</b>	<b>% of Variance</b>	<b>Cumulative %</b>
1	7.311	24.370	24.370	7.311	24.370	24.370
2	3.015	10.051	34.422	3.015	10.051	34.422
3	2.866	9.554	43.976	2.866	9.554	43.976
4	2.361	7.871	51.847	2.361	7.871	51.847
5	1.860	6.201	58.048	1.860	6.201	58.048
6	1.574	5.246	63.294	1.574	5.246	63.294
7	1.416	4.720	68.014	1.416	4.720	68.014
8	1.279	4.263	72.277	1.279	4.263	72.277
9	1.225	4.083	76.360	1.225	4.083	76.360
10	.885	2.949	79.310			
11	.820	2.732	82.042			
12	.748	2.493	84.535			
13	.661	2.205	86.739			
14	.558	1.859	88.598			
15	.490	1.635	90.233			
16	.435	1.450	91.683			
17	.421	1.403	93.086			
18	.330	1.098	94.184			
19	.288	.960	95.144			
20	.240	.801	95.945			
21	.213	.709	96.654			
22	.197	.656	97.310			
23	.164	.546	97.856			
24	.156	.519	98.375			
25	.121	.405	98.780			
26	.109	.363	99.142			
27	.085	.282	99.424			
28	.077	.256	99.680			
29	.054	.180	99.860			
30	.042	.140	100.000			

Extraction Method: Principal Component Analysis.

#### 4.5 Diagnostic Test Findings

Linear regression analysis is a powerful statistical model when estimated correctly. The model predicts the dependent variable by seeking patterns exhibited by the independent variable. Linear regression requires assumptions to be made on the data for the model to remain appropriate in predicting the data (Hayes, 2015). The section

provides various diagnostic tests done on the data before estimating the regression model. Multicollinearity, normality, heteroscedasticity, and linearity tests were performed to facilitate data analysis.

#### 4.5.1 Multicollinearity Test

Multicollinearity was performed on the data by examining VIF (variance inflation factor) and assessing the tolerance (1/VIF). Independent variables are considered collinear if VIF values exceed 3 (Schwarz, Schwarz, and black, 2014). Table 4.10 presents VIF values ranging from 1.378 to 1.956, implying that multicollinearity is not a problem in the data.

**Table 4.10: Test of Multicollinearity**

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
Procurement ethics Principle	.857	1.167
Value for money principle	.783	1.277
Competitive tendering principle	.690	1.449
Transparency practice	.659	1.516
Top management support	.757	1.321

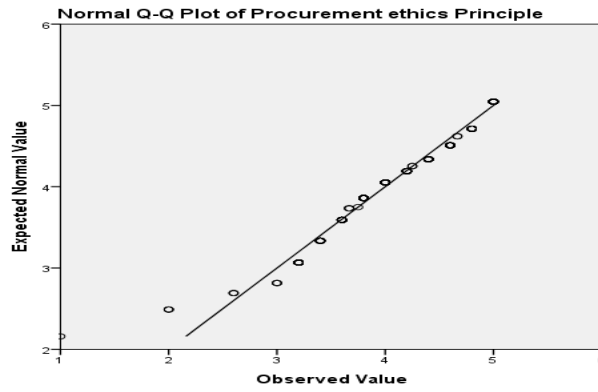
a. Dependent Variable: Measure of performance of county government

#### 4.5.2 Normality Test

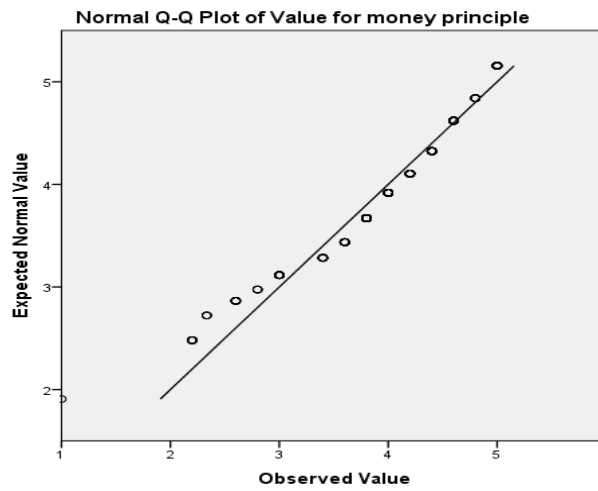
The test statistic of the regression model needs to follow a manageable probability distribution, typically the Normal distribution. Normality is assessed by examining whether the residuals follow a normal distribution (Kline, 2010). Normal QQ plots were plotted to identify the distribution of the error terms of the model. The graphical analysis showed that the line representing the actual data distribution closely follows the diagonal in the normal Q-Q plot, as shown in figures 4.1 to 4.6, suggesting normal distribution (Hair, Tatham, Anderson & Black, 2006). The results align with



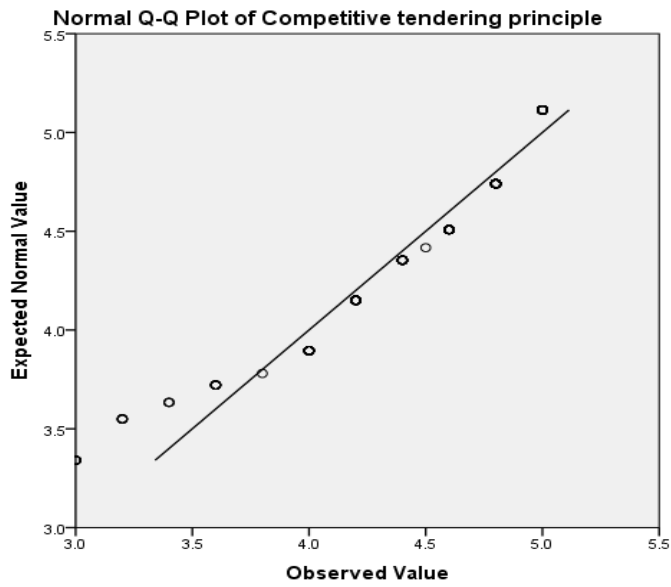
the study on analysis of the satisfaction degree of hotel services consumers in Romania done by Busu and Busu (2016). They concluded the normality test based on a normal Q-Q plot.



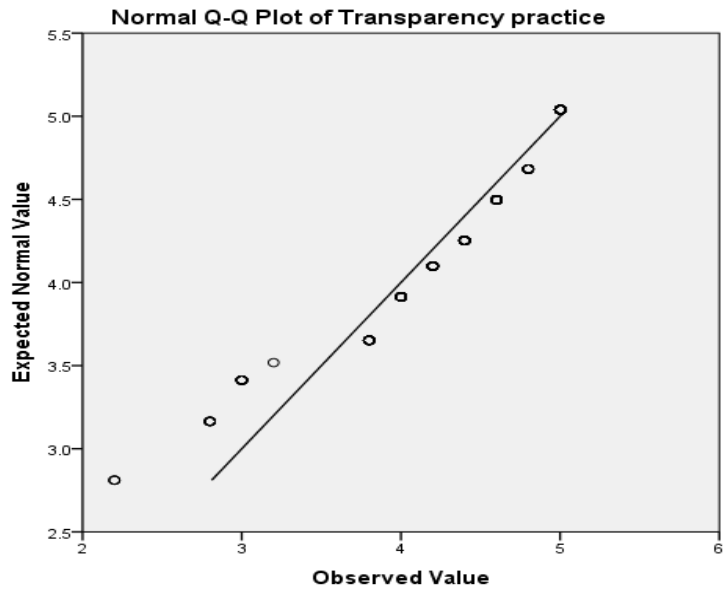
**Figure 4.1: Procurement ethics principle**



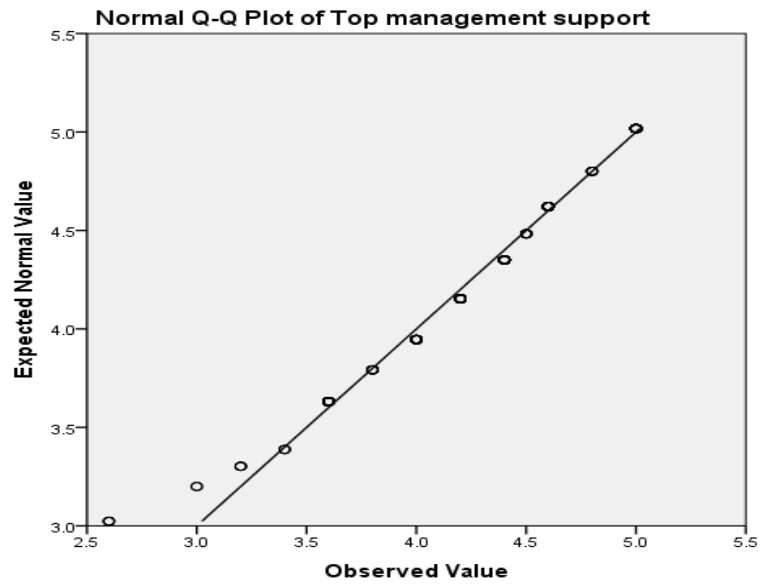
**Figure 4.2: Value for money principle**



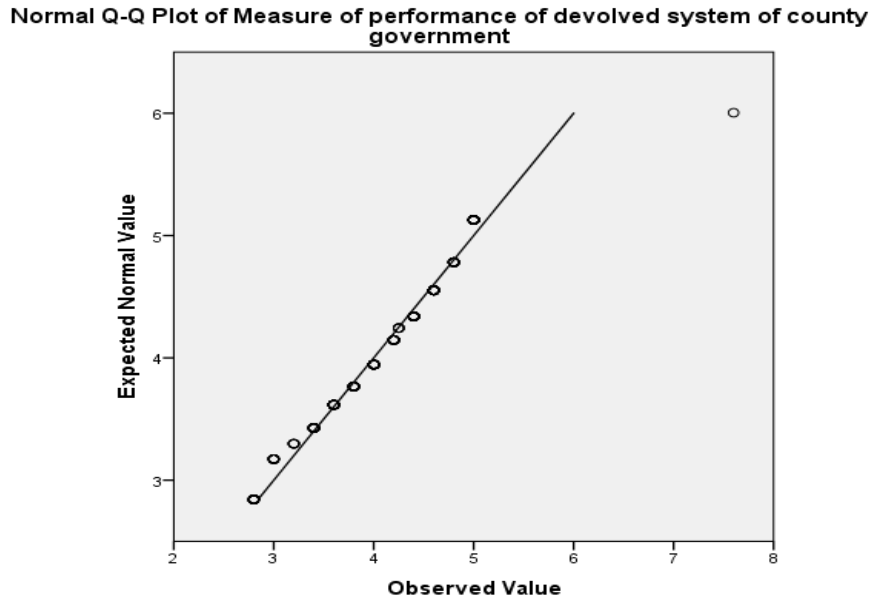
**Figure 4.3: Competitive tendering principle**



**Figure 4.4: Transparency principle**



**Figure 4.5: Top management support principle**



**Figure 4.6: Measure of performance of county**

### 4.5.3 Test for Normality using Shaphiro-wilk Test

Shapiro walk test is a robust test for normality that generates a p-value that indicates whether the probability estimation follows a normal distribution. Shapiro Wilk test is performed on all the predictors and the dependent constructs. The test concludes that data is normal if the p-value is not less than .05 (Shapiro & Wilk, 1965). Table 4.23 indicates that the significance levels of all the variables were more than .05, which indicates that all the variables were normally distributed and, therefore, other statistical analyses would be carried out on the data.

**Table 4.11: Test for Normality using Shaphiro-wilk Test**

Variables	Statistic	df	Sig.
Measure of performance of county government	0.804	218	0.056
Procurement ethics Principle	0.807	218	0.988
Value for money principle	0.807	218	0.108
Competitive tendering principle	0.723	218	0.246
Transparency practice	0.751	218	0.755
Top management support	0.726	218	0.999

### 4.5.4 Heteroscedasticity Test

Heteroscedasticity occurs when the variance of the errors varies across observations resulting in an unbiased OLS estimator and therefore becomes inefficient (long and Ervin, 2000). The study used Breusch-Pagan and Koenker test to estimate heteroscedasticity. Breusch-Pagan and Koenker test the null hypothesis that the variances of the error terms are constant. The test rejects the null hypothesis when the significant value is less than 5% (Daryanto, 2013). Table 4.12 displays the results

of the Breusch-Pagan and Koenker test. Table 4.12 presents significant values of more than 5%, indicating that heteroscedasticity was not a problem.

**Table 4.12: Breusch-Pagan and Koenker test statistics and sig-values**

<b>Tests</b>	<b>LM</b>	<b>Sig</b>
BP	18.588	.602
Koenker	33.941	.183

#### **4.5.5 Linearity Test**

Linearity of the regression model tests the consistency of the gradient that represents the relationship between the response and predictor variables. If the slope of change in the relationship between the variables is fickle, then it is difficult to conduct regression analysis on the study data (Tabachnick & Fidell, 2013). Testing for linearity can be done in several methods, yet the easiest is the deviation from the linearity test performed by ANOVA. The test indicates that the variables are not linear if the significant value for deviation from linearity is less than 0.05 (Meyers, Gamst, & Guarino, 2013). See Appendix III.

### **4.6 Influence of procurement ethics on the performance of county governments in Kenya**

#### **4.6.1 Measures used by county governments to support and govern procurement ethics principle**

Respondents were asked to tick choices given, the appropriate measures their county government takes to support and govern procurement ethics practice. From Table 4.13, it is indicated that 73 percent of the county government had clear policies formulated on procurement ethics, 14 percent had clear goals, 11 percent had clear

objectives, and 3 percent had clear policies, clear goals, and clear objectives altogether articulating procurement ethics.

**Table 4.13: County Government Support and Govern Procurement Ethics Practice**

<b>Statements</b>	<b>Frequency</b>	<b>Percent</b>
Formulation of clear policies	216	73.7
Formulation of clear goals	41	14.0
Formulation of clear objectives	33	11.3
Formulation of clear policies, formulation of clear goals, Formulation of clear objectives	3	1.0
<b>Total</b>	<b>293</b>	<b>100.0</b>

#### **4.6.2 Procurement Ethics Descriptive Statistics Findings**

The study sought to determine the influence of procurement ethics on the performance of county governments in Kenya. This objective was measured using opinion statements on the Likert scale of 1 to 5. Respondents were asked to indicate the extent to which they agreed with procurement ethics opinion statements executed by the county governments. This was on a Likert scale of (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree). The result of the analysis is presented in Table 4.14.

The results established that the majority of the county government, with a mean rate of 4.01, discourages fake competition. These study findings are in harmony with Lyson and Farrington (2006) that procurement professionals must behave within the context of professional practices such as impartiality/objectivity, openness/full disclosure, confidentiality, duty to care, and avoiding potential or apparent conflict of interest.

On collusion, the majority of county governments, with a mean rate of 4.37, indicated that they avoid collusion with their suppliers. These findings agree with the Public Procurement and Asset Disposal act of 2015 that no procuring entity or person may collude or attempt to collude with the supplier or any person to increase the price; otherwise, the person or supplier should refrain. From submitting the tender, quotation, or proposal. Also, the person or vendor who contravenes the regulation should be disqualified from entering the contract. If the contract has already been entered, the contract may become voidable and debarred in the future from transacting with the procuring entity. Also, the person may be prosecuted.

The study found that the majority of the county governments, with a mean rate of 4.31, ensured that a good received reflects the precise qualities stated in the specifications. This is actualized by cross-examining the product delivered against the sample of the product that was to be delivered. This result agrees with the Public Procurement and Asset Disposal act of 2015, which states that when goods are delivered by vendors, the ad hoc inspection and receiving committee should be constituted by the accounting officer. The committee will ensure that the goods received are well inspected and correspond with the requirements of the specifications.

However, most county governments with a mean of 3.14 agreed that they slice tenders to avoid appropriate procurement processes. This practice of tenders is against the Public Procurement and Asset Disposal act of 2015. The act states that tenders should not be split into appropriate procurement methods.

**Table 4.14: Procurement Ethics Descriptive Statistics Findings**

<b>Opinion statement</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>M</b>	<b>STD</b>
Discourage fake competition	4.8%	4.8%	11.4%	42.8%	36.2%	4.01	1.05
Avoid collusion with suppliers	1.7%	0.0%	3.9%	48.0%	46.3%	4.37	.724
Remove and arbitrariness from bid evaluation process	7.8%	.9%	11.0%	34.4%	45.9%	4.10	1.142
Goods and services received reflect the precise qualities actual delivered	4.4%	2.2%	7.4%	29.7%	56.3%	4.31	1.012
Use to avoid adopting the appropriate procurement process	21.0%	12.1%	21.0%	24.1%	21.9%	3.14	1.437

Key: SD= Strongly Disagree, D= Disagree, N= Neutral, A=Agree, SA= Strongly Agree, M= mean, STD= Standard Deviation

### **4.6.3 Thematic Analysis of Procurement Ethics**

The respondents were asked to suggest ways in which procurement ethics principles can influence the performance of county government. The respondents’ suggestions were grouped into four themes: fair competition, well utilization of funds, high-quality goods, and adherence to the law.

On competition, the respondents suggested that procurement ethics can promote fair competition in the bidding process. This is because procurement ethics would provide equal opportunity for vendors willing to participate in the bidding process and will provide all the information required in the bidding process. Also, the



respondents suggested that procurement ethics would provide county governments with the use of public funds. This can be achieved through equitable sharing of resources within the county governments and ensuring funds are used for the intended purposes. Further, the responses suggested that procurement ethics would ensure good quality goods and services are procured as per specifications, increasing the efficiency and effectiveness of the county governments. In addition, the respondents suggested that procurement ethics can make county governments adhere to rules and regulations as provided by the Public Procurement and Asset Disposal act of 2015. Thus adherence to rules and regulations would prevent county governments from legal tussles.

#### **4.6.4 Correlational Analysis between Procurement Ethics and the Performance of County Governments**

The correlation coefficient is a measure of the linear association between two variables. Values of the correlation coefficient are always between -1 and +1. A correlation coefficient of +1 indicates that two variables are perfectly related in a positive linear sense, a correlation coefficient of -1 indicates that two variables are perfectly related in a negative linear sense, and a correlation coefficient of 0 indicates that there is no linear relationship between the two variables. A correlation coefficient of between 0.0 and 0.19 is considered to be “very weak,” between 0.20 and 0.39 is considered to be “weak,” between 0.40 and 0.59 is considered to be “moderate,” between 0.60 and 0.79 is considered to be “strong” and between 0.80 and 1.0 is considered to be “very strong” (Kothari, 2009).

The study conducted a correlation analysis between the variables using Pearson product-moment correlation coefficient. The correlation Coefficient was used to test whether independent variables were interdependent and whether the independent variables were related to the dependent variable, the performance of county governments. The findings show a strong positive association between procurement ethics and the performance of county governments in Kenya ( $r=0.734$ ,  $p\text{-value}=0.000$ ), as shown in Table 4.15.

**Table 4.15: Correlation Analysis between Procurement Ethics and Performance of County Governments**

		Procurement ethics	Performance of county governments
Procurement ethics	Pearson Correlation Sig. (2-tailed)	1	
Performance of county governments	Pearson Correlation Sig. (2-tailed)	.734**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

#### 4.5.5 Simple linear regression findings of Procurement Ethics

Simple regression was conducted to determine the influence of procurement ethics on the performance of county governments in Kenya. The null hypothesis was:

**H<sub>01</sub>** There is no statistically significant influence between procurement ethics and the performance of county governments in Kenya.

The objective was tested by regressing procurement ethics on the performance of county governments guided by the equation  $Y = \beta_0 + \beta_1 X_1 + \varepsilon$ . From the results in Table 4.16,  $R^2$  for the regression model between procurement ethics and the performance of county governments in Kenya was 0.517 meaning that procurement ethics explain 51.7 % variation in the performance of county governments in Kenya while the remaining variation is explained by the other factors which are not covered in the study.

**Table 4.16: Model Summary of Procurement Ethics**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.747 <sup>a</sup>	.558	.517	.665

a. Predictors: (Constant), Procurement ethics Principle

b. Dependent Variable: Measure of performance of county government

Further test on ANOVA, the regression model was a good fit as indicated by a significant Fstatistic (F=30.698, p<0.05). See Table 4.18.

**Table 4.17: ANOVA of Procurement Ethics Principle**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.563	1	13.563	30.698	.000 <sup>b</sup>
	Residual	98.968	224	.442		
	Total	112.531	225			

a. Dependent Variable: Measure of performance of county government

b. Predictors: (Constant), Procurement ethics Principle

The regression model obtained from the output was

$$\text{Performance} = 2.697 + 0.352 \text{ procurement principle} + \text{error}$$

The standardized regression coefficient for the procurement ethics principle was 0.347. This indicated that a unit increase in the procurement ethics principle would result in a 34.7% increase in the performance of county governments in Kenya. The t-statistic regression coefficient for the procurement ethics principle was significant at a 5% significance (T=5.541, p<0.05), implying rejection of the null hypothesis.

See Table 4.18. Based on these statistics, the study concludes a significant positive relationship between procurement ethics principles and the performance of county governments in Kenya. Hence, the null hypothesis was rejected.

**Table 4.18: Coefficients of Procurement Ethics Principle**

Model	Unstandardized		Standardized		t	Sig.
	Coefficients		Coefficients			
	B	Std. Error	Beta			
1 (Constant)	2.697	.261			10.316	.000
Procurement ethics Principle	.352	.064	.347		5.541	.000

a. Dependent Variable: Measure of performance of county government

## **4.7 Influence of value for money on the performance of county governments in Kenya**

### **4.7.1 Measures used by county governments to support and govern value for money principle**

Respondents were asked to tick the choices given and the appropriate measures their county government took to support and govern the value-for-money principle. Table 4.19 it showed that 47.9 per cent of the county governments have clear policies, 27.1 per cent of the county governments have clear goals, 22.6 per cent of the county governments have put in place clear objectives, and 2.4 per cent of the county governments have clear policies, goals and objectives in place to support and govern value for money principle.

**Table 4.19: Measures used by county governments to support and govern value of money principle**

<b>Measures</b>	<b>Frequency</b>	<b>Percent</b>
Formulation of clear policies	140	47.9
Formulation of clear goals	79	27.1
Formulation of clear objectives	66	22.6
Formulation of clear policies, formulation of clear goals, formulation of clear objectives	7	2.4
<b>Total</b>	<b>292</b>	<b>100.0</b>

#### **4.7.2 Value for Money Descriptive Statistics Findings**

The study sought to establish the influence of value for money on the performance of county governments in Kenya. This objective was measured using opinion statements on the Likert scale of 1 to 5. Respondents were asked to indicate the extent to which they agreed with value-for-money opinion statements that are executed in the county governments. This was on a Likert scale of (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree). The result of the analysis is presented in Table 4.20.

The study established that the majority of the county governments in Kenya, with a mean rate of 4.41, have fairly adopted the public procurement and asset disposal act of 2015. Adopting the public procurement and asset disposal act of 2015 has enabled the county government to conduct public procurement anchored on the rules and regulations. Similarly, the result indicated that most of the county governments in Kenya, with a mean of 4.02, have discouraged fake competition.

These findings are in harmony with the public procurement and asset disposal act of 2015, which clearly states that Procuring Entities should consider the seasonality in prices, especially where it pertains to the procurement of commodities and

discourage the use of the practice of fake competition, which may be easily identified by watching out for separate bids showing identical spelling errors, similar signatures and identical phone numbers.

The study found that most county governments in Kenya, with a mean rate of 3.99, have used the aggregation method where it is appropriate to take advantage of economies of scale. These findings agree with the public procurement and asset disposal act of 2015 which states that a procuring entity should use methods of aggregation, where appropriate, to take advantage of economies of scale and more efficiently utilize the better risk of mitigation procurement methods.

Based on costs, the study established that most county governments in Kenya, with a mean rate of 3.73, have used life cycle cost in considering and selecting procurement alternatives. These findings concurred with the public procurement and asset disposal act of 2015 that due considerations must be taken into storage costs such as warehousing costs, insurance costs, distribution costs and any other risks that are likely to be experienced.

Equally, on prices, the study showed that the majority of county governments in Kenya, with a mean rate of 3.73, considered seasonality and other factors that might affect the prices of goods to be procured. These results are in agreement with the study of Palmer and Butt (1985), which established that value for money may entail so many factors such as the price of the items, quality of items, timely delivery, terms of payments, permissible discounts, and it is very important to understand the implications it has for the public sector and therefore, substantial savings of public funds can be achieved if Procuring Entities are diligent applying value for money and economic efficiency principles diligently.

**Table 4.20: Value for Money Descriptive Statistics Findings**

<b>Statements</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>M</b>	<b>STD</b>
Adoption of fair completion in public procurement act	2.6%	1.3%	5.7%	33.5%	56.8%	4.41	.869
Discourage fake competition	3.9%	7.0%	9.2%	42.8%	37.1%	4.02	1.049
Use aggregation where appropriate in order to take advantage of economies of scale	3.1%	8.3%	11.0%	41.7%	36.0%	3.99	1.041
Use of life cycle costs in considering and selecting procurement alternatives	2.7%	5.3%	33.2%	34.1%	24.8%	3.73	.981
Considering seasonality in prices especially where it pertains to procurement of commodities	8.4%	14.6%	7.5%	34.1%	35.4%	3.73	1.307

Key: SD= Strongly Disagree, D= Disagree, N= Neutral, A=Agree, SA= Strongly Agree, M= mean, STD= Standard Deviation

### **4.7.3 Thematic Analysis of Value for Money**

Further, respondents were asked to suggest ways in which the value for money principle can influence the performance of county governments. The respondents' suggestions were grouped into four themes: adherence to the rules and regulations, proper utilization of funds, training various stakeholders and stakeholders' involvement. Concerning adherence to rules and regulations, the respondents indicated that the county governments should follow strict rules and regulations when procuring goods and services. They also use appropriate procurement methods as provided in the public procurement and asset disposal act of 2015, avoiding misuse of funds, ensuring fair dealings and strictly adhering to signed contracts.

Equally, on utilization of funds, the respondents suggested that county governments have embarked on reducing overhead costs, avoiding unnecessary spending to avoid public funds wastage, reducing lead time, acquiring high-quality products and completing projects on time. Respondents indicated that the county governments had trained their staff, suppliers and other stakeholders on the best ways of reducing wastage and improving productivity. The county governments have also trained suppliers on ethical issues as provided by the public procurement and asset disposal act of 2015 and hence have improved the moral values of suppliers. Additionally, the respondents suggested that county governments have always incorporated all stakeholders when making major decisions that are likely to affect them directly or indirectly.

#### **4.7.4 Correlational Analysis between Value for Money and the Performance of County Governments**

The study conducted a correlation analysis between the variables using Pearson product-moment correlation coefficient. The correlation Coefficient was used to test whether interdependency existed between independent variables and whether the independent variables were related to the dependent variable, the performance of county governments. From the findings, it was noted that there was a strong positive association between value for money and the performance of county governments in Kenya ( $r=0.631$ ,  $p\text{-value}=0.000$ ), as shown in Table 4.21.



**Table 4.21: Correlation Analysis between value for money and Performance of County Governments**

		<b>Value for money</b>	<b>Performance of county governments</b>	
Value for money	Pearson Correlation Sig. (2-tailed)		1	
Performance of county governments	Pearson Correlation Sig. (2-tailed)		.631** .000	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**4.7.5**

**Simple linear regression findings of Value for Money**

Simple regression was conducted to establish the influence of value for money on the performance of county governments in Kenya. The null hypothesis was:

**H02** There is no statistically significant influence between value for money and the performance of county governments in Kenya.

The objective was tested by regressing the value for money on the performance of county governments guided by the equation  $Y = \beta_0 + \beta_1 X + \epsilon$ . From the results in Table 4.22, R<sup>2</sup> for the regression model between value for money and the performance of county governments in Kenya was 0.596, meaning that value for money explains 59.6 % variation in the performance of county governments in Kenya. In contrast, the remaining variation is explained by the other factors not covered in the study.

**Table 4.22: Model Summary of Value for Money**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
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1	.716 <sup>a</sup>	.610	.596	.672
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a. Predictors: (Constant), Value for money principle

b. Dependent Variable: Measure of performance of county government

Additional test on ANOVA, the regression model was a good fit as indicated by a significant Fstatistic (F=24.851, p<0.05). See Table 4.23.

**Table 4.23: ANOVA of Value for Money**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.238	1	11.238	24.851	.000 <sup>b</sup>
	Residual	101.293	224	.452		
	Total	112.531	225			

a. Dependent Variable: Measure of performance of county government

b. Predictors: (Constant), Value for money principle

The regression model obtained from the output was

$$\text{Performance} = 2.951 + 0.292 \text{ Value for money} + \text{error}$$

The regression coefficient for the value for money principle was 0.316. This indicated that a unit increase in the value for money principle would result in a 31.6% increase in the performance of county governments in Kenya. The t-statistic for the regression coefficient for the value for money principle was significant at a 5% significance (T=4.985, p<0.05), implying rejection of the null hypothesis. See Table 4.24.

Based on these statistics, the study concludes a significant positive relationship between the value for money principle and the performance of county governments in Kenya. Hence, the null hypothesis was rejected.

**Table 24: Coefficients of value for Money**

<b>Model</b>	<b>Unstandardized</b>		<b>Standardized</b>		
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>	<b>t</b>	<b>Sig.</b>
1 (Constant)	2.951	.239		12.326	.000
Value for money principle	.292	.059	.316	4.985	.000

a. Dependent Variable: Measure of performance of county government

## **4.8 Influence of Competitive Tendering on the Performance of County Governments in Kenya**

### **4.8.1 Measures used by County Governments to support and govern Competitive Tendering Principle**

Respondents were asked to tick the choices given and the appropriate measures their county government took to support and govern the competitive tendering principle. From Table 4.25, it was found that 66.1 per cent of the county governments had formulated clear policies, 16.8 per cent of the county governments had formulated clear objectives, 16.1 per cent of the county governments had formulated clear goals, and 1.0 per cent of the county governments had formulated clear policies, goals and objectives.

**Table 4.25: Measures used by county governments to support and govern competitive tendering**

<b>Statements</b>	<b>Frequency</b>	<b>Percent</b>
Formulation of clear policies	201	66.1
Formulation of clear goals	49	16.1
Formulation of clear objectives	51	16.8
Formulation of clear policies, formulation of clear goals, formulation of clear objectives	3	1.0
<b>Total</b>	<b>304</b>	<b>100.0</b>

#### **4.8.2 Competitive Tendering Descriptive Statistics Findings**

The study sought to analyze the influence of competitive tendering on the performance of county governments in Kenya. This objective was measured using opinion statements provided in the Likert scale of 1 to 5. Respondents were asked to indicate the extent to which they agreed with competitive tendering opinion statements executed by the county governments. This was on a Likert scale of (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree). The result of the analysis is presented in Table 4.26.

The study noted that the majority of the county governments, with a mean rate of 4.56, strongly agreed that they had evaluation committees to evaluate suppliers. These findings agree with the public procurement and asset disposal act of 2015 that the evaluation committee should be constituted by the accounting officer of the procuring entity ad hoc. This committee would evaluate technical and financial aspects and negotiate the bids. Equally, the study established that most county governments, with a mean rate of 4.49, had adopted open tendering for procuring goods and services. This method provides equal chances for potential suppliers to participate and is the most preferred procurement method. Similarly, the study noted that the majority of the county governments, with a mean of 3.92, select suppliers based on factors such as finance, past performance, capacity, and tax compliance as set out in the public procurement and asset disposal act of 2015.

Also, the study found that most county governments, with a mean of 4.59, used an advertisement method to invite and provide required information to potential suppliers. The public procurement and asset disposal act of 2015 provides that if the estimated value of goods, services and works is equal to or more than the prescribed threshold, the procuring entity should advertise the tender in the government portal or its website or most circulated newspapers in a period not less than 21 days for local tender and not less than 40 days for international tenders. Further, the study noted that the county governments, with a mean of 4.46, award tenders to the most competitive bidders. The study findings concurred with the public procurement and asset disposal act of 2015 that a successful tender is the one with the lowest evaluated price, the highest score by combining the technical and financial aspects, the lowest evaluated total cost of ownership and tender with the highest technical score if it was evaluated using the procedures provided by the act of parliament.

**Table 4.26: Competitive Tendering Descriptive Statistics Findings**

<b>Opinion statements</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>M</b>	<b>STD</b>
Evaluation committee for evaluation of suppliers	0.0%	1.3%	6.6%	24.3%	67.7%	4.56	.805
Open tendering method for inviting suppliers	0.0%	0.0%	6.6%	38.1%	55.3%	4.49	.620
Suppliers credibility in carrying out previous contracts awards	1.3%	7.1%	18.6%	44.2%	28.8%	3.92	.935
Use advertisement as source of information of suppliers	1.3%	2.2%	2.7%	23.5%	70.4%	4.59	.768
Award tender to the most competitive bidder	0.0%	5.8%	5.3%	26.2%	62.7%	4.46	.839

Key: SD= Strongly Disagree, D= Disagree, N= Neutral, A=Agree, SA= Strongly Agree, M= mean, STD= Standard Deviation

### **4.8.3 Thematic analysis of Competitive Tendering**

Additional results of thematic analysis, the respondents were asked to suggest ways in which the competitive tendering principle can influence the performance of county governments. The respondents' suggestions were grouped into an increase in competition, a reduction in fraud and an increase in public participation. On completion, the respondents suggested that competitive tendering assist county governments in delicate negotiations and gives them the bargaining power since they have a pool of suppliers to compare. Competitive tendering helps them to instill trust with the public and gives them a fair chance to participate in the tendering process.

Based on fraud reductions, the respondents suggested that competitive tendering assists county governments in enhancing accountability and building public confidence because tenders' awards are done fairly and transparently. Equally, through competitive tendering, all stakeholders are involved in tendering processes, members are provided with the necessary information required in the tendering process and equal opportunity to the potential suppliers.

### **4.8.4 Correlational analysis between Competitive Tendering and the Performance of County Governments**

The study conducted a correlation analysis between the variables using Pearson product-moment correlation coefficient. The correlation Coefficient was used to test whether interdependency existed between independent variables and whether the independent variables were related to the dependent variable, the performance of county governments. The findings noted that there was a strong positive association between competitive tendering and the performance of county governments in Kenya ( $r=0.749$ ,  $p\text{-value}=0.000$ ), as shown in Table 4.27.

**Table 4.27: Correlation Analysis between Competitive Tendering and Performance of County Governments**

		Competitive tendering	Performance of county governments
Competitive tendering	Pearson Correlation	1	
	Sig. (2-tailed)		
Performance of county governments	Pearson Correlation	.749**	1
	Sig. (2-tailed)	.000	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

#### **4.8.5 Simple linear regression findings of Competitive Tendering**

Simple regression was conducted to establish the influence of competitive tendering on the performance of county governments in Kenya. The null hypothesis was:

**H<sub>03</sub>** There is no statistically significant influence between competitive tendering and the performance of county governments in Kenya.

The objective was tested by regressing competitive tendering on the performance of county governments guided by the equation  $Y = \beta_0 + \beta_3 X_3 + \varepsilon$ . From the results in Table 4.28,  $R^2$  for the regression model between competitive tendering and the performance of county governments in Kenya was 0.630 meaning that competitive tendering explain 63.0 % variation in the performance of county governments in Kenya while the remaining variation is explained by the other factors which are not covered in the study.

**Table 4.28: Model Summary of Competitive Tendering**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.890 <sup>a</sup>	.780	.630	.703

a. Predictors: (Constant), Competitive tendering principle

Additional test on ANOVA, the regression model was a good fit as indicated by a significant Fstatistic (F=24.851, p<0.05). See Table 4.29.

**Table 4.29: ANOVA of Competitive Tendering**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	5.823	1	5.823	11.765	.018 <sup>b</sup>
Residual	109.324	224	.495		
Total	110.197	225			

a. Dependent Variable: Measure of performance of county government

b. Predictors: (Constant), Competitive tendering principle

The regression model obtained from the output was

$$\text{Performance} = 3.662 + 0.102 \text{ Competitive tendering} + \text{error}$$

The regression coefficient for the competitive tendering principle was 0.089. This indicated that a unit increase in the competitive tendering principle would result in an 8.9% increase in the performance of county governments in Kenya. The t-statistic for the regression coefficient for the competitive tendering principle was significant at a 5% level of significance (T=4.328, p<0.05), implying rejection of the null hypothesis. See Table 4.24. Based on these statistics, the study concludes a significant positive relationship between competitive tendering and the performance of county governments in Kenya. Hence, the null hypothesis was rejected.



**Table 4.30: Coefficients of Competitive Tendering**

<b>Model</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>		<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>	<b>t</b>	
1 (Constant)	3.662	.342		10.715	.000
Competitive tendering principle	.102	.077	.089	4.328	.018

a. Dependent Variable: Measure of performance of county government

## **4.9 Influence of Transparency on the Performance of County Governments in Kenya**

### **4.9.1 Measures used by county governments to support and govern transparency principle**

Respondents were asked to tick the appropriate chooses given in measuring the support and governing transparency principle in the county governments. From the Table 4.31, the study showed that 45.2 percent of the county governments had clear policies, 28.9 percent the county governments had clear goals, 19.7 percent the county governments had clear objectives and 2.4 percent the county governments had clear policies, goals and objectives.

**Table 4.31: Measures used by county governments to support and govern Transparency**

<b>Statements</b>	<b>Frequency</b>	<b>Percent</b>
Formulation of clear policies	133	45.2
Formulation of clear goals	85	28.9
Formulation of clear objectives	58	19.7
Formulation of clear policies, formulation of clear goals , formulation objectives	7	2.4
<b>Total</b>	<b>294</b>	<b>100.0</b>

#### **4.9.2 Transparency Descriptive Statistics Findings**

The study sought to examine the influence of transparency on the performance of county governments in Kenya. This objective was measured using opinion statements on the Likert scale of 1 to 5. Respondents were asked to indicate the extent to which they agreed with transparency opinion statements executed in the county governments. This was on a Likert scale of (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree). The result of the analysis is presented in Table 4.32.

The study revealed that the majority of the county governments, with a mean rate of 4.44, had promoted transparency by keeping appropriate procurement records. These findings are in harmony with Economic Cooperation and Development (2009), which observed that procurement records should be kept well and in case of reference is needed, they can be produced. Also, the study established that the county governments, with a mean rate of 4.43, had a record on procurement procedures. These findings concurred with the study of Rothery (2003), who noted that international best procurement practices recognize that transparency can be achieved through establishing clear practices, consistent regulations, and public tendering.

Further, the study observed that most county governments, with a mean rate of 4.38, promote transparency by publishing contracts awarded. Economic Cooperation and Development (OECD, 2009) observed that conditions for participation, such as selection and award criteria, as well as the deadline for submission, should be established in advance but openly and transparently. In addition, the public procurement and asset disposal act of 2015 states that a public entity should give adequate information to potential bidders by publishing to provide sufficient time for potential suppliers to prepare tenders and record them in writing to ensure a level playing, hence promoting transparency.

Similarly, the study observed that the majority of the county governments, with a mean rate of 4.31, promote transparency through all communication between procuring entities and the bidders. All information required to procure goods and services should be provided to the potential bidders. Any information withheld will

disadvantage the bidders (PPADA, 2015). Further, the study established that majority of the county governments, with a mean rate of 4.3, promote transparency through technology. Technology assists procuring entities in disseminating the required information to bidders and other stakeholders. Technology will also help county governments disseminate information in real-time. The public procurement and asset disposal act of 2015 states that all public procuring entities should advertise the tenders through their websites or government portals to access information easily. Also, the county governments must install an e-procurement system to improve transparency.

**Table 4.32: Transparency descriptive statistics findings**

<b>Opinion statements</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>M</b>	<b>STD</b>
Promote transparency through the appropriate recording of procurement procedures	1.7%	4.8%	1.3%	32.8%	59.4%	4.43	.879
Promote transparency through maintaining a complete record of procurement procedures	0.0%	2.6%	9.6%	29.3%	58.5%	4.44	.773
Promote transparency through publication of contract awards	0.0%	0.0%	15.3%	31.0%	53.7%	4.38	.738
Promote transparency through writing of all communication between procuring entity and bidders	0.0%	3.1%	10.0%	40.2%	46.7%	4.31	.774
Promote transparency through use of technology ie internet to disseminate information required suppliers and public	1.7%	8.3%	8.3%	21.8%	59.8%	4.30	1.043

Key: SD= Strongly Disagree, D= Disagree, N= Neutral, A=Agree, SA= Strongly Agree, M= mean, STD= Standard Deviation

### 4.9.3 Thematic Analysis of Transparency

Additional results of thematic analysis, the respondents were asked to suggest ways in which transparency principle can influence the performance of county governments. The respondents suggested that enhances accountability and creates high levels of integrity, enhances efficient communication between procuring entities and bidders, ensures that all procurement contractors are above board, ensures that there is fair dealings between parties and it crates builds confidence in the public domain.

### 4.9.4 Correlational analysis between Transparency and the Performance of County Governments

The study carried out correlation analysis between the variables of the study using Pearson product-moment correlation coefficient. Correlation Coefficient was used to test whether there existed interdependency between independent variables and also whether the independent variables were related to the dependent variable, performance of county governments. From the findings, it was noted that there was a strong positive association between transparency and performance of county governments in Kenya ( $r=0.720$ ,  $p\text{-value}=0.000$ ) as shown in Table 4.33.

**Table 4.33: Correlation Analysis between Transparency tendering and Performance of county governments**

Construct(s)	Transparency	Performance of county governments
Transparency	Pearson Correlation	1
	Sig. (2-tailed)	
Performance of county governments	Pearson Correlation	.720**
	Sig. (2-tailed)	.000

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**4.9.5**

**Simple**

### linear regression findings of Transparency

Simple regression was conducted to establish the influence of transparency on the performance of county governments in Kenya. The null hypothesis was:

**H<sub>04</sub>** There is no statistically significant influence between transparency and the performance of county governments in Kenya.

The objective was tested by regressing transparency on the performance of county governments guided by the equation  $Y = \beta_0 + \beta_4 X_4 + \varepsilon$ . From the results in Table 4.34,  $R^2$  for the regression model between transparency and the performance of county governments in Kenya was 0.539 meaning that transparency explained 53.9 % variation in the performance of county governments in Kenya while the remaining variation is explained by the other factors which are not covered in the study.

**Table 4.34: Model Summary of Transparency**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.720 <sup>a</sup>	.643	.539	.693

a. Predictors: (Constant), Transparency practice

Additional test on ANOVA, the regression model was a good fit as indicated by a significant Fstatistic ( $F=24.851$ ,  $p<0.05$ ). See Table 4.35.

**Table 4.35: ANOVA of Transparency**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.827	1	4.827	10.039	.002 <sup>b</sup>
	Residual	107.704	224	.481		
	Total	112.531	225			

a. Dependent Variable: Measure of performance of county government

b. Predictors: (Constant), Transparency practice

The regression model obtained from the output was

$$\text{Performance} = 3.195 + 0.211 \text{ Transparency} + \text{error}$$

The regression coefficient for transparency principle was 0.207. This indicated that a unit increase in the transparency principle would result in 20.7% increase in the performance of county governments in Kenya. The t-statistic for the regression coefficient for transparency principle was significant at 5% level of significance (T=4.328, p<0.05) implying rejection of null hypothesis. See Table 4.36. On the basis of these statistics, the study concludes that there is significant positive relationship between transparency and performance of county governments in Kenya. Hence, null hypothesis was rejected.

**Table 4.36: Coefficients of Transparency**

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	3.195	.297			10.762	.000
Transparency practice	.211	.067	.207		3.169	.002

a. Dependent Variable: Measure of performance of county government

#### 4.10 Multiple Regression Model Findings

The following model was used;

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

The regression analysis shows a positive relationship,  $R^2=0.561$  which shows that 56.1 percent of change in performance of county governments in Kenya can be explained by a change of one unit of all the predictor variables jointly as shown on Table 4.37.

**Table 4.37: Model Summary of overall regression**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.734 <sup>a</sup>	.614	.561	.639

a. Predictors: (Constant), Top management support, Procurement ethics Principle, Competitive tendering principle, Value for money principle, Transparency practice

Further test on ANOVA shows that the significance of the F-statistic (11.576) is less than 0.05 since p value,  $p=0.00$ , as indicated in Table 4.38.

**Table 4.38: ANOVA of overall regression model**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	23.620	5	4.724	11.576	.000 <sup>b</sup>
Residual	86.513	220	.408		
Total	110.133	225			

a. Dependent Variable: Measure of performance of county government

b. Predictors: (Constant), Top management support, Procurement ethics Principle, Competitive tendering principle, Value for money principle, Transparency practice

Additional test on coefficients in Table 4.39, the study showed that there is a positive significant relationship between procurement principles and Performance of county governments in Kenya. Thus, procurement ethics, value for money, competitive tendering and transparency influence performance of county governments in Kenya.

**Table 4.39: Coefficients of overall regression model**

Model	Unstandardized		Standardized		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	1.457	.455		3.201	.002
Procurement ethics Principle	.232	.067	.228	3.474	.001
Value for money principle	.214	.064	.229	3.332	.001
Competitive tendering principle	-.161	.089	-.132	1.804	.073
Transparency practice	.092	.076	.090	1.205	.229
Top management support	.275	.089	.215	3.076	.002

a. Dependent Variable: Measure of performance of county government

#### **4.11 Moderating effect of top management support and the relationship between performance of county in Kenya**

##### **4.11.1 Moderating effect of Top Management Support Descriptive Statistics Findings**

The study sought to examine the moderating effect of top management support and the relationship between procurement principles and the performance of county governments in Kenya. This objective was measured using opinion statements provided in the likert scale of 1 to 5. Respondents were asked to indicate the extent to which they agreed with the effect of top management support and the relationship between procurement principles and performance of county governments. This was on a likert scale of (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree). A result of the analysis is presented in Table 4.40.



From the study findings, majority of the county governments with a mean rate of 4.1, integrate procurement principles and overall organizational strategies. These results are in agreement the study of Holt and Ghobadian (2009) who observed that the accounting officer of procuring entities should come up with strategic values of counties and integrate public procurement principles with the organization's strategy and strategy formulation for reaching a competitive advantage.

Also, the study established that majority of the county governments with a mean rate of 4.4; disseminate best public procurement principles values of the organization in order to increase the performance of the county governments. These findings concurred with the study of Wu and Pagell, (2011) noted that top management can help organizations to navigate information uncertainty and provide decision guidelines to be cascaded down in the organization structure.

Similarly, the study observed that majority of the county governments with a mean rate of 4.1, assist devolved governments to navigate information uncertainty and provide decision guideline. Also, majority of the county governments with a mean rate of 4.0 agreed that they trade-off carefully between the interest of public and personal interest. This is important because personal interest may affect the operations the county governments if no carefully handled. These findings are in harmony the study of Kalubanga (2012) who found that managerial support might be a barrier to achieving good organizational performance if the management pursue personal interests and therefore the managers to shade of their personal interest. Equally, the study established that majority of the county governments with a mean of 4.3 agreed that they emphasize on putting public procurement best principles in the strategic plan. Oyuke and Shale (2014) in their study revealed that organizational performance can increase if good leadership is provided by the top management.

**Table 4.40: Moderating effect of Top Management Support Descriptive Statistics Findings**

<b>Opinion statements</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>M</b>	<b>STD</b>
Integrate best public procurement principles in an organizational strategy	1.4%	3.2%	5.5%	61.6%	28.3%	4.1	.759
Dissemination of public procurement best principles values of the organization	0.0%	.9%	12.1%	33.5%	53.6%	4.4	.732
Helping organization to navigate information uncertainty and provide decision guideline	0.0%	.4%	10.3%	63.8%	25.4%	4.1	.597
Trading-off the interest of public when pursuing conflicting procurement of goods and services	1.3%	.4%	24.2%	35.4%	38.6%	4.0	.873
Emphasize on strategic nature of public procurement best principles and should be proactive	0.0%	1.8%	11.2%	42.2%	44.8%	4.3	.738

Key: SD= Strongly Disagree, D= Disagree, N= Neutral, A=Agree, SA= Strongly Agree, M= mean, STD= Standard Deviation

#### **4.11.2 Multiple Regression Model of Overall Moderating influence on Top Management Support and the influence between Procurement Principles and Performance of County Governments**

The fifth objective was to evaluate the moderating effect of top management support and the relationship between procurement principles and performance of the county

governments in Kenya in Kenya. The research hypothesis formulated from the specific research objective was

**H0<sub>5</sub>** Top management statistically does not affect the influence between public procurement principles and the performance of county governments in Kenya.

The R<sup>2</sup> for model one was 0.524 implying that top management support, procurement ethics, competitive tendering, value for money and transparency principle jointly explain 52.4% variation in performance of county governments in Kenya.

**Table 4.41: Model Summary of overall moderating effect of top management support and the relationship between procurement principles and performance of county government**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.970 <sup>a</sup>	.747	.524	.647
2	.701 <sup>b</sup>	.619	.530	.540

a. Predictors: (Constant), Top management support, Procurement ethics Principle, Competitive tendering principle, Value for money principle, Transparency principle,

b. Predictors: (Constant), Top management support, Procurement ethics Principle, Competitive tendering principle, Value for money principle, Transparency principle, Top management support and procurement ethics, Top management support and competitive tendering, Top management support and value for money, Top management support and transparency

Further test on ANOVA, it indicated that the regression model one is a good fit as indicated by the significant F-statistic (F value =12.141, p<0.05). Upon introduction of the interaction term presented as model 2, the model is still significant (Fvalue=20.494, p<0.05) inferring that top management support significantly moderates the relationship between procurement principles and performance of county governments in Kenya. See Table 4.42.

**Table 4.42: ANOVA of overall moderating effect of top management support and the relationship between procurement principles and performance of county government**

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	32.564	5	5.427	12.141	.000 <sup>b</sup>
1	Residual	99.256	220	0.447		
	Total	131.82	225			
	Regression	52.673	9	5.267	20.494	.000 <sup>c</sup>
2	Residual	79.148	216	0.257		
	Total	131.82	225			

a. Dependent Variable: Measure of performance of county government

b. Predictors: (Constant), Top management support, Procurement ethics Principle, Competitive tendering principle, Value for money principle, Transparency principle,

c. Predictors: (Constant), Top management support, Procurement ethics Principle, Competitive tendering principle, Value for money principle, Transparency principle, Top management support and procurement ethics, Top management support and competitive tendering, Top management support and value for money, Top management support and transparency

The results indicate that the inclusion of the interaction term resulted into an R<sup>2</sup> change of 0.530, showing presence of significant moderating effect. This implies that the moderating effect of top management support gained 53.0% variance in the performance of county governments in Kenya, above and beyond the variance by procurement principles. Thus the study rejects the null hypothesis.

Model 2 revealed the details of the inclusion of the interactive term in the model. Procurement ethics was found to be significant ( $p < 0.05$ ,  $B = 0.273$ ), competitive tendering was found to be significant ( $p < 0.05$ ,  $B = 0.095$ ), value for money was found to be significant ( $p < 0.05$ ,  $B = 0.223$ ), transparency was found to be significant ( $p < 0.05$ ,  $B = 0.007$ ), top management support was found to be significant ( $p < 0.05$ ,  $B = 0.416$ ), Top management support and procurement ethics was found to be

significant ( $p < 0.05$ ,  $B = 0.055$ ), Top management support and competitive tendering was found to be significant ( $p < 0.05$ ,  $B = 0.188$ ), Top management support and value for money was found to be significant ( $p < 0.05$ ,  $B = 0.265$ ) and Top management support and transparency was also found to be significant ( $p < 0.05$ ,  $B = 0.44$ ).

The regression model obtained from the moderated effect of top management support was;

PERFORMANCE =  $.996 + 0.248$  Procurement ethics  $+ .255$  Competitive tendering  $+ 0.092$  Value for money  $+ .034$  Transparency  $+ .376$  Top management support and procurement ethics  $+ .068$  Top management support and competitive tendering  $+ .171$  Top management support and value for money  $+ .185$  Top management support and transparency. See Table 4.43.

**Table 4.43: Coefficients of overall moderating effect of top management support and the relationship between procurement principles and performance of county government**

Model	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
1 (Constant)	1.069	.545		1.963	.051
Procurement ethics Principle	.267	.080	.247	3.334	.001
Value for money principle	.212	.074	.222	2.851	.005
Competitive tendering principle	.162	.101	-.131	-1.602	.111
Transparency practice	.046	.091	.042	.512	.609
Top management support	.375	.104	.282	3.604	.000
2 (Constant)	.859	.470		1.828	.069
Procurement ethics Principle	.273	.075	.253	3.638	.000
Value for money principle	.223	.067	.233	3.307	.001
Competitive tendering principle	.095	.089	-.077	-1.070	.086
Transparency practice	.007	.078	-.007	-.095	.024
Top management support	.416	.088	.313	4.737	.000
Top management support and govern procurement ethics practice	.055	.079	.052	.696	.088
Top management support and value of money principle	.188	.061	-.226	-3.054	.003
Top management support and competitive tendering principle	.265	.077	-.283	-3.430	.001
Top management support and transparency in your principle company	.440	.059	.542	7.509	.000

a. Dependent Variable: Measure of performance of county government

#### **4.12 Measure of Performance of County Governments Descriptive Statistics Findings**

The respondents were asked to indicate the level to which they agreed or disagreed the opinion statements provided in the likert scale with regard to measurement of performance of county governments in Kenya. This was on a likert scale of (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree). A result of the analysis is presented in Table 4.44.

From the study, it was established that majority of the county governments with a mean rate of 3.8 had put in place procurement strategy of reducing transaction costs. Also, the study noted that majority of the county governments with a mean rate of 4.04 used procured strategy that reduces purchase order process cycle times. Equally, majority of the county governments with a mean rate of 4.17 adopted procurement strategy that drove the lowest possible purchase price. Similarly, majority of the county governments used procurement strategies which identified sources of high quality products and simplified procurement processes for adopting changing business dynamics. These findings are in harmony with the study of Richardson and Sevenesson (2018), who noted that procurement performance can be measured by driving the lowest possible purchase price, identifying sources of high-quality products/services, simplifying the purchasing and supply management processes, and reducing transaction costs. In addition, a leading consulting firm reported that companies use strategies to reduce transaction costs, purchase price, purchase order processing cycle times, and to speed up the time-to-market cycles are common measurement of procurement performance

**Table 4.44: Measure of Performance Descriptive Statistics Findings**

<b>Opinion statements</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>M</b>	<b>STD</b>
Use of procurement strategy to reduce transaction cost	1.3%	13.3%	8.4%	51.8%	25.2%	3.86	.986
Use of procurement strategy that reduce purchase order process cycle times	6.6%	5.8%	13.7%	32.7%	41.2%	4.04	1.678
Use of procurement strategy in driving the lowest possible purchase price	0.0%	1.8%	14.6%	48.7%	35.0%	4.17	.735
Use of procurement strategy that identify sources of high quality products/services	.9%	3.6%	19.8%	24.8%	50.9%	4.21	.944
Use of a procurement strategy that simplifies the procurement and supply management process	0.0%	11.5%	8.4%	28.3%	51.8%	4.20	1.012

Key: SD= Strongly Disagree, D= Disagree, N= Neutral, A=Agree, SA= Strongly Agree, M= mean, STD= Standard Deviation

Further, the respondents were asked to rate the performance of the county government since 2013 to 2017 using the indicators provided in the Table 4.45. From the study findings, it was noted that the rate of procurement productivity has been gradually improving since 2015 to 2019. This is because most of the county governments when were formed majority of them came up with strategic plans which are slowly being implemented. Equally, the quality of goods and service delivery had been gradually increasing since 2015 to 2019. This is because when the county governments were formed most of them were struggling to put in place infrastructures and governance offices. Thus majority of them did not focus fully in



service delivery but at time has passed majority of them have put up necessary infrastructure and they are concentrating on the service delivery.

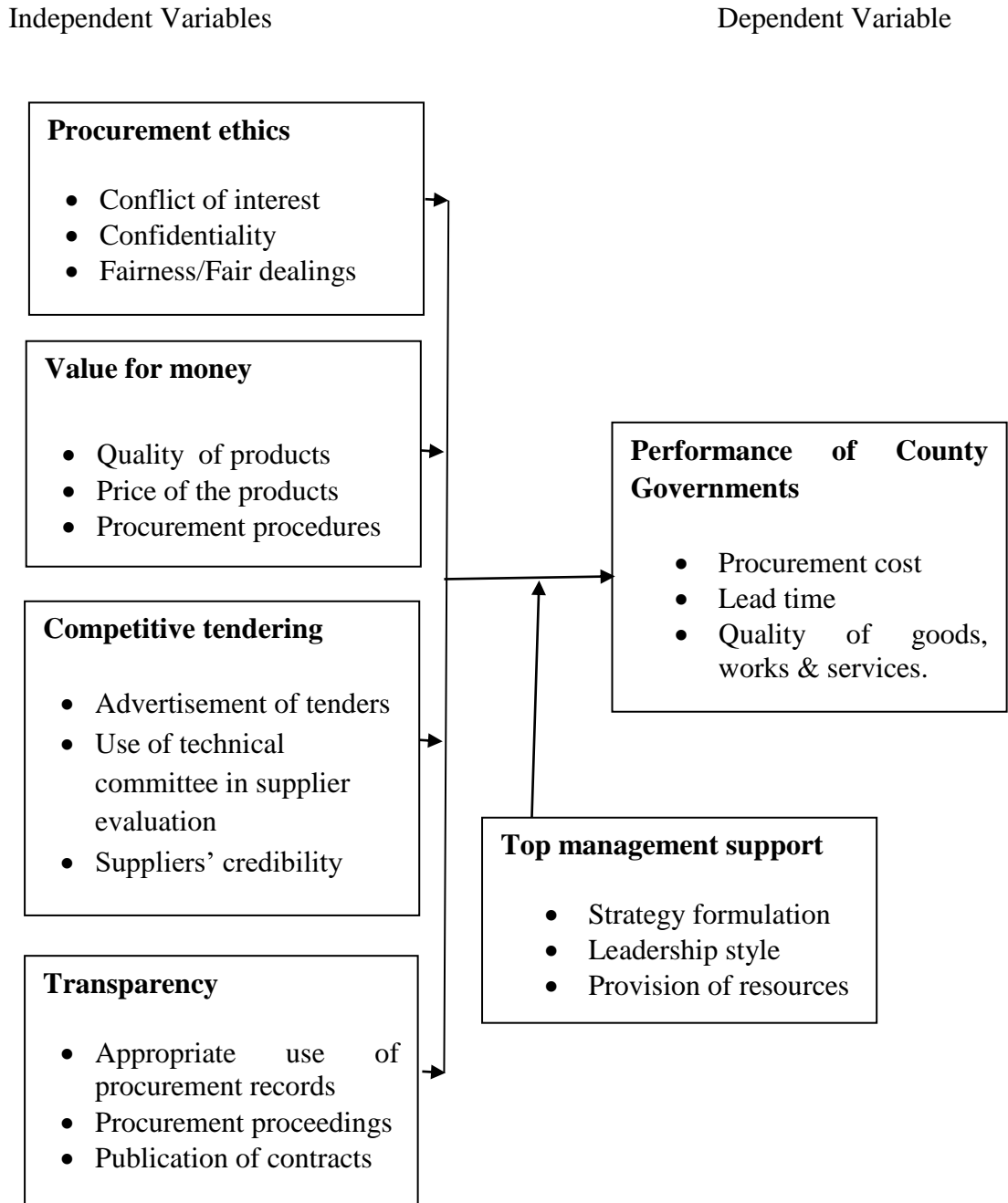
On customer satisfaction index, has been steadily on the increase since 2015 to 2019 and it was a good show that citizens have real embraced the county governments because of the mega projects which have undertaken in the county governments and it has improved the standards of living.

**Table 4.45: Measure of performance of county governments from 2015-2019**

<b>Measure of performance of Counties</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Procurement cost saved	47.87	52.19	54.75	61.82	68.28
Quality of goods, services and works offered and supplied	54.96	61.53	68.26	72.07	77.70
Goods, services and works supplied and completed just in time	52.71	54.04	59.11	66.43	85.57

### 4.13 Revised Optimal Model

From the study findings, the revised study model is shown in figure 4.7



**Figure 4.7: Revised optimal model**

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter provides a summary of the major findings of this study. Also, it sets to draw conclusions and make recommendations for practice and suggestions for further research based on the results of this study.

#### **5.2 Summary**

The general objective of this study was to investigate the influence of public procurement principles on the performance of county governments in Kenya. The following specific objectives guided the study: to determine the influence of procurement ethics on the performance of county governments in Kenya; to establish the influence of value for money on the performance of county governments in Kenya; to analyze the influence of competitive tendering on the performance of county governments in Kenya; to examine the influence of transparency on the performance of county governments in Kenya and to evaluate the moderating influence of top management support on the relationship between public procurement principles and the performance of county governments in Kenya.

##### **5.2.1 Influence of procurement ethics on the performance of county governments in Kenya**

From the reviewed literature, Procurement ethics are generally accepted principles and rules of conduct that govern a given industry. From the study findings, it was established that the majority of the county government discourages fake competition, avoids collusion with their suppliers and ensures that goods received reflect the specific qualities stated in the specifications. However, most county governments agreed to slice tenders to avoid appropriate procurement.

Further, the study revealed that procurement ethics in the county governments promote fair competition in the bidding process. This is because procurement ethics

provide equal opportunity for vendors who participate in the bidding process and provide all the information required in the bidding process. Also, the study found that procurement ethics provided the county governments with the use of public funds through the equitable sharing of resources within the county governments and ensured funds were used for the intended purposes. In addition, the study established that procurement ethics ensured a good quality of goods and services procured as per specifications, increasing the efficiency and effectiveness of the county governments.

Also, the study found that procurement ethics strongly correlated with the performance of county governments in Kenya. Further, the regression result showed that procurement ethics explained some variation in the performance of county governments in Kenya, and the regression model was a good fit. Also, the standardized regression coefficient for procurement ethics indicated that a unit increase in procurement ethics would increase the performance of county governments in Kenya. Thus procurement ethics was statistically significant, and the null hypothesis was rejected.

### **5.2.2 Influence of value for money on the performance of county governments in Kenya**

Based on the study findings, it was established that the majority of the county governments in Kenya had fairly adopted the public procurement and asset disposal act of 2015, discouraged fake competitions, and used the aggregation method where it was appropriate to take advantage of economies of scale, used life cycle cost in considering and selecting procurement alternatives, considered seasonality and other factors that affect prices of goods to be procured and lastly used appropriate procurement methods as provided in the public procurement and asset disposal act of 2015.

Equally, the study revealed that county governments had embarked on reducing overhead costs, avoiding unnecessary spending to avoid public funds wastage, reducing lead time, acquiring high-quality products and completing projects on time.

Also, the study found out that the county governments had trained staff, suppliers and other stakeholders on the best ways of reducing wastage and improving productivity. The county governments also trained suppliers on ethical issues as provided by the public procurement and asset disposal act of 2015, which improved suppliers' moral values.

Further, the study found that value for money indicated a strong positive correlation with the performance of county governments in Kenya. Further, the regression result showed that value for money explained some variation in the performance of county governments in Kenya, and the regression model was a good fit. Also, the standardized regression coefficient for value for money indicated that a unit increase in the value for money would increase the performance of county governments in Kenya. Thus value for money was significant, and the null hypothesis was rejected.

### **5.2.3 Influence of competitive tendering on the performance of county governments in Kenya**

From the study, it was noted that the majority of the county governments strongly agreed that they had evaluation committees for the evaluation of suppliers, had adopted open tendering for procuring goods and services, had selected suppliers based on several factors such as finance, past performance, capacity, and tax compliance as set out in the public procurement and asset disposal act of 2015. Also, the study established that most county governments used an advertisement method to invite and provide required information to potential suppliers and awarded tenders to the most competitive bidders.

Further, the study showed that competitive tendering assisted county governments in delicate negotiations and gave them the bargaining power since they had a pool of suppliers to compare. Also, competitive tendering helped them to instil trust with the public and provided the public with a fair chance to participate in the tendering process. Equally, the county governments eluded that competitive tendering assist them in enhancing accountability and building public confidence because tenders' award is done fairly and transparently. Similarly, through competitive tendering, all stakeholders are involved in tendering processes. Members are provided with the

necessary information required in the tendering process and equal opportunity to the potential suppliers.

An additional test showed that competitive tendering had a strong positive correlation with the performance of county governments in Kenya. Further, the regression result showed that competitive tendering explained some variation in the performance of county governments in Kenya, and the regression model was a good fit. Also, the standardized regression coefficient for competitive tendering indicated that a unit increase in the competitive tendering would increase the performance of county governments in Kenya. Thus competitive tendering was significant, and the null hypothesis was rejected.

#### **5.2.4 Influence of transparency on the performance of county governments in Kenya**

The study findings revealed that most county governments had promoted transparency through keeping appropriate procurement records, promoted transparency through the publication of contracts awarded and constant communication between procuring entity and the bidders. Also, the study established that the majority of the county governments promoted transparency through the use of technology and technology-assisted procuring entities in disseminating the required information to bidders and other stakeholders.

Further, the study found out that the county governments enhanced accountability and high levels of integrity, enhanced efficient communication between procuring entities and bidders, ensured that all procurement contractors were above board, ensured that their water air dealings between parties and crates built confidence in the public domain.

Additional tests on correlations showed that transparency had a strong positive correlation with the performance of county governments in Kenya. Further, the regression result showed that transparency explained some variation in the performance of county governments in Kenya, and the regression model was a good fit. Also, the standardized regression coefficient for transparency indicated that a unit

increase in the competitive tendering would increase the performance of county governments in Kenya. Thus transparency was significant hence, and the null hypothesis was rejected.

### **5.2.5 Moderating effect of top management support on the relationship between public procurement principles and performance of county governments in Kenya**

From the study findings, it was established that the majority of top management in the county governments integrate procurement principles and overall organizational strategies, disseminate best public procurement principles values of the organization to increase the performance of the county governments, top management assisted devolved governments in navigating information uncertainty and provide decision guideline. Also, it was revealed that most top management in the county governments trade-off carefully between the interest of public and personal interest and emphasized putting public procurement's best principles in the strategic plan.

Lastly, the study indicated that the inclusion of top management support resulted in an  $R^2$  change, showing a significant moderating effect. This implied that the moderating effect of funding accounts for variance in the performance of county governments in Kenya, above and beyond the variance by public procurement principles. Thus the study rejects the null hypothesis.

### **5.3 Conclusions**

Based on the procurement ethics objective, the study concludes that the county government discouraged fake competition and collusion with their suppliers and ensured that goods received reflected the specific qualities stated in the specifications. However, the study concludes that county governments split tenders to avoid appropriate procurement. Further, the study concludes that the county governments promoted fair competition in the bidding process to provide equal opportunity for vendors who participated in the bidding process and provided all the information required in the bidding processes. Also, the study concludes that some county governments used public funds efficiently through the equitable sharing of

resources within the county governments and ensured funds were used for the intended purposes. In addition, the study concludes that county governments adopted procurement ethics to ensure good quality goods and services are procured as per specifications. This has led to the efficiency and effectiveness of using the county government's resources. Also, the study concludes that procurement ethics had a strong positive correlation with the performance of the county governments in Kenya. Thus, the study concludes that procurement ethics increases the performance of the county governments in Kenya.

Regarding the value-for-money objective, the study concludes that the county governments in Kenya had fairly adopted the public procurement and asset disposal act of 2015 by discouraging fake competition and using the aggregation method appropriately to take advantage of economies of scale. The study also concludes that the county governments in Kenya use life cycle cost in considering and selecting procurement alternatives, seasonality and other factors that affect the prices of goods procured. Equally, the study concludes that the county governments in Kenya had embarked on reducing overhead costs, unnecessary public funds spending, lead time, acquiring high-quality products and completing projects on time. Similarly, the study concludes that trained suppliers on ethical issues as provided by the public procurement and asset disposal act of 2015. Further, the study concludes that value for money had a strong positive correlation with the performance of the county governments in Kenya, hence increasing the performance of county governments in Kenya.

Concerning the competitive tendering objective, the study concludes that the county governments had constituted evaluation committees for evaluating suppliers and adopted open tendering for procuring goods and services that meet the threshold indicated in the public procurement and asset disposal act of 2015. Also, the study concludes that the county governments select suppliers using set criteria provided in the public procurement activities such as finance, past performance, capacity, and tax compliance. Equally, the study concludes that the county governments use an advertisement method to invite and provide required information to potential suppliers and award tenders to the most competitive bidders.



Further, the study concludes that the county governments use the competitive tendering method in negotiating tenders and provide them with more bargaining power since they can attract a pool of suppliers. Also, the study concludes that competitive tendering helped the county governments to instil trust with the public and provides citizens with a fair chance to participate in the tendering process, enhancing accountability and building public confidence because tenders awarded are done fairly transparently. Further, the study concludes that competitive tendering had a strong positive correlation and thus increased the performance of county governments in Kenya.

Regarding the transparency objective, the study concludes that the county governments had promoted transparency through keeping appropriate procurement records, publication of contracts awarded and constant communication between procuring entity and the bidders. Also, the study concludes that the county governments promoted transparency through technology in disseminating the required information to bidders. Further, the study concludes that transparency has enhanced accountability and high levels of integrity, efficient communication between procuring entities and bidders and ensuring that all procurement contractors are above board. Additionally, the study concludes that transparency had a strong positive correlation and increased the performance of county governments in Kenya.

Lastly, on the moderating effect of top management support and the relationship between public procurement principles and the performance of county governments objective, the study concludes that top management supports the county governments to integrate procurement principles with the overall organizational strategies and dissemination of best public procurement principles values of the organization to increase the performance of the county governments, top management assisted devolved governments to navigate information uncertainty and provide decision guideline. Also, the study concludes that top management supports the county governments' treading carefully between the interest of the public and personal interest and emphasizes putting public procurement's best principles in the strategic plan. Further, the study concludes that top management support significantly

moderates the relationship between public procurement principles and the performance of county governments in Kenya.

## **5.4 Recommendations**

The study suggests the following recommendations:

### **5.4.1 Managerial recommendations**

Based on the procurement ethics objective, the study recommends that all county governments discourage fake competition and collusion of suppliers to ensure that goods received reflect the precise qualities stated in the specifications.

Also, the study found out that county governments split/sliced tenders; therefore, the study recommends that county governments not split/slice tenders to avoid competition. Further, the study recommends that the county government's management practice procurement ethics in all management spheres promote fair competition in the bidding process to provide equal opportunity for vendors who participate in the bidding process and provide all the information required in the bidding processes. Procurement ethics would increase the efficiency of management of public resources as it was found to increase the performance of the county governments in Kenya.

Regarding the value for money objective, the study established that some county governments in Kenya had fairly adopted the public procurement and asset disposal act of 2015. Thus the study recommends that all county governments should adopt and implement the public procurement act to the letter because it would assist in discouraging fake competitions, reduction of overhead costs, unnecessary spending of public funds, reduction on lead time, acquisition of high-quality products and completion of projects on time and thereby promoting value for money in public resources. Equally, the study recommends that the county governments' management adopt the aggregation method appropriately to take advantage of economies of scale and hence achieve value for money.

Concerning competitive tendering objectives, the study recommends that all county governments constitute evaluation committees for evaluating suppliers and adopt open tendering for procuring goods and services that meet the threshold provided in the public procurement and asset disposal act of 2015. Also, the study recommends that all the county governments select suppliers as provided in the public procurement and asset disposal act of 2015. Further, the study recommends that all the county governments adopt the competitive tendering method because it provides them with a better opportunity in negotiating tenders and more bargaining power since they can attract a pool of suppliers. Also, competitive tendering would help the county governments to instil trust with the public and provides them with a fair chance to participate in the tendering process, accountability and building, thus increasing the performance of county governments in Kenya.

The study recommends that all county governments promote transparency by keeping appropriate procurement records, publication of contracts awarded and constant communication between procuring entity and the bidders. Also, the study recommends that all county governments should promote transparency through technology in disseminating the required information to bidders. Also, transparency promotes high levels of integrity and efficient communication between procuring entities and bidders and ensures that all procurement contractors are above board.

On the moderating effect of top management support and the relationship between public procurement principles and the performance of county governments' objectives, the study recommends that all the county governments should have good leadership in management to integrate procurement principles with the overall organizational strategies and dissemination of best public procurement principles values of the organization as a way of increasing the performance of the county governments. Also, top management support would assist devolved governments in navigating information uncertainty and providing decision guidelines, trading off carefully between the interest of public and personal interest and emphasizing putting public procurement's best principles in the strategic plan.

#### **5.4.2 Policy Makers Recommendations**

The study established that procurement ethics, value for money, competitive tendering, and transparency positively increase the county governments' performance. Thus, the study recommends that all county governments adopt these public procurement principles to perform well. Also, the study noted that top management support moderates the relationship between public procurement principles and the performance of county governments positively. Therefore, the study recommends that policymakers in national and county governments provide more support and continuously implement the public procurement act to increase the performance of county governments.

#### **5.5 Areas for Further Research**

The study targeted population was drawn from ten county governments, ranked top ten in National Ethics and Corruption survey report in 2016 in a report released in March 2018. Future studies should examine the validity of the findings in all forty-seven county governments. Also, care should be taken in the generalization of the study findings. This is because of the data collected from the ten-county governments in Kenya. Therefore, care should be taken to generalize the result of the study to other county governments and across the industry.

Since the study adopted a cross-sectional survey design, it does not capture the dynamic nature of factors determining the relationship between variables. This means that even if relationships are significant, other factors not included in the current study may also play an important role. Thus, future studies should be conducted using different research designs, such as longitudinal.

## REFERENCES

- Aberdeen (2016). *Joint Procurement Strategy Aberdeen City Council: Aberdeenshire Council and The Highland Council 2017-2022* Retrieved from <https://www.aberdeencity.gov.uk/sites/default/files/2019-01/Joint%20Procurement%20Strategy.pdf>
- Atkinson, W. (2003). New buying tools present different ethical challenges. *Purchasing*, 132(4), 27-30.
- Barney, .A.W. (2011), *Policy Implementation Management Guide*, (1<sup>st</sup> ed.), New York: Hopkins Publishers.
- Barrett, AM, P. (2000). Balancing accountability and efficiency in a more competitive public sector environment. *Australian Journal of Public Administration*, 59(3), 58-71.
- Bauld, S., & McGuinness, K. (2006). Value for money. *In Summit*, 9(20), 1.
- Box, G. E. P., & Jenkins, G. (1976). *Time Series Analysis: Forecasting and Control*. San Francisco: Holden-Day.
- Bryman, A. (2012). *Social Research Methods* (4<sup>th</sup> ed.). New York: Oxford University Press.
- Camp, W. G. (2010). Formulating & Evaluating Theoretical Frameworks for Career & Technical Education Research. *Journal of Vocational Education Research*, 26(1), 4-25.
- Chimi, C. J., & Russell, D. L. (2009). The Likert scale: A proposal for improvement using quasi-continuous variables. *In Information Systems Education Conference, Washington, DC* (pp. 1-10).
- Commonwealth Procurement Guidelines (2005). Retrieved from [www.dofa.gov.au/ctc/docs/](http://www.dofa.gov.au/ctc/docs/)

- Cooper, D. R., & Schindler, P. S. (2011). *Business Research Methods*. (11<sup>th</sup> ed.). New York: McGraw-Hill.
- Cummings, G., & Qiao, Y. (2003). The use of qualification-based selection in public procurement: a survey research. *Journal of Public Procurement*, 3(2), 215-26.
- Dawson, C. (2002). *Practical research methods: A user-friendly guide to mastering research*. United Kingdom: How to Books Ltd <http://dlib.ptit.edu.vn/handle/HVCNBCVT/2369>
- Erridge, A., Fee, R., & McIlroy, J. (1999). An assessment of competitive tendering using transaction cost analysis. *Public Money and Management*, 19(3), 37-42.
- European Union (2010). Authority for the supervision of Public Contracts, department of the coordination of European Union Policies. *The comparative survey on the national public procurement systems across the Public Procurement Network (PPN)*. Roma, Italy: European Union.
- Eyaa, S., & Oluka, N. (2011). Explaining non-compliance in public procurement in Uganda. *International Journal of business and social science*, 2(1), 11-18.
- Government of Kenya (2005), *Public Procurement and Disposal Act 2005*, (1st Edition), Nairobi: Government Printers.
- Herbert, K., Juliana, H., Mikkola, W., & Tage, S. (2007). Complementary theories to supply chain management. *Supply Chain Management An International Journal*, 12(4), 284–296.
- Holyoak, K. J., & Powell, D. (2016). Deontological coherence: A framework for commonsense moral reasoning. *Psychological Bulletin*, 142(11), 1179.
- Hunja, R. R. (2003). Obstacles to public procurement reform in developing countries. Public Procurement: The Continuing Revolution, *Kluwer Law International*, 13-22.

- Kenya Anti-Corruption Commission (2007). *Public Officers Integrity Survey*. Nairobi: KACC Kenya Gazette Supplement No. 92 (2006) The Public Procurement and Disposal Regulations. Nairobi: Government of Kenya.
- Kenya Institute for Public Policy Research and Analysis. (2013). *Kenya Economic Report*. Nairobi: KIPPRA.
- Kiess, H. O., & Bloomquist, D. W. (2009). *Psychological Research Methods: A Conceptual Approach*. New York: Prentice Hall.
- Kombo, D. K., & Tromp, D. L. A. (2009). *Proposal and Thesis Writing: An Introduction*. Nairobi: Don Bosco Printing Press.
- Kothari, C. R. (2009). *Research Methodology: Methods and Techniques* (5th ed.). New Delhi: New Age International.
- KPMG International (2008). *Governance Survey*. Nairobi: KPMG.
- Logan, M. S. (2000). Using agency theory to design successful outsourcing relationships. *International Journal of Logistics Management*, 11(2), 21-32.
- Lysons, K. & Farrington, B. (2006), *Purchasing and Supply Chain Management*. (7<sup>th</sup> ed.). Harlow-UK: Pearson Education Limited.
- Martz, E. (2013). *Enough is Enough! Handling Multicollinearity in Regression Analysis*. Retrieved from <http://www.blog.minitab.com>.
- McGinity, .N. (2014). Defining Public Procurement Reforms; *Journal of Business Logistics*, 22(2), 1-25.
- Montgomery, D.C., Peck, E.A., & Vining, G.G. (2001). *Introduction to Linear Regression Analysis* (3<sup>rd</sup> ed.). New York: John Wiley.
- Mugenda, A. (2008). *Social Science Research: Conception, Methodology and Analysis*. Nairobi: Kenya Applied Research and Training Services.

- Mutava, C. (2012). *Impact of Public Procurement Procedures on Delivery of Maintenance Works: Case of the Ministry of Housing, National Social Security Fund and Kenyatta National Hospital Maintenance Projects*. Unpublished PhD dissertation, Nairobi: University of Nairobi.
- Newing, H. (2011). *Conducting Research in Conservation: Social Science Methods and Practice*. New York: Routledge.
- Njoroge, J., & Ngugi, E. (2016). Challenges Facing Implementation of Public Procurement Regulations in Public Institutions in Kenya: A Case of Nairobi City County Government. *International Journal of Business & Law Research*, 4(4), 1.
- Nwabuzor, A. (2005). Corruption and development: new initiatives in economic openness and strengthened rule of law. *Journal of Business Ethics*, 59(1), 12-18.
- Odhiambo, W., & Kamau, P. (2003). The integration of developing countries into the world trading system. *Public procurement lessons from Kenya, Tanzania and Uganda*, Retrieved from <http://www.oecd.org> .
- Ogotu, O., & Were, S. (2014). Perception of regulation on procurement process of devolved county governments in Kenya: a case study of the county Kajiado. *International Journal of Business & Law Research*, 2(1), 33-45.
- Onsongo E, Okioga C, Otieno R. & Mongare O. (2012). *Challenges facing procurement committees in implementing the procurement act, a case of secondary schools procurement committees in Kisii County*. Unpublished Masters dissertation, Nairobi: University of Nairobi.
- Organization for Economic Cooperation and Development (2007). *Integrity in Public Procurement Good Practice from A to Z*, Paris, France: OECD Publishing.
- Orodho, J. A. (2008). *Techniques of writing research proposals & reports in education and social sciences*. Nairobi: Kanezja HP Enterprises.



- Oyuke, O. H., & Shale, N. (2014). Role of Strategic Procurement Principles on Organizational Performance; A Case Study of Kenya National Audit Office County. *European Journal of Business Management*, 2(1), 336-341.
- Palmer, R.D. & Butt, A.H. (1985). *Value for Money in the Public Sector, The Decision Makers Guide*, Oxford: Basil Blackwell, Ltd.
- Park, H.M., (2008). *Univariate Analysis and Normality Test Using SAS, Stata, and SPSS*. Working Paper. The University Information Technology Services (UITS) Center for Statistical and Mathematical Computing, Indiana University.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5<sup>th</sup> ed.). Harlow: Pearson Education.
- Schwab, D. (2005). *Research Methods for Organizational Studies* (2<sup>nd</sup> ed). London, United Kingdom: Lawrence Erlbaum Associates.
- Sekaran, U. (2009). *Research Methods for Business: A Skill Building Approach*. (4<sup>th</sup> ed.) . United Kingdom: John Wiley & Sons.
- Tandoor, K. R., & Koehn, E. E. (2004). Construction and corruption in developing regions. *AACE International Transactions*, 7(1), 68-71.
- Transparency International, (2016). *Corruption Perceptions Index 2016*. Retrieved from. <http://www.transparency.org/cpi2016/>
- Wempe J. (2017). Three General Theories of Ethics and the Integrative Role of Integrity Theory. *SSRN electronic journal*. 1940393.
- West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences*. London: Lawrence Erlbaum Associates.
- Wittig, W. A. (1999). *Building Value through Procurement: A Focus on Africa*. Paper presented to the 9th International Anti-Corruption Conference.

World Bank (2003). *World Development Report 2003: Equity and Development*, New York: Oxford University Press.

World Bank (2004). *Guidelines: Procurement under IBRD Loans and IDA Credits*. Washington DC: World Bank.

World Bank (2007). *World Development Report 2007: Development and the Next Generation*, New York: Oxford University Press.

Zikmund, W. (2003). *Business Research Methods* (7<sup>th</sup> ed). India: New Delhi: Thomson/South-Western.

**APPENDICIES**

**Appendix I: Letter of Authorization**

Date: .....

To Executive Director

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**NAIROBI**

Dear Sir/Madam,

**RE: “INFLUENCE OF PUBLIC PROCUREMENT PRINCIPLES ON THE  
PERFORMANCE OF COUNTY GOVERNMENTS IN KENYA”**

My name is Mary Andika a student at Jomo Kenyatta University of Agriculture & Technology (JKUAT) undertaking a Ph.D in Supply chain management. Currently I am conducting field work research in partial fulfillment for the award of the doctoral degree. I am kindly requesting for your assistance in making my research a success by granting permission to collect relevant data of your organization from your Head of Supply Chain /Procurement, Finance/Auditing Divisions.

Yours sincerely,

**Mary Andika**

## Appendix II: Questionnaire

This questionnaire seeks to determine the influence of public procurement principles on the performance of county governments in Kenya. In particular, it will involve aspects of procurement ethics, value for money, competitive tendering and transparency principles.

### PART A: Background information

Please provide the following information regarding your organization.

County name \_\_\_\_\_

1. Highest Education Level

- Secondary level
- College level
- University level
- Masters
- PHD
- Professional Qualification

2. Years of Work

- Less than 5 years
- Over 5 years

3. Name of the department .....

4. Position

- Top management staff
- Middle level management staff
- Tactical level
- Other

### PART B

#### Procurement ethics Principle

- 1) What measures does your county government take to support and govern procurement ethics practice in your company? (Tick appropriately)

- a) Formulation of clear policies,
- b) Formulation of clear goals, and
- c) Formulation of clear objectives

2) Please indicate the level to which of the following procurement ethics principle statements influence the performance of county government. Please record your answer by ticking in the spaces provided, by the scale indicator (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)

Statements	1	2	3	4	5
a) We discourage fake competition					
b) We avoid collusion with suppliers					
c) We remove any arbitrariness from the bid evaluation process					
d) We ensure that goods and services received reflect the precise qualities actual delivered					
e) We use splitting to avoid adopting the appropriate procurement method					

3) Please suggest ways in which procurement ethics principle can influence the performance of county government.

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**Value for money principle**

- 4) What measures does your county government take to support and govern value for money principle in your company? (Tick appropriately)
- a) Formulation of clear policies,
  - b) Formulation of clear goals, and
  - c) Formulation of clear objectives
- 5) Please indicate the level to which of the following value for money principle statements influence the performance of county government. Please record your answer by ticking in the spaces provided, by the scale indicator (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)

Statements	1	2	3	4	5
a) Adoption of fair completion in public procurement act					
b) Discourage use of fake competition					
c) Use of aggregation where appropriate in order to take advantage of economies of scale					
d) Use of life cycle costs in considering and selecting procurement alternatives					
e) Consideration of seasonality in prices especially where it pertains to procurement of commodities					

- 6) Please suggest ways in which value for money principle can influence the performance of county government.

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**Competitive tendering principle**

- 7) What measures does your county government take to support and govern competitive tendering principle in your company? (Tick appropriately)
- a) Formulation of clear policies,
  - b) Formulation of clear goals, and
  - c) Formulation of clear objectives
- 8) Please indicate the level to which of the following competitive tendering principle statements influence the performance of county government. Please record your answer by ticking in the spaces provided, by the scale indicator (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)

Statements	1	2	3	4	5
a) We use technical committee for evaluation of suppliers					
b) We use mostly open tendering method for inviting suppliers					
c) We use suppliers' credibility in carrying out previous to award contracts					
d) We use advertisement as a source of information of suppliers					
e) We award tender to the most competitive bidder					

- 9) Please suggest ways in which competitive tendering principle can influence the performance of county government.

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**Transparency practice**

10) What measures does your county government take to support and govern transparency principle in your company? (Tick appropriately)

- a) Formulation of clear policies,
- b) Formulation of clear goals, and
- c) Formulation of clear objectives

11) Please indicate the level to which of the following transparency principle statements influence the performance of county government. Please record your answer by ticking in the spaces provided, by the scale indicator (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)

<b>Statements</b>	1	2	3	4	5
a) We promote transparency through the appropriate recording of procurement procedures					
b) We promote transparency through maintain a complete record of procurement proceedings					
c) We promote transparency through publication of contract awards					
d) We promote transparency through writing of all communications between procuring entity and bidders					
e) We promote transparency through use technology e.g internet to disseminate information required to suppliers and public					

12) Please suggest ways in which transparency principle can influence the performance of county government.



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**Top management support**

13) What measures does your county government take to support and govern top management commitment in your company? (Tick appropriately)

- a) Formulation of clear policies,
- b) Formulation of clear goals, and
- c) Formulation of clear objectives

14) Please indicate the level to which of the following top management statements influence the performance of county government. Please record your answer by ticking in the spaces provided, by the scale indicator (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)

Statements	1	2	3	4	5
a) Integrate public procurement best principles in an organizational strategy					
b) Dissemination of public procurement best principles values of the organization					
c) Helping the organization to navigate information uncertainty and provide decision guideline					
d) Trading-off the interest of public when pursuing conflicting procurement of goods and services					
e) Emphasize on strategic nature of public procurement best principles and should be proactive					

15) Please suggest ways in which top management can influence the performance of county government.

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

**Measure of performance of county government**

16) Please indicate the level to which of the following statements measure the performance of county government. Please record your answer by ticking in the spaces provided, by the scale indicator (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)

Statements	1	2	3	4	5
a) We use a procurement strategy to reduce transaction costs.					
b) We use a procurement strategy that reduce purchase order process cycle times					
c) We use a procurement strategy in driving the lowest possible purchase price.					
d) We use procurement strategies that identify sources of high quality products/services.					
e) We use a procurement strategy that simplifies the procurement and supply management process.					

17) Please indicate the level to which of the following rating measure performance of county government in the data (%).

<b>Statements</b>	2013	2014	2015	2016	2017
a) Rate of procurement productivity					
b) Procurement cost saved					
c) Quality of goods, services and works offered and supplied					
d) Customer satisfaction index					
e) goods, services and works supplied and completed just in time					

### Appendix III: Target Population

County	Target Population	
	Finance/Auditing	Procurement
Murang'a	36	33
Trans-Nzoia	69	42
Mandera	31	14
Kirinyaga	32	24
Tharaka Nithi	26	16
Meru	25	19
Machakos	32	13
Nyandarua	21	11
Kilifi	37	26
Migori	43	17
<b>Total</b>	<b>352</b>	<b>215</b>

## Appendix IV: Linearity Test

ANOVA Table

	Sum of Squares	df	Mean Square	F	Sig.
Measure of performance of county government * Procurement ethics Principle	Between Groups (Combined)	16	2.157	6.295	.000
	Linearity	1	17.742	51.767	.000
	Deviation from Linearity	15	1.118	3.263	.000
Within Groups	71.631	209	.343		
Total	106.149	225			

Measures of Association

	R	R Squared	Eta	Eta Squared
Measure of performance of county government * Procurement ethics Principle	.709	.617	.570	.532

**ANOVA Table**

		Sum of Squares	df	Mean Square	F	Sig.
Measure of performance of county government * Value for money principle	Between Groups	38.161	13	2.935	9.153	.000
	Linearity	21.545	1	21.545	67.181	.000
	Deviation from Linearity	16.617	12	1.385	4.318	.000
	Within Groups	67.988	212	.321		
	Total	106.149	225			

**Measures of Association**

	R	R Squared	Eta	Eta Squared
Measure of performance of county government * Value for money principle	.754	.6203	.600	.506

**ANOVA Table**

		Sum of Squares	df	Mean Square	F	Sig.
Measure of performance of county government * Competitive tendering principle	Between Groups	35.358	11	3.214	9.685	.000
	Linearity	2.910	1	2.910	8.770	.003
	Deviation from Linearity	32.448	10	3.245	9.777	.000
	Within Groups	70.026	211	.332		
	Total	105.384	222			

**Measures of Association**

	R	R Squared	Eta	Eta Squared
Measure of performance of county government * Competitive tendering principle	.661	.528	.579	.436

**ANOVA Table**

		Sum of Squares	df	Mean Square	F	Sig.
Measure of performance of county government * Transparency practice	Between Groups	14.334	10	1.433	3.357	.000
	(Combined) Linearity	6.435	1	6.435	15.068	.000
	Deviation from Linearity	7.899	9	.878	2.055	.035
	Within Groups	91.815	215	.427		
Total		106.149	225			

**Measures of Association**

	R	R Squared	Eta	Eta Squared
Measure of performance of county government * Transparency practice	.742	.610	.607	.535

**ANOVA Table**

		Sum of Squares	df	Mean Square	F	Sig.
Measure of performance of county government * Top management support	Between Groups	37.370	12	3.114	9.595	.000
	(Combined) Linearity	15.795	1	15.795	48.666	.000
	Deviation from Linearity	21.575	11	1.961	6.043	.000
	Within Groups	67.510	208	.325		
Total		104.880	220			

**Measures of Association**

	R	R Squared	Eta	Eta Squared
Measure of performance of county government * Top management support	.788	.517	.597	.506