

**Public Procurement Legal Framework Implementation and  
Performance of State Corporations in Kenya**

**Pamela Nyaboke Marendi**

**A Thesis Submitted In Partial Fulfillment for the Degree of Doctor of  
Philosophy in Supply Chain Management in the Jomo Kenyatta  
University of Agriculture and Technology**

**2015**

## DECLARATION

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

Signature.....

Date.....

**Pamela Nyaboke Marendi**

The thesis has been submitted for examination with our approval as University supervisors.

Signature.....

Date.....

**Dr. Patrick Karanja Ngugi**

**JKUAT, Kenya**

Signature.....

Date.....

**Prof. Zack Bolo Awino**

**UON, Kenya**

Signature.....

Date.....

**Dr. Florence Ondieki - Mwaura**

**JKUAT, Kenya**

## **DEDICATION**

This work is dedicated to my dear family members: My Husband William Getuno, my son Darlington Getuno and his wife Cynthia Kwamboka, my Grandson Lamar Darlington, my mother Martha Moraa Marende, my sisters Janet, Emily, Carol, Isabella, and Nancy, my grandmother Jerusa Nyanchera and the rest of the family members. I am thankful to them for their encouragement and continuous support throughout the study period.

## **ACKNOWLEDGEMENTS**

First and foremost, I would like to express my sincere gratitude to my supervisors Dr. Patrick Ngugi, Prof. Zack Awino, Dr. Florence Ondieki and Dr. Gladys Rotich for their relentless guidance throughout the process of thesis writing. I am grateful for their dedication, tireless efforts in critiquing this work, providing useful comments and direction.

Special thanks to the Management of Jomo Kenyatta University for availing the current books and reference materials throughout the period of the study. I also acknowledge the support of Peninah Wainaina and Ruth Njoroge of Jomo Kenyatta University of Agriculture and Technology (JKUAT) for the unqualified support they rendered at various stages of the thesis; Ebenezer Nyangwetta for the data analysis. I salute my classmates who assisted in various ways for their contribution had a positive impact in this research thesis. To my spiritual father, The Apostle Joseph Kayo, many thanks for his countless support and making things happen behind scenes. God bless Him indeed.

I would also like to thank the Kenya Institution of Supplies Management (KISM) for availing the list and contacts of the procurement practitioners in state corporations who participated in the survey by completing the questionnaires. Last but not least, I wish to express my appreciation to my husband, William Getuno, without his patience, understanding and continuous support, I would have not come this far. To my son Darlington Getuno and my grandson Lamar Darlington Junior, I thank them for their support and patience, I love them all so deeply.

## TABLE OF CONTENTS

<b>DECLARATION.....</b>	<b>ii</b>
<b>DEDICATION.....</b>	<b>iii</b>
<b>ACKNOWLEDGEMENTS .....</b>	<b>iv</b>
<b>TABLE OF CONTENTS .....</b>	<b>v</b>
<b>LIST OF TABLES .....</b>	<b>viii</b>
<b>LIST OF FIGURES .....</b>	<b>xi</b>
<b>LIST OF APPENDICES .....</b>	<b>xiii</b>
<b>ABBREVIATIONS AND ACRONYMS.....</b>	<b>xiv</b>
<b>OPERATIONAL DEFINITION OF TERMS.....</b>	<b>xvi</b>
<b>ABSTRACT.....</b>	<b>xix</b>
<b>CHAPTER ONE .....</b>	<b>1</b>
<b>INTRODUCTION.....</b>	<b>1</b>
1.1 Background Information.....	1
1.2 Statement of the Problem.....	9
1.3 Objectives of the Study.....	11
1.4 Research Hypotheses .....	11
1.5 Justification of the Study .....	12
1.6 Scope of the Study .....	14
1.7 Limitation of the Study .....	14
<b>CHAPTER TWO .....</b>	<b>16</b>
<b>LITERATURE REVIEW .....</b>	<b>16</b>
2.1 Introduction.....	16
2.2 Theoretical Framework.....	16
2.3 Conceptual Framework.....	29
2.4 Empirical Review.....	43
2.5 Critique of Reviewed Literature .....	57
2.6 Summary.....	58
2.7 Research Gaps.....	59

<b>CHAPTER THREE .....</b>	<b>61</b>
<b>RESEARCH METHODOLOGY .....</b>	<b>61</b>
3.1 Introduction.....	61
3.2 Research Design and Philosophy.....	61
3.3 Population of the Study.....	63
3.4 Sample and Sampling Technique.....	63
3.5 Data Collection Instruments .....	66
3.6 Data Collection Procedures.....	67
3.7 Pilot Testing.....	67
3.8 Data Processing and Analysis .....	70
<b>CHAPTER FOUR.....</b>	<b>80</b>
<b>RESEARCH FINDINGS, ANALYSIS AND DISCUSSION .....</b>	<b>80</b>
4.1 Introduction.....	80
4.2 Results of Pilot and Other Diagnostic Tests .....	80
4.3 Response Rate .....	92
4.4 Demographic Characteristics .....	92
4.5 Organizational Performance .....	97
4.6 Implementation of PPDA, (2005) and Organizational Performance .....	106
4.7 Implementation of PPDR, (2006) and Organizational Performance .....	119
4.8 Implementation of the PPPR, (2009) and Organizational Performance .....	134
4.9 Implementation of PRR, (2011) and Organizational Performance.....	144
4.10 Multiple Regression Model.....	157
4.11 Moderating Effect of Enforcement of Public Procurement Legal Framework Implementation on Organizational Performance .....	160
4.12 Joint Effect of Independent Variables and Moderating Variable on the Independent Variable.....	172
4.13 Results of Hypotheses Test.....	175
4.14 The Optimal Model.....	177
<b>CHAPTER FIVE .....</b>	<b>178</b>
<b>SUMMARY, CONCLUSION AND RECOMMENDATIONS .....</b>	<b>178</b>
5.1 Introduction.....	178

5.2 Summary of Findings.....	178
5.3 Conclusion .....	182
5.4 Recommendations.....	183
5.5 Knowledge Gained.....	184
5.6 Implications of Study on Policy, Theory and Practice .....	185
5.7 Areas for Further Research .....	188
REFERENCES .....	190
APENDICES.....	218

## LIST OF TABLES

<b>Table 3.1:</b> Sample Size Determination .....	65
<b>Table 3.2:</b> Operationalisation of the Research Variables.....	74
<b>Table 4.1:</b> Reliability Test Results .....	81
<b>Table 4.2:</b> Factor Loading for the Construct Implementation of PPDA, (2005) .....	84
<b>Table 4.3:</b> Factor Loading for the Construct Implementation of PPDR, (2006) .....	85
<b>Table 4.4:</b> Factor Loading for the Construct Implementation of PPPR, (2009) .....	86
<b>Table 4.5:</b> Factor Loading for the Construct Implementation of PRR, (2011).....	87
<b>Table 4.6:</b> Factor Loading for the Construct Organizational Performance.....	88
<b>Table 4.7:</b> Factor Loading for the Construct Enforcement .....	89
<b>Table 4.8:</b> Collinearity Statistics .....	89
<b>Table 4.9:</b> Normality Test .....	91
<b>Table 4.10:</b> Autocorrelation - Durbin Watson Values .....	91
<b>Table 4.11:</b> Response Rate.....	92
<b>Table 4.12:</b> Customer Satisfaction .....	101
<b>Table 4.13:</b> Timely Delivery .....	101
<b>Table 4.14:</b> Cost Reduction.....	102
<b>Table 4.15:</b> Quality Performance .....	103
<b>Table 4.16:</b> Revenue Growth .....	104
<b>Table 4.17:</b> Market Share Growth.....	104
<b>Table 4.18:</b> Factor Scores for Organizational Performance.....	105
<b>Table 4.19:</b> Efficiency.....	109
<b>Table 4.20:</b> Competition .....	110
<b>Table 4.21:</b> Methods of Procurement and Percentage of Budget Spent .....	110
<b>Table 4.22:</b> Period of Supplier Payment .....	111
<b>Table 4.23:</b> Accountability.....	113
<b>Table 4.24:</b> Factor Scores for Implementation of PPDA, (2005) .....	116
<b>Table 4.25:</b> Model Summary for Implementation of PPDA, (2005) and Performance ..	116
<b>Table 4.26:</b> ANOVA for Implementation of PPDA (2005) and Performance.....	117
<b>Table 4.27:</b> Coefficients for Implementation for PPDA, (2005) and Performance .....	117
<b>Table 4.28:</b> Reporting Structures .....	121



<b>Table 4.29:</b> Procurement Process Relevant Committees .....	122
<b>Table 4.30:</b> Use of Open Tender Method .....	124
<b>Table 4.31:</b> Approval of Alternative Procurement Methods.....	124
<b>Table 4.32:</b> Availability of Accurate Procurement Records .....	128
<b>Table 4.33:</b> Level of Training of Records Management Staff .....	129
<b>Table 4.34:</b> Disposal of Procurement Records.....	129
<b>Table 4.35:</b> Factor Scores for the Implementation PPDR, (2006) .....	131
<b>Table 4.36:</b> Model Summary for Implementation of PPDR, (2006) and Performance ..	131
<b>Table 4.37:</b> ANOVA for Implementation of PPDR, (2006) and Performance.....	132
<b>Table 4.38:</b> Coefficients for Implementation of PPDR, (2006) and Performance.....	132
<b>Table 4.39:</b> Supplier Selection Criteria.....	137
<b>Table 4.40:</b> Due Diligence on Contractors.....	137
<b>Table 4.41:</b> Supplier Performance Evaluation .....	138
<b>Table 4.42:</b> Project Implementation Monitoring and Evaluation .....	139
<b>Table 4.43:</b> Contracts completed to Quality, Cost and Time Requirements.....	139
<b>Table 4.44:</b> Factor Scores for the implementation PPPR, (2009).....	140
<b>Table 4.45:</b> Model Summary for Implementation of PPPR, (2009) and Performance...	141
<b>Table 4.46:</b> ANOVA for Implementation of PPPR, (2009) and Performance .....	141
<b>Table 4.47:</b> Coefficients for Implementation of PPPR, (2009) and Performance .....	141
<b>Table 4.48:</b> Influence to award Contracts .....	147
<b>Table 4.49:</b> Percentage of Contracts Awarded to SMEs.....	148
<b>Table 4.50:</b> Bidder Conferences Held for SMEs .....	148
<b>Table 4.51:</b> Availability of Funds for Procurement Activities .....	149
<b>Table 4.52:</b> Trainings held for Staff on the 30% Contracts award Directive.....	150
<b>Table 4.53:</b> Extent Corporations had embraced the 30% Directive.....	151
<b>Table 4.54:</b> Contracts awarded to SMEs Delivered in Time, at Cost and Quality .....	151
<b>Table 4.55:</b> Factor Scores for Preference and Reservations Regulations, (2011).....	152
<b>Table 4.56:</b> Model Summary for Implementation of PRR, (2011) and Performance.....	152
<b>Table 4.57:</b> ANOVA for Implementation of PRR, (2011) and Performance .....	153
<b>Table 4.58:</b> Coefficients for Implementation of PRR, (2011) and Performance .....	153
<b>Table 4.59:</b> Model Summary for Implementation of PRR, (2011).....	154

<b>Table 4.60:</b> ANOVA for Implementation of PRR, (2011) and Performance .....	154
<b>Table 4.61:</b> Coefficients for Implementation of PRR, (2011) and Performance .....	155
<b>Table 4.62:</b> Model Summary Multiple Regression Model .....	157
<b>Table 4.63:</b> ANOVA Multiple Regression Model .....	158
<b>Table 4.64:</b> Coefficients for Multiple Regression Model .....	159
<b>Table 4.65:</b> Model Summary of Enforcement of PPDA, (2005) on Performance.....	165
<b>Table 4.66:</b> ANOVA of Enforcement of PPDA, (2005) on Performance .....	166
<b>Table 4.67:</b> Coefficients of Enforcement of PPDA, (2005) on Performance .....	166
<b>Table 4.68:</b> Model Summary of Enforcement of PPDR, (2006) on Performance .....	167
<b>Table 4.69:</b> ANOVA of Enforcement of PPDR, (2006) on Performance.....	167
<b>Table 4.70:</b> Coefficients of Enforcement of PPDR, (2006) on Performance .....	167
<b>Table 4.71:</b> Model Summary of Enforcement of PPPR, (2009) on Performance.....	168
<b>Table 4.72:</b> ANOVA for Enforcement of PPPR, (2009) on Performance .....	168
<b>Table 4.73:</b> Coefficients of Enforcement of PPPR, (2009) on Performance .....	169
<b>Table 4.74:</b> Model Summary of Enforcement of PRR, (2011) on Performance .....	169
<b>Table 4.75:</b> ANOVA for Enforcement of PRR, (2011) on Performance.....	170
<b>Table 4.76:</b> Coefficients of Enforcement of PRR, (2011) on Performance.....	170
<b>Table 4.77:</b> Model Summary for Multiple Regressions including Moderating Variable	172
<b>Table 4.78:</b> ANONA Multiple Regressions including Moderating Variable .....	173
<b>Table 4.79:</b> Coefficients of Multiple Regressions including Moderating Variable.....	174
<b>Table 4.80:</b> Summary of Research Hypotheses Test Results.....	176

## LIST OF FIGURES

<b>Figure 2.1:</b> Four Pillars Model.....	19
<b>Figure 2.2:</b> Public Procurement Process: .....	27
<b>Figure 2.3:</b> Simplified Kenyan Public Procurement Legal Framework .....	28
<b>Figure 2.4:</b> Conceptual Framework .....	30
<b>Figure 2.5:</b> ACSI Model .....	41
<b>Figure 2.6:</b> Major Challenges Facing SMEs in Different Stages of Procurement.....	36
<b>Figure 4.1:</b> Respondents Experience .....	93
<b>Figure 4.2:</b> Level of Academic Qualification .....	94
<b>Figure 4.3:</b> Professional Qualification .....	95
<b>Figure 4.4:</b> KISM Membership/Registration .....	96
<b>Figure 4.5:</b> Training on Public Procurement Rules and Regulations .....	97
<b>Figure 4.6:</b> Customer Satisfaction Survey .....	98
<b>Figure 4.7:</b> Employee Satisfaction Survey .....	99
<b>Figure 4.8:</b> Level of Customer Satisfaction .....	99
<b>Figure 4.9:</b> Level of Employee Satisfaction .....	100
<b>Figure 4.10:</b> Corporations Using E- Procurement .....	112
<b>Figure 4.11:</b> Professional Qualifications .....	114
<b>Figure 4.12:</b> KISM Membership.....	115
<b>Figure 4.13:</b> Preparation of Procurement Plans .....	126
<b>Figure 4.14:</b> Updating of Procurement Plans.....	127
<b>Figure 4.15:</b> Corporations with Records Management Unit.....	128
<b>Figure 4.16:</b> Familiarity with Procurement Rules and Regulations.....	130
<b>Figure 4.17:</b> Involvement in Public Private Partnership Projects .....	135
<b>Figure 4.18:</b> PPP Projects awarded by Corporations .....	136
<b>Figure 4.19:</b> Methods of Contractor Identification for PPP Projects.....	136
<b>Figure 4.20:</b> Preference Contracts Awarded by Corporations .....	145
<b>Figure 4.21:</b> Contracts Awarded to the Special Groups .....	145
<b>Figure 4.22:</b> Total Value of Contracts Awarded.....	146
<b>Figure 4.23:</b> Compliance Audits .....	161
<b>Figure 4.24:</b> Compliance Levels .....	162

<b>Figure 4.25:</b> Procurement Reviews.....	163
<b>Figure 4.26:</b> Period it takes to finalize a Procurement Review .....	164
<b>Figure 4.27:</b> Optimal Model .....	177

## **LIST OF APPENDICES**

<b>APPENDIX I:</b> Data Collection Questionnaire .....	218
<b>APPENDIX II:</b> Interview Guide For Accounting Officers .....	231
<b>APPENDIX III:</b> Matrix For Aligning Theories With Variables .....	232
<b>APPENDIX IV:</b> List of Kenyan State Corporations .....	233
<b>APPENDIX V:</b> Standardized Residue Plots .....	238
<b>APPENDIX VI:</b> Kaiser Meyer Olkin Measure of Adequacy .....	241
<b>APPENDIX VII:</b> Factor Loading Matrix .....	243
<b>APPENDIX VIII:</b> Factor Scores .....	246
<b>APPENDIX IX:</b> Compliance Levels .....	250
<b>APPENDIX X:</b> Summary of Empirical Literature, Knowledge Gaps and Study Contributions .....	251
<b>APPENDIX XI:</b> Durbin Watson Tables Extract .....	259

## **ABBREVIATIONS AND ACRONYMS**

<b>AO</b>	Accounting Officer
<b>ACSI</b>	American Customer Satisfaction Index
<b>CEO</b>	Chief Executive Officer
<b>EACC</b>	Ethics and Anti-corruption Commission
<b>EU</b>	European Union
<b>GDP</b>	Gross Domestic Product
<b>IEBC</b>	Independent Electoral Boundaries Commission
<b>ICT</b>	Information Communication Technology
<b>IPR</b>	Independent Procurement Review
<b>ITC</b>	International Trade Centre
<b>KARI</b>	Kenya Agricultural Research Institute
<b>KIA</b>	Kenya Institute of Administration
<b>KISM</b>	Kenya Institute of Supplies Management
<b>KNBS</b>	Kenya National Bureau of Statistics
<b>KPA</b>	Kenya Ports Authority
<b>KRA</b>	Kenya Revenue Authority
<b>NHIF</b>	National Hospital Insurance Fund
<b>NSSF</b>	National Social Security Fund
<b>NWC&amp;PC</b>	National Water Conservation and Pipeline Corporation
<b>OECD</b>	Organization for Economic Co-operation and Development
<b>OLS</b>	Ordinary Least Squares
<b>PEs</b>	Procuring Entities
<b>PM</b>	Performance Management
<b>PP</b>	Public Procurement
<b>PPP</b>	Public Private Partnerships
<b>PPPR</b>	Public Private Partnerships Regulations
<b>PPCRAB</b>	Public Procurement Complaints and Appeal Board
<b>PPOA</b>	Public Procurement Oversight Authority
<b>PPDA</b>	Public Procurement and Disposal Act
<b>PPDR</b>	Public Procurement and Disposal Regulations

<b>PWDs</b>	Persons with Disabilities
<b>RFP</b>	Request for Proposals
<b>RFQ</b>	Request for Quotations
<b>RBT</b>	Resource Based Theory
<b>SPMA</b>	Supplies Practitioners Management Act
<b>SPM</b>	Supplier relationship Management
<b>SPSS</b>	Statistical Program for Social Science
<b>TSC</b>	Teachers Service Commission
<b>VFM</b>	Value for Money

## **OPERATIONAL DEFINITION OF TERMS**

For this study, the operational definitions for the key terms and concepts are as follows:

### **Accountability**

Accountability is a standard of public life, where holders of public office are accountable for their decisions and actions to the public and must submit themselves to whatever scrutiny is appropriate to their offices (Armstrong, 2006).

### **Accounting Officer**

Accounting officer is a public officer who is held accountable for all transactions done by the entity (PPDA, 2005).

### **Performance**

Performance is the ability to fulfill an obligation, to attain the set objectives, fulfill a requirement and accomplish something as promised or expected. Performance is the organization's ability to attain its goals by using resources in an effective and efficient manner (Daft, 2004).

### **Performance Management**

Performance management is a means of getting better results by understanding and managing performance within an agreed framework of planned goals, standards and competency requirements (Armstrong, 2006).

### **Procurement**

Procurement is the acquisition of goods and services at the best possible total cost of ownership, in the right quantity and quality, at the right time, in the right place for the direct benefit or use of the governments, corporations, or individuals generally via, but not limited to a contract (Leenders, 2004). Procurement is the process of obtaining goods and services from the preparation and processing of a requisition through to receipt and approval of the invoice for payment (Chopra, 2005).



**Procurement Planning**

Procurement planning is the process of determining the procurement needs and the timing of their acquisition and funding such that the entire operations are met as required in an efficient way (Van Wheel, 2005).

**Public Procurement**

Public procurement is a public policy tool for translating development finance into predetermined economic and social outcomes (Ellmers, 2011). Public procurement is concerned with how public sector organizations spend taxpayers' money on goods and services (Hall, 2009).

**Organizational Performance**

Organizational performance is the activities of government or its agencies in planning, implementing, reviewing, evaluating and reporting, the effectiveness of its policies, programmes and projects (OECD, 2007).

**Organizational Structure**

Organizational structure is a set of explicit and implicit institutional rules and policies designed to provide a structure where various work roles and responsibilities are delegated, controlled and coordinated. It determines how information flows across the organization departments and how the authority and responsibility for decision making are distributed in organizations (Armstrong, 2008).

**State Corporation**

This is a nationalized corporation which is publicly owned by the state or government and is a legal entity created by a government to undertake commercial activities with a view to develop and indigenize its economy. In Kenya, the provision of its establishment, control and regulations is set out under the State Corporations Act chapter 446 laws of Kenya (RoK, 2009).

**Supplier Performance Measurement**

Supplier performance measurement is a process, not an event that requires support from stakeholders besides procurement, as supplier performance impacts many functions (Gordon, 2008).

**Supplier Relationship Management**

Supplier relationship management is a concept that aims for co-operation and collaboration with suppliers to improve the performance of the supply chain (Park, Shin, Chang & Park, 2010).

**Tendering**

Tendering is a purchasing procedure whereby potential suppliers are invited to make a firm and unequivocal offer of the price (McGeorge & Adams, 2003).

**Transparency**

Transparency in public procurement is about information. The access to key procurement information by civil society, the media and other stakeholders, and the ways in which these parties can use the information, directly affects accountability (UNDP, 2010).

**Value for Money**

Value for money entails consideration of the contribution made in advancing government policies and priorities while achieving the best return and performance for the money spent (Bauld & McGuinness, 2006)

## **ABSTRACT**

The purpose of the study was to determine the effect of the Public Procurement (PP) Legal Framework implementation on Organizational Performance of state corporations in Kenya. Specifically, the study determined the effect of the implementation of the Public procurement and Disposal Act, (2005); implementation of the Public Procurement and Disposal Regulations, (2006); implementation of the Public Private and Partnership Regulations, (2009); and implementation of the Preference and Reservations Regulations, (2011) on performance of state corporations in Kenya. Cross sectional survey design was adopted with a target population of 187 state corporations. The sample size was 125 and study managed to get respondents from 112 corporations drawn from the five functional categories. Both primary and secondary data were used for analysis. Primary data was obtained from the information in the questionnaires distributed to procurement practitioners and interview guides from the accounting officers whereas secondary data was retrieved from existing reports of the PPOA website. The questionnaire was pilot tested on five entities that helped to improve the instrument while factor analysis was used to extract factors with reliability value of 0.70. Data was analyzed using SPSS. Descriptive and inferential statistics were employed to establish the degree of association among the variables. Ordinary linear squares and multiple regression analysis were used to establish the relationship between the variables. The findings indicated a significant effect of the PP legal framework implementation on organizational performance and enforcement moderated the relationship between study variables. Study recommended effective implementation of PP rules and regulations to improve performance of state corporations. The study's limitation was the population as it only targeted procurement practitioners and Accounting officers of the state corporations. Future studies to widen data coverage involving mainstream government departments and service providers. Future studies may also consider testing the effect of other factors, especially internal and environmental factors, which may affect performance of public entities. Study adds to knowledge in the field of PP by establishing the effect of PP legal framework implementation on performance. Managers will use findings of this study to identify performance drivers in their organizations. Policy makers should focus more on enforcement of the laws to increase implementation and compliance levels.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background Information**

This chapter provides information on the background to the study. It also provides a statement of the problem, objectives of the study, hypotheses that were formulated and tested, justification of the study, scope and limitations to the study. This study focused on the effect of public procurement legal framework implementation on performance of Kenyan state corporations. The specific elements of the legal framework that were considered for the study were the Public Procurement and Disposal Act, (2005); the Public Procurement and Disposal Regulations, (2006); the Public Private Partnership Regulations, (2009); and the Preference and Reservations Regulations, (2011).

Public Procurement (PP) has been recognized as a function that plays a key role in successful management of public resources and most countries have made an effort to integrate it into a more strategic view of government efforts (Ambe & Badenhorst-Weiss, 2012). Procurement is a crucial element in the working functions of any state as it is used for purchasing of goods and services in the right quality, from the right source and at the right price all to meet a specific need. Every government has the obligation to provide essential services to its citizens through PP.

According to Calender and Mathews (2000), PP is an important function of government because of the great impact it has on the economy and needs to be well managed through a sound procurement system. The authors further observed that PP has two groups of goals: procurement goals and non procurement goals. The procurement goals include quality, timeliness, cost (more than just the price), minimizing business, financial and technical risks, maximizing competition, and maintaining integrity. Non-procurement goals include economic goals, environment protection or green procurement, social goals (assisting minority and woman-owned business concerns), and international relations goals. To this end, the Kenyan procurement rules and regulations were supposed to supplement towards this goal by making PP more transparent (PPOA, 2007).

### **1.1.1 Public Procurement Legal Framework**

A legal framework encompasses the laws, regulations and policies that are put in place to govern an organization or an activity. The PP legal framework clearly covers the whole scope of PP, all stages of the procurement process, methods of procurement, ethics and transparency (Thai, 2009). Robert (2003), states that a good PP legal framework is based on the principles of openness and transparency, fair competition, impartiality, and integrity. According to American Bar Association (2000), a sound PP system needs to have good procurement laws and regulations.

In practice and theory, PP laws and rules have been considered as one of the most important pillars of a sound procurement system (Thai, 2009). Procurement laws and rules lead to procurement efficiency or inefficiency depending on the type of government and environment within which the system is operated. In a country where no government democracy exists, the procurement system cannot be transparent and integral (Organization for Economic Corporation and Development (OECD, 2006).

In Kenya, specific legislation has been passed by the Government to structure and regulate procurement and disposal in the public sector. The provisions of article 227 of the Constitution of Kenya (2010), requires public entities (PEs) to procure goods and services in accordance with a system that is fair, equitable, transparent, competitive and cost effective (Nyaoga & Mogere, 2013).

The Public Procurement and Disposal Act (PPDA, 2005), the Public Procurement and Disposal Regulations (PPDR, 2006), the Public Procurement and Disposal (Public Private Partnership Regulations (PPPR, 2009) and Public Procurement and Disposal (Preference and Reservations) Regulations (PRR, 2011), govern PP. The main purpose of regulating the acquisition function is to ensure effectiveness, procedural efficiency, transparency, accountability and improved performance of PEs in meeting customer needs.

The decisions made by the state corporations in terms of procurement activities should be in compliance to the PP legal framework and should result into value adding to the services that customers receive from these entities. State corporations deliver services to all citizens regardless of their social-economic status. The citizens as customers pay for the services rendered by these corporations. The Government being the main stakeholder has expectations of high quality service for citizens by state corporations.

The measurement of the services delivered or performance of state corporations is done using compliance to the PP legal framework. In the context of this study, the Kenyan government is the principal and the state corporations are the agents who are entrusted with the day to day running of the state corporations.

### **1.1.2 Organizational Performance**

The fundamental purpose of any organization is to consistently outperform the competition and deliver sustained, superior returns to the owners while satisfying other stakeholders. The measurement of how successful enterprises are at achieving this purpose has become a key element in modern public sector governance (Verbeeten & Bonns, 2009). Many developing countries have introduced performance management as a means to measure organizational and individual efficiency in order to ensure that public sector organizations meet the needs of the public (Ohemeng, 2009).

Measuring performance is a graceful way of calling an organization to account (Bruijn, 2007) and in public sector performance measurement; accountability is the central concern (Heinrich, 2007). Performance measurement is viewed as a warning, diagnosis and control system that is used to keep track of economy, efficiency, effectiveness and efficacy (Teelken & Smeenk, 2003).

Measurement of organizational performance is not easy for business organizations with multiple objectives of profitability, employee satisfaction, productivity, growth, social responsibility and ability to adapt to the ever changing environment among other objectives (Waiganjo, Mukuru & Kahiriri 2012). Although performance has been

traditionally conceptualized in terms of financial measures, some scholars have proposed a broader performance construct that incorporates non-financial measures including among others market share, product quality, and company image (Obong'o, 2009).

Critics have expressed dissatisfaction with exclusive use of financial data to measure performance. They argue that use of financial data encourages short term and local optimization thus overlooking the long term improvement strategy and ignoring competitor information (Kaplan & Norton, 1992). Due to inefficiencies of financial measures of performance, The Balanced Scorecard (BSC) (Kaplan & Norton, 1992) which has a more stakeholder based view was developed. BSC evaluates performance from four perspectives namely financial, internal business processes, customer and learning and growth. The BSC has been adopted by the Kenyan government in measuring performance of PEs which includes state corporations.

### **1.1.3 Overview of State Corporations in Kenya**

The State Corporations Act (1987) revised in 2013 gives criteria through which an institution can be considered to be a state corporation. The common variable in all the criteria is control by the government of Kenya. A state corporation is therefore an entity which the government has significant influence over and uses public funds in the procurement of goods and services for consumption by the public.

By law, state corporations are guided by government regulations and appointed bodies such as the State Corporations Advisory Committee (SCAC), and the Efficiency Monitoring Unit. The terms, conditions and guidelines of state corporations released through the State Corporations Advisory committee stresses that state corporations have no option but to embrace modern business management practices (Government Press, 2004).

Kenya has 187 state corporations (Parastatls Taskforce Reforms, 2013), divided into five broad categories based on their mandate and functions. The categories are purely

commercial agencies; agencies with strategic function; executive agencies; regulatory agencies; research institutions, public universities and tertiary, educational and training corporations. These state corporations are regarded as one of the factors that are and have a great potential to facilitate growth (Njiru, 2008).

Most state corporations were first established during the colonial era where majority were in the agricultural sector which predominate the country's economy since independence. As at 2012, agriculture accounted for about 26% of the Gross Domestic Product (Kenya National Bureau of Statistics (KNBS, 2013). The formation of state corporations was driven by a national desire to accelerate socio-economic development, need to redress regional economic imbalance, citizen's participation in economy and promoting indigenous entrepreneurship (Kobia & Mohammed, 2006). For state corporations in Kenya to play this role, it is important that they are governed and managed efficiently, effectively and sustainably.

Looking at the performance of the government over the last ten years, it is evident that there has been an improvement in performance of some state corporations with most of them having turned around from loss making entities to reporting billions of shillings as profits (Mwangi, 2013). However, there are a number of state corporations which have been a burden on the exchequer over the decades due to their dismal performance, while many others have been operating below their potential (Republic of Kenya) RoK, 2009; Taskforce on Parastatals Reform, 2013).

Kenyan state corporations contribute approximately 16.3% to the GDP and this has remained largely unchanged since 2004 (Kenya Economic Development Report, 2009). These organizations are faced with a number of challenges including rapid environmental changes, competition to provide innovative products and services, changing customer and investor demands, poor infrastructure and globalization (Waiganjo, Mukulu & Kahiri, 2012), thus affecting their performance in service delivery to the Kenyan citizen.



#### **1.1.4 Overview of Public Procurement in Kenya**

In Kenya, until 2001, there was no sound legal framework and institutional structure governing the PP sector (Akech, 2005). The function was largely undertaken by the Crown Agents on behalf of the Government because the needs of the colonial and independent Kenya were largely met from foreign sources as local sources were still not adequate. The Supplies Manual was developed in 1978, and was supplemented by circulars that were issued from time to time by the Treasury (PPOA, 2010).

The numerous and conflicting circulars from the Ministry overshadowed the manual guidelines. The need for procurement reforms became urgent because of the growing scrutiny and pressure from within and outside the country. The domestic push was due to society's expressed dissatisfaction with the PP system which included complains of misallocation of resources, inadequate infrastructure, inefficient services, high taxes, growing indebtedness and high risks (Odhiambo & Kamau, 2003).

The external pressures were from donors and multilateral organizations such as the World Bank, International Trade Centre (ITC), and the World Trade Organization (WTO) (Lewa, 2007). These organizations made PP reforms a condition for lending too many developing countries, including Kenya. Studies conducted by SGS Consultants and the World Bank in 1986 and 1997 respectively to evaluate the country's procurement system revealed that the PP system lacked transparency and fair competition, and that procurement staff were not adequately trained and therefore lacked the necessary skills and professionalism (OECD, 2003; Basheka, 2009).

The reviews further established that there was no professional body to oversee and instill discipline among procurement officers and this made them vulnerable to corruption. Records of procurement transactions in many cases were found to be inaccurate or incomplete while in some cases they were absent altogether (Bukhala, 2003).

A major recommendation from these two studies was that reforms in PP system were inevitable if the government was to save resources and get value for money spent (OECD, 2005). This therefore led to the gazettelement of the Exchequer and Audit Act (Public Procurement Regulations, 2001). Despite this being a huge stride towards reforms, an Independent Procurement Review (IPR) carried out in 2005 established that there was mismanagement of contract variations; lack of effective checks and balance in respect to procurement at district level; inappropriate application of the requisite procurement method; inappropriate authorizations; incomplete evidence of the full receipt of goods and services paid for; excessive delays in the procurement process; poor filing of procurement and related expenditure documentation (OECD, 2005).

This therefore necessitated anchoring the procurement process in an Act of Parliament rather than being relegated to regulations (PPOA, 2010). The reform process was therefore extended to have a sound legal framework through an Act (PPDA, 2005) of Parliament to allow for proper enforcement and remedy the issues arising from the IPR report.

The country was very positive and optimistic that the procurement reforms would help improve PP in Kenya. However, the legal framework seems not to have addressed the past weaknesses and according to the Mars Group (2011), scandals such as the Anglo-Leasing security contracts, maize importation, sale of Grand Regency Hotel to Libyan investors without following the due process of law, Triton Oil importation scam, sale of Kenya's Embassy in Japan and many other scandals which relate to PP malpractices was estimated to have cost the country over Ksh700 billion.

According to the PPOA review reports of PEs, compliance levels to the PP rules and regulations are very low. For instance, the reviews of 2010/2011 and 2011/2012 financial years revealed that PEs were flouting the rules and regulations through use of wrong procurement methods leading to high procurement costs, poor quality purchases, late deliveries or no deliveries at all, lack of procurement planning, poor records management and weak contract management system (PPOA, 2011 ).

The reports further indicate that compliance levels at Kenya Revenue Authority (KRA) was at 50%, Kenya Agricultural Research Institute (KARI) at 53.2%, Tana Water Services Board at 29.32%, National Social Security Fund (NSSF) at 50.3%, Kenya Institute of Administration (KIA) at 31%, Harambe Co-operative Society at 29%, NWCPC at 42.24%, Tanathi Water Service Board at 45.67%, Teachers Services Corporation (TSC) at 43%, National Hospital Insurance Fund (NHIF) at 72.1%, Egerton University at 64.05%, Ministry of Water at 50%, Communications Commission of Kenya (CCK) at 60.7%, and Postal Corporation of Kenya at 50.7% (PPOA, 2011). This shows that implementation and compliance in most PEs is unsatisfactory therefore affecting the performance of these entities in delivering their mandates.

Non compliance to the PP rules and regulations was evident in the Internal Electoral Boundaries Commission (IEBC) voter registration tender that was petitioned in court by Gladwell Wathoni Otieno and Zahid Rajan on 16<sup>th</sup> March, 2013. The Petitioners averred that the IEBC violated the Constitution and the Procurement Act by awarding the tender to an unqualified bidder who supplied devices that did not work properly or simply failed, on Election Day (Petition No.5, 2013). The Supreme Court in its ruling in the presidential petition observed that the failure mainly arose from the misunderstandings among IEBC members during the procurement process which occasioned the failure to assess the integrity of the technologies in good time (Mutunga *et al.*, 2013).

All these cases of non implementation and compliance to the PP rules and regulations affect the performance of PEs in the efficient delivery of services to the Kenyan citizens. As a country therefore, Kenya has largely failed to effectively harness the spirit and letter of the PP legal framework in delivering transparency, accountability, and good governance in PP sector.

## 1.2 Statement of the Problem

In spite of the reforms carried out in PP in Kenya, the procurement rules and regulations have not fully achieved the objectives of economy, transparency and accountability (Muriungi, 2014). Public procurement related malpractices were estimated to have cost the country over Kshs.700 billion (Mars Group, 2011). According to PWHC (2009), over 50% of public entities in Kenya do not comply with procurement rules and regulations. For instance, IEBC awarded a tender to an unqualified bidder who supplied devices that failed to work on the elections day (Mutunga *et al.*, 2013). Furthermore, over 90% of the cases being investigated by Ethics and Anti Corruption Commission (EACC) are procurement related (Oanda, 2013). The NSSF Tassia II Estate, Standard Gauge Railway, and the NHIF Civil Servants Scheme projects are among the projects that have dominated the media for procurement malpractices (Gichio, 2014).

Implementation levels continue to be low in most PEs despite efforts by PPOA to put in place measures to improve compliance (Ombuki *et al.*, 2014; Njeru *et al.*, 2014; Gesuka & Namusonge, 2013; Thuo & Njeru, 2014 and Kioko & Were, 2014). Budget rules and procedures that support timely procurement, are inadequate; record keeping and contract management systems are weak (PPOA, 2011; Sang & Mugambi, 2014). PEs make purchases outside procurement procedures, heads of procurement units do not have professional qualifications as required by section 26 (8) of PPDA (2005), and mandatory committees are not established (Crown Agents, 2011; Mungai & Muturi, 2014). PEs procure items at about 60% above market prices (KNBS, 2010; Juma, 2010; Ogachi, 2014) resulting to financial losses that affect performance of the PEs.

Implementation levels continue to be low in most PEs despite efforts by PPOA to put in place measures to improve compliance (Ombuki *et al.*, 2014; Njeru *et al.*, 2014; Gesuka & Namusonge, 2013; Thuo & Njeru, 2014; Kioko & Were, 2014). Budget rules and procedures that support timely procurement, are inadequate; record keeping and contract management systems are weak (PPOA, 2011; Sang & Mugambi, 2014). PEs make purchases outside procurement procedures, heads of procurement units do not

have professional qualifications as required by section 26 (8) of PPDA (2005), and mandatory committees are not established (Crown Agents, 2011; Mungai & Muturi, 2014). PEs procure items at about 60% above market prices (KNBS, 2010; Juma, 2010; Ogachi, 2014) resulting to financial losses that affect performance of the PEs.

A number of studies have been conducted on PP regulatory compliance; however, there is no comprehensive study that specifically addressed the effect of implementation of the PP legal framework on organizational performance. For instance, studies by Gelderman, *et al.*, (2006); Geo (2008); Eyaa and Oluka (2011); Osei-Tutu, Mensa and Ameyaw (2011); Ntayi, *et al.*, (2012); Onyinkwa, (2013); Gesuka and Namusonge (2013); Mwangi and Kariuki (2013); Mugo (2013); and Migosi, Ombuki and Evusa (2014) determined the factors influencing non compliance to the PP rules and regulations.

Thuo and Njeru, (2014) studied the effect of PP reforms on service delivery; Ogot, Mulinge and Muriuki assessed the impact of PP regulations on profit oriented corporations in Kenya; Gitari and Kabare, (2014) assessed the factors affecting access of procurement opportunities by SMEs; Muraguri, (2014) assessed the extent of the preference and reservation regulations implementation; Ngeno, Namusonge and Nteere, (2014) determined the effect of discriminatory procurement practices on performance of PEs in Kenya. However, all these studies failed to explain the effect of the implementation of the PP legal framework on performance. In addition, all the studies did not adequately address all the key elements of PP legal framework as the authors concentrated on the PPDA, (2005) and PPDR, (2006) respectively.

This has left an evident knowledge gap, which the study intends to bridge by determining the effect of the PP legal framework implementation on performance using the principal agent theory supported by the decisions theory, stakeholders theory, institutional theory, legitimacy theory, resource based theory and public value theory. The study concentrated on all the main elements of the PP legal framework.

### **1.3 Objectives of the Study**

The study had both the general and specific objectives.

#### **1.3.1 General Objective**

The general objective of the study was to determine the effect of the implementation of public procurement legal framework on performance of state corporations in Kenya.

#### **1.3.2 Specific Objectives**

The following were the specific objectives:

1. To determine the effect of the Public Procurement and Disposal Act, (2005) implementation on organizational performance of state corporations in Kenya;
2. To assess the effect of the Public Procurement and Disposal Regulations, (2006) implementation on organizational performance of the state corporations in Kenya;
3. To establish the contribution of the Public Private Partnership Regulations, (2009) implementation on organizational performance of the state corporations in Kenya;
4. To assess the effect of the Preference and Reservations Regulations, (2011) implementation on organizational performance of the state corporations in Kenya;
5. To examine the moderating effect of enforcement on the relationship between the implementation of the public procurement legal framework and organizational performance of state corporations in Kenya.

### **1.4 Research Hypotheses**

The following hypotheses were tested:

1.  $H_0$ : There is no significant effect of the Public Procurement and Disposal Act, (2005) implementation on organizational performance of state corporations in Kenya;

2.  $H_0$ : There is no significant effect of the Public Procurement and Disposal Regulations, (2006) implementation on organizational performance of state corporations in Kenya;
3.  $H_0$ : There is no significant contribution of the Public Private Partnership Regulations, (2009) implementation on organizational performance of state corporations in Kenya;
4.  $H_0$ : There is no significant effect of the Preference and Reservations Regulations, (2011) implementation on organizational performance of state corporations in Kenya;
5.  $H_0$ : There is no moderating effect of enforcement of the public procurement legal framework on the relationship between the PP legal framework and organizational performance of state corporations in Kenya.

## **1.5 Justification of the Study**

Previously, PP was administered through Treasury Manuals which had no legal backup either through an Act of Parliament or in the Constitution of the Country. The legal framework was put in place to guide the management of PP in Kenya. However, since 2007 when the Act was operationalized, no available study has been conducted to establish the effect the implementation of the procurement rules and regulations has had on organizational performance of Kenyan state corporations. This has left a knowledge gap that this study intended to fill. The findings of this study will be of particular importance to various sectors and have implications on theory, policy and practice.

### **1.5.1 The Government and Relevant Institutions**

Findings of this study have policy implication for the Government and Kenyan state corporations. State corporations are one of the key public sectors identified to help spur economic growth and help achieve the country's Vision 2030. The performance of state corporations is important and therefore the results of this study will assist these corporations in ensuring full implementation and compliance with PP rules and regulations while minimizing its negative consequences such as slow service delivery due to bureaucratic delays.

Non effective implementation of the PP rules and regulations by PEs is worrisome to stakeholders and policy makers. Therefore by enhancing compliance, vast resources usually lost through non-compliance and inefficiency in PP will be saved thus improving performance and achieving value for money.

### **1.5.2 Public Procurement Oversight Authority and other Countries**

The realization of the country's Vision 2030 depends on how efficiently and effectively the medium term plans are done. PPOA is continuously reviewing the procurement Act and Regulations and the results from this study will add to the required information for reviewing the legal framework in order to improve procurement performance in PEs. Findings may be used as a pointer to finding mitigations to and addressing the weaknesses identified in implementation and compliance to the PP rules and regulations.

Further, results of study indicated that enforcement of the rules and regulations increased levels of compliance. However, results also indicated that the compliance audits conducted by the oversight authority were very low. The implication is that PPOA should focus more on enforcement as it is an incentive for state corporations to adhere to the rules and regulations thus improving their performance in delivering quality services to the Kenyan citizens.

### **1.5.3 Researchers and Scholars**

Findings of this study may also be invaluable to researchers and scholars in providing more insights on how effective implementation of the PP legal and regulatory framework affects corporate performance of PEs in Kenya. This study may lay a theoretical framework for future empirical study on the influence of PP legal framework on organizational performance of PEs. Other than being useful in terms of availing literature review, findings of this study may be of great importance to procurement professionals in both the private and public sector as it adds to the body of knowledge on theory and practice of effective PP practices.



As mentioned earlier, there have been very few attempts to empirically research on the effect of PP legal framework implementation on organizational performance; this study may be a source of inspiration to other researchers in developing a more practical methodology for operationalizing PP legal framework implementation to assist procurement practitioners and PEs in general comply with the rules and regulations in improving performance of their organizations and thus increasing customer satisfaction and creating public confidence of the organization.

### **1.6 Scope of the Study**

The study focused on 187 state corporations in Kenya as per the list of the Taskforce on Parastatal Reforms (2013). These corporations are dispersed countrywide. The study generally determined the effect of the public procurement legal framework implementation on organizational performance of the state corporations in Kenya. Specifically, the study determined the effect of the implementation of the elements of the public procurement rules and regulations on performance of the state corporations in Kenya.

The study covered the main aspects of the PP legal framework, that is, the rules and the regulations that have been put in place to regulate public procurement in Kenya. These included the Public Procurement and Disposal Act, (2005); Public Procurement and Disposal Regulations, (2006); Public Private Partnership Regulations, (2009) and Public Procurement and Disposal (Preference and Reservations) Regulations, (2011). Enforcement of the legal framework by the Oversight Authority was used as a moderating variable.

### **1.7 Limitation of the Study**

PEs are required to fully comply with the PP rules and regulations, and gathering information from these institutions was a challenge since these entities felt that they were being investigated and some of the officers felt that this was classified information and therefore hesitated to release the same to the researcher. To overcome this challenge, researcher presented the research introduction letter from the university and

further assured state corporations management that the findings of the study were to be used strictly for the study only. This cleared their fears and enabled the management to disclose much of the information sought for the study.

The questionnaire was also structured to avoid direct questions on non compliance. Questions generally addressed the operations of the organization in terms of implementation of the legal framework and the effect the implementation of the rules and regulations has had on organizational performance of the state corporations.

The sample used for this study was taken from states corporations in Kenya. Due to issues of confidentiality, the study used symbolic letters to refer to the corporations and ensured that the study did not directly mention the name of the state corporation. Performance measurement was restricted to state corporations as opposed to a single corporate measurement. Study was also limited to state corporations and recommends future research to expand the scope to all public entities.

Another limitation was the respondents whereby only procurement practitioners and accounting officers were targeted. Study recommends future research to incorporate users of goods and services; all those involved in the procurement process and service providers. Study also used explanatory survey design whose study does not detect causal effect of variables. Future research could use a longitudinal study to be able to provide a better understanding of the effect of the PP legal framework implementation on organizational performance over time. A longitudinal survey will also give casual effects of variables.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents the review of relevant theoretical and empirical literature. It comprises the theoretical review, specific elements of the PP legal framework and organizational performance. The chapter looks into the linkages in addition to establishing the existing relationship amongst variables. Empirical studies related to the study variables were reviewed in order to lay down ground for research. The chapter also attempted to justify the study in addition to reinforcing and underpinning the conceptual framework. Lastly the chapter critiqued and highlighted the research gaps of the literature reviewed.

#### **2.2 Theoretical Framework**

The research was anchored on the principal agent theory and borrowed from the public value theory, decision theory, institutional theory, legitimacy theory and stakeholders' theory. The four pillars model developed by the OECD and Thai, (2009) were used in developing the conceptual framework. The PPDA, (2005) was greatly enriched by the agency theory, stakeholder's theory and the four pillars model. The PPDR, (2006) was established using the institutional theory and legitimacy theory, the PPPR, (2009) was established by the decision theory and public value theory, while resource based theory informed the dependent variable.

##### **2.2.1 Principal Agent Theory**

Agency theory was expounded by Alchian and Demsetz (1972) and further developed by Jensen and Meckling (1976). The theory defines the relationship between the principals, such as shareholders and agents or company executives and managers. In this theory, shareholders who are the owners of the company, hire the agents to perform work. Principals delegate the running of business to the managers, who are the shareholders' agents (Clarke, 2004).

According to Rungtusanatham *et al.*, (2007), two parties have an agency relationship when they cooperate and engage in an association wherein one party delegates decisions or work to another to act on its behalf. The important assumptions underlying agency theory are that: potential goal conflicts exist between principals and agents; each party acts in its own self-interest; information asymmetry frequently exists between principals and agents; agents are more risk averse than the principals; and efficiency is the effectiveness criterion (Xingxing & Kaynak, 2012).

The theory deals with situations in which the principal is in a position to induce the agent, to perform some task in the principal's interest, but not necessarily the agent's (Health & Norman, 2004). Accounting officers and procurement managers in state corporations play the agent role for the government and the organization stakeholders. Compliance with procurement rules and regulations may be as result of principal-agent problem (Langevoort, 2002). The PPDA, (2005) bestows the responsibility of compliance with PP legal framework on the Accounting Officers of the PEs.

The proponents of Agency Theory base their arguments purely on the economics aspect of the model in explaining the relationship between firm managers and firm owners (Davis *et al.*, 1997; Donaldson, 1990). Unlike Agency theory, which is built on the assumption of self-interest human behavior to assert that managers as agents cannot be trusted and should be fully monitored, the stewardship theory criticizes it as a false premise and claims instead that managers are good stewards of the corporation (Marris, 1964; Nichols, 1969; Etzioni, 1975).

Managers have a wide range of motives beyond a simple self-interest, such as achievement, recognition and responsibility needs, the intrinsic satisfaction and pleasure of successful performance, respect for authority, social status, and work ethics. Dedicated, energetic, and ethical employees are always hard to find, and hiring individuals with special skills is even harder (Lan, Riley & Cayer, 2005). The requirements to educate professionals and equip them with new and higher-level skills have consequently become urgent (Sauber *et al.*, 2008).

A skill has been defined as the ability either to perform some specific behavioral task or the ability to perform some specific cognitive process that is related to some particular task (Peterson & Van Fleet, 2004). Skills required by purchasing professional have changed due to the role shift of the purchasing function itself. For example, professionals in procurement and supply chain management have faced a challenging ethical environment (Cooper, Farank & Kemp, 2000).

Theory explains the relationship between the government and the state corporations in compliance to the legal framework, and how the actions of the agent affect the principal and other stakeholders for example making non optimal decisions as far as the utilization of financial resources and non financial resources are concerned (Muranda, 2006).

This theory was useful in explaining the relationship between the government as the principal and state corporations as agents in the implementation of the PP legal framework. The theory explains how the actions of the agent affect the principal and other stakeholders. This theory specifically informed the implementation of the PPDA, (2005).

### **2.2.2 Stakeholders Theory**

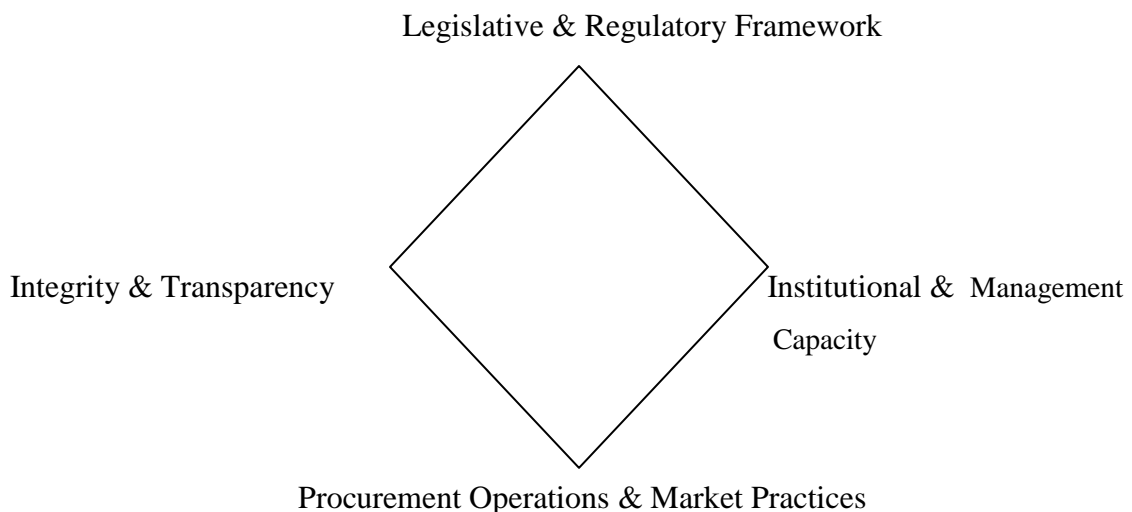
Stakeholder theory originated by Freeman (1984) is defined as “any group or individual who can affect or is affected by the achievement of the organization’s objectives”. Unlike agency theory in which the managers are working and serving for the stakeholders, stakeholder theorists suggest that managers in organizations have a network of relationships to serve that include the suppliers, employees and business partners.

According to Freeman and Philips (2002), each stakeholder is given an important say in making important decisions. Business and executives, who manage them, should create value for customers, suppliers, employees, communities and financiers (Stieb, 2008). The stakeholder theory argues about the importance of a firm paying special

attention to the various stakeholder groups that are deemed to have a stake in the operations of a firm. The representation of all stakeholder groups on boards is therefore necessary for effective corporate governance (Gibson, 2000). In the context of this study, this theory was used to establish how different stakeholders such as the general public, the government, suppliers and various procurement professional organizations influence effective implementation of PP rules and regulations and how this affects organizational performance.

### 2.2.3 The Four pillars Model

This model was developed by the World Bank, Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD) and a number of developing countries for assessing the quality and effectiveness of national public procurement systems (OECD, 2005).



**Figure 2.1: Four Pillars Model**

**Source: OECD, (2007)**

The legislative and regulatory framework pillar is based on the existence, availability, quality and use of the legal and regulatory framework from the highest level (Act and Regulations) down to the more detailed operational procedures, guidelines, model tender documents, and standard conditions of contract (PPRA, 2007).

According to OECD (2007), the institutional framework and management capacity pillar is based on the procurement system as defined by the legal and regulatory framework in a country and operates through the institutions and management systems and practices that form part of the overall public sector governance. Procurement operations and market practices pillar is based on the operation of the systems at the level of the implementing PEs as well as on the procurement market (PPOA, 2007).

Integrity and transparency pillar is based on the PP system that rely on a number of control mechanisms, including an effective control and audit system, an efficient appeals mechanism, a comprehensive information sharing system enabling civil society and interested stakeholders to conduct social audit, and effective ethics and anti-corruption measures. Without such control mechanisms, flaws in the procurement system may not be detected and addressed.

This model was important in explaining the Kenya regulatory framework and the procurement system in general both at the oversight and PE level. The Oversight authority is responsible for ensuring effective implementation of the PP legal framework and compliance to the same through enforcement in terms of procurement audits. Without enforcement, the rules and regulations are of no use.

#### **2.2.4 Institutional Theory**

Institutional theory adopts a sociological perspective to explain organizational structures and behavior (Dunn & Jones, 2010). It draws attention to the social and cultural factors that influence organizational decision-making and in particular how rationalized activities are adopted by organizations (Scott, 2001). The institutional theory is the traditional approach that is used to examine elements of PP (Obanda, 2010).

Scott, (2004) identifies three pillars of institutions as regulatory, normative and cultural cognitive. The regulatory pillar emphasizes the use of rules, laws and sanctions as enforcement mechanism, with expedience as basis for compliance. The normative pillar refers to norms and values with social obligation as the basis of compliance. The

cultural-cognitive pillar rests on shared understanding on common beliefs, symbols, and shared understanding. In Kenya, PP is guided by the procurement Act, regulations and guidelines which are regularly issued by the PPOA only and which must be complied with to the letter by all the PEs and providers (Juma, 2010).

From the three pillars of institutions propounded by Scott (2004), organizational culture, social influence, organizational incentives and enforcement are identified as antecedents of compliance to procurement rules. It is therefore crucial to strengthen institutions in order to attain high levels of performance. Procurement and disposal processes in the public sector need a body that is not only focused but committed in attaining of the set up goals and objectives (Hilletofth, 2009).

Skills required by purchasing professional have changed due to the role shift of the purchasing function itself from that of a buyer to that of a professional managing strategic long-term, complex agreement between internal stakeholders and suppliers (Carr & Smeltzer, 2000). Consequently, professionals require a complex set of managerial and technical professional skills. These role shifts affect professionals in both developed and developing countries. It affects procurement professionals in central and local government systems as well as those in the public and private sector environments. For purchasing to be at a strategic level, professionals need to possess a set of skills and competencies (Carr & Smeltzer, 2000).

Institutions are transmitted by various types of carriers, including symbolic systems, relational systems, routines, and artifacts institutional theories of organizations provide a rich, complex view of organizations. In these theories, organizations are influenced by normative pressures, sometimes arising from external sources such as the state, other times arising from within the organization itself (Zucker, 1987). Under some conditions, these pressures lead the organization to be guided by legitimated elements, from standard operating procedures to professional certification and state requirement, which often have the effect of directing attention away from task performance.



Subjecting the Kenyan procurement laws and regulations to such views makes the implementation and compliance of the same almost untenable. Previous examples have been given where state operators have pushed their tenders through though not qualified according to the laid down rules and procedures. This affirms that the PE does not exist in isolation of the wider macro environment.

The procurement functions are performed in a complex environment (Eriksson, 2005) where the accounting officer is a political appointee answerable to a wider spectrum of persons who are not necessarily within the organization. This theory was important in explaining the implementation of the PPDR, (2006) in terms of the structures that the state corporations had put in place to ensure effective implementation and compliance of pp rules and regulations.

#### **2.2.5 Legitimacy Theory**

Legitimacy theory derived from the concept of organizational legitimacy, was defined by Dowling and Pfeffer, (1975) as a condition or status which exists when an entity's value system is congruent with the value system of the larger social system of which the entity is a part (Guthrie, Cuganesan & Ward, 2006). When a disparity, actual or potential, exists between the two value systems, there is a threat to the entity's legitimacy.

Legitimacy theory posits that organizations continually seek to ensure that they operate within the bounds and norms of their respective societies. According to Wilmshurst and Frost (2000), the legitimacy theory postulates that the organization is responsible to disclose its practices to the stakeholders, especially to the public and justify its existence within the boundaries of society. This theory, which focuses on the relationship and interaction between an organization and the society, provides a sufficient and superior way for understanding state corporations procurement practices (Hui *et al.*, 2011). Generally in a society, individuals' actions influence each other. This explains why some laws and regulations set up to regulate the procurement function are at times compromised.

Lindblom, (1994) identifies four courses of action that organizations can take to obtain or maintain legitimacy and they include; seeking to educate and inform its 'relevant publics' about changes in the organ's performance and activities; seeking to change the perception of the "relevant publics", seeking to manipulate perception by deflecting attention from the issue of concern to other related issues through an appeal to emotive symbols and seeking to change external expectation of its performance.

Social values are a consequence of human interactions which are structured and governed by informal institutions. Social values promote cooperative tendencies with people who are considered close not necessarily following the law to the spirit and letter (Jones & Rachlin, 2006). For example in most developing countries, the procurement function is transitioning from a clerical non strategic unit to an effective socio-economic unit that is able to influence decisions and add value (Knight *et al.*, 2007; Facolta di Economia, 2006).

Developing countries in one way or another have reformed their PP regulations. The reforms have not been limited to regulations only, but also include PP process, methods, PP organizational structure, and the workforce. This theory was important in explaining the legitimacy of the PP rules and regulations and the reforms that have taken place in the past and the legitimacy of the state corporations. This theory informed the general objective of the study.

#### **2.2.6 Decision Theory**

Decision theory as discussed by Jurison (1995) indicates that a manager should be accountable to his decisions. He should be concerned about the outcome of his action by weighing the risks of taking any of the options to reduce the risks by the outcome. Theory is about decisions made at both the individual and institutional level. There are two broad categories of decisions theory. According to Dickert, Fielder, Andreas and Nicklisch (2013), one might decide between giving up resources to influence the well being of others often without expecting direct benefits.

It is the stakeholders' expectation that PP office holders uphold the interest of the wider society before their own and this remains the decision of the individual procurement office holder at any circumstance. Modern decision theory has developed since the middle of the 20th century through contributions from several academic disciplines. There are two broad categories of decision theories: the normative and descriptive decision theories. The distinction between normative and descriptive decision theories is, in principle, very simple.

A normative decision theory is about how decisions should be made and a descriptive theory is about how decisions are actually made. There is a specific way in which procurement decisions should be made in order for such procurement transactions to comply with the law (Normative), however there is a way in which decision on the same procurement transactions are actually made (descriptive) which is contrary to the existing law and thus non-compliant ( Polasky, Carpenter, Folker & Keeler, 2011).

Decision theory provides a rational framework for choosing between alternative courses of action when the consequences resulting from this choice are imperfectly known. Two streams of thought serve as the foundations of this thinking. Government institutions are faced with tasks of making decisions on daily basis. These decisions are hinged upon other institutions (Polasky *et al.*, 2011). For example the civil service in a country is heavily inclined to decisions and laws made in parliament. The civil service is an extension of the executive and therefore is bound by the laws of the national assembly.

In relation to the issues concerning procurement, although this sector is and has been seen to be independent of the major players in the sector, it is not independent as such. In any PE, there are many competing interests from different stakeholders; however these different interests should be balanced. Decisions to further one of these interests may hamper pursuance of another. The distinction between these different interests may serve to recognize that in many countries and jurisdictions in both the developed and the developing world there is strong focus on competition interests (Jansen, 2006).

Procurement office holders are consistently presented with opportunities to making decisions at all levels of procurement processes. These lead to several assumptions; the first assumption is about narrow self-interest which is central to rational choice theory (Murphy, Ackermann, Michel, & Handgraaf, 2011). The postulate is that decision makers are concerned about maximizing their own material gain, indifferent to the payoffs of other decision makers around them.

PP professionals work under a constantly challenging environment. Many factors contribute to this environment, including: strict procurement regulations, due to “the fear of discretion” (Kelman, 1990). Further, dealing with these challenges, PP professionals have to maintain an open, fair, timely, and transparent procurement process while dealing with social and economic procurement goals such as small business preferences and local or national preferences.

However, there are reliable counter examples demonstrating that decision makers' elicited preferences and choices are often influenced in part by the payoffs of other decision makers, thus challenging what some have termed the selfishness axiom (Henrich *et al.*, 2005). Given these two opposing views on the behaviors of decision makers in the performance of the procurement function in PEs, it remains a challenge on the possible motivation attributed to the actions of the concerned procurement officers. In the context of this study, state corporations make decisions to enter into PPPs and these decisions affect stakeholders. Theory was used in establishing whether the decisions made by state corporations to enter into PPPs were in the best interest of the stakeholders.

### **2.2.7 Public Value Theory**

Public value theory was formulated by Moore, (1995) to provide public sector managers with a greater understanding of the constraints and opportunities within which they work, and the challenge to create publically valuable outcomes. Benington and Moore (2010) argue that public value theory envisages a manager's purpose as going beyond implementation of policy and adherence to institutional norms.

It includes seeking out opportunities to make significant improvements to the lives of the public. Moore, (1995) also notes that public value theory articulates a more proactive and strategic role for public sector managers who seek to discover, define and produce public value, instead of just devising means for achieving mandated purposes. So, rather than procuring at the lowest price, a public sector client might decide to spend more to achieve better whole-of-government outcomes (Staples, 2010). This might involve pursuing regional development or local supplier policies by selecting, for instance, building contractors who are more capable of engaging local small and medium-sized enterprises (SMEs) as subcontractors or suppliers, and or training apprentices or providing employment for at risk long term unemployed youth (Staples, 2008).

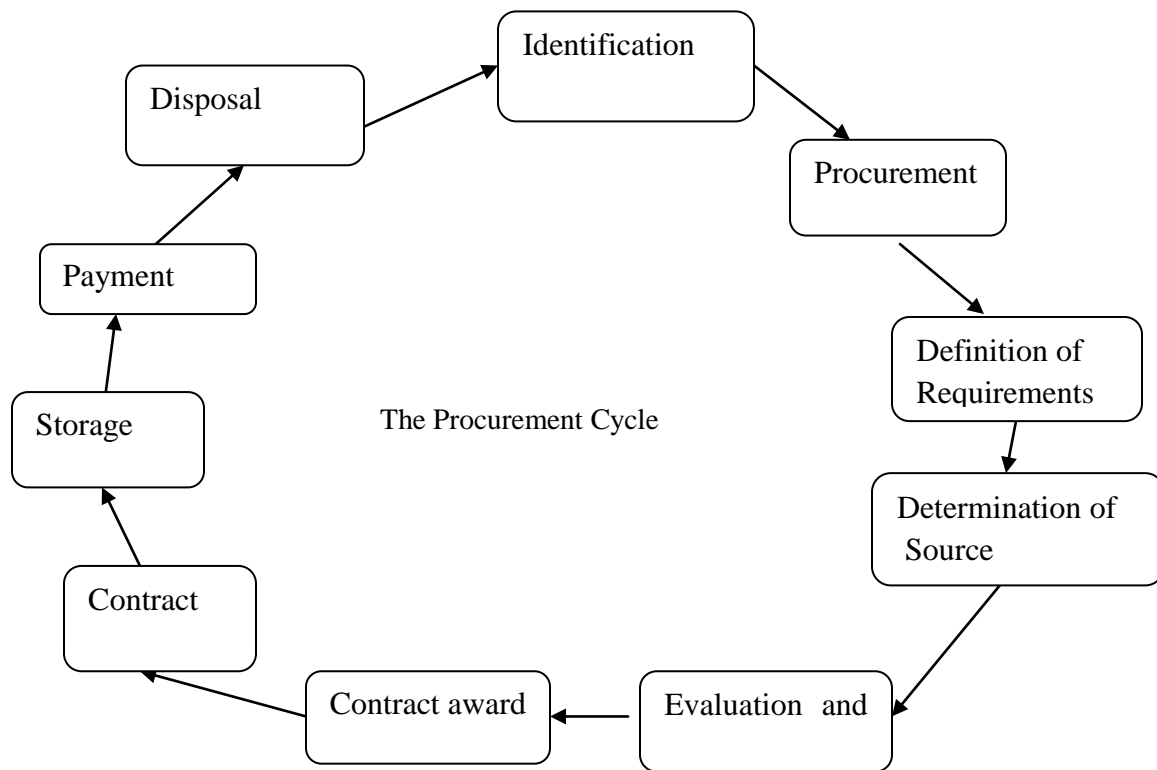
The PPDA, (2005) section 39 has a provision for preferences and reservations particularly for bidders from minority groups in society, local bidders, the youth, women and persons living with disabilities. This was operationalized with the gazettment of the Preference and Reservations Regulation, (2011) and can be translated to mean positive discrimination.

According to Constable, Passmore and Coats, (2008) unlike private enterprise, organizations providing public services are directly accountable to citizens and their democratic representatives. This theory was important in explaining how the implementation of the preference and reservations regulations has created procurement opportunities for the SMEs and how this has made significant improvement to the lives of the citizens.

### **2.2.8 Public Procurement Legal Framework Models**

Public procurement refers to the government activity of purchasing goods and services needed to perform its functions (Arrowsmith, 2010). According to Odhiambo and Kamau (2003), PP is broadly defined as the purchasing, hiring or obtaining by any contractual means, goods, construction works and services by the public sector. The concept of PP involves procurement planning, contract placement and contract

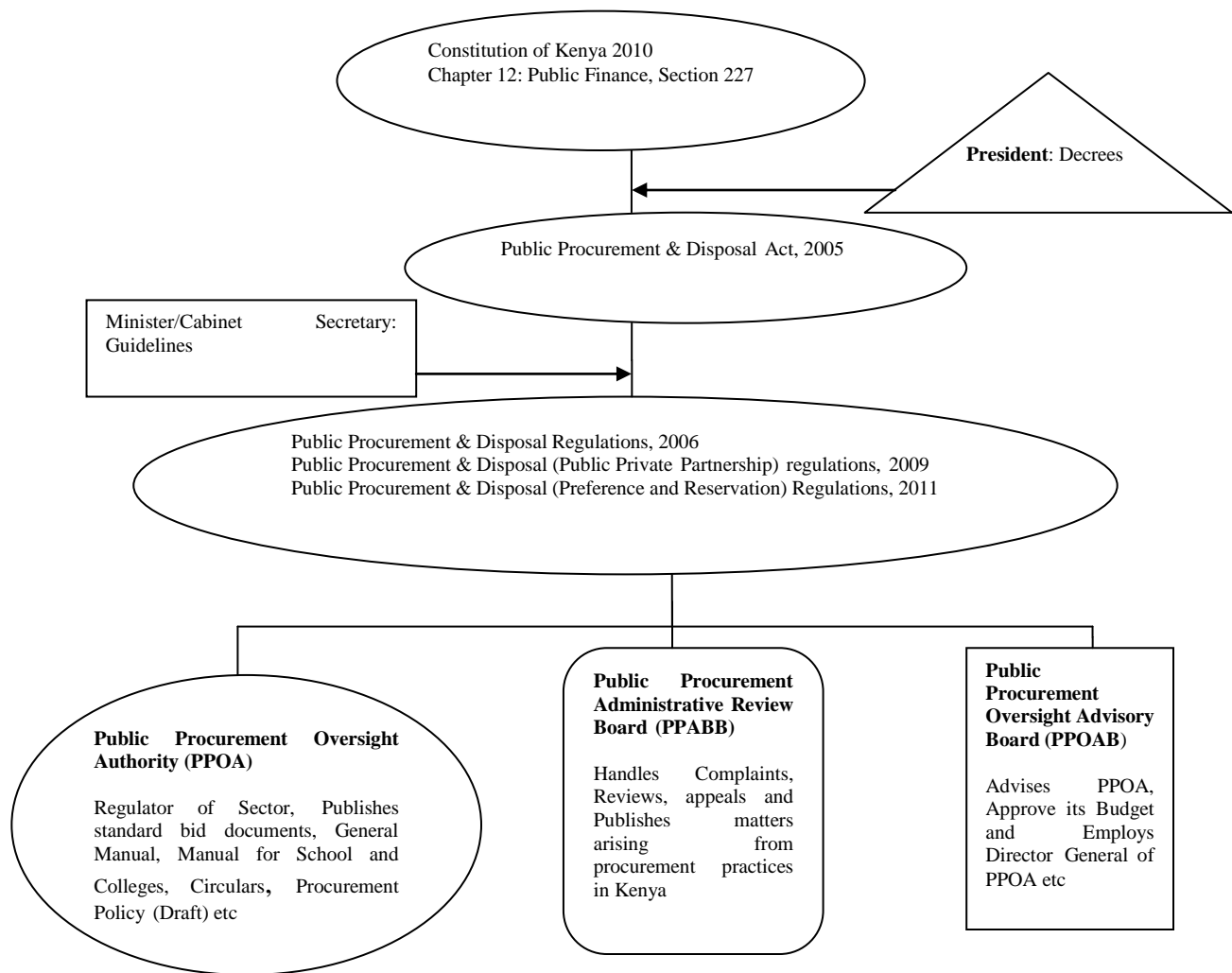
administration (Arrowsmith, 2010). According to PPOA (2009), acquisition process starts with identification of need, procurement planning and definition of requirements, determination of source, evaluation and selection of vendor, contract award, contract implementation, storage, payment and lastly disposal.



**Figure 2.2: Public Procurement Process:**

**Source: PPOA, (2009)**

PP addresses a wide range of objectives (Uyarra & Flanagan, 2009). It delivers goods and services to the constituents of a particular government administration, used to achieve socio-economic objectives such as stimulating economic activity; protecting national industries from foreign competition; improving the competitiveness of certain industrial sectors; and remedying national disparities (Thai, 2006). Arrowsmith (2010) contends that the objectives of public procurement are achieved through the legal and regulatory framework. Figure 2.3 illustrates the procurement legal framework model in Kenya.



**Figure 2.3: Simplified Kenyan Public Procurement Legal Framework**

**Source: Lubale, (2013)**

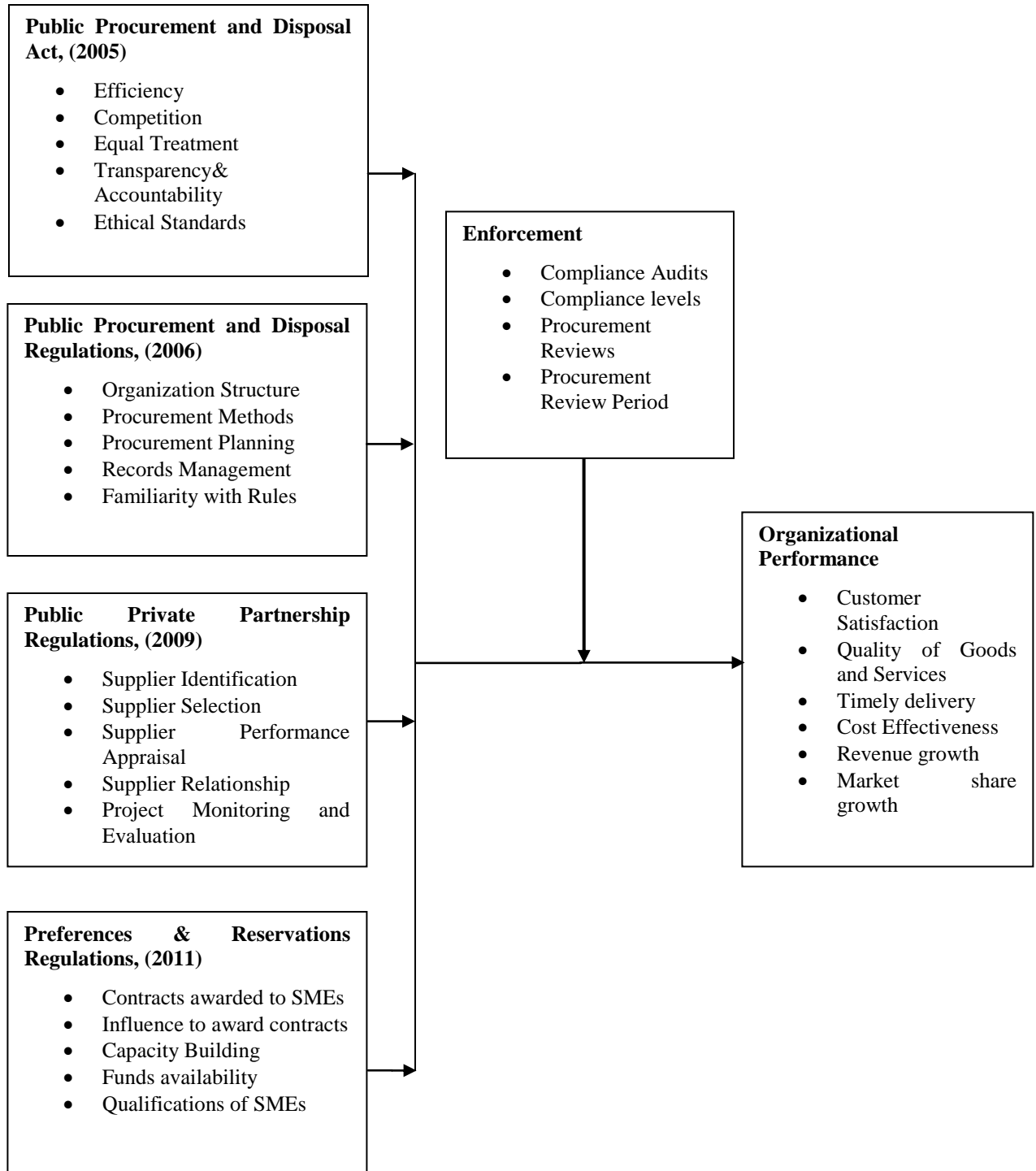
The procurement system cannot be effective in the long run if PEs flouts the rules, regulations and guidelines set by the government. The PP legal framework has a national application with regard to PP and the set rules and regulations govern procurement at both the national and county government level. These models were used to explain the Kenyan PP legal framework and the national procurement system and development of the conceptual framework.

### **2.3 Conceptual Framework**

A conceptual framework is a scheme of concepts (or variables) which the research operationalizes in order to achieve set objectives (Chakraborty, 2009). It is the main structure that gives the research its form and shape and holds together all the elements in the logical configuration (Mugenda & Mugenda, 2012). It shows how a research conceptualizes the relationship between the variables in the study and shows such relationship (KIM, 2009). A conceptual framework is made up of independent, dependent and intervening (or moderating) variables.

After a comprehensive review of the relevant theoretical literature and based on own rationale, a conceptual diagram was presented showing the influence of the public procurement legal framework on performance of state corporations. In brief it was conceptualized that: the dependent variable was organizational performance; the independent variables were the PPDA, (2005); the PPDR, (2006); the PPPR, (2009) and the PRR, (2011). The moderating variable was enforcement of the public procurement legal framework. Figure 2.4 represents the conceptual framework.





**Independent Variable**

**Moderating Variable**

**Dependent Variable**

**Figure 2.4: Conceptual Framework**

### **2.3.1 Implementation of Public Procurement and Disposal Act, (2005) and Organizational Performance**

The Public Procurement and Disposal Act was approved by Parliament and gazetted in 2005 (Juma, 2010). In order to have additional regulations and the institutions, which had to be created according to the provisions of the Act, the Act became operational by 1st of January, 2007 (PPOA, 2010). It established procedures for procurement and the disposal of unserviceable, obsolete or surplus stores and equipment by PEs to achieve the following objectives: to maximize economy and efficiency (value for money); to promote competition and ensure that competitors are treated fairly; to promote the integrity and fairness; to increase transparency and accountability, to increase public confidence in those procedures; and to facilitate the promotion of local industry and economic development (PPDA, 2005; Muriungi, 2014).

Efficiency (value for money) entails consideration of the contribution made in advancing government policies and priorities while achieving the best return and performance for the money spent (Bauld & McGuinness, 2006). Sometimes the government is at liberty to consider other criteria than the lowest price; for example technical capabilities, qualifications of key personnel, and past performance records in awarding contracts to potential suppliers (Cummings & Qiao, 2003).

Transparency is a key requirement of a modern PP system and lack of it in procurement activities can be the source of unwholesome activities such as corruption, scandal and abuse of public resources (Shu *et al.*, 2011). Transparency in PP is about information. The access to key procurement information by civil society, the media and other stakeholders, and the ways in which these parties can use the information, directly affects accountability (UNDP, 2010). Transparency is considered as one of the most effective deterrents to corruption and a pre-condition for ensuring public officials' accountability (OECD, 2007). E-procurement is potential in standardizing processes, increase their transparency, improve access to markets, and promote integrity in public bidding (ADB/ OECD, 2006).

Accountability applies to the public sector (Barrett, 2000) and also to private sector organizations that are accountable to their stakeholders (Hughes, 2003). The public demand greater accountability and better service (Gunasekaran, 2005). Therefore, managing the risks associated with the complex competitive environment give rise to accountability problems (Barrett, 2000) as the roles and responsibilities of the participants in the process are not clear. In PP, professionalism relates not only to the levels of education and qualifications of the workforce but also to the professional approach in the conduct of business activities (Raymond, 2008).

Non-professionalism in PP leads to corruption which ultimately impedes compliance of procurement rules and regulations in PEs and adversely affects performance. If procurement officers are not professionally trained, lack awareness about all regulations in relation to procurement and related procedures, then serious consequences including, breaches of codes of conduct occur (Atkison, 2003) leading to application of unsound procurement practices and therefore declined organizational performance.

### **2.3.2 Implementation of Public Procurement and Disposal Regulations, (2006) and Organizational Performance**

After the approval of the Act by Parliament, the PPD Regulations were developed and approved in 2006 by the Minister of Finance and gazetted (Ombuki *et al.*, 2014). The regulations outline the various processes and procedures followed when goods, services or works are procured. These include internal organization of the PEs in terms of corporate governance and leadership in complying with the legal framework, organizational structure in terms of segregation of the procurement responsibilities among different committees, procurement planning, and management of records for all procurement transactions (Njeru *et al.*, 2014).

The Regulations provided for a fully decentralized procurement process, leaving the full responsibility of undertaking procurements to the tender committees and the procurement unit at the level of the PE (PPOA, 2010). PEs are required to put structures in place to support effective implementation of the procurement rules and regulations.

Organizational structure such as distribution of authority, stream of organizational relationship, hierarchies, the span of control of managers and communication (Daft, 2009) can facilitate channeling, alliance, accountability, stipulate the level of formality and power distribution and complexity prescription (Bowersorx, 1986). The law requires that the head of procurement report directly to the Accounting Officer of the institution. On the flipside, the regulations do not give a blanket position of the head of procurement (Ombuki *et al.*, 2014).

The head of procurement could be reporting to the Accounting officer but hierarchically they are placed on the third or lowest level of the organizations' organ gram and thus making no impact (Ogachi, 2014). This is still a major challenge in many entities as procurement is still either part of Finance department or a section reporting to the head of finance. Worse still procurement is ranked as operational in many entities such that even if procurement were to report to the Accounting Officer but do not sit in the senior management meetings where board of management decisions are made.

Procurement plans are prepared as part of the annual budget preparation and are necessary as they inform cash flow preparations (Reg. 20: 2-3). It is one of the pre-requisites for the effectiveness and efficiency of the procurement function thus leading to the ultimate success of the organization (Mugo, 2013). It provides a good basis for monitoring the entire procurement process and prevents procurement irregularities.

Through a procurement plan template, the PE can quickly and easily define its procurement requirements, the method of procurement and the timeframes for delivery (Basheka, 2008). However, many government entities are still faced with the challenges of improper planning and linking demand to budget (Ambe & Badenhorst-Weiss, 2011a). Cost- effective procurement depends on a specialist's skills to ensure that buying requirements are reliably determined, appropriate contract strategies are developed, contracts are well managed and opportunities are seized to secure the best deals at the right time and at the right price (Ambe & Badenhorst-Weiss, 2012).

The importance of drawing up accurate and realistic strategic plans cannot be over estimated. At times there is an absence of coherent plans and some procuring entities cannot properly quantify needs of those requiring services or properly estimate costs, nor accurately track, control and report on expenditure (Luyt, 2008). Poor planning and budgeting affect implementation of PP. Ambe and Badenhorst-Weiss, (2012) recommend that procurement practitioners should adequately link demand planning to the budget.

Procurement staff, all those involved in the acquisition process and suppliers are required to be familiar with the procurement rules and regulations. According to Rossi (2010), compliance with the formal elements gives an indication of knowledge of the rules. Gelderman *et al.*, (2006) maintains that procurement managers will comply with the rules if they perceive them as clear. Lack of clarity increases the possibilities for procurement regulations noncompliance. Eyaa and Oluka, (2011) noted that lack of familiarity with procurement rules results into poor compliance levels and this leads to inefficiency which negatively affects organization's performance.

### **2.3.3 Implementation of Public Private Partnership Regulations, (2009) and Organizational Performance**

Public Private Partnerships Regulations were gazetted on 10<sup>th</sup> March, 2009, with the aim to enhance economic stimulation; promoting investment and creation of value for money, which is a collection of several factors (Koimet, 2013). PPPs are arrangements between the government and the private sector with the main objective of securing investment and greater efficiency in the delivery of public infrastructure, community facilities and other related services (Ong'olo, 2006).

According to Thai (2009), PPP is an arrangement where the private party design, build, finances, maintain and operate (DBFMO) infrastructure assets traditionally provided by the public sector. These partnerships are characterized by a sharing of investments, risks, rewards and responsibilities between the two parties.

The Kenya private sector has over the years substantially contributed to the country's economic development process. Figures indicate that the sector contributes 87 percent of the national GDP (KNBS, 2010), a substantial percentage of total employment and the bulk of export earnings. Examples of PPPs in Kenya include the Lake Turkana Wind Power Project, Kenyatta University Student Housing Project, Lamu Port and Rift Valley Railway (Mutero, 2013).

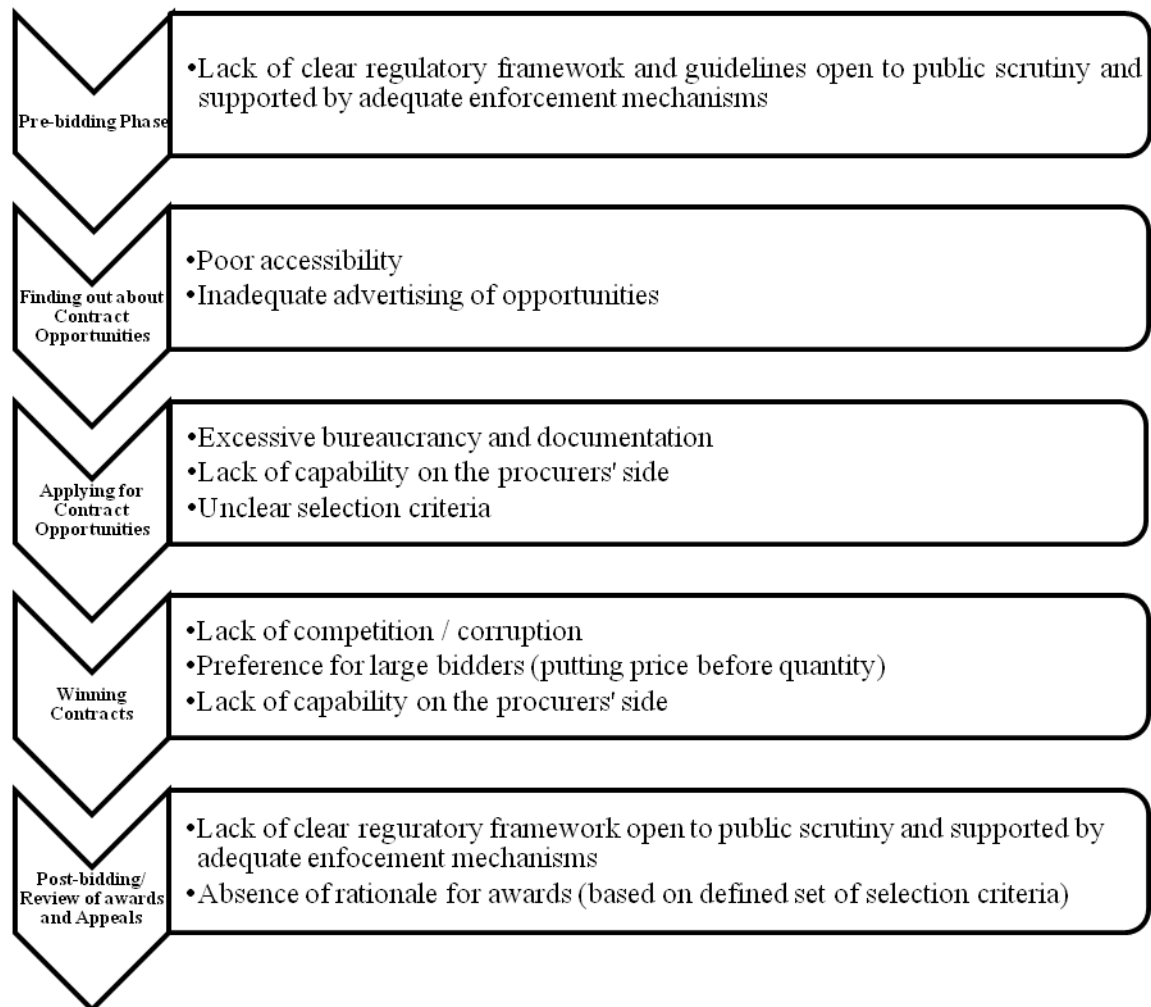
In many countries across the world, demand for public services is increasing. Insufficient public sector capital to meet this demand is leading to an unsustainable gap in investment (Thai, 2009). To bridge this gap, governments are turning to public private partnerships (Ongolo, 2006); however, the main challenge in implementation of the public private partnerships is supplier identification, supplier selection and evaluation, due diligence supplier performance management and supplier relationship management and project implementation monitoring and evaluation.

#### **2.3.4 Implementation of Preference and Reservations Regulations, (2011) and Organizational Performance**

Regulations target persons perceived to be denied, by mainstream society's access to resources and tools which are useful for their survival in a way that disadvantages them and includes enterprises owned by women, youth and persons with disabilities (Muraguri, 2013). Small and Medium Enterprises (SMEs) plays an important role in Kenya's economy. According to an Economic Survey Report (2009), the sector contributed over 50% of job creation in the year 2008 (Memba, Gakure & Karanja, 2012).

The Kenyan government has recognized the importance of the SMEs and put in places rules establishing the legal framework for promotion of these special groups. Further, the government has specified the legal quotas for PP suppliers for SMEs and the proportion is capped at 30% of all the contracts awarded. However, the main challenges in implementing these regulations include conflict of interest, availability of resources,

types of goods and services, resistance of buyers and qualification and capacity of SMEs to deliver on the requirements (Starkexgroup, 2014). Other challenges include lack of clear regulatory framework and guidelines open to public scrutiny, poor accessibility, inadequate advertising of procurement opportunities, lack of excessive bureaucracy and documentation and unclear selection criteria (Kaspar & Puddephatt, 2012). Kaspar and Puddephatt identified various challenges that face SMEs in different stages of public procurement process as shown in figure 2.5 below.



**Figure 2.5: Major Challenges Facing SMEs in Different Stages of Procurement**

**Source: Kaspar & Priddphat, (2012)**

State corporations require adequate resources for service delivery. The resources include human, financial, information and material. The human resources are the employees that work for these corporations. Armstrong (2006) defines human capital as the knowledge, skills and abilities of the people employed in an organization. Financial resources are generated and some remitted from the central government. Effective implementation of the Preference and Reservations Regulations require adequate financial resources to allow budgeting and procurement of goods and services. In spite of procurement contributing between 10 - 40% of the country's GDP, concerns on the way in which public organizations use the resources that are given to them has often raised doubts that value for money has not been realized (Amayi & Ngugi, 2013).

Human capital has an important role to the creation of entrepreneurial orientation (Grant, 1991). Higher levels of human capital increase the likelihood that procurement opportunities, which emerge from changing environment, will be 'discovered' by these firms. Thus, ventures with higher levels of human capital should be able to find new ways to increase customer benefits by engineering more efficient production processes and/or by innovation (Holcomb, 2007). Additionally, human capital consists of a supply of knowledge and skill abilities that individuals can, develop with the passage of time, store within and transmit between themselves. Thus the availability of the resources is a basic factor to affect implementation of the Preference and Reservations Regulations.

Organizations with rich resources may have a greater tendency and ability to engage in activities in comparison to organizations with light resource (Ireland *et al.*, 2009). Implementing the PP legal framework requires availability of a strong capacity of professionals (Thai, 2009). According to Walker (2003), good procurement training involves training both government officials and private employees. The number of staff in the procurement function in an organization should be sufficient for the procurement task in a specific public entity (Thai, 2001).



### **2.3.5 Organizational Performance Measurement**

McCann (2004) views organizational performance as relating to the efficiency and effectiveness of the firm. Hofer (1983) contends that performance is a contextual concept associated with the phenomenon being studied. Financial measures which have been historically used to measure organizational performance include profit, return on investment, and earnings per share, market share, revenue growth and current ratio (Pandey, 1999).

Due to the inefficiencies of financial measures of performance, the Balanced Scorecard (BSC) (Kaplan & Norton, 1992) which has a more stakeholder-based view was developed and evaluates corporate performance from four perspectives namely: financial, internal business processes, customers and learning and growth.

Performance has over the years evolved to encompass wider definition and philosophies such as Profit Impact of Marketing Strategy (PIMS). This is grounded on the premise that organizations are responsible for more than just creating economic value and, in 1997, the Triple Bottom Line (TBL) (Elkington, 1997) emerged as a new tool for measuring organizational performance. The TBL considers excellence along all the three lines of sustainable reporting (economic, social and environmental) (Hubard, 2009). Contemporary performance measurement takes cognizance of the BSC and the TBL leading to the Sustainable Balanced Score Card (SBSC).

This study advances an argument that performance is influenced by many factors key among them implementation of the PP legal framework, but this influence could be affected by enforcement of the procurement rules and regulations by the PPOA to ensure implementation and compliance. PEs operates under an environment that affects their performance (Bolton, 2006). Performance is measured to assess whether the organization goals have been achieved or not. This is very important because through performance measurement (PM) process, the organization is able to identify root problems and addresses them.

The popular adage that what gets measured gets done emphasizes the importance of performance measurement. Tangen (2003) defines firm performance measures as metrics employed to quantify the efficiency and effectiveness of a Firm's actions. Kennerley and Neely (2003) suggest that implementing appropriate performance measurement systems ensures that actions are aligned to strategies and objectives.

Some scholars suggest use of multiple measures while others assert that various aspects of performance may be captured in a single measure (Hatten, Schendel & Cooper, 1978). Lenz (1980) posits that deciding on which performance measure to use and identification of a measure that is relevant to the organizations studied is of outmost importance.

According to Atkison, Waterhouse and Wells (1997), performance measurement systems based primarily on financial performance measures, lack the focus and robustness needed for internal management and control. Traditional measurement systems have also been known to encourage conservatism and a playing it safe attitude. O'Regan and Ghobadian (2004) argue that an effective performance measurement system ought to cover more than just financial measures as they mostly reflect the firm's emphasis on achievable quantifiable performance objective such as profitability, sales and assets (Heidt, 2008).

Tan and Smyrnois (2011) proposed the BSC as one of the most popular approaches used to measure firm performance. Kaplan and Norton (1992) opined that financial measures alone were insufficient, and other factors such as competence, knowledge and customer focus were necessary. The principles of the BSC provide a holistic view of firms and examine four important areas of finance, customers, business processes and learning and growth. The financial perspective looks how well firms are doing to satisfy the needs of owners or shareholders who are looking for returns on their investment.

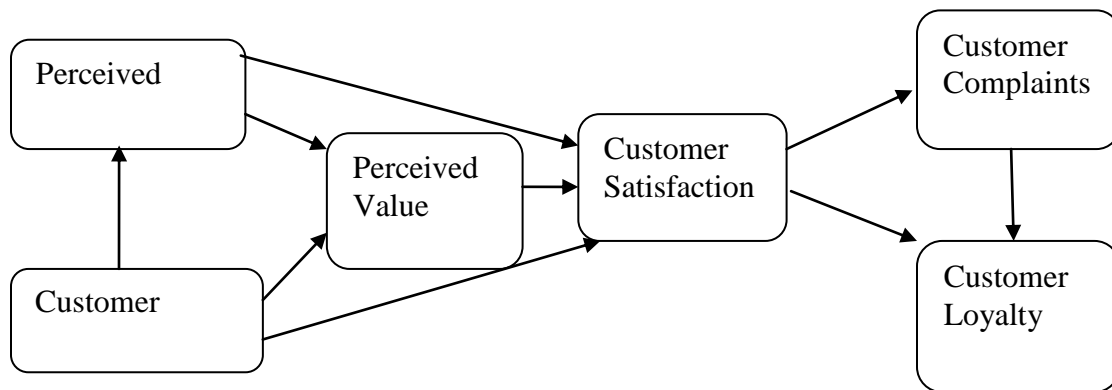
The customer perspective looks at how satisfied the organization's customers are and it describes the ways in which value is to be created for customers, how customers demand for this value to be satisfied and why customers will be willing to pay for it; the customer perspective is the health of the scorecard. If the corporation fails to deliver the right products and services to cost effectively satisfy the customer needs in both the short and long run, revenue will not be generated and business will wither and die (Kaplan & Norton, 1992).

The internal business process perspective identifies what the organizations key competencies are and the areas of operational excellence. This perspective evaluates the efficiency and effectiveness of the firm's process (Kaplan & Norton, 1996). The learning and growth perspective enables organization to ensure its capacity for long term renewal, a prerequisite for survival in the long run.

Kaplan and Norton (2005) advocated a balance between these four perspectives to ensure long term survival and growth. However, PM is not easy for state corporations with multiple objectives of profitability, customer satisfaction, productivity, growth, social responsibility and ability to adapt to the ever changing environment among other objectives (Waiganjo, Mukuru & Kahiri, 2013).

Although performance has been traditionally conceptualized in terms of financial measures such profit, return on investment, earnings per share, revenue growth and current ratio (Pandey, 1999), some scholars have proposed a broader performance construct that incorporates non-financial measures including among others product quality, delivery effectiveness (Price) efficiency and flexibility, stock availability and delivery lead time. Businesses monitor customer satisfaction in order to determine how to increase their customer base, customer loyalty, revenue, profits, market share and survival.

Although greater profit is the primary driver, exemplary businesses focus on the customer and his/her experience with the organization. They work to make their customers happy and see customer satisfaction as the key to survival and profit. Customer satisfaction in turn hinges on the quality and effects of their experiences and the goods or services they receive. According to Basheka (2009), customer satisfaction can be experienced in a variety of situations and connected to both goods and services.



**Figure 2.6: ACSI Model**

**Source: (Vavra, 1997)**

In the public sector, customer satisfaction is often linked to both the personal interaction with the service provider and the outcomes experienced by service users. In measuring customer satisfaction, the American customer satisfaction Index model can be used. This is a cause and effect model with indices for drivers of satisfaction (Customer expectations, perceived quality and perceived value) on the left hand side, satisfaction in the centre and outcomes of satisfaction (customer complaints, customer loyalty, customer retention and price tolerance) on the right hand side.

Quality is the backbone of any business and can be expressed in terms of physical products supplied by an organization and customer service. Complete quality takes into consideration the technical as well as economic factors such as price and availability (Lyson & Farrington, 2005). Customer perceptions of quality are different but ultimately, customers consider what meets their needs.

### **2.3.6 Enforcement of Public Procurement Legal Framework**

Enforcement is viewed as any actions taken by regulators to ensure compliance (Zubcic & Sims, 2011). Effective policy making requires information whether public entities are doing things right and whether they achieve the results intended (Acevedo, Rivera, Lima & Hawng, 2010). Strong monitoring and evaluation systems provide the means to compile and integrate this valuable information into policy cycle, thus providing the basis for sound governance and accountable public policies.

Inadequate monitoring and evaluation is linked to the absence or poor presence of a control environment, and government entities are placed in a difficult position to give effect to or implement procurement as required by policy (Ambe & Badenhorst-Weiss, 2012). There is lack of proper monitoring and evaluation as required (Stemele, 2009). Hence, deviation or non-compliance goes undetected or is identified after the fact.

There are mixed opinions regarding the effect of enforcement on compliance. Sparrow (2000), argues that enforcement may make violators more sophisticated in how to prevent, and conceal detection by the authorities. However, Imperato (2005) agrees that enforcement improves compliance. According to Zubcic and Sims (2011), enforcement action and increased penalties lead to greater levels of compliance with laws. Corruption among government procurement officials in developing countries has been linked to a weak enforcement of the rule of law (Raymond, 2008). In countries with complaint and review mechanisms, bidders are allowed to verify whether the procurement processes conform to the prescribed procedures.

The possibility of review is also a strong incentive for procurement officials to abide by the rules (Hui *et al.*, 2011). According to Collier (2002), enforcement has a greater regulatory impact beyond the violators and reminds directors and others involved in corporate management of their responsibilities and the risks attached to a failure to fulfill those responsibilities. Imperato (2005) also observes that enforcement action aiming at ensuring compliance plays an important role in corporate governance.

Implementation of organizational activities depends on the organizational structure. One way to explain the effect on implementation of organizational activities is the principal-agency theory. Government delegate authority to the state corporation managers who are the agents, the managers in turn delegate the authority to the procurement staff who executes procurement functions (Eyaa & Oluka, 2011).

## **2.4 Empirical Review**

This section presents a thorough empirical review of studies conducted before relevant to this study. The review revolves around each study variable as postulated from the theories and conceptualized based on own rationale. In an effort to enrich the study with most critical variables in explaining the dependent variable, a synthesis and critique permitted limitations that characterized past studies to be mitigated and revealed opportunities to be exploited in the current study.

### **2.4.1 Implementation of Public Procurement and Disposal Act**

Research on compliance to the PP Law has been carried out but not extensively. Gelderman *et al.*, (2006) undertook a study on non-compliance of EU tendering directives. The study surveyed 147 purchasing professional of the Dutch Ministry of Defense and the findings revealed that both purchaser's familiarity with the rules and organizational incentives have a positive, statistically significant impact on compliance. On the other hand, inefficiency of the directives and supplier resistance did not influence compliance with the directives.

Geo (2008) on the other hand carried out a study on factors influencing compliance with the Public Procurement Law (Act, 663) in Ghana. Study established that both organizational goal achievement and familiarity of rules by public procurement practitioners have a positive, statistically significant impact on compliance. Kenya, Mamati and Onyango (2009) sought to determine the influence of the PPDA, (2005) on procurement practices in PEs in Kenya. Study established that the regulations have had a significant influence on pricing of goods procured and lead time and a less significant influence on transparency of the procurement process and quality of goods procured.

PPOA (2007) undertook a survey on the level of compliance to the procurement law and established that the introduction of the legal and regulatory procurement framework; the establishment of PPOA as an oversight body; the development of a framework for contract administration and the appeals mechanism were among the aspects of the procurement system rated as having been positively affected by the law. In contrast, the existing institutional development capacity in PEs and functioning of the procurement market were assessed as being among the weakest aspects of the system. One of the strong points about the PP law according to the study was that procurement decision making had been fully delegated.

Osei-Tutu, Mensah and Ameyaw (2011) studied the level of compliance with the public procurement Act in Ghana and findings indicate overall compliance levels of 19.58% and 17.8% in the Ashanti and Brong Ahafo regions respectively. Findings further indicate that the general poor compliance with the law is due to lack of professional procurement personnel to man PP, lack of resources to purchase in bulk, lack of understanding of the law, lack of Internet facilities to facilitate access of information from PP Authority and also to post adverts and procurement plans.

Conversely, Mugo (2013) conducted a study on determinants of procurement regulatory compliance by Kenya Electricity Generating Company (Kengen). Study employed a descriptive design and specifically sought to find the effect of staff competence, technology, and organizational structure and governance policies in determining procurement regulatory compliance. The study found out that information technology (IT) was the most significant variable in determining procurement regulatory compliance. The study established that IT affected the performance of Kengen to a high extent and that technological use increased efficiency on the procurement regulatory compliance.

Jones and Carey (2010) conducted a study in the UK to examine user perceptions of e-procurement quality (EPQ) in four organizations with from 274 respondents. Findings indicated a strong positive relationship between user-perceived EPQ and both system

and contract compliance. System compliance was most strongly influenced by professionalism and content dimensions, whilst contract compliance was most strongly influenced by processing, specification, and content dimensions. Study is important, however, the fact that it was carried in the UK which is a developed economy and with far better electronic infrastructure, its findings cannot be generalized to include under developed countries including Africa.

Kiama (2014) conducted a study on the factors affecting implementation of PPDA, (2005) in SACCO Societies in Kenya with the main variables of strategic planning, enforcement and organizational culture. Through a descriptive research design, the study targeted procurement officers and general managers working with SACCOs societies. Findings revealed that the impact of the regulator on SACCOs was high and culture favors good procurement procedures.

A study by Ojo and Gbadebo (2014) assessed reasons for non-compliance in the procurement of works in Nigeria using a structured questionnaire administered to stratified and randomly selected 100 stakeholders' respondents. Mean score ranking was used to establish reasons for non-compliance. Findings indicated that familiarity of procurement rules and political influence on decision making were some of the reasons for non compliance.

In another the study by Ombuki, Arasa, Ngugi, and Muhwezi (2014) conducted a study on the environmental factors influencing procurement regulatory compliance by Kenya's Public Universities, the study employed Ex-post facto survey research design with a sample size of 168 procurement staff drawn from 21 public universities. Simple random sampling technique was used in selecting respondents. Questionnaires and in depth interview guides were used to collect data. Descriptive and inferential statistics were used to analyze the data.



Shiundu and Rotich, (2014) conducted a study on the factors influencing efficiency of procurement systems at the City Council of Nairobi focusing on procurement employees. Descriptive survey was adopted and since the population was not very large, a census approach was adopted of all 63 procurement officers and data was collected using a questionnaire. Findings indicated that employee competence, information technology, records management and management style influenced procurement efficiency at the council. Study recommended, among other things, enhancing procurement staff skills; adoption of e- procurement system and maintaining a good record keeping culture to ensure comprehensive statistics on the value of goods, services and works procured.

Gesuka and Namusonge (2013) conducted a study on the factors affecting compliance of PP in Kenya with 70 respondents that were purposively selected from the Butere district commissioner's office, procurement committees, procurement unit, user departments and suppliers. Primary and secondary data was collected through the administration of a structured questionnaire, interviews and records analysis respectively. The findings indicated some level of compliance to the legal requirements, but also revealed weak familiarity of procurement rules of all the stakeholders.

Thuo and Njeru (2014) conducted a study on the effects of public procurement reforms on service delivery at National Spinal Injury Referral Hospital. Findings indicated that non-involvement of heads of departments on contract management affects negatively service delivery; prolonged procurement cycles affects service delivery hence dissatisfaction and demoralization of staff because of frequent stock outs. Study recommended development of effective procurement system and training of all public procurement stakeholders on PPD Act and Regulations.

#### **2.4.2 Implementation of Public Procurement and Disposal Regulations**

Ogot, Mulinge and Muriuki (2010) in their study on the impact of the PP Regulations on fifty four (54) profit oriented PEs in Kenya established that regulating procurement had significantly promoted transparency, quality and value for money. However, the

study revealed that the ability by the PEs to bargain with suppliers for the best deal and speedy response to business opportunities were some of the areas adversely impacted by the law. The study did not indicate the impact of the inability to bargain with suppliers and failure of speedy response to business opportunities had on the firms' profitability and growth; for accountability of the firms; profit generation and growth cannot be alienated from the managers' discretion to control cost of inputs, that is, procurement.

In an attempt to determine the factors influencing compliance to procurement regulations in public secondary schools in Nyamache sub-county, Onyinkwa (2013), conducted a survey in 15 secondary schools with a sample size of 135 respondents. The study established that ethics, awareness and training influence compliances with procurement regulations. Study recommended offering ethics education to school tendering committee members in order to ensure they serve in ultimate objectivity, accountability, and non discrimination. Whilst the research brought to light some of the factors influencing non compliance in secondary schools, the study fell short of expounding on the extent of influencing from each of the factors under study.

Basheka (2008) undertook a study among 99 local government stakeholders selected from 11 Districts of Uganda, using a correlation research design. The data was analyzed using principal component factor analysis that aimed at identifying the critical components of procurement planning and accountable local governments systems in Uganda. Results of the study indicated a significant positive relationship between procurement planning and accountable local government procurement systems. He critically analyzed the contribution of the roles of a manager one of which is planning. However, the scholar failed to acknowledge that while planning was key in the roles and responsibilities of managers, there are other roles including; coordinating, organizing, leading and controlling. This study dwelt on planning only and did not take cognizance of other roles. Further study fell short of explanation on the sample. It did not highlight whether the sample was representative of the local government agencies to enable generalization of findings.

Eyaa and Oluka (2011) also conducted a cross sectional study on the causes of non-compliance in public procurement in Uganda that targeted was 120 Central Government Procuring and Disposing Entities (PDEs). The authors' model indicated a 52.4% variation in compliance with the regulations.

Sang and Mugambi (2014) conducted a study on factors affecting compliance with public procurement laws and regulations in public entities in Mombasa county with a target population of 60 respondents who are directly involved in PP. A sample size of 45 was selected using purposive sampling and questionnaire was used to collect data. Findings indicated staff awareness of rules and regulations, personnel skills and competence as the main factors that affect PP compliance. Study recommended PPOA to work with PEs to create awareness of staff on the procurement rules and regulations.

In another study by Migosi, Ombuki, and Evusa (2013) on the determinants of non-compliance of public procurement regulations in Kenyan secondary schools in Kitui Central, targeting 12 public schools out of the 33 registered schools, with respondents of 120 committees members, 12 school principals and 60 suppliers, it was established that those involved in the procurement process were not familiar with the new procurement rules and regulations. Study recommended that government and public institutions train all those involved in the PP process on the rules and regulations to improve compliance.

Conversely, Mungai and Muturi (2014) conducted a descriptive study on effects of procurement regulations on efficiency of the procurement of foodstuffs in Public Secondary Schools in Kenya. Purposive sampling was used in selecting the sample size of 74 respondents of the principal and school accounts officer. Study revealed that procurement regulations have significantly improved the quality of food delivered in schools. Study recommended every attempt be made in implementing the procurement regulations especially in areas that enable schools cut down unwarranted costs in purchasing of food and in tapping the opportunities available in the market without compromising the quality of food stuffs.

In an attempt to establish influence of procurement policies on implementation of effective procurement practices in Tertiary Public Training Institutions in Kenya, a descriptive research design targeting procurement staff across the 40 institutions was adopted by Njeru, Ngugi, Arasa and Kahiri (2014). Stratified random sampling technique was employed in selecting a sample size of 160 respondents with the use of questionnaire as the main data collection instrument.

Findings indicated low level of PP regulations compliance, application of poor procurement policies, lack of top management support, use of poor procurement procedures, poor relationship between management and stakeholders, poor method of managing organization resources and lack of effective policy making process as some of the procurement policy elements that affect implementation of effective procurement practices. Study recommended designing and application of better procurement policies, support and empowerment of staff to execute procurement functions in accordance with the PP regulations, improve on relationship between management and stakeholders and employ better methods of managing organization resources ( Njeru *et al.*, 2014).

Chekol and Tehulu (2014) conducted a study on factors leading to effective PP implementation in Ethiopia. The study collected data from 42 PP officers using questionnaires and analyzed it using multiple linear regressions. The findings indicated that familiarity with PP rules and regulations, transparency in PP processes, ethics in PP and efficiency had a positive and statistically significant impact on effective PP implementation. Findings further indicated that accountability in PP, though having a positive association with effective PP implementation, did not have a significant impact on effective PP implementation.

Nzau and Njeru (2014) conducted a study on the factors affecting procurement performance of public universities in Nairobi County with 166 respondents working in the procurement department drawn from three of the four major public universities in Nairobi County namely; University of Nairobi, Kenyatta University and Technical

University of Kenya. It was established that universities prepared procurement plans for the activities outlined in the work plans; procurement staff had inadequate skills in supply chain management; and the universities offered adequate support to procurement department.

Study recommended user departments to submit their procurement plans within the set timeframes; purchases to be implemented within the budgetary provisions and within delivery time schedules; employing qualified procurement staff and continuous training and sensitization of those involved in the procurement process on the public procurement Act and Regulations (Nzau & Njeru, 2014).

The World Bank (2009) conducted a survey to assess the implementation of the PP regulations in Bangladesh. Survey findings revealed that though there was a clear recognition and appreciation of the new rules and regulations, its implementation performance was poor to average in terms of efficiency of the procurement process and contract management, competitiveness and transparency. Study further established that procurement processing delays was major challenge due to the hierarchy level of procurement decision making.

An assessment of the implementation of the procurement regulations in Uganda by the PPDPA in 2012, it was established that PEs conducted procurement outside procurement plans which lead to budget overruns and accumulation of domestic debt, continued use of direct tender method without sufficient adequate justification and poor records management. Authority recommended procurement to be done within the provisions of the budget and procurement plans, records to be well maintained, retrospective approvals be avoided and disciplinary action to be taken against entities found to be violating the regulations.

#### **2.4.3 Implementation of Public Private Partnership Regulations**

Using data collected from semi structured interviews in Atlanta Georgia, Schnequa and Alexandra (2012) noted that the Public Private Partnerships in PP are possible only

under rigid constraint. Study found out that there are two decision making patterns, the-broker and the purist-correlated with length of employment by the same organization and the political context of the agency. Understanding accountability within public procurement requires consideration of a complex decision-making process at the individual and organizational levels. Study considered two patterns of decisions making, however, success of PPPs cannot be based only on those patterns.

An evaluation of the policies and programs in U.S by the Development Assistance Committee of the OECD highlighted that the US leadership was promoting PPPs. despite these efforts, evaluation revealed that partnership remains marginal to the core work of most development programmes at USAID are less used by other agencies (USAID, 2011). Study revealed that as much as PPPs are embraced in developed nations most developing nations are yet to adopt the same.

A study by Strakegroup, (2014) found out that the government of Kenya has to overcome a number of challenges in the implementation of PPPs. These challenges include; developing and establishing strong legal and regulatory frameworks, rebalancing of tariffs which will make the projects viable from a financial point of view and provide guarantees in political commitment to give confidence to the partners to make investments. Other measures recommended included provision of effective public administration through a dedicated central PPP unit located within government that can oversee the whole of the PPP process and has a cross cutting authority over all PEs and provision of an appropriate insurance regime for investors.

Rhee and Hangyong, (2007) established that the promotion of PPP projects had helped ease constraints on government financial resources mostly in infrastructure and enabled the government of Korea to put fiscal resources into other sectors according to its priorities. Authors observed that the implementation of PPPs had helped the timely completion of road projects in comparison with road construction by the government, thus achieving value for money.

#### **2.4.4 Implementation of Preference and Reservations Regulations**

In assessing the benefits of transparency in public procurement for SMEs in Egypt, Kaspar and Puddephatt (2012), conducted a survey of local business and established that enforcement and effective right to freedom of information; regular and open publication of information; effective audit and regulation bodies with real independence; and an active and engaged civil society and media capable of challenging corruption were some of the measures that ensure transparency. Study recommended implementation of e-procurement to facilitate access to PP opportunities and reduce the cost and time in submission of bids.

In an attempt to determine the factors affecting access to procurement opportunities in public secondary schools by Small and Medium Enterprises (SMEs) in Kenya, Gitari and Kabare, (2014) conducted a study targeting a population of 189 tender committee members in 21 public secondary schools. Questionnaire was the main tool of data collection. Descriptive statistics such as frequency and percentages were used to profile the sample characteristics and major patterns from the data.

The study used Pearson's correlation test ( $r$ ) and alpha value  $p$  to establish the relationship between the dependant and the independent variables. The study established that competence levels of tender committee members was low and was a big challenge during award of tenders to suppliers, weak enforcement of procurement laws in public secondary schools and costs incurred during tendering and execution of the contracts discouraged the SMEs from applying for the available opportunities. Study recommended PPOA to initiate training of tender committee members (Gitari & Kabare, 2014).

In another study conducted by the Local Enterprise Authority (LEA, 2009) assessed the level of procurement of goods and services from SMEs by government parastatals in Botswana with the main aim of identifying challenges and creating opportunities for increased SMEs participation in government and parastatals procurement contracts. Findings established that 94% of the respondents were supportive of SMEs and that

government entities were content with quality, pricing and adherence with delivery times of all products supplied. Study further established that challenges faced by PEs when dealing with SMEs were poor business practices and capacity issues. Main challenges facing SMEs include intense competition, lack of skilled labour, and Botswana's skewed preference towards imports.

Study recommended implementation of a reservations policy for SMEs to access government contracts, especially for products and services identified as essential by government departments; encourage SMEs to form strategic partnership with larger enterprises to enable them learn on how to participate in government large contracts; and have an effective monitoring system in place to ensure government departments adhere to stipulated payment timeframes (LEA, 2009).

Muraguri (2013) conducted a study on the implementation of the youth Preference and reservations policy in PP of the State owned enterprises with the aim of establishing the extent to which the policy was implemented and the challenges. Descriptive design was employed with a census population of all 70 state owned enterprises in Nairobi. Data was collected and analyzed using descriptive and inferential statistics such as correlation analysis. Findings indicated that the policy had not been fully implemented; effects of institutional challenges on implementation were statistically significant with negative impact; legislation had negative but significant effect on implementation.

In a study by Ngeno, Namusonge and Nteere (2014) on the effect of discriminatory public procurement practices on organizational performance of public sector in Kenya, study interviewed 139 procurement managers and concluded that reservations, preferences and indirect practices positively influenced organizational performance of state corporations. Study recommended making sub contracting to Kenyan firms obligatory, downsizing contracts to volumes that local business can manage, reducing bureaucratic barriers and providing better feedback to local providers and bidders.



#### **2.4.5 Organizational Performance and Implementation of Public Procurement Legal Framework**

In a study by Kipkorir (2013), it was established that despite the presence of the current public procurement legal framework, the efficiency and effectiveness of the procurement process had not been achieved. Study established that this is demonstrated by the continuous return of unutilized funds to the treasury by state agencies of about Kenya Shillings 142.5 and 105 billion in 2010/2011 and 2011/2012 financial years respectively. Study recommended that there was need to have direct interventions that would undo the complexities that affect the efforts of the government and international organizations in supporting the PP performance initiatives.

Ivar, Paula and Erik (2011) conducted a survey of over 7300 procurers and participating firms and in-depth interviews with 150 procurement professionals on the patterns of use, costs and effectiveness of EU procurement. The study sought to directly assess the costs of procurement and to compare costs across procedures, countries, authorities and sectors. Findings indicate that procurement costs and effectiveness vary significantly across countries and that the procurement directives support the core objectives of PP policy. In particular, PP markets are highly competitive and this helps to bring about efficient purchasing outcomes. The regulatory dilemma is how to balance the positive core features of the system, while responding to a perceived need for increased efficiency and flexibility.

On the other hand, Ntayi *et al.*, (2012) examined the perceptions and effects of social value orientation, expected utility, fairness in procurement procedures, the legitimacy of the procurement law and the law enforcement authority on compliance with the procurement law, guidelines, procedures and regulations. Findings indicated that social value orientation, expected utility, legitimacy of the procurement law enforcement agency and perceptions of procedural justice were significant predictors of the PP regulatory compliance.

European Union Chamber of Commerce in China (2010) conducted a study on European business experiences competing for public contracts in China. Study established that the regulatory framework governing procurement was fragmented, inconsistent and unevenly implemented and that it was a drag on efficiency and innovation for the Chinese economy as a whole. However, the study failed to demonstrate the influence of the Chinese government procurement legal framework and performance of government corporations.

In a study by Amayi and Ngugi (2013), it was established that in spite of procurement contributing between 10-40% of the country's GDP, concerns on the way in which public organizations use the resources that are given to them has often raised doubts that value for money has not been realized. The overall problem in that study was that despite the fact that there has been reforms initiatives in the PP system in Kenya since mid-1990s, the government still lost billions of money through procurement irregularities with the Ministry of Water and Irrigation leading by 38% of the reported cases in 2010/2011 and 33% in 2011/2012.

Tadeo, Karuhanga and Mukokoma (2011) studied the extent to which procurement officers at local governments in Uganda comply with the legal framework and the relationship between compliance and service delivery. The findings indicated a moderate level (70%) of compliance to the law and a weak relationship between compliance and timeliness. Study failed to show the effect of procurement compliance on organizational performance. Basheka (2008) as well undertook a study among 99 local government stakeholders selected from 11 districts of Uganda and results indicate a positive relationship between procurement planning and accountable government system.

#### **2.4.6 Enforcement of the PP Legal Framework and Organizational Performance**

Studies on enforcement of the legal framework are scant and a few that exist are not specific. Achuora, Arasa and Onchiri (2012) conducted a study on the factors affecting effectiveness of PP audits for constituency development funds in Kenya. Specifically

the study investigated the effect of the legal framework, auditor's specific professional qualities, technical audit factors and client-related factors on effectiveness of PP audits. The study findings indicate that technical audit factors have greatest influence on effectiveness of PP audit, followed by regulatory framework, client related factors and auditor's professional qualities respectively (Achuora *et al.*, 2012). The study narrowed its research undertakings on PP audits and hence failed to demonstrate the influence of PP rules and regulations on performance of PEs.

Studies by Woolf (2002); Namusonge (2007); and Manasseh, (2007) have concurrence that compliance audit is considered effective if it attains the intended results of nurturing good governance and effective accountability in the management of public resources on timely, with minimal cost, generates quality reports with clear control gaps and recommendations, remedies and should not be done in visceral manner. Such compliance audits should also address deterrence measures to fraud.

PPRA (2007) assessed the Country's Procurement System in twenty (20) PEs sampled randomly. The assessment methodology was based on the OECD-DAC/WB structure of four pillars, namely: legislative and regulatory framework; institutional framework and management capacity; procurement operations and market practice; and integrity of the public procurement system. The study established that tenderers that who did not use standard bidding documents accounted to 55% and most of the interviewed stake holders were not familiar with the Act and Regulations. The study recommended enforcement and close monitoring of all PEs to ensure compliance.

In another study by Belisario *et al.*, (2011) on Asia Pacific Economic Cooperation procurement transparency standards in the Philippines, entailed consultations with the private sector whether those laws and regulations are implemented in practice and actually help reduce corruption. However, the study failed to demonstrate the influence of the employed procurement legal framework on performance of government corporations in Philippines.

Etse, & Asenso-Boakye, (2014) conducted an exploratory study on the challenges hindering effective performance of PP audit in Ghana targeting staff of Ghana Audit Service who provided responses to questionnaires. Study reported poor records management; habitual violation of PP laws and regulations; incompetent procurement and audit personnel; and inadequate supply of resources for the audit function as the main challenges affecting performance of procurement audit.

## **2.5 Critique of Reviewed Literature**

The empirical review indicates that some of the studies have been conducted in the western and African countries and some in Kenya. It is clear that past empirical studies do not point out with specificity the effect of the PP legal framework implementation on organizational performance and what organizational variables need to be altered to ensure effective implementation of the procurement rules and regulations by state corporations.

A number of empirical studies have focused on regulatory compliance. For instance, studies by Gelderman, *et al.*, (2006); Geo (2008); Eyaa and Oluka (2011); Osei-Tutu, Mensa and Ameyaw (2011); Ntayi, *et al.*, (2012); Onyinkwa, (2013); Gesuka and Namusonge (2013); Mwangi and Kariuki (2013); Mugo, (2013); and Migosi, Ombuki and Evusa (2014) determined the factors influencing non compliance to the PP rules and regulations.

Thuo and Njeru, (2014) studied the effect of PP reforms on service delivery; Ogot, Mulinge and Muriuki assessed the impact of PP regulations on profit oriented corporations in Kenya; Gitari and Kabare, (2014) assessed the factors affecting access of procurement opportunities by SMEs; Muraguri, (2014) assessed the extent of the preference and reservation regulations implementation; Ngeno, Namusonge and Nteere, (2014) determined the effect of discriminatory procurement practices on performance of PEs in Kenya.

However, all these studies failed to explain the effect of the implementation of the PP legal framework on performance. In addition, all the studies did not adequately address all the key elements of PP legal framework as the authors concentrated on the PPDA, (2005) and PPDR, (2006) respectively. Little has been done on the PPPR, (2009) and the PRR, (2011) implementation.

None of the studies has focused on the effect of the PP legal framework implementation on organizational performance. Review also revealed that there was no specific related study on the effect of enforcement on the relationship between the PP legal framework and organizational performance of state corporations. The empirical studies tend to overlook the tangible and significant contribution of the PPPs to the performance of corporations and the Kenyan economy.

Many of the studies have largely adopted a one dimensional approach and ignored the salient elements of the legal framework like the PPP regulations. Also the empirical studies on the PPPs implementation are very minimal in both the developed countries, Africa and also in Kenya.

## **2.6 Summary**

There are many scholars who have theorized and come up with models on PP legal framework implementation. These theories and models provide a framework upon which policy makers and managers make their decisions on procurement issues in delivering value to the citizens and compliance to the legal framework. This research discussed seven theories and two models. It then generated constructs which formed the conceptual framework on which the study was anchored. The study operationalized the variables through a rigorous examination of relevant literature which formed a firm foundation for the empirical study and contextualization of the research problem.

There have been a number of empirical studies on the PP legal framework and most of them concentrated on the individual elements of the legal framework. Some of the studies were conducted in the developed world and some in Africa. The studies

provided a panoramic view of the myriad challenges faced in the implementation of the legal framework. Some of these studies were carried out by scholars with a quest to generate applied knowledge whereas some were commissioned by the respective government and procurement regulatory/oversight bodies to assess the level of implementation and compliance with the procurement rules and regulations.

From the theoretical and empirical review, it is evident that the PP is still a fertile ground for further research aimed at extending the existing stock of knowledge. The theories and models can be replicated in different industrial setups, especially, the private sector and the county governments. Further empirical studies are also necessary to test the theories and models and provide solutions for existing PP legal framework implementation problems, and to develop a body of useable knowledge for decision making.

## **2.7 Research Gaps**

The empirical literature reviewed demonstrated that, although a number of studies have been conducted on PP regulatory compliance; there was no comprehensive study that specifically addressed the effect of the implementation of the PP legal framework on organizational performance. For instance, studies by Gelderman, *et al.*, (2006); Geo (2008); Eyaa and Oluka (2011); Osei-Tutu, Mensa and Ameyaw (2011); Ntayi, *et al.*, (2012); Onyinkwa, (2013); Gesuka and Namusonge (2013); Sang and Mugambi, (2014) and Mwangi and kariuki (2013) investigated the factors influencing non compliance to the public procurement rules and regulations and failed to explain the effect it has on organizational performance.

In addition, the reviewed literature indicated that studies by PPOA (2007); PPRA (2007) and RPPA (2012) assessed the level of compliance to the legal framework but did not investigate the effects of non compliance. A study by European Union Chamber of Commerce in China (2010) on European Business experiences competing for public contracts in China found out that the current state of the regulatory framework for government procurement in China is a drag on efficiency and innovation for the

Chinese economy as a whole. Other studies by Mugo, (2013) and Migosi, Ombuki and Evusa (2014) assessed the determinants of the procurement regulatory compliance in PEs. Thuo and Njeru, (2014) studied the effect of PP reforms on service delivery and; Ogot, Mulinge and Muriuki (2010) assessed the impact of PP regulations on profit oriented corporations in Kenya. Munagi and Muturi, (2014) studied the effect of the procurement regulations on efficiency.

Conversely, Gitari and Kabare, (2014) assessed the factors affecting access of procurement opportunities by SMEs; Muraguri, (2014) assessed the extent of the preference and reservation regulations implementation; Ngeno, Namusonge and Nteere, (2014) determined the effect of discriminatory procurement practices on organizational performance of public sector in Kenya.

The empirical literature demonstrated that all the research variables were not adequately explored as all the studies focused on the single elements of the PP legal framework and this has left a pertinent research gap that this study sought to address by comprehensively assessing the effect of all the main elements of the legal framework on performance of state corporations. Indeed very little research has been conducted on non-compliance in purchasing and supply chain despite the fact that PP has been employed as a vital instrument for achieving economic, social and other objectives and being an area that is vulnerable to mismanagement and corruption (Karjalainen, Katariina & Erik, 2009).

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter discussed the methodology and approaches used in the study. It described the research philosophy/paradigm, research design, study population, sampling frame, sample size determination and sampling technique, data collection instruments, data collection procedure and pilot testing. It also described the data collected and method of analysis. The statistical measurement model used in the analysis and tests for hypotheses were also described in this chapter.

#### **3.2 Research Design and Philosophy**

The study adopted the positivist philosophical orientation. Positivism is directly associated with the idea of objectivism. In this kind of philosophical approach, scientists give their viewpoint to evaluate social world with the help of objectivity in place of subjectivity (Cooper & Schindler, 2006). According to this paradigm, researchers are interested to collect general information and data from a large social sample instead of focusing details of research. This philosophy was adopted because of its main features.

The Positivists aim to test a theory or describe an experience through observation and measurement in order to predict and control forces that surround us (O’Leary, 2004). They place a high priority on identifying causal linkages between and amongst variables. The positivists view involves: the observation of real world facts or phenomena, the formulation of explanations for phenomena using inductive processes, the generation of predictions about real world phenomena using previously formulated explanations and deductive processes and the attempted verification of these predictions through systematic, controlled experimentation or observation.

According to Saunders (2003), the positivism philosophy helps a researcher collect all facts and figures that are related with the research issue through general sources. The author further observes that under this philosophy, the researcher plays an important



role of objective analyst in evaluating the collected data and produce an appropriate result in order to achieve the research objectives. Many philosophers believe that positivism is the foundation and rationale for most management research (Johnson & Duberley, 2000).

Many social science approaches today have drawn their ideas from positivism or the contradiction to positivism despite the fact that it has been challenged (Smith, 1998; Johnson & Duberley, 2000; Gill & Johnson, 2005). For this reason some aspects of positivism have become accepted ways of judging truth and reality (Johnson & Duberley, 2000). Consequently, positivism has influenced many approaches that are thought to be an objective way of reality, because of its wide influence. The study adopted the positivist philosophy based on the fact that in order to empirically establish relationship between the variables, hypotheses were formulated and tested and findings generalized. The study was guided by objectivity and was not able to influence the results of the study.

The study adopted a descriptive cross sectional survey design. A cross sectional survey is a data gathering and analysis approach in which respondents answer questions or respond to statements that were developed in advance at point in time (Kasunic, 2005). According to Cooper & Schindler (2006), cross sectional studies are carried out once. They help researcher establish whether significant associations among variables exist at some point in time (Nachmias & Nachmias, 2004).

This study sought to establish the relationship between the public procurement legal framework and organizational performance of state corporations in Kenya. The researcher was dealing with events that have already happened and as such had no control over variables in terms of being able to manipulate them. Data was collected from state corporations in Kenya to determine linkages between study variables at the time of the study. The cross sectional survey design was deemed to be appropriate as it enabled the researcher to determine the relationship between the study variables.

The design was successfully used by Machuki (2011) and Munywoki (2007) among other researchers and enabled them to test hypotheses and come up with credible conclusions. Mugenda (2008) posits that cross sectional studies are appropriate where the objective is to establish whether significant associations exist among study variables at some point in time.

### **3.3 Population of the Study**

For purposes of this study, the target population was all Kenyan state corporations. These entities are state owned public institutions formed under the State Corporations Act (CAP, 446) with the main aim of delivering public services. The interest of this population was driven by the fact that state corporations are agents of the government in implementing the procurement legal framework. Further, these entities have been audited by PPOA in the past and reports indicated that they were culpable for non-implementation and non-compliance to the PP rules and regulations.

In total, there were 261 Kenyan state corporations as per the Inspectorate of State Corporations (2013). The Taskforce on Parastatals Reforms (2013), recommended dissolution, transfer and merging of some of the agencies, and from the elimination, the actual number of state corporations was 187 that are reclassified into five categories as shown in appendix IV. These state corporations are dispersed countrywide.

### **3.4 Sample and Sampling Technique**

The study used stratified random sampling. The choice of the technique was based on the fact that state corporations are reclassified into five categories of purely commercial agencies, agencies with strategic function, regulatory agencies, executive agencies and research institutions, public universities, tertiary education training (Taskforce on Parastatal Reforms, 2013). These entities perform different functions but are all regulated by the same PP legal framework and are all expected to fully implement and comply with the procurement rules and regulations.

Stratified sampling divides a heterogeneous population into a number of distinct categories or strata of independent sub population from which individual elements can be randomly selected (Trochom, 2000). The state corporations that formed the sample were calculated using the sample formula (Mugenda & Mugenda, 2003) as follows;

$$nf = \frac{z^2 pq}{e^2}$$

Where:

nf= population

z = table value from the normal table

p = probability of success

q = (p - 1) probability of failure

e = allowed error

$$\begin{aligned} nf &= \frac{(1.96)^2 (0.5) (0.5)}{(0.05)^2} \\ &= 384 \end{aligned}$$

According to Zikmund (2010); Mugenda and Mugenda (2003), when the population size is less than 10,000, the sample size (nf) can be calculated as follows;

$$\begin{aligned} nf &= \frac{nf}{1 + \frac{nf}{N}} \\ &= \frac{384}{1 + \frac{384}{187}} \\ &= 125 \end{aligned}$$

Out of the population of 187 state corporations, 34 were purely Commercial Agencies, 21 were agencies with Strategic Function, 62 were Executive Agencies, and 25 were Regulatory Agencies while 45 were Research institutions, Public Universities and Tertiary Education and Training. Each stratum was properly represented so that the sample size drawn from each stratum was proportionate to the stratum share of the total population to ensure heterogeneity. This approach was more applicable to this research

because it has a higher statistical efficiency and it is much easier to carry out (Zikmund, 2010). Using proportional allocation the proportion of the size for each stratum was achieved as indicated in table 3.1. The sample size thus comprised of 125 corporations as shown below:

**Table 3.1: Sample Size Determination**

<b>Stratum</b>	<b>Corporations</b>	<b>Formula</b>	<b>Sample Size</b>	<b>%</b>
Purely Commercial	34	125/187(34)	23	18.4%
Agencies with Strategic Function	21	125/187(21)	14	11.2%
Executive Agencies	62	125/187(62)	41	32.8%
Regulatory Agencies	25	125/187(25)	17	13.6%
Research Institutions, Public Universities & Tertiary Education & Training	45	125/187(45)	30	24%
<b>Total</b>	<b>187</b>		<b>125</b>	<b>100%</b>

Random tables were used to select the sample of 125 state corporations. According to Orodha (2005), simple random sampling ensures that each unit has an equal probability of being chosen, is the most representative of the entire population and least likely to result in bias. It has statistical properties that allow the researcher to make inferences about the population based on the results obtained from the sample.

State corporations in each stratum of the sampling frame were assigned a unique number and a table of random numbers was used. From each state corporation of the sample size, two respondents were selected that included the heads of the procurement units, their deputies and also the Accounting officers. The procurement practitioners were targeted since they are the ones involved in the execution of management decisions and have technical knowledge and skills on the effect of implementation of the PP rules and regulations.

Accounting officers were also targeted because the mandate for ensuring effective implementation of the public procurement legal framework is bestowed upon them. The total number of respondents from the 125 sampled parastatals was therefore 250. Respondents from a Parastatal were considered as one after cleaning and reconciling the data as the unit of analysis was the state corporations.

### **3.5 Data Collection Instruments**

The study used questionnaires as the main data collection instrument that contained both open ended and close ended questions. It was supplemented with interview guides. Questionnaires were preferred because they are effective data collection instruments that allow respondents to give much of their opinions pertaining to the research problem (Dempsey, 2003). According to Kothari (2008), the information obtained from questionnaires is free from bias and researchers' influence and thus accurate and valid data were gathered. The preference for the questionnaire was based on the premise that it gives respondents freedom to express their views or opinions more objectively.

According to Krishnaswamy, Sivakumar and Mathirajan (2006), questionnaire method of data collection is good because the standardized and impersonal formats of a questionnaire has uniformity and help in getting data objectively; respondents anonymity and confidentiality is assured and they are able to complete them when it is convenient and in their own time (De Vaus, 2002). Using questionnaires, information on the effect of the PP legal framework implementation on organization performance were obtained.

Interview guides were used to gather in-depth information from the accounting officers on the effects of the procurement legal framework implementation on organizational performance. This instrument was best suited to collect data from this cadre of staff due to their busy schedules. Information obtained from the accounting officers was used to investigate the emerging trends from the findings of the questionnaires administered and provided more evidence, clarified and supported data collected through questionnaires. Secondary data was collected through evaluation of company reports

like customer satisfaction survey, organizational journals, publications and review information from websites of various corporate organizations that was relevant and up to date. The PPOA website was also used in confirming the implementation and compliance levels of the state corporations from the compliance audits conducted.

### **3.6 Data Collection Procedures**

The study collected both primary and secondary data based on the objectives of the study. According to Morris (2001), data collection procedure is the process of gathering pieces of information that are necessary for research process. Data collection started by obtaining a letter from the Jomo Kenyatta University of Agriculture and Technology introducing the researcher to the state corporations. The letter was used to accompany the questionnaires and interview guides for data collection.

The research assistants were trained on both the content of the questionnaire and general presentation required of them. They were also trained on the interview guide. The research assistants accompanied the researcher during the pilot study so as to obtain a practical induction on the administration of the research instruments. The questionnaires were administered through email and by the help of research assistants who dropped them with instructions on how to fill and the duration of time required.

A covering letter accompanied each questionnaire explaining the objectives of the study and assuring respondents confidentiality in order to get the data and information required. Answered instruments were collected after two weeks and after a month respectively. Interviews were conducted, detailed notes taken and voice recording used (with permission) for the Accounting officers.

### **3.7 Pilot Testing**

A pilot test was conducted to assess the questions' validity and the likely reliability of the data that was to be collected. According to Copper and Schindler (2011), a pilot test is conducted to detect weaknesses in the design and instrumentation and provide a proxy data for selection of probability sample. The advantages of conducting the pilot

test include enhancing the training of field staff, review of instrument and prevention of wasteful expenditure on full blown survey whose results may not be applicable (Isaac & Michael, 1995). According to Leedy and Ormrod, (2006), a pilot study is an excellent way to determine the feasibility of the study.

The pretesting of the instrument sought information from the participants to determine the degree of clarity of questions and to identify problem areas that needed attention. The pilot study provided the opportunity to detect and remedy any potential problems with the instrument including questions respondents did not understand and questions that combined two or more issues in a single question.

### **3.7.1 Reliability Test of the Instrument**

Reliability refers to the ability of a measurement instrument to produce the same answer in the same circumstances, time after time (Johnson & Harris, 2002; De Vaus, 2002). This means that if people answered the same question the same way on repeated occasions, then the instrument can be said to be reliable. Reliability can be internal or external. Internal reliability refers to the consistency of results within a particular site, and plausibility of data within that site.

External reliability refers to the consistency and duplicative attributes of data across the sites (Castillo, 2009). To ensure internal reliability, low inference descriptors were used in the qualitative research stage in order to create a careful audit trail, by recording the data and interviews using an appropriate device (with permission). In quantitative research, reliability deals with indicator's dependability, which means that the information provided by indicators does not vary as a result of the characteristics of the indicator, instrument or device itself (Gall, Gall & Borg, 2007).

Reliability analysis was used to test the internal consistency of the research instruments for the purposes of identifying those items in the questionnaire with low correlations in order to exclude them from further analysis. Cronbach's alpha a coefficient of reliability that gives unbiased estimate of data generalizability was used to test reliability of the

answered questionnaires. According to Zinbarg (2005), Cronbach's alpha is a coefficient of reliability that gives an unbiased estimate of data generalizability. PPDA, (2005) had a reliability coefficient of 0.846 while the PPDR, (2006) had a reliability coefficient of 0.840. Further, the PPPR, (2009) had a reliability coefficient of 0.890 and the PRR, (2011) had a reliability coefficient of 0.864.

Organizational performance had a reliability coefficient of 0.872 and enforcement had had a reliability coefficient of 0.854. The reliability coefficients of all the variables were above 0.70. This is consistent with Nunally (1978) who argued that a value of 0.70 is recommended, and therefore the measurement scale had a high level of internal consistency and could be generalized to reflect opinions of all respondents in the target population.

### **3.7.2 Validity Test of the Instrument**

Validity refers to the extent to which an instrument measure what it is supposed to measure. Data need not only to be reliable but also true and accurate, if a measurement is valid, it is also reliable (Joppe, 2000). The content of validity of the data collection instruments was determined through discussing the research instrument with the supervisors and research experts in the university. The valuable components, corrections and suggestions given by the supervisors and research experts assisted in the validation of the instruments.

The questionnaire was pilot tested in five state corporations randomly selected from the target population, which did not form part of the sample to establish if the respondents could answer the questions without difficulty. After pilot testing, the questionnaire and interview guide were revised to incorporate the feedback that was provided. For instance, the respondents had expressed fears that questions that needed tabulation and provision of figures for more than five years would pose a challenge as more time will be required to get the data. Others cited that some respondents would not be willing to give out some of the information. These questions were adjusted as appropriate.



### **3.8 Data Processing and Analysis**

Data analysis is the process of editing and reducing accumulated data to a manageable size, developing summaries, looking for patterns, and applying statistical techniques (Cooper et al, 2008). According to Mugenda and Mugenda (2008), data analysis is the process of cleaning and summarizing data so that it becomes information that can be easily interpreted and conclusions made to support decision-making.

According to Chakraborty (2009), a unit of analysis is the major entity that is being analyzed in the study; these could be individuals, groups or organizations. The units of analyses for this study were the individual state corporations with the unit of observation being the Heads of procurement units and Chief executing officers who possess intimate understanding of their PP legal Framework implementation. The data for the independent and moderating variables were qualitative in nature whereas data for the dependent variable were quantitative.

Simple regression analysis was used to determine the statistical significance level of influence of each independent variable on the dependent variable. P-value and t statistic were used to determine the significance level of the coefficients at 95 per cent. The relationship in research variables was determined using the Ordinary Least Squares (OLS) regression model as prescribed by various authors (Faraway, 2002; Cohen, West & Aiken, 2003 and Kline, 1998). The use of OLS regression was preferred due to its ability to show whether there is a relationship between the independent and dependent variables (Castillo, 2009).

The output of OLS consisted of an R squared, F statistic and regression coefficients. Lomax (2007; Tabachinick, Barbara and Fidell, (2007) assert that a high F statistic indicates that the null hypothesis lack of joint fit is rejected. Everitt,(2002); Nagelkerke, (1992); Glantz and Slinker, (1990) asserts that the coefficients of determination  $R^2$  is used in the context of statistical models whose main purpose is the prediction of future outcomes on the basis of other related information.

The use of OLS was preferred because it is an unbiased estimator of unknown parameters of linear models. Least squares model would predict the values of the dependent variables given values of the independent variable in comparison to logistic regression that predicts the probability or odds of Y taking a certain value (Pohlman & Leitner., 2003). Logistic regression would therefore be used in cases where the variable Y is of a categorical scale and binary (Cameron & Trivedi, 2005).

The data collected was factor scored to produce scores in a continuous scale that were used for inferential analysis and the most appropriate regression model to be fitted was least squares regression. OLS regression assumes that the error term is a white noise thus follows a normal distribution, is homoscedastic and non-auto correlated. In cases where the error term is coloured noise with heteroscedasticity or is auto correlated, OLS becomes biased and unfit. The researcher used OLS and tested that the model fitted met the white noise assumptions. In case the error term had no constant variance or was auto correlated, a generalized least squares would be used as it is a model fitted for data with colored noise.

Multiple regression was used to measure the linear relationships that exist between all the elements of the legal framework and organizational performance. The model was used to eliminate or retain variables that had effect on the response or were insignificant (Anderson, Sweeny & Williams, 2007). The following regression equation, according to the general model was used to represent the relationship between the dependent variable (Y) as a linear function of the independent variables (Xs), with  $\epsilon$  representing the error term (Cooper & Schindler, 2006):

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + \epsilon$$

Where:

Y = Organizational Performance

X<sub>1</sub> = Public Procurement and Disposal Act, (2005)

X<sub>2</sub> = Public Procurement and Disposal Regulations, (2006)

$X_3$  = Public Private Partnership Regulations, (2009)

$X_4$  = Preference and Reservations Regulations, (2011)

$X_5$  = Enforcement

$B_0$  = Constant of Regression which is the value of the dependent variable when the independent variable is 0.

$\varepsilon$  = Error Term of prediction

$B_{1-n}$  is the regression co-efficient or change induced by  $X_1$ ,  $X_2$ ,  $X_3$ , and  $X_4$ , on  $Y$ . It determines how much each (i.e.  $X_1$ ,  $X_2$ ,  $X_3$ , and  $X_4$ ) contribute to  $Y$ .

The study having used the linear regression model tested for the violation of the assumptions of the linear regression model fitted, and tested to confirm whether the model fitted followed/met the assumptions of; linearity, normality, homoscedasticity, and non- multicollinearity of the variables. Descriptive statistics were used to measure actual data collected from the variables and measured using percentages and presented on tables and graphs.

The measures of central tendency used on the descriptive analysis of the independent variables were the mode. The dependent variable had percentages as the units of measurement of its indicators. These being continuous, were analyzed using the mean as the measure of central tendency and the standard deviation, skewness and kurtosis as the measures of dispersion.

Factor analysis was employed to determine the overall factor loadings (contributions) of the four identified independent variables to the dependent variable. Many empirical studies carried out in this area have utilized this technique to illustrate the strengths of each factor to the independent variable.

Content analysis was also used to address the qualitative information obtained from the key informants. As one of today's most extensively employed analytical tools, content analysis has been used fruitfully in a wide variety of research applications in information and library science (Allen & Reser, 1990). The study preferred qualitative

content analysis since it addresses some of the weaknesses of the quantitative approach. Identification of trends was done and recurrent themes summarized to highlight emergent lines of interest. Meanings were condensed into constructs and then related to research objectives.

Quantitative approaches of data analysis such as regression, correlation and descriptive statistics may be too mechanical and may be unable to unearth the feelings, emotions and subjective response evidenced in social studies (Patton, 2002). Furthermore, in line with Mayring, (2000); Hsieh and Shannon, (2005), qualitative content analysis is preferred as it allows researchers to understand social reality in a subjective but scientific manner.

According to Nachmias and Nachmias, (2004), content analysis is a technique used for making inferences through systematic and objective identification of specified characteristics of messages and using the same to relate trend. They posited that content analysis does not restrict respondents to answers and has potential of generating more information with much detail. Therefore, the results from the interviews were used as excerpts when discussing descriptive statistics to enhance validity of the results.

The research variables were operationalised as shown in Table 3.3. Operationalization of study variables is important as it enables the researcher to measure variables quantitatively thus enabling testing of the formulated hypotheses. The study variables were operationalized based on the research objectives. The research variables included the PPDA, (2005) implementation; the PPDR, (2006) implementation; the PPPR, (2009) implementation and PRR, (2011) implementation as the independent variables, organizational performance as the dependent variable and enforcement of the PP legal framework as the moderating variable. According to Zikmund (2003), operationalization gives meaning to a concept specifying the activities or operations necessary to measure it while Dillman (2000) posits that study constructs must be operationalised in order to test relationships among the constructs of the theoretical model.

**Table 3.2 Operationalisation of the Research Variables**

	<b>Variables</b>	<b>Indicators</b>	<b>Operational Indicators</b>	<b>Supporting Literature</b>
X <sub>1</sub>	Public Procurement & Disposal Act, (2005)	Value for Money/Efficiency	<ul style="list-style-type: none"> <li>• Number of complaints received on quality of goods and services derived;</li> <li>• Number of complaints from users on procurement performance;</li> <li>• Number of internal audits conducted to check on the efficiency of the procurement process.</li> <li>• Number of market surveys conducted before award of contract.</li> </ul>	Bauld & McGuinness, (2006); Cummings & Qiao, (2003). World Bank, (2010); Ameywa, Mensah and Osei - Tutu, (2012); Kinyanjui, Oloko and Okibo, (2014)
		Competition	<ul style="list-style-type: none"> <li>• Number of open tenders advertised in print media since 2009-2013.</li> <li>• Percentage amount of corporation procurement budget used for each procurement method</li> </ul>	Mwangi and Kariuki (2013).
		Equal Treatment	<ul style="list-style-type: none"> <li>• Provision of information to suppliers;</li> <li>• Number of days it takes to pay suppliers.</li> </ul>	Ameyaw, Mensa and Osei-Tutu (2003); Basheka <i>et al.</i> , (2012).
		Transparency	<ul style="list-style-type: none"> <li>• Use of the corporation's and PPOA websites to advertise procurement opportunities;</li> <li>• Use of e-procurement system</li> </ul>	Shu <i>et al.</i> , (2011); Arrowsmith <i>et al.</i> , (2000); OECD, (2011); Chekol and Tehulu (2014); UNDP, (2010); OECD, (2007); ADB/ OECD, (2006)
		Accountability	<ul style="list-style-type: none"> <li>• Frequency of reporting to PPOA</li> </ul>	Odhiambo and Kamau, (2003); Barrett, (2000); Hughes, (2003); Gunasekaran, (2005)
		Ethical standards (Professionalism)	<ul style="list-style-type: none"> <li>• Number of procurement officers with professional qualifications;</li> <li>• Number of procurement staff that are members of KISM.</li> </ul>	Raymond, (2008); Atkison, (2003); Hui <i>et al.</i> , (2011); Rose, (2010); Basheka and Mugabira, (2008); Onyemo, (2011); Obanda, (2011)
X <sub>2</sub>	Public Procurement & Disposal Regulations, (2006)	Organization Structure	<ul style="list-style-type: none"> <li>• Existence of supportive structures for implementation of the Act and Regulations;</li> <li>• Establishment of the various procurement committees;</li> <li>• Level of the procurement function within the organizational hierarchy.</li> </ul>	Ogachi (2014); Eyaa and Oluka, (2011); Abebe, (2012)

**Table 3.2 Operationalisation of the Research Variables**

		Procurement Methods	<ul style="list-style-type: none"> <li>• Number of open tenders;</li> <li>• Number of restricted tenders;</li> <li>• Number of direct tenders ;</li> <li>• Number of Request for quotations.</li> </ul>	Taylor (2011), Caldwell <i>et al.</i> , (2005), Takagi and Hosoe (2008); PWL, London Economics and Ecoys, (2011); European Commission; (2011b); Aikins, (2012); Rambo, (2012); Ogachi, (2006); Kathure, (2012) Witting and Jeng, (2005), Ameyaw, Mensa and Osei - Tutu, (2012)
		Records Management	<ul style="list-style-type: none"> <li>• Existence of a records management unit in the organization;</li> <li>• Training of records management</li> <li>• Number of qualified personnel in records management;</li> <li>• Period it takes to dispose records.</li> </ul>	Thurston, (2005); Ambrose, (2008); Akech, (2005); Bolton, (2006); Jones, (2007); Alfresco, (2009); Rembe (2010); Aglomasa, (2008)
		Procurement Planning	<ul style="list-style-type: none"> <li>• Existence of a procurement plan;</li> <li>• How effectively the plan is implemented;</li> <li>• Accuracy of the procurement plans;</li> <li>• Number of procurements done outside the procurement plan.</li> </ul>	Ojo and Gbadebo,(2014); Ambe and Badenhorst-Weiss, (2012); Aduamoah and Campion ,(2012)
		Familiarity with Rules	<ul style="list-style-type: none"> <li>• Number of staff trained on procurement rules and regulations in the organization.</li> </ul>	Rossi, (2010); Gelderman <i>et al.</i> , (2006); Eyaa and Oluka, (2011); Heneghan and O'Donnell, (2007); Lazaridas, (2011); Hunja, (2003)
X <sub>3</sub>	Public Partnership Regulations, (2009)	Supplier Identification	<ul style="list-style-type: none"> <li>• Method used to identify suppliers.</li> </ul>	Ong'olo, (2006); Thai, (2009)
		Supplier selection	<ul style="list-style-type: none"> <li>• Criteria of evaluation and selection (Price, Quality, Quantity, Past Performance etc).</li> </ul>	Carr <i>et al.</i> (1999); Wagner, (2006); Kannan <i>et al.</i> (2002); Monczka <i>et al.</i> , (2005)
		Supplier Performance Management	<ul style="list-style-type: none"> <li>• Monitoring and evaluation of supplier performance;</li> </ul>	
		Due Diligence	<ul style="list-style-type: none"> <li>• Frequency of due diligence before award of contract.</li> </ul>	
		Supplier Relationship	<ul style="list-style-type: none"> <li>• Project implementation M &amp; E to ensure objectives of quality, time and cost are achieved;</li> <li>• Type of relationships adopted with suppliers.</li> </ul>	Bowersox and Closs, (1996); Thatte, (2007); Gunasekaran <i>et al.</i> ,(2001); Landeros and Monczka, (1989); Stuart, 1993): Monczka <i>et al.</i> , (1993).

**Table 3.2 Operationalisation of the Research Variables**

X <sub>4</sub>	Preferences & Reservations Regulations, (2011)	Qualifications of SMEs	<ul style="list-style-type: none"> <li>• Number of contracts where local contractors were given preference;</li> <li>• Capability of the SMEs to participate in procurement opportunities;</li> <li>• Number of contracts awarded to SMEs not delivered.</li> </ul>	Hyytinen, (2005); Bovis, (1998); Palomo, Rios and Ruggeri, (2004); Memba, Gakure and Karanja, (2012); Obanda, (2012)
		Resources availability	<ul style="list-style-type: none"> <li>• Number of contracts awarded to SMEs;</li> <li>• Value of contracts awarded;</li> <li>• Allocation of funds;</li> </ul>	Wanjohi, (2012); Agloms, (2008): Dua-Agyeman and Grogan, (2008)
		Conflict of interest	<ul style="list-style-type: none"> <li>• Opinion on internal &amp; external influence to award procurement contracts to specific SMEs.</li> </ul>	Murray, (2009); Pillay,(2004); Raymond, (2008); Lodhia and Burritt, (2004); Kingori, (2012);
		Buyer Resistance	<ul style="list-style-type: none"> <li>• Opinion on how the organization has embraced award of 30% of tenders to SMEs.</li> </ul>	Kaspar & Puddephatt, (2012); Gelderman <i>et al.</i> , (2006)
		Capacity building	<ul style="list-style-type: none"> <li>• Training programs in place that support capacity building of SMEs and procurement staff.</li> </ul>	
X <sub>5</sub>	Enforcement	Audits and Procurement Reviews	<ul style="list-style-type: none"> <li>• Number of compliance audits carried out by PPOA;</li> <li>• Compliance levels;</li> <li>• Number of appeals/reviews conducted by PPARB;</li> <li>• Number of days it takes to finalize an appeal</li> </ul>	Zubic and Sims, (2011); Sparrow, (2000); Gunningham and Kagan, (2005); Imperto, (2005); Nwabuor, (2005); Okahalam, (2004); Hui <i>et al.</i> ,(2011); Sutinen and Kagan, (1999); Kiama, (2014), Mapesa and Kibua, (2006); Thibodeau,(2007); Ojo and Gbadebo,(2014); Kilungu, (2014)
Y	Organizational Performance	Customer/employee Satisfaction	<ul style="list-style-type: none"> <li>• Numbers of customer satisfaction/employee surveys carried out in 5 years;</li> <li>• Level of customer/employee satisfaction</li> </ul>	Humphires and Wilding, (2004); Pandey,(1999); Hubbard, (2009) : Kaplan and Norton (1992)
		Quality of Goods & Services	<ul style="list-style-type: none"> <li>• Percentage reduction in number rejected deliveries;</li> <li>• Perception on quality of goods and services.</li> </ul>	Basheka, (2009); Lysons and farrington, 2005); Waiganjo, Mukuru and Kahiri, (2012)
		Timely delivery	<ul style="list-style-type: none"> <li>• Percentage decrease in delayed deliveries</li> <li>• Percentage decrease in undelivered contracts</li> </ul>	
		Cost Effectiveness	<ul style="list-style-type: none"> <li>• Percentage of cost reduction in the procurement process.</li> </ul>	
		Growth and Expansion	<ul style="list-style-type: none"> <li>• Percentage growth in terms of sales/revenue;</li> <li>• Percentage growth in market share.</li> </ul>	
		Profitability	<ul style="list-style-type: none"> <li>• Percentage increase in profits</li> </ul>	Pandey, (1999)

The PPDA, (2005) implementation was one of the independent variables of the study and was measured on the extent to which corporations had achieved the objectives of the Act in terms of efficiency, competition, transparency, accountability and ethical standards. Efficiency sub variables was measured using the number of complaints received on quality of goods and services delivered; number of complaints from users on procurement performance; number of internal audits conducted to check on the efficiency of the procurement process and the number of market surveys conducted before award of contracts.

Competition sub variable was measured by the number of open tenders advertised in print media from 2009 - 2013 and the percentage amount of the corporation procurement budget used for each procurement method. The sub variable of equal treatment was measured on the frequency of provision of information to suppliers and the number of days it takes to pay suppliers.

Transparency was measured on the use of the corporation's and PPOA websites to advertise procurement opportunities (e-procurement system). Accountability was also measured on the frequency of reporting to PPOA as per section 46 of the PPDA, (2005) and ethical standard sub variable was measured on number of procurement officers with professional qualifications and number of procurement staff that were members of KISM.

Conversely, organizational structure, methods of procurement, records management, procurement planning and familiarity with rules and regulations were used to measure the effect of the PPDR, (2006) implementation on performance. The sub variable organizational structure was measured by existence of supportive structures for implementation of the regulations; establishment of the various procurement committees and level of the procurement function within the organizational hierarchy (Ogachi, 2014; Eyaa and Oluka, 2012). The methods of procurement sub variable was measured by number of procurements for each method in a given financial year from 2009 - 2013 (Tagaki & Hosoe , 2008; Kathure, 2012).



Records management was measured by the existence of a records management unit in the organization, relevant qualifications of records management personnel and the period it took to dispose records (Rembe, 2010; Alfresco, 2009). Procurement planning was measured by the existence of a procurement plan; updating of plans and how effectively the plans are implemented (Ojo and Gbadebo, 2014; Ambe and Badenhorst-Weiss, 2012; Aduamoah and Campion, 2012). Familiarity with PP rules and regulations was measured by the number of staff trained on rules and regulations in the PE as used by Rossi, (2010); Gelderman *et al.*, (2006); Eyaa and Oluka, (2011) and Lazaridas, (2011).

The contribution of PPP Regulations (2009) on performance objective was measured on the methods of supplier identification, supplier selection, due diligence, supplier performance management and contract implementation monitoring and evaluation. Supplier identification was measured by method used to identify suppliers (Negotiation, Open tender or Restricted tender), supplier selection was measured by the criteria used to evaluate and select suppliers and these included price, quality, quantity, past performance, technology (Monczka *et al.*, (2005) and the frequency of due diligence before contract award. Supplier performance was measurement by the frequency of monitoring and evaluation of project implementation (Bowersox & Closs, 1996; Gunasekaran, Patel & Tirtirogil, 2001; Monczka *et al.*, 1993).

The effect of PRR, (2011) on performance of state corporations was measured by the availability of resources, qualifications of the SMEs, conflict of interest, buyer resistance and capacity building. The sub variable of resources availability was measured by allocation of funds for PP activities, number and value of contracts awarded to SMEs (Wanjohi, 2012).

Qualifications of SMEs was measured by the capability of SMEs to participate in PP opportunities, number of contracts where local contractors were given preference and number of contracts awarded to SMEs not delivered on time (Obanda, 2012; Memba, Gakure and Karanja, 2012). Conflict of interest was measured by the frequency of internal and external influence to award contracts to specific SMEs (Oanda, 2013; Raymond. 2008;

Kingori 2012). Buyer resistance was measured by the extent to which organizations had embraced the 30% award of all tenders to SMEs policy as used by (Kaspar & Puddephatt, 2012) and capacity building was measured by the number of trainings conducted for both the SMEs and procurement staff on implementation of the preference and reservations regulations (Gelderman *et al.*, 2006). Enforcement was the moderating variable and based on extensive theoretical and empirical literature review, enforcement was operationalized as three aspects namely, procurement audits, procurement reviews and compliance levels. The specific measures were the number of audits conducted by PPOA from 2009 - 2013; the number of procurement reviews conducted by the PPARB for the period of the study and the levels of compliance.

The depended variable performance was measured by the level of customer and employee satisfaction, quality of goods and services, timely delivery, cost effectiveness, growth and expansion. Customer and employee satisfaction were measured by the number of satisfaction surveys conducted from 2009 to 2013 and the level of satisfaction (Kaplan & Norton, 1996); quality was measured by the percentage reduction in number of rejected deliveries (Lysons & Farrington, 2006). Timely delivery was measured by the percentage decrease in delayed deliveries and percentage decrease in undelivered contracts; cost effectiveness was measured by the percentage reduction of administration cost in the PP process and percentage increase in organizational expenditure from 2009 to 2013; growth and expansion was measured by the percentage growth in revenue and market share; and profitability was measured by percentage increase in profits (Pandey, 1999).

This chapter discussed the research methodology adopted for the study. Cross sectional research design and positivist philosophy were used. The target population was 187 state corporations with a sample size of 125 corporations obtained through stratified sampling and the study managed to get responses from 112 corporations. Questionnaires and interview guides were pilot tested and used in collecting data. Descriptive and inferential statistics were employed to establish the degree of association among the variables. Ordinary linear squares and multiple regression analysis were used to establish the relationship between the variables.

## **CHAPTER FOUR**

### **RESEARCH FINDINGS, ANALYSIS AND DISCUSSION**

#### **4.1 Introduction**

The study sought to determine the effect of the PP legal framework implementation on performance of Kenyan state corporations. The specific objectives were to determine the effect of the PPDA, (2005) implementation; PPDR, (2006) implementation; PPPR, (2011) implementation and PRR, (2009) implementation on performance and the moderating variable was enforcement. This chapter present the results of analysis of data collected from the field using questionnaires, interview guides and document analysis. Data was collected from staff working in procurement department and Accounting officers.

#### **4.2 Results of Pilot and Other Diagnostic Tests**

Pilot study was conducted to pretest the data collection tool. Questionnaire was administered on 10 respondents drawn from five state corporations that were part of the target population but not in the sample. These firms were selected from each functional category of state corporations using random numbers to ensure that the corporations picked stood an equal chance of being included in the study. According to Kothari (2008), random numbers ensure that the sample is randomly selected with all the units in the population having an equal chance of being picked.

##### **4.2.1 Reliability Test**

The purpose of the pilot study was to test the reliability of the tool. Reliability of an instrument refers to its ability to produce consistent and stable measurements. Bagozzi (1994) explains that reliability can be seen from two sides: reliability (the extent of accuracy) and unreliability (the extent of inaccuracy). The most common reliability coefficient is the Cronbach's alpha which estimates internal consistency by determining how all items on a test relate to all other items and to the total test - internal coherence of data. The reliability is expressed as a coefficient between 0 and 1. The higher the coefficient, the more reliable is the test. To ensure the reliability of the instrument, Cronbach's Alpha was used to test the reliability of the proposed constructs.

Table 4.1 showed the reliability of the constructs. All constructs depicted that the value of Cronbach's Alpha were above the suggested value of 0.7 thus the study was reliable (Nunnally & Bernstein, 1994). On the basis of reliability test, it was supposed that the scales used in this study were reliable to capture the constructs. The PPDA, (2005) had a reliability value of 0.846; PPDR, (2006) had a value of 0.840; PPPR, (2009) had a value of 0.890; PRR, (2011) had a value of 0.864; Performance had a value of 0.872 and Enforcement had a value of 0.854.

**Table 4.1: Reliability Test Results**

<b>Variable</b>	<b>N of Items</b>	<b>Reliability Cronbach's Alpha</b>	<b>Conclusion</b>
Public Procurement and Disposal Act, (2005) implementation	10	0.846	Reliable
Public Procurement and Disposal Regulations, (2006) implementation	17	0.840	Reliable
Public Private Partnership Regulations, (2009) implementation	10	0.890	Reliable
Preference and Reservations Regulations, (2011) implementation	11	0.864	Reliable
Organizational Performance	11	0.872	Reliable
Enforcement of the Public Procurement Legal Framework	6	0.854	Reliable

#### **4.2.2 Factor Analysis**

Factor analysis was used to summarize data to be more manageable without losing any important information and therefore making it easier to test hypothesis (Field, 2009; Tabachnik & Fidell, 2007). There are three main reasons for using factor analysis (Field, 2009) to develop a scale to measure PP legal framework implementation, reduce the variables to a manageable size and to have a better understanding of the variables.

According to Cooper and Schindler (2008), factor analysis is a technique used for specific computational techniques. These factors, also called latent variables, aim to measure things that are usually hard to measure directly, such as attitudes and feelings (Field, 2009). It is a way of explaining the relationship among variables by combining them into smaller factors (Coakes & Steed, 2001; Zikumnd, 2003).

The scales usually start with many questions, and then by using factor analysis are reduced to smaller number (Pallant, 2007). The reduced results are then used for other analysis such as multiple regression analysis. Factors are a smaller set of underlying composite dimensions of all the variables in the data set while loadings are the correlation coefficients between the variables and the factors (Mugenda & Mugenda, 2012). Factor loading assume values between zero and one of which loadings of below 0.30 are considered weak and unacceptable (Nachmias & Nachmias, 2008).

The pilot study assumed factor loading of 0.7 as acceptable. Conventionally, variables that have a factor loading of 0.4 or greater within a particular factor are considered to be its major components, and factors are usually given names relating to their major components (Manly, 1994). The basic idea of factor analysis was to find a set of latent variables that essentially contain the same information with the manifest variables (Joreskog & Moustaki, 2006). This helped the researcher to reorganize the items under investigation into a more precise group of variables and build confidence on retention of possible items.

Further two tests namely Kaiser-Meyer-Olkin measures of sampling adequacy (KMO) and Bartlett's test of sphericity were applied to test whether the relationship among the variables was significant as shown in appendix VI. Bartlett's test of sphericity was used to test whether the data was statistically significant or not. With the value of test statistic and the associated significance level, it showed that there existed a high relationship among variables. KMO measure of sampling adequacy was conducted to confirm whether there was a significant correlation among the variables to warrant the application of Exploratory Factor Analysis (EFA) (Snedecor & Cochran, 1989).

The KMO statistics vary between 0 and 1 (Argyrols, 2005). A value of zero indicates that the sum of partial correlation is large relative to the sum of correlations indicating diffusions in the patterns of correlations, and hence, factor analysis is likely to be inappropriate (Costello & Osborne, 2005). A value close to 1 indicates that the patterns of correlations are relatively compact and so factor analysis should yield distinct and reliable factors (Cooper & Schindler, 2011).

According to Kaiser (1974), factor loading values that are greater than 0.4 should be accepted and values below 0.4 should lead to correction of more data to help researcher to determine the values to include. Values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are great, and values above 0.9 are superb.

The study therefore used sub variables with values of 0.7 and above and dropped those with the values below 0.7. Appendix VII presents the factor loading results. Factor analysis was also done to determine the total scores for each variable and used for further analysis. Appendix VIII presents the factor score results. Factor scores for the indicators were extracted from the analysis then used to compute the total scores for the variables used for the inferential analysis.

Table 4.2 shows the set of sub variables under the variable PPDA, (2005) that had factor loadings. Ten sub variables with values more than 0.7 were accepted and four sub variables with factor loadings less than 0.7 were dropped. The sub variables dropped were the number of open tenders advertised in the print media; number of tenders posted on PPOA website, number of restricted and direct tenders conducted and percentage of tenders awarded that were advertised on the print media from 2009 to 2013. The Kaiser-Meyer-Olkin measures of sampling adequacy in Appendix VI (i) showed the value of test statistic of 0.813.

**Table 4.2 Factor Loading for the Construct Implementation of PPDA, (2005)**

<b>Sub Variable</b>	<b>Factor Loadings</b>
Number of complaints on procurement performance from 2009 to 2013	0.953
Number of complaints received on quality of goods from 2009 to 2013	0.719
Number of Market survey conducted from 2009 to 2013	0.895
Number of internal Procurement audits conducted from 2009 to 2013	0.875
Number of open tenders advertised in the print media from 2009 to 2013	0.502
Number of tenders posted on entity and PPOA websites from 2009 to 2013	0.598
Methods of procurement used and average annual budget expenditure spent	0.954
Number of restricted and direct tenders conducted from 2009 to 2013	0.544
Number of days it takes corporations to pay suppliers	0.862
Percentage of tenders awarded that were advertised on print media	0.468
Number of reports submitted to PPOA from 2009 to 2013	0.846
Number of open tenders advertised on print media from 2009 to 2013	0.869
Number of procurement officers with professional qualifications	0.915
Number of procurement staff that were members of KISM	0.917

Table 4.3 shows the set of sub variables under the variable PPPR, (2006) implementation. Twelve sub variables with values more than 0.7 were accepted and four sub variables with factor loadings less than 0.7 were dropped. The sub variables dropped were value of contracts handled by the procurement committee; involvement of the procurement unit in formulation of the procurement strategy and frequency of market surveys to information award of contracts. The KMO measures of sampling adequacy in Appendix VI (ii) showed the value of test statistic of 0.762, which showed a high partial correlation and that factor analysis was appropriate.

**Table 4.3: Factor Loading for the Construct Implementation of PPDR, (2006)**

<b>Sub variable</b>	<b>Factor Loadings</b>
Function that the Procurement Unit reports to	0.834
Appointing authority of the tender, procurement and disposal committees	0.820
Contracts amounting to Kshs. handled by the Procurement committee	0.591
Appointment of evaluation committee for each tender	0.967
Frequency of disposal committee meetings	0.706
Inspection of delivered goods and equipments by a committee	0.734
Involvement of Procurement unit in formulation of the procurement strategy	0.509
Use of open tender for all contracts above kshs. 6 million	0.640
Frequency of approval of restricted and direct tender methods	0.894
Frequency of market surveys to inform award of contracts	0.654
Availability of accurate and reliable procurement records	0.789
Level of relevant training of the records management staff in the organization	0.915
Period it takes to dispose procurement records	0.868
Preparation of annual procurement plans	0.745
Frequency of updating procurement plans to suit project needs	0.803
Establishment of a records management unit	0.919

Table 4.4 shows sub variables under the variable Public Private Partnership Regulations, (2009) that had factor loadings greater than 0.7 and were accepted for analysis. Ten sub variables with values more than 0.7 were accepted and two sub variables with factor loadings less than 0.7 were dropped.

The sub variables dropped were percentage of all public private partnership contacts identified through open tender and supplier performance feedback. Kaiser-Meyer-Olkin measures of sampling adequacy in Appendix VI (iii) shows the value of test statistic of 0.752. This showed a high partial correlation and that the factor analysis was appropriate.



**Table 4.4: Factor Loading for the Construct Implementation of PPPR, (2009)**

<b>Sub variable</b>	<b>Factor Loading</b>
Participation in public private partnership projects from 2009 to 2013	0.788
Number of PPP projects implemented from 2009 to 2013	0.810
Methods of contractor identification	0.807
Percentage of all PPP contracts executed identified by open tenders	0.611
Criteria for selection of contractors	0.721
Frequency of due diligence conducted before award of PPP contracts	0.757
Frequency of supplier performance evaluation	0.719
Monitoring and evaluation of project implementation	0.712
Suppliers Performance feedback	0.591
Number of contracts completed to quality from 2009 to 2013	0.705
Number of contracts completed in time from 2009 to 2013	0.847
Number of contracts completed at cost from 2009 to 2013	0.791

The variable Preference and Reservations Regulations, (2011) had eleven factor loadings greater than 0.7 and were all accepted for analysis as shown in table 4.5. The Kaiser-Meyer-Okin measures of sampling adequacy in Appendix VI (iv) showed the value of test statistic of 0.702 which was a high partial correlation and the factor analysis was appropriate.

**Table 4.5: Factor Loading for the Construct Implementation of PRR, (2011)**

<b>Sub variable</b>	<b>Factor Loading</b>
Number of contracts given preference to the local contractors from 2011 to 2013	0.748
Number of contracts awarded to the Youth, Women and PWDs from 2011 to 2013	0.810
Total Value of contracts awarded to Youth, Women and PWDs from 2011 to 2013	0.707
Total number of contracts awarded to SMEs from 2011 to 2013	0.741
Influence of corporations to award contracts to SMEs	0.721
Proportion of contracts awarded to SMEs of all the contracts from 2011 to 2013	0.856
Number of bidder conferences held for SMEs from 2011 to 2013	0.757
Availability of Funds for procurement activities	0.784
Trainings held for staff on the 30% contracts award directive	0.755
Extent corporations have embraced the 30% contracts award directive	0.791
Percentage of contracts awarded to SMEs delivered on time, at cost and quality	0.817

Table 4.6 shows a set of sub variables under the variable performance that had factor loadings greater than 0.7 and were accepted. Fifteen sub variables with values more than 0.7 were accepted and three sub variables with factor loadings less than 0.7 were dropped.

The sub variables dropped were number of contracts not delivered on time, number of contracts that were not delivered, and percentage decrease in number of fraud cases from the year 2009 to 2013. The Kaiser-Meyer-Olkin measures of sampling adequacy in Appendix VI (v) showed the value of test statistic of 0.735 showed a high partial correlation and therefore the factor analysis was appropriate.

**Table 4.6: Factor Loading for the Construct Organizational Performance**

<b>Sub variable</b>	<b>Factor Loading</b>
Customer satisfaction surveys conducted from 2009 to 2013	0.814
Level of customer satisfaction	0.755
Number of contracts not delivered on time in the current financial year	0.580
Number of contracts not delivered at all from 2009 to 2013	0.613
Number of employee satisfaction surveys conducted from 2009 to 2013	0.847
Level of employee satisfaction	0.820
Percentage reduction in number of rejected deliveries from 2009 to 2013	0.928
Percentage increase in level of customer satisfaction from 2009 to 2013	0.988
Percentage increase in revenue from 2009 to 2013	0.763
Percentage increase in market share from 2009 to 2013	0.874
Percentage decrease in fraud and corruption cases from 2009 to 2013	0.657
Percentage increase in level of employee satisfaction from 2009 to 2013	0.951
Percentage decrease in delayed contracts awarded from 2009 to 2013	0.805
Percentage decrease in undelivered contracts from 2009 to 2013	0.857
Percentage decrease in organizational expenditure from 2009 to 2013	0.857
Percentage reduction in procurement process cost from 2009 to 2013	0.800
Percentage increase in annual budget 2009 to 2013	0.797
Percentage increase in annual spending for the entity from 2009 to 2013	0.798

Table 4.7 shows a set of sub variables under the variable Enforcement of the PP Legal Framework that had factor loadings greater than 0.7. All these sub variables were accepted. The Kaiser-Meyer-Olkin measures of sampling adequacy in Appendix IV (vi) showed the value of test statistic of 0.865 which showed a high partial correlation and therefore the factor analysis was appropriate.

**Table 4.7: Factor Loading for the Construct Enforcement**

<b>Sub variable</b>	<b>Factor Loading</b>
Number of compliance audits conducted by PPOA from 2009 to 2013	0.953
Compliance levels from 2009 to 2013	0.732
Number of Procurement cases reviewed from 2009 to 2013	0.766
Number of days it takes the PPARB finalize a procurement review	0.914

#### 4.2.3 Test for Multicollinearity

A situation in which there is a high degree of association between independent variables is said to be a problem of multi-collinearity which results into large standard errors of the coefficients associated with the affected variables. According to Mugenda and Mugenda (2012), multi-collinearity can occur in multiple regression models in which some of the independent variables are significantly correlated among themselves.

In a regression model that best fits the data, independent variables correlate highly with dependent variables but correlate, at most, minimally with each other. This problem was solved by ensuring that there was a large enough sample as multi-collinearity is not known to exist in large samples. Multi-collinearity can also be solved by deleting one of the highly correlated variables and re-computing the regression equation (Lind, 2002).

**Table 4.8: Collinearity Statistics**

<b>Variable</b>	<b>Tolerance</b>	<b>VIF</b>
Public Procurement and Disposal Act, (2005) implementation	0.549447	1.82001
Public Procurement & Disposal Regulations, (2006) implementation	0.44897	2.227318
Public Private Partnership Regulations, (2009) implementation	0.573224	1.74452
Preference and Reservation Regulations, (2011) implementation	0.56636	1.76566

From table 4.8, the tolerances were above 0.2. If a variable has collinearity tolerance below 0.2, it implies that 80% of its variance is shared with some other independent variables. The variance inflation factors (VIFs) were also all below 5. The VIF is generally the inverse of the tolerance. Multicollinearity is associated with VIF above 5 and tolerance below 0.2. The accepted variables were therefore determined not to exhibit multicollinearity and were fit to be used for analysis.

#### **4.2.4 Test for Linearity**

Multiple linear regressions can only accurately estimate the relationship between the dependent and independent variables if the relationship is linear in nature (Osborn & Waters, 2002). Absence of a linear relationship between the dependent and independent variables leads to the results of the regression linear analysis to under estimate the relationship. Linearity of data means that the values of the outcome variable for each increment of a predictor lie along a straight line.

Linearity is an important association between the dependent and independent variables. In this study, linearity was tested using the scatter plot in Appendix V (vii) which showed that the residuals were equally distributed about zero all through as the regression standardized predictors increased. This showed no violation of linearity which was a requirement for regression

#### **4.2.5 Test for Homoscedasticity**

Homoscedastic means the values have a constant variance. A scatter plot of the standardized residuals was used to test the violation of homoscedasticity. The curve in Appendix V (v) was not skewed to either side of the plot implying a normal distribution with a mean of 6.99 and a standard deviation of 0.989. The plot also showed no clear indication or pattern of increasing or decreasing plots with increase in the regression predictor values. This implied no signs of heteroscedasticity which means that the residual from the regression were homoscedastic.

#### 4.2.6 Test for Normality

Regression analysis assumes that the data is normally distributed. Non-normally distributed data can distort relationship and significance tests hence statistical inference. Data that is normally distributed may lead to inaccuracy of results. This study tested normality using Shapiro-Wilk normality test. Table 4.9 presents key statistics for the normality test. The skewness of the standardized residuals was 0.228. The Shapiro-Wilk normality test for the standardized residuals was significant with a significance of 0.038 which was less than 0.05. This implied that the residuals follow a normal distribution as required for a linear regression.

**Table 4.9: Normality Test**

			Shapiro- Wilk		
	Skewness	Kurtosis	Statistic	df	Sig.
Standardized Residual	0.228434	0.453092	0.975652	112	0.038316
Studentized Residual	0.228434	0.453092	0.976104	112	0.041928

#### 4.2.7 Test for Autocorrelation

It is also required that the residuals should not be auto correlated. Autocorrelation implies that adjacent observations are correlated. If the regression model violates the assumption of no autocorrelation then the predictors may be significant even though the model will have underestimated the standard errors of the predictors. Autocorrelation was tested using Durbin Watson. From Table 4.10, the Durbin Watson value was 1.803, the upper limit for 4 predictors without the constant was 1.693 and the lower limit was 1.557. 1.803 was higher than the upper limit so study concluded that the residuals were not auto correlated.

**Table 4.10: Autocorrelation - Durbin Watson Values**

Computed D. Watson	Lower limit D. Watson	Lower limit D. Watson tables tables
1.803	1.557	1.693

### 4.3 Response Rate

The study was conducted in a total sample of 125 state corporations selected through stratified random sampling technique. Out of the 125, 112 corporations were responsive and this gave a respondent rate of 90%. The sampled state corporations were from all over the country and the response rate was as shown in Table 4.11. The 90 % response was rated as very good. A response rate of 50% is adequate, 60% is good and 70% and above is very good (Mugenda & Mugenda, 2003). Therefore, 90% response rate in this study was adequate for analysis and according to Babbie (2004), a return rate of 50% is acceptable to analyze and publish, 60% is good and above 70% is rated very good.

The high response rate was as a result of the researcher contacting the respondents through email before the exercise of data collection and requesting them to complete the questionnaires. The list and email contacts of the procurement practitioners in state corporations were obtained from the Kenya Institute of Supplies Management (KISM).

**Table 4.11: Response Rate**

<b>Strata</b>	<b>Sample Size</b>	<b>Response</b>	<b>Percentage</b>
Purely commercial	23	21	91%
Agencies with Strategic Function	14	12	86%
Executive Agencies	41	37	90%
Regulatory Agencies	17	15	88%
Research Institutions, Public Universities & Tertiary Education & Training	30	27	90%
Total	125	112	90%

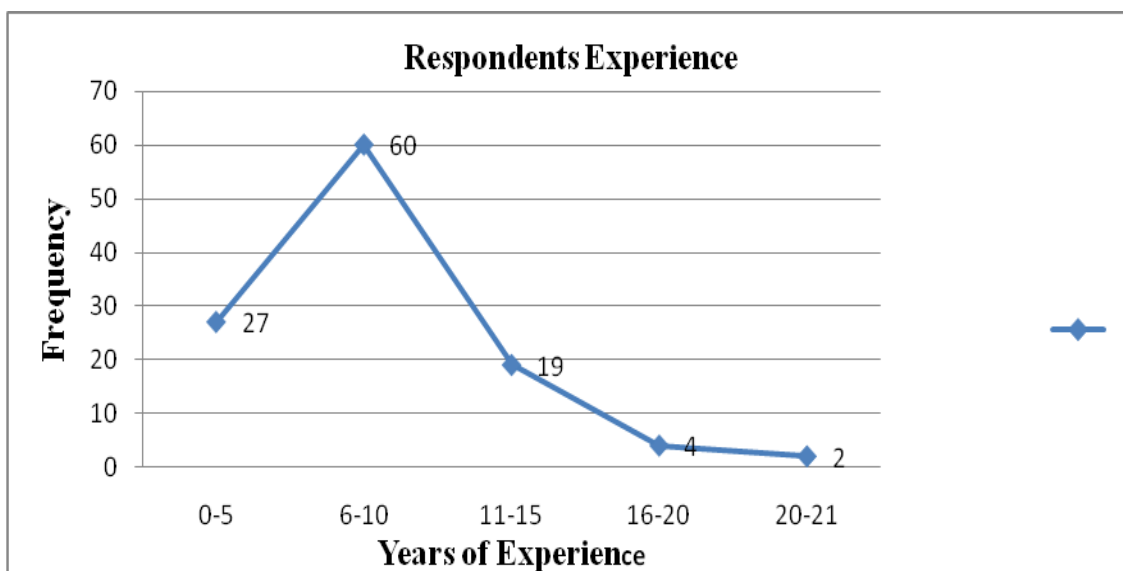
### 4.4 Demographic Characteristics

The study sought to find out the demographic characteristics of the respondents based on question 1-5 of section one in the questionnaire. The information sought was on years of experience in public procurement and supply chain management, academic qualifications, professional qualifications, registration with the professional body and training on procurement rules and regulations.

#### 4.4.1 Respondents Experience

The study sought to find out the work experience of the staff in public procurement and supply chain management in state corporations with the aim of ascertaining the extent to which their responses could be relied upon to make conclusions. Figure 4.1 shows that majority of respondents had years of experience between 6-10 years. Only 2 respondents had over 20 years of experience. This clearly demonstrated that majority of the respondents had adequate experience in PP and supply chain management. It therefore can be inferred that the study targeted the right respondents with a good understanding of the effect of the PP legal framework implementation on organizational performance.

The study is in tandem with observations made by Braxton (2008) who proposed that respondents with high working experience assist in providing reliable data on the sought problem since they have technical experience on the problem being investigated by the study.



**Figure 4.1: Respondents Experience**

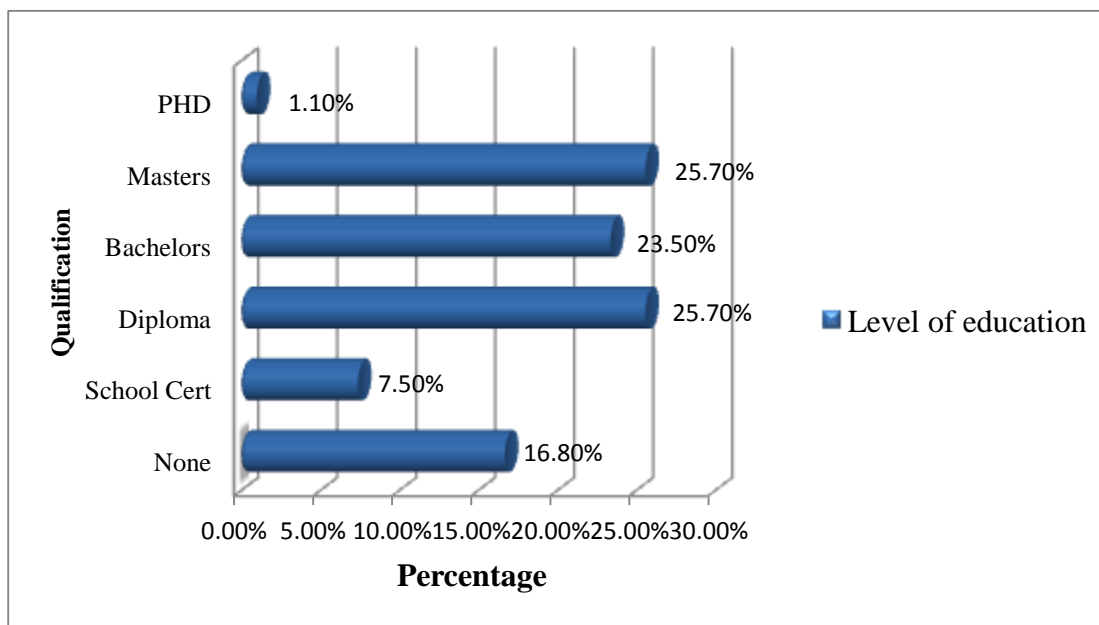
#### 4.4.2 Highest Level of Academic Qualification

The study sought to establish the highest level of education attained by the staff working in the procurement unit in state corporations such as Doctorate, Masters, Bachelors, Diplomas and Certificate qualification. From Figure 4.2, findings showed that 23.5%, of the



procurement staff working in state corporations had attained University education, 25.7% had post graduate qualifications and college level qualifications respectively and 7.5% had school certificate. Only 16.8% of the respondents had no academic qualification while the least number 1.1% had doctorate degree.

From this it was quite clear that majority of the respondents have some degree of qualification and this implied that these employees have been exposed to diverse ideas that might enhance organizational performance. The results lend support to previous empirical research that has shown that a high degree of education is associated with organizational success (Hambrick and Mason 1994; Kariuki, Awino & Ogutu, 2012).



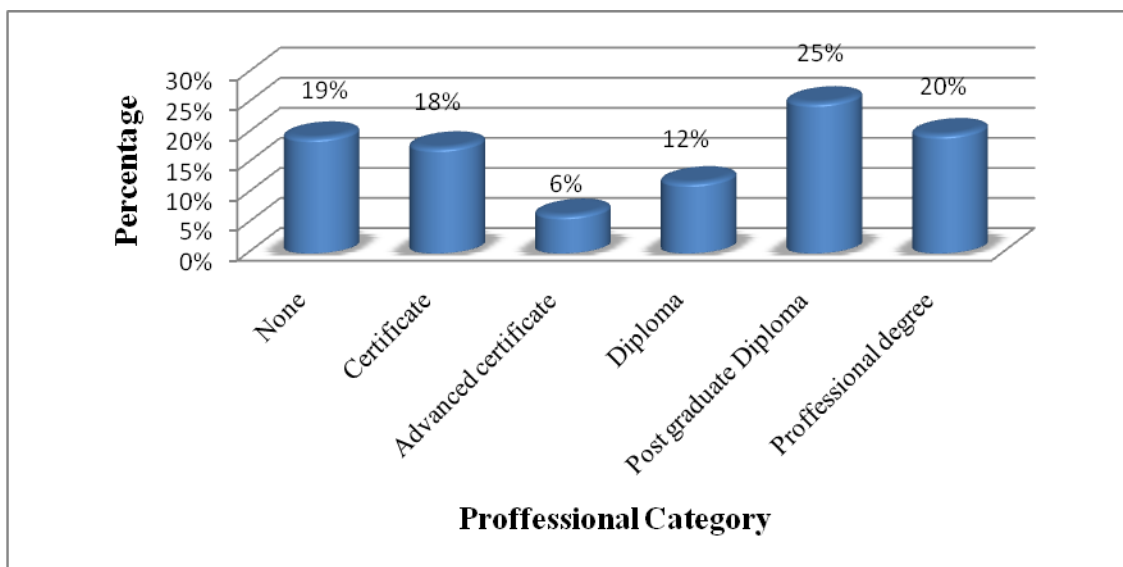
**Figure 4.2: Level of Academic Qualification**

#### 4.4.3 Professional Qualification

The study further sought to find out the procurement staff professional qualifications such as professional degree, post graduate diploma, diploma, advanced certificate and certificate. The aim was to ascertain if they are equipped with relevant knowledge and skills on supply chain management and public procurement.

From Figure 4.3, majority of the respondents 25.1% had post graduate diploma, followed by 19.8% who had professional degree, 19.3% had no professional qualification and 17.6 had certificate qualification. Only 6.4% had advanced certificate, while 11.8% had a diploma. As compared to academic qualification, the number of those with professional qualification was lower. This clearly demonstrated that majority of respondents had the necessary academic qualification but not professional qualifications.

The findings are in tandem with a study carried out by Ameyaw, Mensa and Osei -Tutu (2003) on the shortcomings and organizational weaknesses in PP in Ghana. The study established that lack of professional procurement personnel was one of the weaknesses of PP. The current study depicted that only 19.8% of the respondents were professional degree holders yet they are charged with the critical responsibility of making procurement decisions in state corporations.

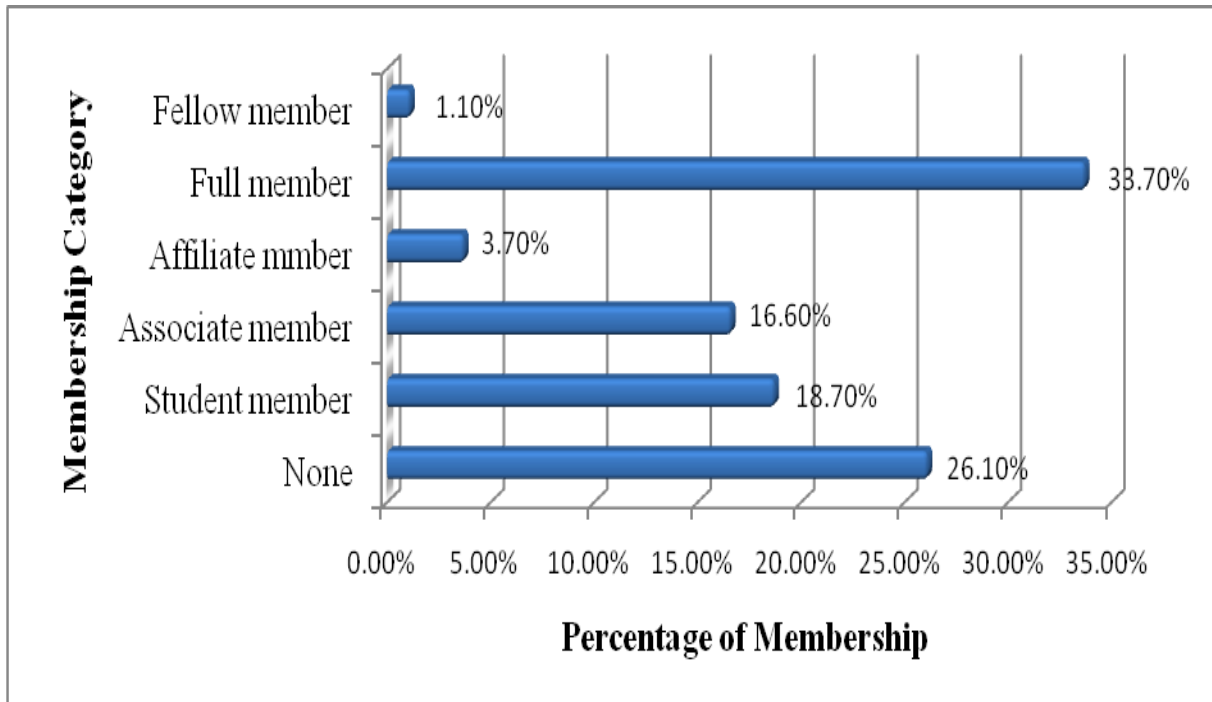


**Figure 4.3: Professional Qualification**

#### **4.4.4 Registration with Procurement Professional Body**

It is a requirement of the PP law that all procurement practitioners must be members of KISM and have a valid practicing license (SPMA, 2007). The study sought to establish the percentage of respondents that were members of KISM. Figure 4.4 shows that majority of respondents 33.7% were full members while only 1.1% were fellow members. A number of

respondents 26.1% were not members. This study is in tandem with the findings by Kapila (2008) who observed that lack of certified procurement professionals was a critical problem that affects supply chain management practices in public institutions.



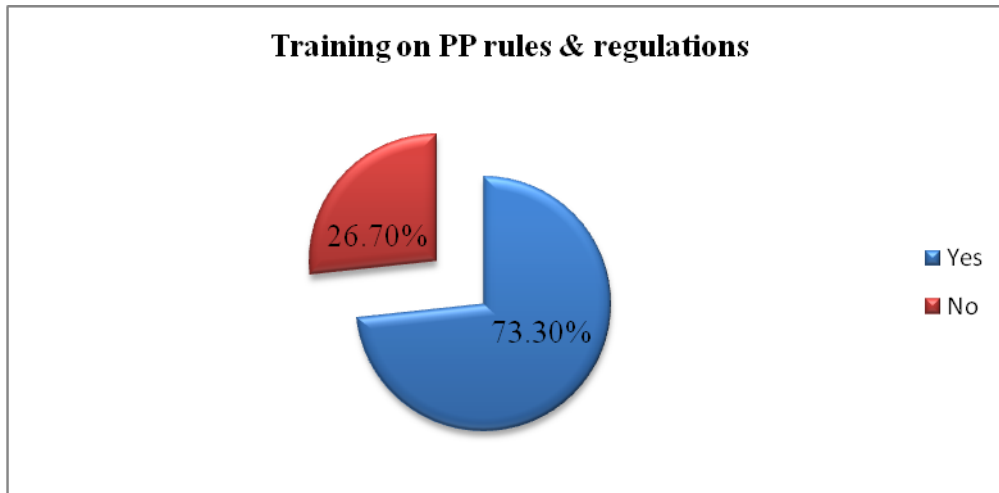
**Figure 4.4: KISM Membership/Registration**

#### **4.4.5 Training on Public Procurement Rules and Regulations**

The study sought to find out whether the staff working in procurement department had had any training on the implementation of PP legal framework. This is important because all procurement practitioners are required to be familiar with the rules and regulations that govern procurement of goods and services (Rossi, 2010). Figure 4.5 shows that majority of the respondents 73.3% had attended training on public procurement rules and regulations while 26.7% had not had any training.

Findings are in tandem with other scholars Geo, (2008): Ojo and Gbadebo (2014): Onyinkwa, (2013); Gesuka and Namusonge (2013): Sang and Mogambi, (2014): Migosi, Ombiki and Evusa (2013); Chekol and Tehulu (2014), who agree that training on the rules and regulations increases levels of implementation and efficiency. Findings are also

supported by Eyaa and Oluka, (2011) who noted that lack of familiarity with procurement rules results into poor compliance levels and leads to inefficiency thus negatively affects an organization's performance.



**Figure 4.5: Training on Public Procurement Rules and Regulations**

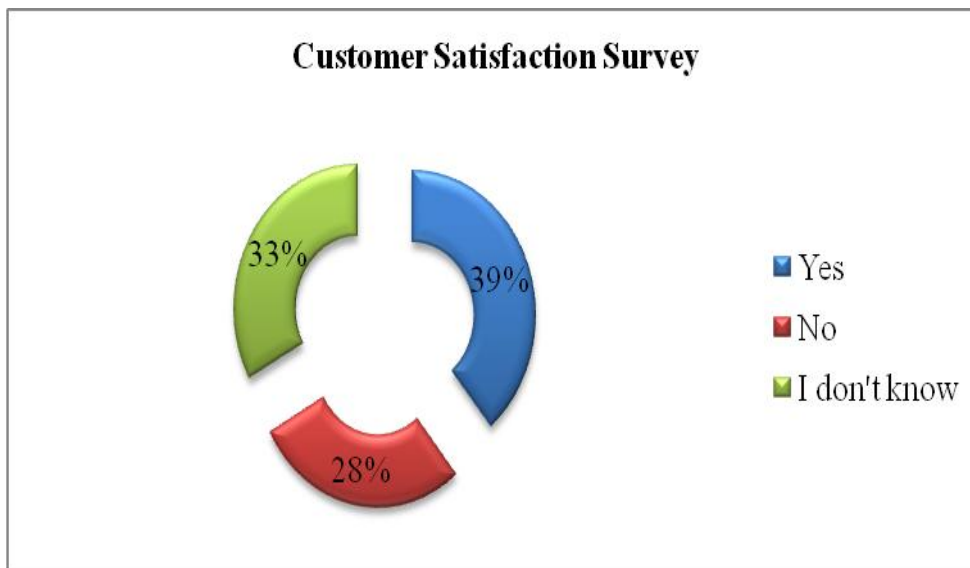
#### **4.5 Organizational Performance**

The dependent variable of the study was organisational performance of state corporations. The indicators used to measure the performance of the state corporations included customer and employee satisfaction, timely delivery of goods and services, cost reduction, quality of goods and services, increase in revenue and growth in market share of the corporation. Performance was measured and analyzed as a continuous variable. The mean was used as the measure of central tendency and standard deviation as the measure of dispersion for this variable.

##### **4.5.1 Customer Satisfaction**

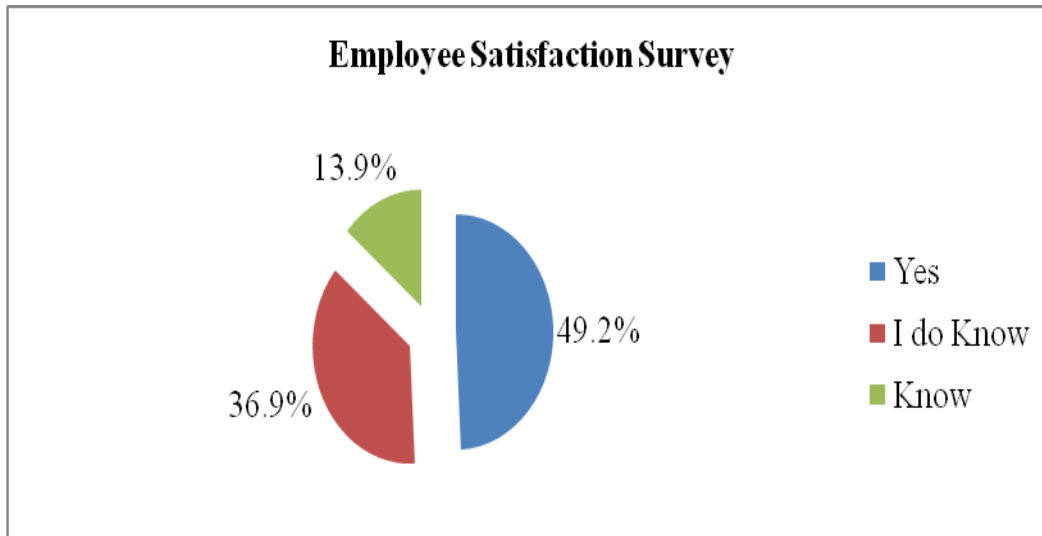
The study first sought to establish whether organizations had conducted any customer and employee satisfaction survey since 2009. From figure 4.6, 39% of the respondents indicated to have conducted customer satisfaction survey, 33% didn't know whether their organization had conducted any customer satisfaction survey and the remaining 28% of the respondents indicated not to have conducted any customer satisfaction survey.

The findings are in agreement with Emrah (2010) who asserted that customer surveys are conducted to establish the level of customer satisfaction to provide organizations with a metric for managing, monitoring and improving business for customer retention and attraction. Satisfied customers return again and again to corporation's business to buy additional goods and services. They also tell their friends and associates about what corporation offers (Peschel, 2008).



**Figure 4.6: Customer Satisfaction Survey**

Figure 4.7 present the results of employee satisfaction surveys. Majority of the respondents (49.2%) indicated to have conducted employee satisfaction surveys, 36.9% of the respondents didn't know whether employee satisfaction survey had been conducted and the remaining 13.9% of the respondents indicated that their corporations had not conducted any employee satisfaction survey.



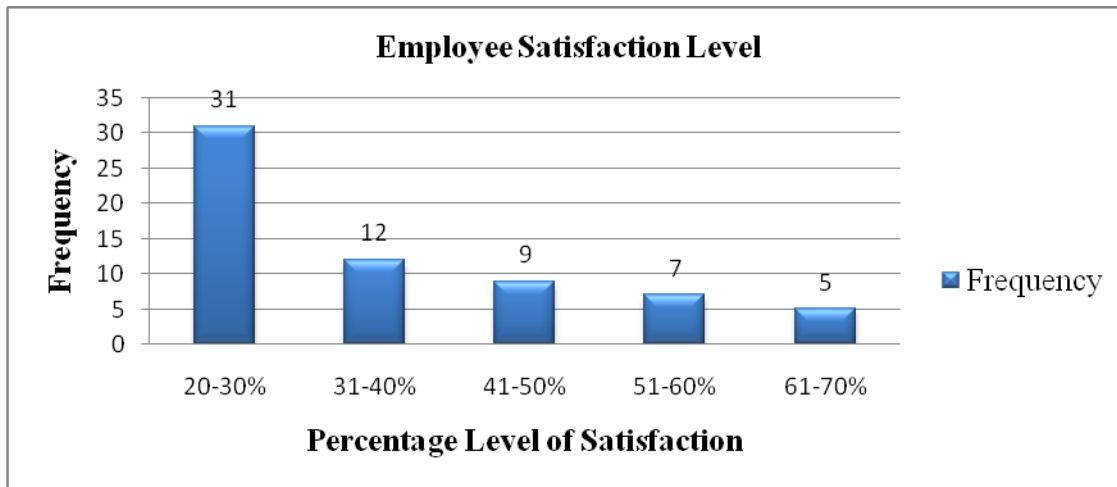
**Figure 4.7: Employee Satisfaction Survey**

Study further sought to establish the level of customer and employee satisfaction from the surveys conducted by the corporations. From figure 4.8, 29 respondents indicated 20-30% customer satisfaction level, 7 respondents indicated 31-40%, 4 respondents indicated 41-50%, 3 respondents indicated 51-60% and 3 respondents indicated 61-70% customer satisfaction level.



**Figure 4.8: Level of Customer Satisfaction**

Figure 4.9 presents the results on employee satisfaction level where 31 respondents indicated 20-30% employee satisfaction level, 12 respondents indicated 31-40%, 9 respondents indicated 41-50%, 7 respondents indicated 51-60% and 5 respondents indicated 61-70% employee satisfaction level.



**Figure 4.9: Level of Employee Satisfaction**

Performance on customer satisfaction was measured by two sub variables that had results as shown in Table 4.12. The average percentage increase in level of customer satisfaction from 2009 to 2013 was 39.1% with a standard deviation of 22.8% and skewness of 0.963. The percentage increase in employee satisfaction was found to have an average of 44.4% with a standard deviation of 20% and a skewness of 0.132. Findings tally with Emrah (2010) who stated that customer satisfaction was about profit and competitive advantage and to achieve market success, organizations must monitor customer satisfaction signals regarding product, service and relationship.

Measuring customer satisfaction provides a comprehensive insight to the customer pre and post purchase behavior. Without this approach, understanding, improving and developing better customer service cannot be possible. Therefore corporations should work to identify the characteristics of organization that consistently please their customers, develop tools for monitoring customer satisfaction, and to build continuous improvement systems that respond to customer feedback.

**Table 4.12: Customer Satisfaction**

Indicators	N	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
Percentage increase in the level of customer satisfaction from 2009 to 2013	112	6	99	39.15	22.834	0.963	0.14
Percentage increase in level of employee satisfaction from 2009 to 2013	112	10	96	44.449	19.98	0.132	-0.823

**4.5.2 Timely Delivery**

The indicator measured the percentage decrease in undelivered contracts of those awarded from 2009 to 2013 and percentage decrease in delayed contracts of those awarded from 2009 to 2013. Table 4.13 showed that on average the percentage decrease in undelivered contracts of those awarded from 2009 to 2013 was 45.3%, the standard deviation was 21.169% with a skewness of 0.134. The percentage decrease in number of delayed deliveries from 2009 to 2013 was 43.61%, the standard deviation was 19.5% with a skewness of 0.132.

**Table 4.13: Timely Delivery**

Indicators	N	Min	Max	Mean	Std. Deviation	Skewness	Kurtosi
Percentage decrease in undelivered contracts of those awarded from 2009 to 2013	112	10	98	45.273	21.169	0.134	-0.96
Percentage decrease in delayed contracts of those awarded from 2009 to 2013	112	10	98	43.61	19.459	0.132	-0.646



### 4.5.3 Cost Reduction

The indicator measured the percentage decrease in organisational expenditure from the year 2009 to 2013 and percentage reduction in procurement administration cost from the year 2009 to 2013. Table 4.14 presents the results of performance indicator on cost reduction. The average reduction in the corporation expenditure from 2009 to 2013 was 44.3% with a standard deviation of 20.4% and a skewness of 0.15. The corporations managed to have an average percentage reduction in procurement administration costs of 42.3% with a standard deviation of 19.6% and skewness of 0.342.

Findings are in agreement with those of Ivar, Paula and Erik, (2011) who conducted a study on the cost and effectiveness of the European Union procurement and established that procurement costs and effectiveness vary significantly across countries, however the highly competitive procurement markets help bring about cost reduction and efficient purchasing outcomes.

**Table 4.14: Cost Reduction**

Indicators	N	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
Percentage decrease in organisational expenditure from 2009 to 2013	112	10	94	44.326	20.432	0.15	-0.889
Percentage reduction procurement administration cost from 2009 to 2013	112	10	93	42.262	19.585	0.342	-0.705

### 4.5.4 Quality Performance

The quality performance sub variable was measured by two indicators; percentage reduction in the number of rejected deliveries from the year 2009 to 2013 and percentage decrease in return to stores cases reported from the year 2009 to 2013. From Table 4.15 findings indicate that on average, the percentage reduction in number of rejected deliveries

across the period from 2009 to 2013 was 20.2%; the standard deviation was 15.3% with a skewness of 1.39. The corporations also had an average decrease in number of return to stores cases of 41.3% with a standard deviation of 22.049% and a skewness of 0.135.

**Table 4.15: Quality Performance**

Indicators	N	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
Percentage reduction in the number of rejected deliveries from 2009 to 2013	112	1	96	20.203	15.293	1.388	3.19
Percentage decrease in return to stores cases reported from 2009 to 2013	112	0	95	41.342	22.049	-0.135	-0.788

#### **4.5.5 Revenue Growth**

The revenue growth sub variable was measured by three indicators; percentage increase in revenue, percentage increase in annual budget, and percentage increase in annual spending for the corporations from the year 2009 to 2013. Table 4.16 presents the results of revenue growth related performance indicator. The average percentage increase in revenue collected from 2009 to 2013 was 40.7% with a standard deviation of 19.8% and a skewness of 0.45.

The corporations had an average percentage annual increase in budgets from 2009 to 2013 of 43.9 % with a standard deviation of 19.54% and a skewness of 0.191. The annual spending of the organizations had an increase of 44.5% with a standard deviation of 19.9% and a skewness of 0.113. The findings on increase in annual spending of the corporations are supported by those of Amayi and Ngugi, (2013) who established that the expenditure on procurement for the Ministry of water and Irrigation rose by 38% in the year 2011/2012 and 33% in the year 2012/2013.

**Table 4.16: Revenue Growth**

Indicators	N	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
Percentage increase in revenue from 2009 to 2013	112	3	80	40.732	19.796	0.425	-0.874
Percentage increase in annual budget from 2009 to 2013	112	10	98	43.866	19.536	0.191	-0.664
Percentage increase in annual spending for the organisation from 2009 to 2013	112	10	96	44.497	19.891	0.113	-0.784

**4.5.6 Market Share Growth**

The sub variable was measured by the percentage increase in market share from 2009 to 2013. Table 4.17 presents the results of market share growth as an indicator of performance. The average percentage increase in market share was 44.1% with a standard deviation of 22.4% and skewness of 0.044. Growth plays a key role in explaining operating performance and firm survival. Firm size is the basis of competitive advantage in the sense that large institutions tend to be more efficient than smaller counterparts and have better to survive economic downturns.

**Table 4.17: Market Share Growth**

Indicators	N	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
Percentage increase in market share from 2009 to 2013	112	0	100	44.102	22.38	-0.044	0.911

Factor analysis was done to determine the total scores for the variable that was used for further analysis. Factor scores shown on Table 4.18 for the indicators were extracted from the analysis then used to compute the total scores for the variable used for the inferential analysis.

**Table 4.18: Factor Scores for Organizational Performance**

Indicators	Factor Scores
Customer satisfaction surveys conducted from 2009 to 2013	0.032
Level of customer satisfaction	0.028
Number of employee satisfaction surveys conducted from 2009 to 2013	0.124
Level of employee satisfaction	0.12
Percentage increase in level of customer satisfaction from 2009 to 2013	0.125
Percentage increase in level of employee satisfaction from 2009 to 2013	0.119
Percentage decrease in undelivered contracts from 2009 to 2013	0.134
Percentage decrease in delayed contracts awarded from 2009 to 2013	0.372
Percentage decrease in organizational expenditure from 2009 to 2013	0.144
Percentage reduction in procurement process cost from 2009 to 2013	0.489
Percentage reduction in number of rejected deliveries from 2009 to 2013	0.12
Percentage decrease in return to stores cases reported from 2009 to 2013	0.193
Percentage increase in annual budget 2009 to 2013	0.193
Percentage increase in annual spending for the entity from 2009 to 2013	0.187
Percentage increase in market share from 2009 to 2013	0.113

Measuring performance allows corporations to know how well their business processes are working; know where to make changes to create improvements, if changes are needed; and determine if the changes would lead to improvement. Knowledge of customer perception and attitudes about corporation's business greatly enhances its opportunity to make better business decisions. The corporation will know its customer requirements or expectations and will be able to determine if they are meeting those requirements.

There is no doubt that customer satisfaction has a vital role for every state corporation in business life. It can therefore be said that measuring customer satisfaction in a competitive business environment is a must. Corporations that want to meet and exceed customer expectations should use this tool properly and measuring customer satisfaction should not be one time process. To achieve life time success, corporations should learn customer expectations on a daily basis and try to meet them.

Employee surveys are critical because employees have a huge impact on the bottom line. Satisfied employees will produce better customer service and this will lead to greater profitability. Corporations conduct employee satisfaction survey to better understand what makes them more satisfied.

#### **4.6 Implementation of PPDA, (2005) and Organizational Performance**

The first objective of the study was to determine the effect of the PPDA, (2005) implementation on the performance of Kenyan state corporations. The analysis for this objective involved descriptive analysis for the independent variable that was presented in tables of measures of central tendency for each indicator. Factor scores for the indicators were then computed and total scores for the variables used for the inferential analysis.

Ordinary least squares regression was used to determine the relationship between the two variables and the effect of the PPDA, (2005) implementation on performance. The output of OLS consisted of an R squared, F statistic and regression coefficients. A high F statistic indicated that the null hypothesis lack of joint fit was rejected. The measurements of this independent variable sought to establish whether implementation of the PPDA, (2005) had achieved the intended objectives of efficiency, competition, equal treatment, transparency, accountability, and ethical standards (professionalism).

##### **4.6.1 Efficiency**

The efficiency sub variable was measured in terms of the number of complaints received on the quality of goods and services delivered, number of complaints received from user departments on procurement performance, number of market surveys conducted before

award of contracts and the number of internal procurement audits conducted to monitor the efficiency of the procurement process from the year 2009 to 2013. Table 4.19 presents the results of the efficiency sub variable. The first indicator on Table 4.19 measured the quality of goods and services delivered using the number of complaints received from users on each financial year from 2009 to 2013. In the year 2009, 25 complaints were received on quality of goods and services, in the year 2010, 48 complaints were received, in the year 2011, 19 complaints were received, in the year 2012, 13 complaints were received and in the year 2013, 7 complaints were received. The year 2010 received the highest number of complaints, however in the subsequent years the complaints reduced drastically.

Respondents interviewed were in agreement that the implementation of the PPDA, (2005) had improved the performance of the state corporations as the complaints from users had really reduced. One respondent indicated that the reduced number of complaints was as a result of user involvement in all the stages of the procurement process right from planning for the procurement needs, preparation of specifications, evaluations of bids, contract implementation, receiving, inspection and acceptance of delivered goods, equipment, works and services rendered.

The second indicator on Table 4.19 measured the number of complaints received from internal users on procurement performance from the year 2009 to 2013. In the year 2009, 31 complaints were received from internal users on procurement performance, 45 complaints were received in the year 2010, 20 complaints were received in 2011, 8 complaints were received in 2012 and 13 complaints were received in 2013. The year 2010 had the highest number of complaints.

Findings were supported by the observations from the interviews where one of the key informants indicated that the reduction in complaints on the procurement performance was due to the recognition of the procurement function as a strategic function that contributes to achievement of the corporation performance since 70% - 80% of the corporation budget is spent on procurement of goods, services, works and equipment, and also the involvement of users and stakeholders in all the stages of the procurement process.

The third indicator on Table 4.19 measured the number of market surveys conducted by state corporations before award of contracts for procurement of goods and services from the year 2009 to 2013. In the year 2009, 17 market surveys were conducted, 7 market surveys were conducted in 2010, 17 market surveys were conducted in 2011, 15 market surveys were conducted in 2012 and 46 market surveys were conducted in 2013. The year 2013 had the highest number of market surveys conducted in all the state corporations that were sampled for this study.

The findings collaborated with the interview guides where one of the respondents indicated that the increase in number of market surveys conducted before award of contracts was due poor performance of some contractors awarded contracts before and to some extent non delivery. The low level of market surveys conducted in the other years imply that lack of market survey results to procurement of goods and services at very high prices and this is supported by the findings of a survey conducted by PPOA and KNBS in 2010 which established that public entities procured items at about 60% above market prices (Juma, 2010).

The fourth indicator on table 4.19 measured the number of internal procurement audits carried out to monitor the procurement process performance from the year 2009 to 2013. In the year 2009, 17 internal procurement audits were conducted, 57 audits were conducted in 2010, 14 audits were conducted in 2011, 13 audits were conducted in 2012 and 6 audits were conducted in 2013. The year 2010 had the highest number of internal procurement audits; however the numbers reduces in the subsequent years.

Findings are in tandem with the observations of Mithamo, Iravo and Mbithi, (2013) who asserted that lack of internal controls led to inefficient procurement that highly affected development issues such as service delivery, economic growth and private sector development and decentralization.

**Table 4.19: Efficiency**

<b>Indicators</b>	<b>Financial Year</b>					<b>Mode</b>
	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	
Number of complaints received on quality of goods and services delivered	25	48	19	13	7	2
Number of complaints from internal users on procurement performance	31	45	20	8	8	2
Number of market surveys conducted before procurement of goods and services	17	7	15	27	46	5
Number internal procurement audits conducted	23	57	14	13	5	2

#### 4.6.2 Competition

To measure the performance objective of competition, respondents were requested to indicate the number of open tenders that were advertised in the print media and the average amount of money of the budget spent on each method of procurement. The indicator on table 4.20 measured the number of open tenders advertised on the print media on an annual basis from the year 2009 to 2013.

From Table 4.20, findings indicate that 37 tenders were advertised on the print media in the year 2009, 39 tenders were advertised in 2010, 14 tenders were advertised in 2011, 16 tenders were advertised 2012 and 6 tenders were advertised in 2013. The year 2010 had the highest number of open tenders advertised, and the numbers reduced drastically in the subsequent years.

Findings are in tandem with those of Mwangi and Kariuki, (2013) who conducted a study on factors affecting compliance to PP laws and regulations. The major findings were that most institutions believed that open tendering may not be an efficient purchasing mechanism and therefore prefer the alternative procurement methods.



**Table 4.20: Competition**

<b>Indicator</b>	<b>Financial Year</b>					<b>Mode</b>
	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	
Number of tenders advertised on print media from 2009 to 2013	37	39	14	16	6	2

Table 4.21 presents the analysis on the use of the different procurement methods and the percentage budget spent on each method on an annual basis. On average the corporations spend more of the budget on open tendering which was 30% of the corporations' budget. Requests for quotations had an average of 20% of the state corporations' budgets, restricted tenders taking 10%, direct tenders 8%, expression of interest and low value procurement 5% respectively and specially permitted method 2%. On average, the organisations spend 80% of their budgets on procurement.

Findings are supported by those of Taylor (2011), Caldwell *et al.*, (2005), Takagi and Hosoe (2008), PWC, London Economics and Ecoys (2011), and European Commission (2011b) who assert that effective competition between suppliers produces superior procurement outcomes. Findings imply that cumulatively (about 60%), state corporations use alternative methods of procurement in purchase of goods and services contrary to the provisions of PPDA, (2005), Part V that provide open tendering as the most preferred method of procurement.

**Table 4.21: Methods of Procurement and Percentage of Budget Spent**

<b>Method</b>	<b>Percentage of organization's Budget spent</b>
Open tenders	30%
Restricted tenders	10%
Direct tenders	8%
Request for Quotation	20%
Expression of interest	5%
Low value procurement	5%
Specially permitted	2%
Total	80%

### 4.6.3 Equal Treatment

All eligible suppliers in the market are to be treated equally in terms of provision of procurement opportunities, information and payment for goods delivered and services rendered. The equal treatment indicator measured on how long the corporations took to pay suppliers. The measure was on the number of days representing 120 days, 90 days, 60 days, 30 days and immediately.

From Table 4.22, 34 respondents indicated 120 days, 45 respondents indicated 90 days, and 14 respondents indicated 60 days, 10 respondents indicated 30 days and 9 respondents indicated immediately. On average the corporations took 90 days to pay suppliers of goods and services.

The findings agree with those of Ameyaw, Mensa and Osei-Tutu (2003) cited in (Basheka, 2012). The study looked at challenges affecting PP in Ghana and identified inadequate funding as one of the major challenges, that suppliers are contracted without budget allocation and PEs fail or delay to pay suppliers on time for deliveries as per the contract terms. Findings also tally with Gitari and Kabare, (2014) who established that suppliers are not paid promptly. However, findings are inconsistent with Choi Jeon - Wook (2010) who asserted that paying suppliers on time for deliveries was paramount.

**Table 4.22: Period of Supplier Payment**

Indicator	Number of days					Mode
	120	90	60	30	Immediately	
Number of days it takes to pay suppliers for deliveries made	34	45	14	10	9	2

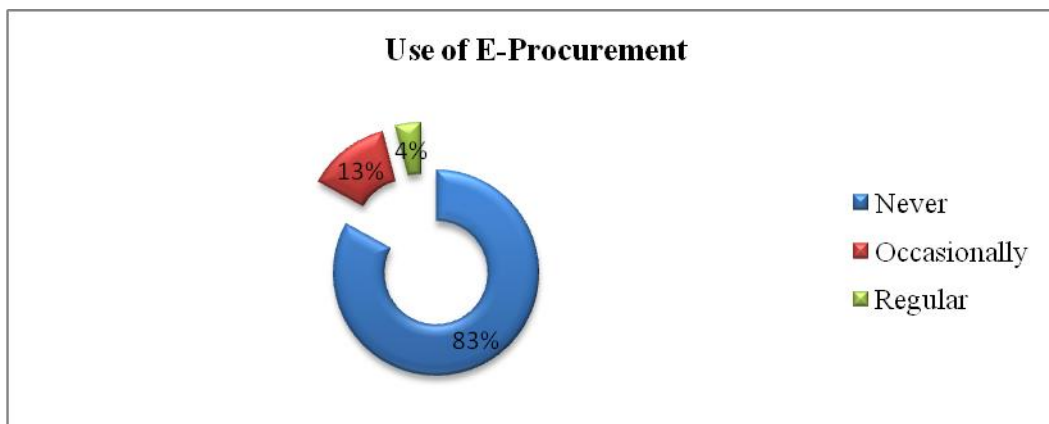
### 4.6.4 Transparency

Procurement activities are to be conducted transparently in all procuring entities. Transparency was measured on the use of E procurement system for procurement of goods and services. The indicator was used to measure how often state corporations use the system for sourcing of goods and services.

From Figure 4.10, 83% of the respondents reported to have never used the system, 13% indicated occasional use and 4% of the respondents indicated regular use of the system. Findings from the personal interviews indicated that most state corporations had not implemented the e-procurement system and the main reason indicated was financial constraints. Findings are contrary to study conducted by Jones and Carey (2010) in the United Kingdom which established that use of technology in procurement significantly influenced transparency and contract compliance.

With changes in ICT within and among state corporations occurring very fast, it's imperative for these state corporations to keep pace with modern approaches to information management in order to be competitive. Institutions should invest in information systems such as e-procurement and e-tendering and enterprise resource planning and inter-organization system to enhance communication with stakeholders.

The application of IT systems is an important aspect that enhances performance and is receiving attention especially the implementation of the e-procurement which is a most critical tool of supply networks. Adoption of the e-procurement system will assist state corporations to improve transparency and efficiency, reduce cost, enhance better decision making, and, improve supplier performance monitoring and quality of services to customers.



**Figure 4.10: Corporations Using E- Procurement**

#### 4.6.5 Accountability

The indicator measured how often organizations made reports to the oversight authority as per section 46 of the PPDA, (2005) on contracts awarded of Kenya shillings five million and above, procurement and disposal proceedings terminated and disposal of unserviceable or obsolete items made to employees. The measure was on a frequency of never, annually, half yearly, quarterly and monthly.

From Table 4.23, 23 respondents indicated to have never made any reports to PPOA, 57 respondents indicated reporting on an annual basis, 14 respondents indicated half yearly and 13 respondents indicated quarterly and 5 respondents indicated monthly. On average the organizations reported to the Authority on an annual basis. This is contrary to the provisions of the Act and it can therefore be inferred that state corporations are not complying with this specific provision of the law.

Findings are also inconsistent with Soundry, (2007) who asserted that accountability was a central pillar of PP and without transparent and accountable system, vast resources channeled through PP systems run the danger of being entangled with increased misuse of funds.

**Table 4.23: Accountability**

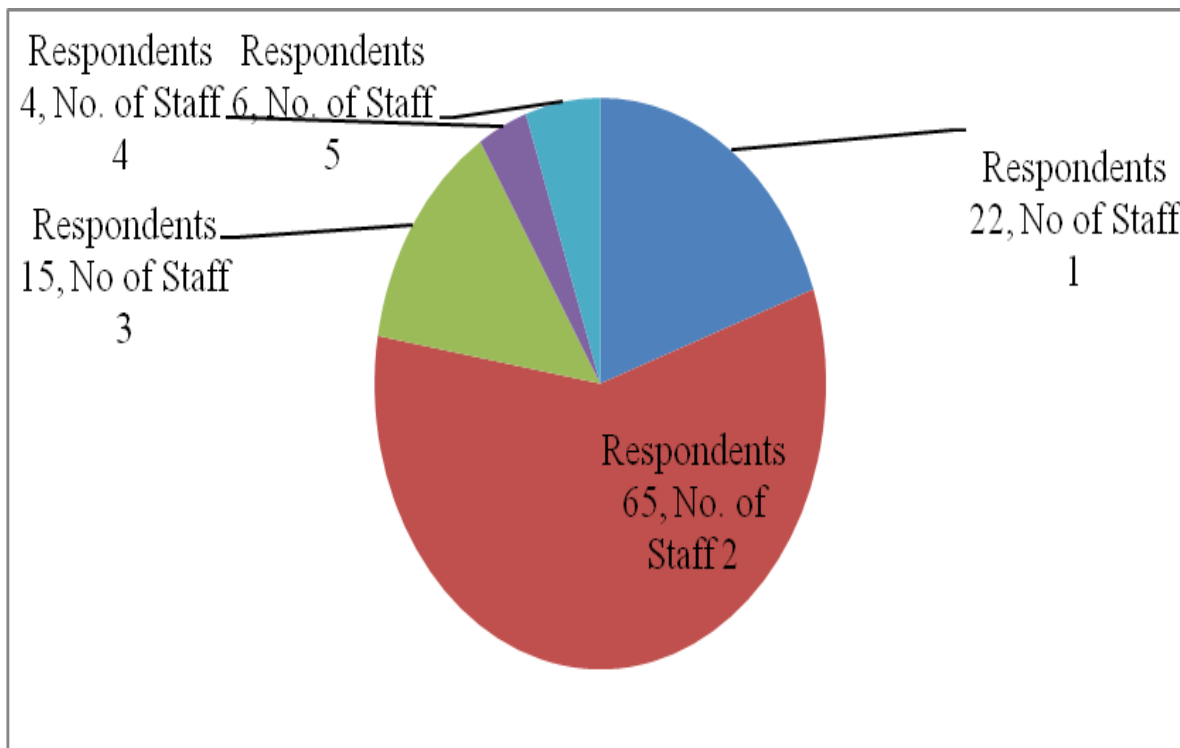
Indicator	Frequencies					Mode
	Never	Annually	Half Yearly	Quarterly	Monthly	
Frequency of reporting to the Public Procurement Oversight Authority	23	57	14	13	5	2

#### 4.6.6 Ethical Standards

The ethical standards sub variable was measured on the number of procurement officers with professional qualifications in the organization and were members of KISM. Figure 4.11 presents the results of the indicator where 22 respondents indicated 1 staff, 65

respondents indicated 2, 15 respondents indicated 3, 4 respondents indicated 4 and 6 respondents indicated 5 officers with professional qualifications. On average there were only 2 officers with professional qualifications in state corporations.

The findings concur with those of Atkison (2003) who asserted that procurement officers who are not professionally trained and lack awareness about regulations and procedures leads to serious consequences including application of unsound procurement practices. Findings also agree with Basheka and Mugabira, (2008) who established that the level of professionalism among PP officers in Uganda was low or nonexistent and this leads to noncompliance of the rules and regulations thus affecting performance of PEs.

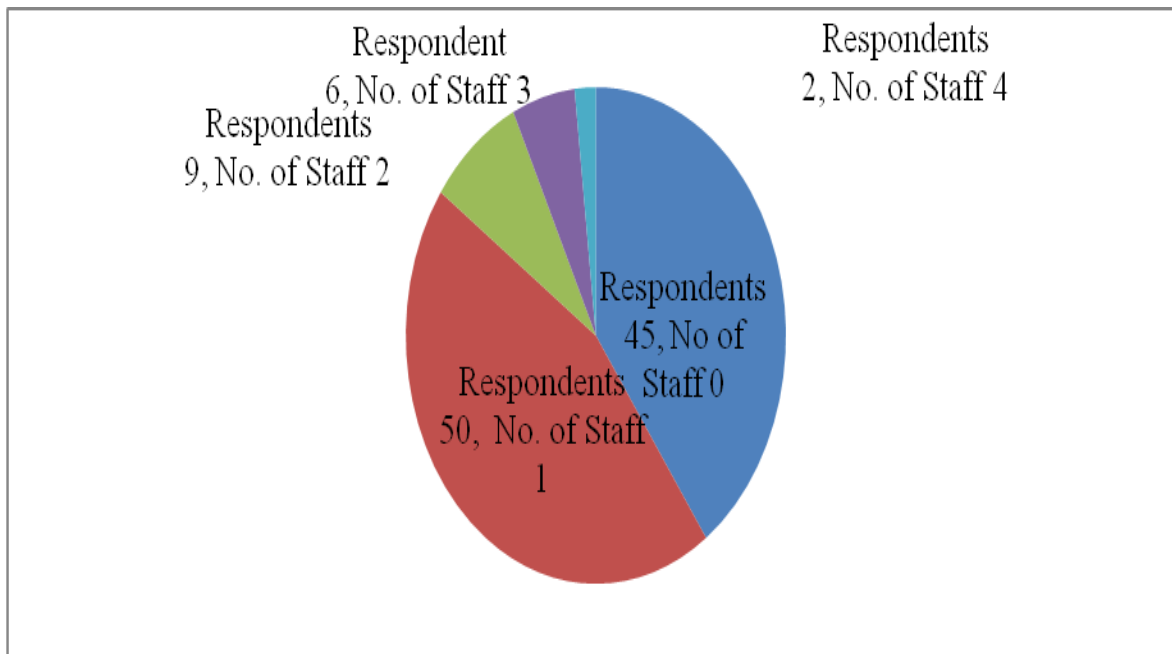


**Figure 4.11: Professional Qualifications**

Figure 4.12 presents the findings on the number of procurement staff in the organization that were members of KISM. 45 respondents indicated to have had no procurement staff who are members of KISM, 50 respondents indicated 1 staff, 9 respondents indicated 2 staff, 6 respondents indicated 3 staff, 2 respondents indicated 4 staff. On average the

organizations had only one procurement staff who was a member of KISM. Confirmation from the KISM website indicated on average 1 member from most public entities. The findings are in agreement with those of Kapila (2008) who observed that lack of certified procurement professionals was a critical problem that affects supply chain management practices in public institutions.

Findings are also in agreement with Atkinson (2003) cited in Raymond (2008), who established that there are approximately 500,000 professional purchasing people in the United States and only 10% of these were members of a professional body and the rest were not even aware that there are ethical and legal standards involved in procurement.



**Figure 4.12: KISM Membership**

Factor analysis was done to determine the total scores for the variable that was used for further analysis. Factor scores shown on Table 4.24 for the indicators were extracted from the analysis then used to compute the total scores for the variable used for the inferential analysis.

**Table 4.24: Factor Scores for Implementation of PPDA, (2005)**

Indicators	Factor scores
Number of complaints received on quality of goods and services delivered	0.156266
Period corporation takes to pay suppliers	0.17766
Number of complaints from internal users on procurement performance	0.173952
Frequency of stores and inventory audit	0.117475
Percentage of tenders awarded that were advertised on print media	0.18722
Number of reports submitted to PPOA	0.153735
Number of open tenders advertised on print media	0.153389
Number of market surveys conducted before procurement of goods and services	0.192638
Number of procurement officers with professional qualifications	0.13841
Number of the procurement staff in organisation that are members of KISM	0.133744

#### 4.6.7 Regression Analysis for Implementation of PPDA, (2005) and Performance

Ordinary least squares regression was carried out to determine the relationship between the two variables and the effect of the PPDA, (2005) implementation on performance. The regression model  $Y = \beta_0 + \beta_1 X_1$  was thus fitted from the data where X represented Public Procurement Disposal Act, (2005) implementation and Y denoted organizational performance.

Table 4.25 showed the values of R and  $R^2$  for the model fitted of 0.594 and 0.353 respectively. The R value of 0.594 portrayed a positive linear relationship between the PPDA, (2005) and organizational performance. The  $R^2$  value indicated the explanatory power of the independent variable of 0.353. This implied that 35.3% of the variation in performance was explained by the model  $Y = \beta_0 + \beta_1 X_1$ .

**Table 4.25: Model Summary for Implementation of PPDA, (2005) and Performance**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.594 <sup>a</sup>	0.353	0.348	7.51436

a. Dependent Variable: Organizational Performance

An ANOVA was carried out which as from Table 4.26 showed that the F statistic p value of 0.000. Since the p value of the F- statistic was less than 0.05, it showed that the coefficient in the equation fitted was not equal to zero implying a good fit. This implied that considering the simple regression model fitted; implementation of the PPDA, (2005) had an effect on organizational performance of state corporations.

**Table 4.26: ANOVA for Implementation of PPDA, (2005) and Performance**

	Sum of Squares	Df	Mean Square	F	Significance
Regression	3395.136	1	3395.136	60.128	.000 <sup>b</sup>
Residual	6211.209	110	56.466		
Total	9606.346	111			

b. Predictors: (Constant), Public Procurement & Disposal Act, (2005) implementation

From Table 4.27, the results of coefficients to the model  $Y = 12.134 + 7.962X_1$  estimates were both significant at 0.05 level of significance. This was because the significances of 0.000 were all both less than 0.05. The constant term implied that at zero implementation of the PPDA (2005), organizations performed at 12.134 measures, and increasing implementation of PPDA, (2005) increased performance by 7.962 measures.

**Table 4.27: Coefficients for Implementation for PPDA, (2005) and Performance**

Model	Coefficients		T	Significance
	B	Std. Error		
(Constant)	12.134	2.441	4.972	0.000
Public Procurement and Disposal Act, (2005)	7.962	1.027	7.754	0.000

The standardized residual plot appendix V (i) for the fitted model showed that the residuals were equally distributed about zero all through as the regression standardized predictors increased. This showed no violation of linearity which was a requirement for regression. The plot also showed no clear indication or pattern of increasing or decreasing plots with increase in the regression predictor values. This implied no signs of heteroscedasticity which means that the residual from the regression were homoscedastic.



The study objective was to determine the effect of the PPDA, (2005) implementation on organizational performance of Kenyan state corporations. Based on the objective and literature review, the following hypothesis was formulated for testing.

***H<sub>01</sub>:** There is no significant effect of the Public Procurement and Disposal Act, (2005) implementation on performance of Kenyan state corporations.*

The hypothesis was tested by regressing Public Procurement Disposal Act, (2005) implementation on organizational performance. Given the level of significance of the ANOVA (0.000), regression results presented demonstrate that the PPDA, (2005) implementation affect performance of state corporations. The null hypothesis that the PPDA, (2005) implementation has no effect on performance of state corporations was therefore rejected. As the implementation of the PPDA, (2005) increases, the performance of state corporations increases too.

Findings are in agreement with those of Ogot, Mulinge and Muriuki, (2010) who studied the impact of the public procurement rules and regulations on 54 profit oriented public corporations in Kenya and established that regulating public procurement had significantly promoted transparency, quality and value for money. The findings also agree with Thuo and Njeru (2014) who established that the implementation of the PPDA, (2005) had improved transparency and accountability through the advertisement of tenders on the print media and restored public confidence.

Implementation of the PPDA, (2005) has achieved some level of success. The main purpose of regulating PP as captured in section two of the Act was to achieve the following objectives: to maximize economy and efficiency; to promote competition and ensure that competitors are treated fairly; to promote the integrity and fairness of those procedures; to increase transparency and accountability; to increase public confidence in those procedures; and to facilitate the promotion of local industry in economic development.

Professional independence of PP officials should be enhanced to ensure fairness in public decision making, transparency, accountability and equitable procurement of goods, works and services. The KISM that regulates both the public and private sector practitioners and strives to professionalize procurement practice in Kenya should promote professionalism in procurement and also punish procurement professionals who do not comply with rules and regulations.

The institute should ensure that procurement practitioners have the necessary qualifications for them to practice. This should be done through partnership with the local universities and organizations to develop internship opportunities so that graduates who qualify from these institutions are knowledgeable with the procurement legal framework and have necessary experience. The PP function should be managed in a professional manner where individuals with high level of integrity are selected, recruited.

#### **4.7 Implementation of PPDR, (2006) and Organizational Performance**

The second objective of the study was to determine the effect of implementation of PPDR, (2006) on organizational performance of Kenyan state corporations. Study sought to establish the structures that the corporations had put in place to support effective implementation of the PP rules and regulations. To achieve this, respondents were required to answer questions on the establishment of relevant mandatory committees, methods of procurement used for purchase of goods and services, records management, procurement planning and familiarity with the rules and regulations by all those involved in the procurement process.

The analysis for this objective involved descriptive analysis for the independent variable that was presented in tables of measures of central tendency for each indicator. Factor scores for the indicators were then computed and total scores for the variables used for the inferential analysis. Ordinary least squares regression was used to determine the relationship between the two variables and the effect of the PPDR, (2006) implementation on organizational performance.

#### **4.7.1 Organizational Structure**

To establish the strategic significance of the procurement unit and its position in the organizational hierarchy, study used the indicator of organizational structure to establish the department which the procurement unit reports to and the appointing authority of the mandatory procurement process committees that adjudicate on procurement and disposal issues.

The measure was on 5 departments presenting Operations, Human Resource, Administration, Finance and the Accounting Officer's office. From Table 4.28, 30 respondents indicated reporting to Operations department, 29 respondents indicated Human Resource department, 25 respondents indicated Administration department, 11 respondents indicated Finance and Control department and 17 respondents indicated the Accounting officer. On average, procurement unit reports to Operations department.

Findings are contrary to those of Eyaa and Oluka, (2011). The authors conducted a study on the causes of non compliance in PP in Uganda and observed that governments delegate the authority to the state corporation managers who are the agents; the managers in turn delegate the authority to procurement practitioners who executes procurement functions.

Procurement has an important contribution to organizational performance (Cousins, Lawson & Squire, 2006; Humphreys, 2001) and should therefore report directly to the Chief Executive Officer who is the agent of the government in ensuring compliance to the procurement rules and regulations and improved performance.

Findings are also contrary with a study carried out by Ogachi (2014) on the procurement standards in East Africa with a total number of 415 respondents. Study found out that 40.1% of the organizations reported to the chief executive, 16.4% reported to the deputy chief executive, 27.1% reported to the head of finance and 10.3% reported to Human Resources and Legal departments.

**Table 4.28: Reporting Structures**

<b>Indicator</b>	<b>Operations</b>	<b>HR</b>	<b>Admin</b>	<b>Finance &amp; Account</b>		<b>Mode</b>
				<b>control</b>	<b>officer</b>	
Department to which procurement unit reports	30	29	25	11	17	1
Appointing authority of relevant committees	38	35	26	8	5	1

Indicator two on Table 4.28 established the appointing authority of the relevant committees that deliberate and adjudicate on procurement and disposal issues. The measure was on 5 departments representing Operations, Human Resource, Administration, Finance and the Accounting Officer. 38 respondents indicated that the committees are appointed by the head of Operations, 35 respondents indicated head of Human Resources, 26 respondents indicated head of Administration, 8 respondents indicated head of Finance & Control and 5 respondents indicated the Accounting officer. On average the committees are appointed by head of Operations.

Findings are contrary to the provisions of Regulation 7 of the PPDR (2006), which mandates the Accounting Officers to put in place structures to ensure compliance with the public procurement legal framework without delegating. Findings imply that the relevant procurement and disposal committees that deliberate on all procurement proceeding are in place but the appointing authority is delegated.

The study also sought to establish how often tender evaluation committee was appointed for each tender under consideration, the frequency of disposal committee meetings to deliberate on disposal issues and how often delivered goods and equipment were inspected by the inspection and acceptance committee. The measurement frequency was never, annually, half yearly, quarterly and monthly.

From Table 4.29, 51 respondents indicated that tender evaluation committees were never appointed, 14 respondents indicated that the committees were appointed annually, 4 respondents indicated that the committees were appointed half yearly, 29 respondents indicated that committees were appointed quarterly and 14 respondents indicated that the committees were appointed monthly. On average the tender evaluation committee was never appointed for each tender. The study concurs with Abebe (2012), who observed that PEs did not thoroughly evaluate tenders, did not use the basis of criteria specified in the tender documents and used unqualified committees.

**Table 4.29: Procurement Process Relevant Committees**

Indicators	Frequency					Mode
	Never	Annually	Half Yearly	Quarterly	Monthly	
Appointment of evaluation committee for each tender	51	146	4	29	14	1
Frequency of disposal committee meetings	48	28	7	31	10	1
Inspection of goods by a committee	36	28	7	31	10	1

On frequency of the disposal committee meetings to deliberate on disposal issues, 48 respondents indicated that the committee never meet, 26 respondents indicated annual meetings, 10 respondents indicated half yearly meetings, 19 respondents indicated quarterly meetings and 9 respondents indicated monthly meetings. On average the disposal committee never met to deliberate on disposal issues.

Findings are inconsistent with Regulation 92 (3) of the PPDR (2006), which requires that the disposal committee meet at least once on a quarterly basis to discuss disposal issues. The purpose is to ensure the PEs achieve best available net return when selling. The findings are in tandem with those of Ondiek (as cited in Mensah, 2014); Susan and Namusonge, (2014) who revealed that government office complexes, compounds,

stockyards parking lots and main stores exhibit assets lying idle, unserviceable stores strewn all over the yards, unserviceable motor vehicles lining up the parking lots growing grass, and unserviceable office equipment and furniture piling up in the main stores.

The third indicator on table 4.29 measured how often delivered goods and equipment were inspected by the inspection and acceptance committee. From the findings, 36 respondents indicated never, 28 respondents indicated annual, 7 respondents indicated half yearly, 31 respondents indicated quarterly and 10 respondents indicated monthly. On average, delivered goods were never inspected by a committee. The findings are in agreement with Abebe (2012), who conducted a study on the efficiency, accountability and transparency in PP and observed that public entities in Ethiopia received poor quality goods and equipments thus not meeting the objective of value for money.

#### **4.7.2 Methods of Procurement**

The most preferred method of procurement that ensures competition among suppliers is open tendering. The method was used as an indicator to measure when it was used depending on the value of the procurement. The measure was on Kenya shillings 1 million, 3 million, 4 million, 5 million and 6 million respectively. Table 4.30 presents the results on use of open tender method. 23 respondents indicated use of open tender for values above 1 million, 35 respondents indicated 3 million, 26 respondents indicated 4 million, 20 respondents indicated 5 million and 8 respondents indicated 6 million and above. On average state corporations used Kshs.3 million for open tenders.

The study findings are in tandem with Witting and Jeng (2005), who asserted that open tendering method was used for all procurements except where the value was small and competition was uneconomical. Findings also agree with Ogachi (2014) who conducted a study on procurement standard practices in Africa and established that open competitive bidding when used predicted well the success of projects procured.

**Table 4.30: Use of Open Tender Method**

<b>Indicator</b>	<b>Kshs.</b>						<b>Mode</b>
	<b>1</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>		
	<b>Million</b>	<b>Million</b>	<b>Million</b>	<b>Million</b>	<b>Million</b>		
Use of Open tender method on							
Kshs. Value	23	35	26	20	8		2

Restricted and direct tender methods are approved by the tender committee before commencement of the procurement process as per Section 72 of the PPDA (2005). Study sought to establish how often the methods were approved. The measure was on a frequency of never, monthly, quarterly, half yearly and annually. From Table 4.31, 12 respondents indicated that the methods were never approved, 22 respondents indicated the methods were approved monthly, 15 respondents indicated quarterly approval, 33 respondents indicated half yearly approval and 30 respondents indicated annual approval. On average restricted and direct tender methods were approved on a half yearly basis.

Study is supported by the findings of Ameyaw, Mensa and Osei - Tutu (2012), who carried out a study on the implementation challenges of the Procurement Act, (2006) in Ghana and found out that restricted and single source methods accounted for 40% and 28% respectively of the procurement budget without prior approval and this justified lack of strong application of transparency procedures.

**Table 4.31: Approval of Alternative Procurement Methods**

<b>Indicators</b>	<b>Frequency</b>					<b>Mode</b>
	<b>Never</b>	<b>Monthly</b>	<b>Quarterly</b>	<b>Yearly</b>	<b>Yearly</b>	
Frequency of approval of alternative Procurement methods	12	30	22	33	15	2

### **4.7.3 Procurement Planning**

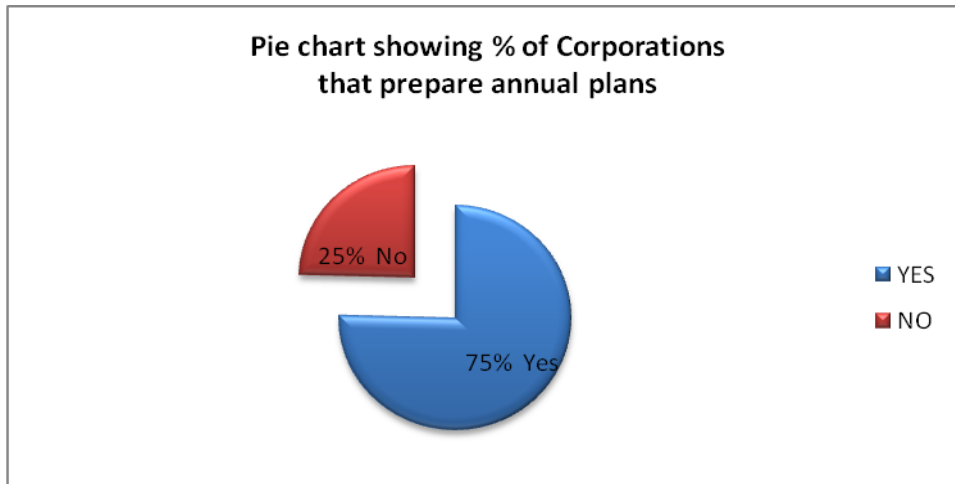
Procurement planning is central to proper procurement management. The study sought to establish whether state corporations prepared procurement plans and how effectively they were implemented. To measure this sub variable, the respondents were presented with a YES/NO question. Figure 4.13 showed that majority of respondents (75.4%) prepare annual procurement plans in their organizations while 24.6% reported not to have prepared the plans. Findings tally with Basheka, (2008) who established that procurement planning was a significant element of accountable government procurement systems.

Findings compare well with those of Ambe and Badenhorst-Weiss (2012), who studied procurement challenges in the South African public sector and established that the PEs prepared procurement plans but that the plans were not accurate and realistic as they were either over or underestimated.

In addition, a study by Aduamoah and Campion, (2012) established that lack of procurement planning affected the total cost of operations and lead to material shortages or surplus, cash flow problems and unnecessary delay in delivery of goods and services. Procurement planning is integral to PP process. It defines the decision making process that allows corporations to procure at the right time, at the right place and at the right cost.

Cost effective procurement depends on a specialist's skills to ensure that buying requirements are reliably determined, appropriate contract strategies are developed, contracts are well managed and opportunities are seized to secure the best deals. The importance of drawing up accurate and realistic plans cannot be overestimated.



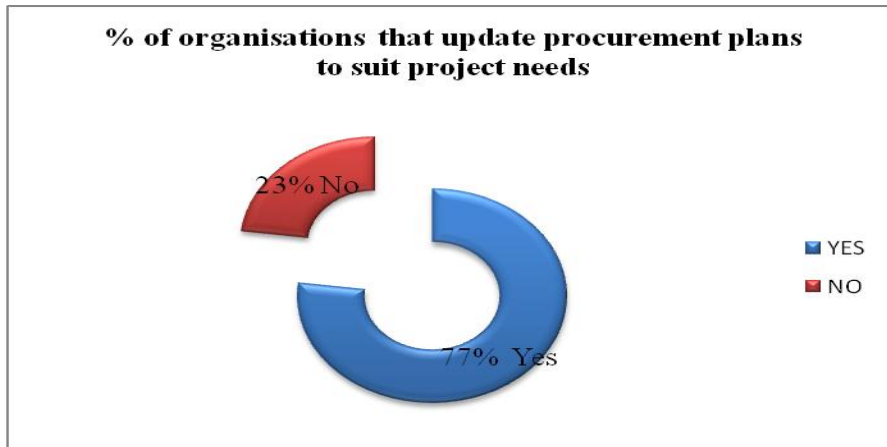


**Figure 4.13: Preparation of Procurement Plans**

The study also sought to establish whether entities updated the procurement plans. Respondents were presented with a YES/NO question and from Figure 4.14, majority of the respondents 77% updated their procurement plans to suit project needs while 23% reported not to have updated their procurement plans.

This was consistent with the provisions of the Public Procurement Manual, (2009) that require PEs to regularly update the procurement plans to facilitate prioritized purchasing. Findings are also in agreement with Ogachi, (2014) who observed that organizations prepared procurement plans based largely on available budgets and aligned with corporate plans.

However, as the negative score of 23% showed, procurement plans were not updated regularly and rarely based on sound market survey. The implication is that procurement is conducted without consideration of the available budget and the expected outcome is long bending bills which ultimately affect performance of the corporations.



**Figure 4.14: Updating of Procurement Plans**

#### **4.7.4 Records Management**

Procurement records must be safeguarded to facilitate meaningful audits of all procurement transactions. The study sought to establish whether state corporations had in place records management units, how often the procurement records were accurate and readily available, level of relevant training of the records management staff and the number of years it took for records to be disposed.

In establishing the existence of a records management unit, respondents were presented with a YES/NO question and from Figure 4.15; majority of the respondents (79.7%) reported their organization to have a records management unit while 20.3% reported not to have any. Findings are in agreement with those of Rembe (2010), who acknowledges that effective records management will require establishment of a records management unit staffed with professionally qualified staff.



**Figure 4.15: Corporations with Records Management Unit**

From table 4.32, 24 respondents indicated to never keep procurement records accurately, 34 respondents indicated occasional availability of accurate procurement records, 27 respondents indicated to often keep the records, and 27 respondents indicated to very often have their procurement records accurately and readily available. On average the procurement records were occasionally accurate and readily available. Findings are in tandem with those of Rembe, (2010). Rembe conducted an assessment of the records management on PEs in Kenya and identified poor procurement records keeping as one of the major impediments to procurement process efficiency.

**Table 4.32: Availability of Accurate Procurement Records**

Indicator	Never	Occasionally	Often	Frequency	Always	Mode
				Very Often		
Availability of accurate procurement records	24	34	27	27	0	2

Content analysis of the audit report from the PPOA website indicated that almost all PEs audited from 2009-2013 had a challenge with records keeping. The score on the audit reports for most of the PEs was below the recommended 60%. Findings are in tandem with a number of scholars (Aglomasa, 2008; OECD, 2008, Aikins, 2012; Ghana Audit Services, 2012; Etse & Asenso - Boakye, 2014) who agree that poor records keeping is a major challenge in most PEs and impede effective procurement audits.

Table 4.33 shows the results of the level of training of records management officers. 43 respondents indicated 0 levels training of the records management staff, 32 respondents indicated Certificate training, 7 respondents indicated Diploma training, 26 respondents indicated Higher Diploma training and only 3 respondents indicated first Degree. On average the records management staff had O level training.

**Table 4.33: Level of Training of Records Management Staff**

Indicator	O level	Certificate	Diploma	Higher	First	Mode
				Diploma	Degree	
Level of training of RM staff	43	32	7	26	3	1

On the number of years it took for procurement records to be disposed, Table 4.34 presents the results where 11 respondents indicated a period of 2 years, 41 respondents indicated 3 years, 15 respondents indicated 4 years, 31 respondents indicated 5 years and 14 respondents indicated 6 years. On average it took 3 years for procurement records to be disposed in state corporations. This is inconsistent with the provisions of the PP procedure manual, (2009) that require PEs to dispose procurement records after a period of six years.

**Table 4.34: Disposal of Procurement Records**

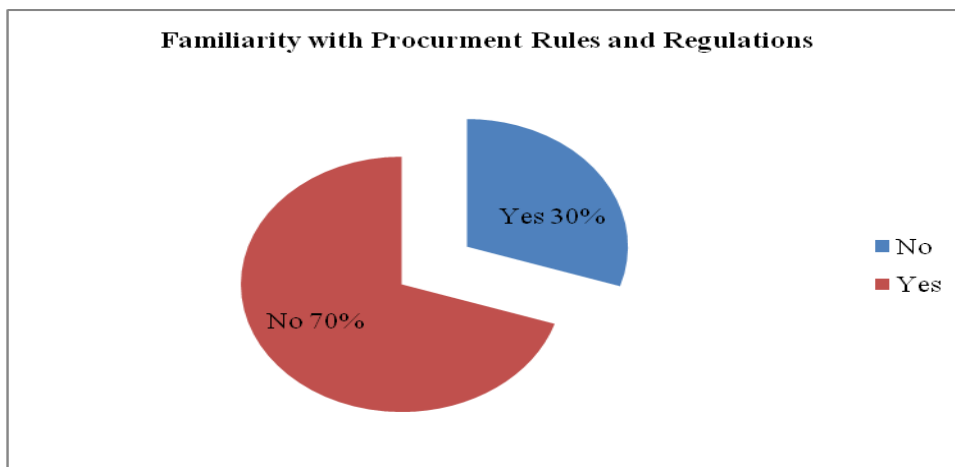
Indicators	Years					Mode
	2	3	4	5	6	
Number of years it takes before disposal of procurement records	11	41	15	31	14	2

#### **4.7.5 Familiarity with Procurement Rules and Regulations**

Study sought to confirm whether individuals in organizations who were involved in procurement process were conversant with the procurement rules and regulations. Respondents were presented with a YES/NO question. From Figure 4.16, results indicated that majority of the respondents (70%) were not conversant with procurement rules and regulations while the remaining 30% were conversant.

The findings compare well with those of Sheoraj, (2007) who identified shortage of skills and capacity as the single greatest impediment to the success of PP in South Africa. This has an effect on the performance of the state corporations since users are involved in the whole procurement process from procurement planning, requisitioning for procurement requirements, development of specifications, tender opening and evaluation, adjudication and award of contracts, contract implementation monitoring and evaluation, inspection and acceptance of deliveries which are all governed by the regulations.

Findings also agree with those of Eyaa and Oluka, (2011) who noted that lack of familiarity with procurement rules resulted into poor compliance levels and this led to inefficiency which negatively affected organizational performance. Findings are contrary to findings of other authors (Geo, 2008; Ojo and Gbadebo, 2014; Onyinkwa, 2013; Gesuka and Namusonge, 2013; Sang and Mogambi, 2014; Migosi, Ombiki and Evusa, 2013; Ombuki *et al.*, 2014; Chekol and Tehulu, 2014) who agree that familiarity with rules and regulations increases level of implementation, compliance and efficiency.



**Figure 4.16: Familiarity with Procurement Rules and Regulations**

Table 4.35 represents the results of the factor scores for the PPDR, (2006). Factor analysis was done to determine the total scores for the variable that was used for further analysis. Factor scores for the indicators were extracted from the analysis then used to compute the total scores for the variables used for the inferential analysis.

**Table 4.35: Factor Scores for Implementation of PPDR, (2006)**

Indicators	Factor scores
Function procurement unit reports to	0.146152
Appointing authority of tender, procurement and disposal committees members	0.135071
Appointment of evaluation committee for each tender	0.164444
Frequency of disposal committee meeting to deliberate on disposal issues	0.107652
Frequency of delivered goods inspected by a committee	0.116016
Value for use of Open tender	0.088583
Approval of restricted and direct tender methods by the tender committee	0.153668
Updating of procurement plans to suit project needs	0.147199
Accuracy and availability of Procurement Records	0.154087
Level of relevant training of the records management staff in the corporation	0.12462
Disposal of Procurement records	0.121257
Preparation of annual procurement plans	-0.06151
Established Records management unit	-0.07212

#### 4.7.6 Regression Analysis for Implementation of PPDR, (2006) and Performance

Ordinary least squares regression was carried out to determine the relationship between the two variables and the effect of implementation of PPDR, (2006) on performance. The regression model  $Y = \beta_0 + \beta_1 X_2$  was thus fitted from the data where X represented Public Procurement and Disposal Regulations, (2006) implementation and Y denoted organizational performance.

Table 4.364, presents a summary of regression model results. The value of R and  $R^2$  were .583 and .339 respectively. The R value of .583 showed that there is a positive linear relationship between PPDR, (2006) implementation and performance. The  $R^2$  value indicated explanatory power of the independent variables of 0.339. This means that 33.9% of the variation in performance was explained by the model  $Y = \beta_0 + \beta_1 X_2$ .

**Table 4.36: Model Summary for Implementation of PPDR, (2006) and Performance**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.583 <sup>a</sup>	0.33942	0.33341	7.59532

a. Dependent Variable: Organizational Performance

An ANOVA was also carried out and the results from Table 4.37 showed the F statistic that had a p value of 0.000. Since the p value of the F- statistic was less than 0.05, it showed that the coefficient in the equation fitted was not equal to zero implying a good fit. This implied that considering the simple regression model fitted; implementation of the PPDR, (2006) had an effect on organizational performance.

**Table 4.37: ANOVA for Implementation of PPDR, (2006) and Performance**

	Sum of Squares	Df	Mean Square	F	Significance
Regression	3260.57	1	3260.57	56.52	.000b
Residual	6345.78	110	57.689		
Total	9606.35	111			

b. Predictors: (Constant), Implementation of Public Procurement & Disposal Regulations, (2006).

The results of coefficients to the model  $Y = 10.942 + 8.267X_2$  estimates were both significant at the 0.05 level of significance as shown on Table 4.38. This was because the significances both 0.000, were all less than 0.05. The constant term implied that at zero implementation of the PPDR (2006), organizations performed at 10.942 measures and increasing the implementation of the PPDR (2006), increased the performance by 8.267 measures.

**Table 4.38: Coefficients for Implementation of PPDR, (2006) and Performance**

Model	Coefficients		T	Significance
	B	Std. Error		
(Constant)	10.942	2.666	4.105	0.000
Public Procurement & Disposal Regulations, (2006) implementation	8.267	1.1	7.518	0.000

The standardized residual plot in Appendix V (vi) for the fitted model showed that the residuals were equally distributed about zero all through as the regression standardized predictors increased. This showed no violation of linearity which was a requirement for

regression. The plot also showed no clear indication or pattern of increasing or decreasing plots with increase in the regression predictor values. This implied no signs of heteroscedasticity which means that the residual from the regression were homoscedastic.

The objective of the study was to determine the effect of the Public Procurement and Disposal Regulations, (2006) implementation on performance of Kenyan state corporations. Based on this objective and literature review, the following null hypothesis was formulated for testing.

*H<sub>02</sub>: There is no significant effect of Public Procurement and Disposal Regulations, (2006) implementation on organizational performance of Kenyan state corporations.*

The hypothesis was tested by regressing implementation of Public Procurement Regulations Act, (2006) on organizational performance. Given the level of significance of the ANOVA (0.000), regression results presented demonstrate that the PPDR, (2006) implementation affect performance of state corporations. The null hypothesis that the PPDR, (2006) implementation has no effect on performance of state corporations was therefore rejected. As the implementation of the PPDR, (2006) increased, the performance of state corporations increased too.

An organization with a culture of compliance will motivate PP employees to fully implement and comply with the regulations. Effective records management will also increase PP compliance since it improves transparency and accountability and is the basis of procurement audit and investigations. Accurate written records of different stages of the proceedings are essential to maintain transparency, provide an audit trail of procurement decisions for controls, serve as the official record in case of administrative or judicial challenge and provide an opportunity for citizens to monitor the use of public funds. State corporations and all government agencies need procedures in place to ensure that procurement decisions are well documented, justifiable and substantiated in accordance with relevant laws and policies in order to promote accountability.



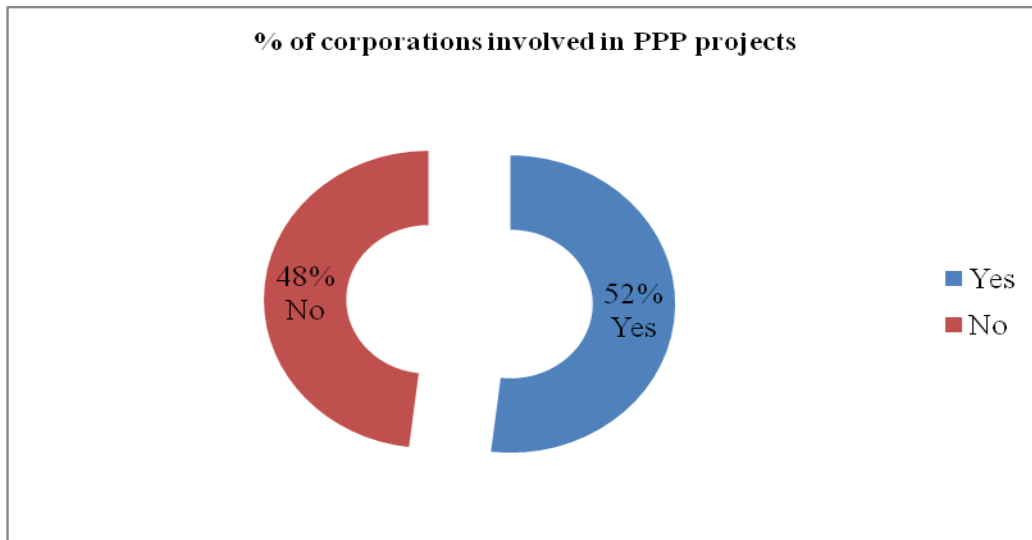
In order to improve implementation and compliance of the PP regulations, the government of Kenya, PPOA and development partners should ensure familiarity with the procurement rules. The Public sector should embrace use of modern information systems at all the administrative levels, effective management with sound strategic planning and control, with measures that ensure that the user needs are sought in time and relevant procurement planning and execution carried in time.

#### **4.8 Implementation of the PPPR, (2009) and Organizational Performance**

The third objective of the study aimed at establishing the contribution of Public Private Partnership Regulations, (2006) implementation on organizational performance of Kenyan state corporations. For this objective, descriptive analysis involved computation of the measures of central tendency for each indicator of the independent variable. The results were presented in tables and graphs. Factor scores for the indicators were then computed and total scores for the variables used for the inferential analysis.

Ordinary least squares regression was used to determine the relationship between the two variables and the effect of the PPPR, (2009) implementation on performance of Kenyan state corporations. The indicators used in measuring this variable included; method of supplier identification, criteria used to select suppliers for PPP projects, supplier performance evaluation, and percentage of PPP contracts awarded that were completed to the satisfaction of the organization in terms of quality, time and cost requirements.

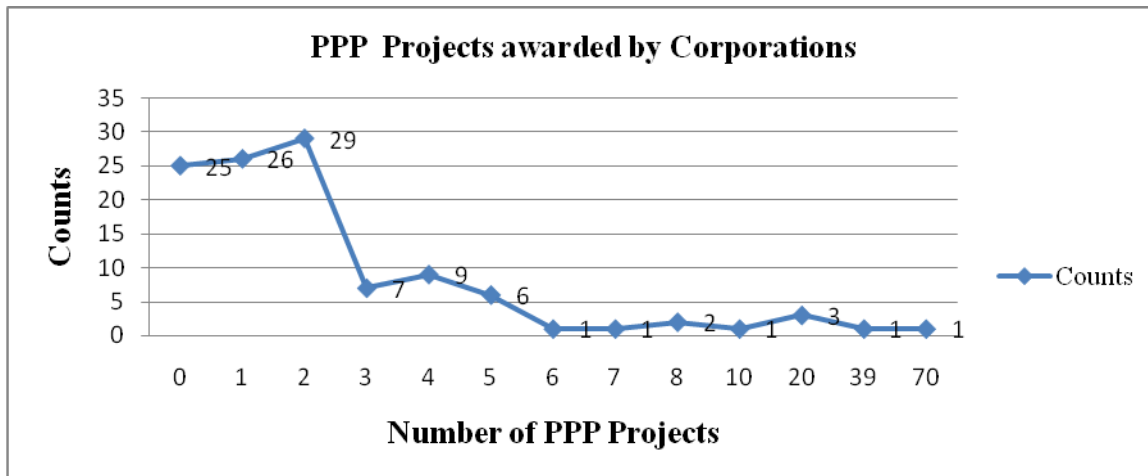
The study first sought to establish whether the state corporations had been involved in any PPP projects since the year 2009. Respondents were provided with a YES/NO question and figure 4.17 showed the percentage of organizations involved in public private partnership projects where 51.9% of the organizations reported to have been involved in public private partnership while 48.1% of the organizations had not participated in any PPP project.



**Figure 4.17: Involvement in Public Private Partnership Projects**

Figure 4.18 indicated the number of projects that were awarded by the organizations which were involved in public private partnership. Majority of the organizations had only 2 projects. 29 organizations had 2 projects followed by 26 that had 1 project each. The more the number of projects the fewer the organizations. There were 2 organizations that had as many as 70 projects.

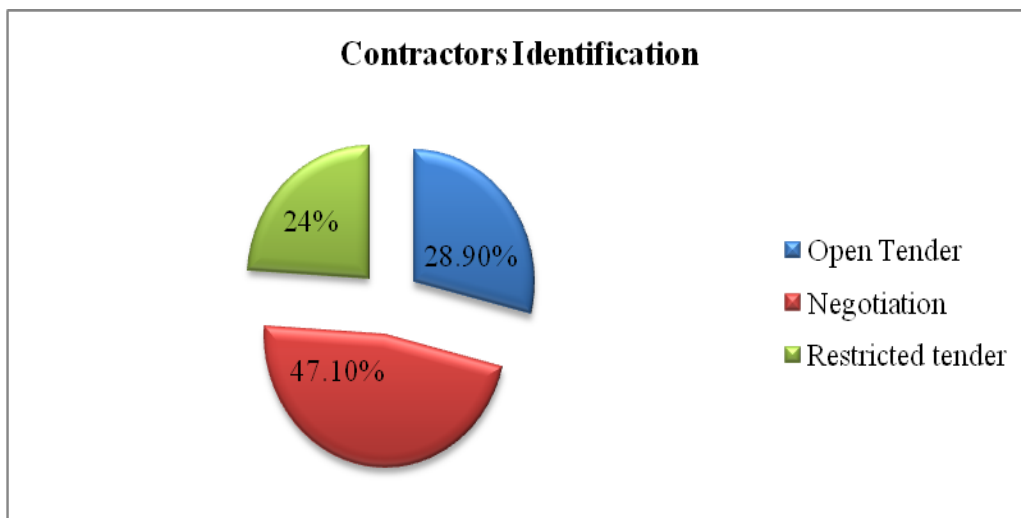
The low level of PPP contracts awarded by PEs as depicted in Figure 4.18 was confirmed by one interview respondents as a result of the long procedures involved in identifying the project and partners for implementation of the same. Respondent further indicated that involvement in these projects required prior approval of the national treasury and parliament as loans obtained from the private sector must be guaranteed by the government.



**Figure 4.18: PPP Projects awarded by Corporations**

#### 4.8.1 Supplier Identification

Study sought to establish the method used by state corporations in identifying suppliers/contractors for PPP projects. From Figure 4.19, 47.1% of the respondents indicated negotiation, 28.9% of respondents indicated open tender and 24% of respondents indicated restricted tender. Findings compare well with those of Monczka *et al.*, (2005) and Van Weele, (2005) who identified both competitive bidding and negotiation as appropriate methods of contractor identification.



**Figure 4.19: Methods of Contractor Identification for PPP Projects**

#### 4.8.2 Supplier Selection Criteria

This indicator measured the criteria that state corporations used for selection of PPP contractors. The criteria were measured by financial capacity, past performance, price, experience and quality. From Table 4.39, 36 respondents indicated financial capacity; 38 respondents indicated past performance, 7 respondents indicated price, 10 respondents indicated experience and 21 respondents indicated quality. On average the respondents used past performance as the criteria for selecting PPP contractors. Findings compare well with those of De Toni and Nassimbeni, (2000a) and Kannan and Tan, (2000) who identified quality and performance as the criteria for supplier selection.

**Table 4.39: Supplier Selection Criteria**

Indicator	Financial	Past	Price	Experience	Quality	Mode
	Capacity	performance				
Supplier selection criteria	36	38	7	10	21	2

#### 4.8.3 Frequency of Due Diligence

The indicator measured how often state corporations conducted due diligence on the PPP contractors before award of contracts. The frequency was measured on never, annually, half yearly, quarterly, and monthly basis. From Table 4.40, 29 respondents indicated never, 43 respondents indicated annually, 23 respondents indicated half yearly, 14 respondents indicated quarterly while only 3 respondents indicated monthly. On average the organizations conducted due diligence on suppliers annually before award of contracts. This was inconsistent with Regulation 16 (4) that requires public entities to conduct supplier selection with due diligence before award of contracts.

**Table 4.40: Due Diligence on Contractors**

Indicator	Never	Annually	Half	Quarterly	Monthly	Mode
			yearly			
Frequency of due diligence on suppliers	29	43	23	14	3	2

#### 4.8.4 Supplier Performance Evaluation

The indicator of the variable measured the basis of supplier performance evaluation. The measure was on response to queries, performance, technology, cost and quality. From Table 4.41, 26 respondents indicated response to queries, 37 respondents indicated performances, 26 respondents indicated technology, 17 respondents indicated cost and 6 respondents indicated quality. On average, organizations used performance for supplier performance evaluation. Findings agree with O'Toole and Donaldson (2002), who identified both financial and non financial criteria for supplier performance evaluation.

**Table 4.41: Supplier Performance Evaluation**

Indicator	Response	Performance	Technology	Cost	Quality	Mode
Supplier performance evaluation	26	37	26	17	6	2

#### 4.8.5 Project Implementation Monitoring and Evaluation

The indicator measured the frequency of monitoring and evaluation of PPP project implementation. The measure of frequency was on never, annually, half yearly, quarterly, and monthly basis. From Table 4.42, 30 respondents indicated never, 37 respondents indicated annual monitoring and evaluation, 30 respondents indicated half year monitoring and evaluation, and 10 respondents indicated quarterly and 5 respondents indicated monthly monitoring of project implementation and evaluation. On average the organizations monitored and evaluated project implementation on annual basis.

The findings disagree with PPPR, (2009) which stipulates that the PE that is party to PPP arrangements is responsible for ensuring that the PPP project is implemented by measuring the output of the agreement, monitor implementation, resolve any disputes to ensure effective completion of project.

**Table 4.42: Project Implementation Monitoring and Evaluation**

Indicator	Half					Mode
	Never	Annually	yearly	Quarterly	Monthly	
Project implementation Monitoring and evaluation	30	37	30	10	5	2

The study also measured the organizations satisfaction on PPP contracts completed to quality, time and cost requirements from the year 2009 to 2013. From Table 4.43, in the year 2009, 23 contracts were completed to quality requirement, 14 contracts were completed in 2010, 56 contracts were completed in 2011, 14 contracts were completed in 2012 and 5 contracts were completed in the year 2013. The year 2011 had the highest number of contracts completed to quality requirements.

For the time requirement, 35 contracts were completed in the year 2009, 37 contracts in 2010, 24 contracts in 2011, 13 contracts in 2012 and 3 contracts in the year 2013. On average, the year 2010 had the highest number of PPP contracts completed in time. Findings also indicated that 30 contracts were completed on cost in the year 2009, 27 contracts in 2010, 41 contracts in 2011, 10 contracts in 2012 and 4 contracts in the year 2013. On average, the year 2011 had highest number of contracts completed on cost.

**Table 4.43: Contracts completed to Quality, Cost and Time Requirements**

Indicators	Financial Year					Mode
	2009	2010	2011	2012	2013	
Contracts completed to Quality from 2009 to 2013	23	14	56	14	5	3
Contracts completed on time from 2009 to 2013	37	35	24	13	3	2
Contracts completed on cost from 2009 to 2013	30	41	27	10	4	2

Factor analysis was done to determine the total scores for the variable that was used for further analysis. Factor scores for the indicators were extracted from the analysis then used to compute the total scores for the variables used for the inferential analysis. Table 4.44 presents the results of the PPPR, (2009) factor scores.

**Table 4.44: Factor Scores for Implementation of PPPR, (2009)**

<b>Indicators</b>	<b>Factor scores</b>
Involvement in any PPP projects since 2009	0.027708
Number of PPP projects since 2009	0.187073
Method of contractors identification	0.420341
Percentage of all contracts executed that were identified by open tenders in years	0.013979
Contractor selection criteria	0.341049
Frequency of due diligence before award of contracts	0.041502
Frequency of Supplier performance evaluation	0.119126
Project implementation Monitoring and evaluation	-0.17667
Suppliers feedback on performance	-0.20393
Number of contracts completed to quality from 2009 to 2013	-0.28539
Number of contracts completed in time from 2009 to 2013	0.170772
Number of contracts completed at cost from year 2009-2013	-0.25994

#### **4.8.6 Regression Analysis for Implementation of PPPR, (2009) and Performance**

Ordinary least squares regression was carried out to determine the relationship between the two variables and the effect of the PPPR, (2009) implementation on performance. The regression model  $Y = \beta_0 + \beta_1 X_3$  was thus fitted from the data where X represented Public Private Partnership Regulations, (2009) implementation and Y denoted organizational performance.

From Table 4.45, the value of R and  $R^2$  were .574 and .32911 respectively. The R value of .574 showed that there was a positive linear relationship between implementation of Public Private Partnership Regulations, (2009) and organizational performance. The  $R^2$  value indicated that the explanatory power of the independent variables was 0.3291. This means that 32.9% of the variation in performance was explained by the model  $Y = \beta_0 + \beta_1 X_3$ .

**Table 4.45: Model Summary for Implementation of PPPR, (2009) and Performance**

<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
.574 <sup>a</sup>	0.32911	0.32301	7.65437

a. Dependent Variable: Organizational Performance

An ANOVA was carried out and the results from Table 4.46 showed the F statistic that had a p value of 0.000. Since the p value of the F- statistic was less than 0.05 it showed that the coefficient in the equation fitted was not equal to zero implying a good fit. This implied that considering the simple regression fitted, implementation of the PPPR, (2009) had an effect on organizational performance.

**Table 4.46: ANOVA for Implementation of PPPR, (2009) and Performance**

	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Significance</b>
Regression	3161.52	1	3161.52	53.961	.000 <sup>b</sup>
Residual	6444.83	110	58.5894		
Total	9606.35	111			

b. Predictors: (Constant), Public Private Partnership Regulations, (2009) implementation

The results of coefficients to the model  $Y = 12.499 + 8.131X_3$  estimates were both significant at the 0.05 level of significance as shown on Table 4.47. This was because the significances were both 0.000, which were all less than 0.05. The constant term implied that at zero implementation of the PPPR (2009), organizations performed at 12.499 measures, increasing the implementation of the PPPR (2009), increased the performance by 8.131 measures.

**Table 4.47: Coefficients for Implementation of PPPR, (2009) and Performance**

<b>Model</b>	<b>Coefficients</b>		<b>T</b>	<b>Significance</b>
	<b>B</b>	<b>Std. Error</b>		
(Constant)	12.499	2.521	4.957	0.000
Public Private Partnership Regulations, (2009) implementation	8.131	1.107	7.346	0.000



The standardized residual plot in Appendix V (iii) for the fitted model showed that the residuals were equally distributed about zero all through as the regression standardized predictors increased. This showed no violation of linearity which was a requirement for regression. The plot also showed no clear indication or pattern of increasing or decreasing plots with increase in the regression predictor values. This implied no signs of heteroscedasticity which means that the residuals from the regression were homoscedastic.

The objective of the study was to determine the effect of implementation of Public Private Partnership Regulations, (2009) on organizational performance of Kenyan state corporations. Based on this objective and literature review, the following null hypothesis was formulated for testing.

*H<sub>03</sub>: There is no significant effect of Public Private Partnership Regulations, (2009) implementation on organizational performance of Kenyan state corporations.*

The hypothesis was tested by regressing implementation of PPPR, (2009) on organizational performance. Given the level of significance of the ANOVA (0.000), regression results presented demonstrated that implementation of PPPR, (2009) affected performance of state corporations. The null hypothesis that implementation of PPPR, (2009) had no effect on performance of state corporations was therefore rejected. As the implementation of the PPDR, (2006) increased, the performance of state corporations increased too. The findings are in tandem with Sabiti and Muhumusa (2011) who observed that public private partnerships are important as the private sector has a broad experience and a pool of technical resources that the public sector needs to boost economic development.

Findings also agree with a study that was conducted by Rhee and Hangyong, (2007) in Korea and established that the promotion of PPP projects had helped ease constraints on government financial resources mostly in infrastructure and enabled the government to put fiscal resources into other sectors according to government priorities. Authors observed that the implementation of PPPs had helped the timely completion of road projects in comparison with road construction by the government, thus achieving value for money.

The Government has provided the right environment for implementation of PPPs by provision of supportive policy and legal environment by issuing the PPP regulations and establishing a PPP secretariat at treasury and nodes in contracting authorities. The legal framework provide for a clear, transparent, fair and competitive process covering project selection, prioritization, preparation, appraisal, procurement approvals, implementation and procurement of project advisors.

PPPs can provide a wide variety of net benefits for society, including enhanced government capacity, innovation in delivering public services, reduction in cost and time of project implementation, and transfer of major risk to the private sector, in order to secure value for money for taxpayers. To address the problem of inadequate resources for implementation of projects, there is a clear need for the public sector funding to be increased in an integrated programmatic partnership that will attract and sustain resources and the interest of the private sector in order to accelerate development through sustainable public development.

With the existing legal framework that supports PPP in Kenya, there is adequate ground for partnerships as this will not only mobilize substantial resources but also take advantage of the private sector efficiencies and technology under the regulations and support the public sector to deliver results that will stimulate and sustain improved performance of PEs. As the demand for quality and affordable services increase from citizens, there is need for state corporations to reduce the funding gap to provide a new source of investment capital through public private partnerships.

State corporations and private organizations can indeed seek mutual advantages in developing a PPP, particularly when the latter is characterized by trust, openness, fairness and mutual respect. For the public agency, the main rewards of partnering with the private sector are improved performance, cost efficiencies, better service provision and better allocation of risks and responsibilities. The private sector on the other hand, will benefit from better investment potential, make reasonable profit and have more opportunities to expand business interests.

While PPPs provide a mechanism for exploiting the comparative advantages of public and private sectors in mutually supportive ways, the government needs to maintain its involvement in its capacity as partner and regulator especially where accountability is critical, cost shifting present problems and timeframe is long. The PPPs should not be expected to substitute for action nor responsibilities that rest elsewhere. The public sector should set standards and monitor implementation of the partnership for citizen to have adequate access to what they need. And because of the stronger position of the private partner, more skilled government participation is required.

Generally, trust, openness and fairness are basic fundamental underpinnings of successful PPPs. While recognizing the immense complexities in working across sectors with different strategic and operational realities, the focus should be on identifying common goals, delineating responsibilities, negotiating expectations and common working practices, specific reporting and record keeping requirements. Structures, processes and skills for communication and coordination should be developed.

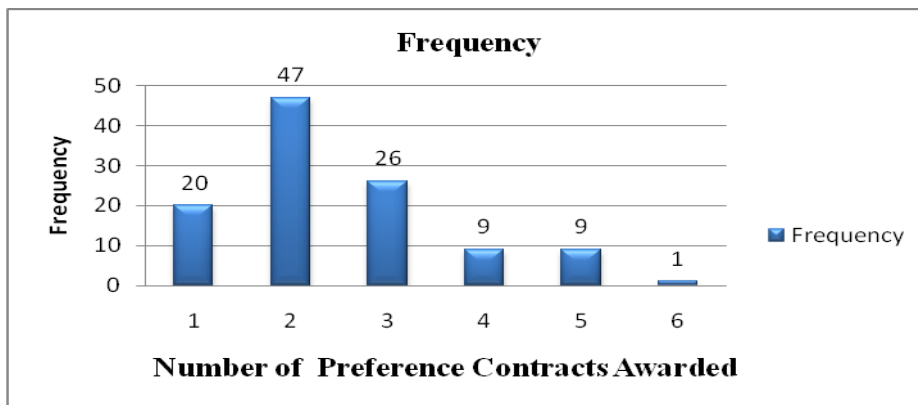
#### **4.9 Implementation of PRR, (2011) and Organizational Performance**

The fourth objective of the study was to determine the effect of implementation of Preference and Reservations Regulations, (2011) on organizational performance of Kenyan state corporations. Descriptive analysis that involved the measures of central tendency for each indicator was used and presented in tables and graphs. Factor scores for the indicators were then computed and total scores for the variables used for the inferential analysis.

Ordinary least squares regression was used to determine the relationship between the two variables and the effect of the PPR, (2011) implementation on the performance of Kenyan state corporations. The indicators used included, number of contracts awarded to SMEs, bidder conferences held for SMEs on procurement opportunities, allocation and availability of funds for procurement opportunities, capacity building for staff on the 30% contracts award directive and the percentage of contracts awarded to SMEs that were delivered to the satisfaction of the corporations in terms of quality, time and cost requirements.

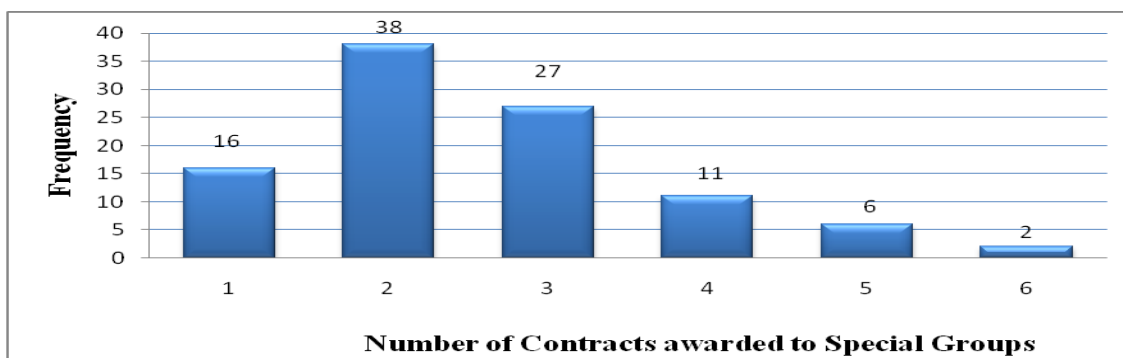
#### 4.9.1 Qualification and Capacity of Small Medium Enterprises

The indicator measured the number of contracts the corporations had given preference to, to the local SMEs since 2011, the number of contracts awarded to the special group (Youth, Women and People with Disabilities), and value of contracts awarded. The findings are presented on Figure 4.20; 4.21 and 4.22 respectively. Figure 4.20 presents the findings on the number of contracts that corporations had given preference to. Results showed that majority of respondents (47) had given only 2 local contractors preference. As the number of contracts increased, the number of respondents that gave preference to local contractors reduced.



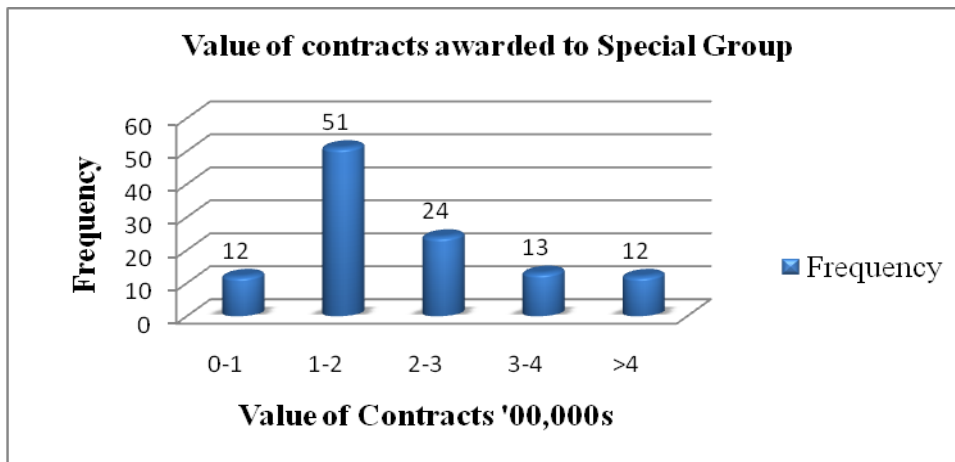
**Figure 4.20: Preference Contracts Awarded by Corporations**

From Figure 4.21, majority of the respondents (38) indicated to have awarded only 2 contracts to youth, women and persons with disabilities, 27 respondents indicated 3 contracts, 16 respondents indicated 1 contract, 11 respondents indicated 4 contracts, 6 respondents indicated 5 contracts and 2 respondents indicated 6 contracts.



**Figure 4.21: Contracts Awarded to the Special Groups**

Figure 4.22 presents the findings on the value of contracts that corporations awarded to the Small Medium Enterprises. Majority of the respondents awarded contracts of between 100,000 and 200,000 Kenya shillings. This was followed by the respondents who indicated value of between 200,000 and 300,000 and those who awarded less than 100,000 in value of contracts. The fewest contracts awarded were those above 400,000. 00



**Figure 4.22: Total Value of Contracts Awarded**

The findings were supported by the interview respondents who indicated that the low level of contracts awarded to the specials groups was due lack of financial resources. Most state corporations receive money from the national treasury which in most cases is disbursed very late or not at all thus making it impossible for the PEs to do business with the special groups. Further, findings are in agreement with Malcolm (2014) who observed that SMEs participation in PP was still very low and this was attributed to SMEs competition, lack of information on procurement opportunities and delayed payments.

#### **4.9.2 Influence to Award Contracts to SMEs**

Conflict of interest affects the procurement process where procuring entities are influenced both internally and externally to award contracts to certain individuals. The indicator measured the extent to which organizations were influenced to award contracts to SMEs. From table 4.48, 18 respondents indicated to have never been influenced to award tenders to SMEs, 39 respondents indicated occasional influence, 31 respondents indicated being

often influenced, 23 respondents indicated very often and only 1 respondent indicated always. On average corporations are occasionally influenced to award tenders to SMEs. Findings are supported by the observations of Oanda (2013), that conflict of interest will affect the implementation of the PRR whereby PEs may be influenced to award contracts to SMEs thus endangering both the actual and perceived objectivity and probity of the procurement process. Muraguri (2013) in his study on the implementation of the PPR (2011) observed that political interference had affected implementation of regulations.

**Table 4.48: Influence to award Contracts**

Indicator	Never	Occasionally	Often	Very		Always	Mode
				often			
Influence to award contracts to SMEs	18	39	31	23		1	2

#### **4.9.3 Percentage of Contracts Awarded to SMEs**

The PRR (2011) amended (2013) require procuring entities to award 30% of all the procurement contracts to the Youth, Women and Persons with disabilities. The indicator measured the proportion of contracts awarded to this special group by the state corporations. Table 4.49 presents the findings of the indicator where 31 respondents indicated to have awarded no contracts to SMEs, 41 respondents indicated 10%, 24 respondents indicated 20%, 11 respondents indicated 30% and 5 respondents indicated over 30% award of contracts to SMEs. On average 10% of the contracts were awarded to SMEs.

This was inconsistent with the provisions of the PRR (2011) amended (2013) which require PEs to award 30% of all the procurement tenders to SMEs. Findings are also in agreement with those of Muraguri (2013), who conducted a study on the implementation of the preference and reservations regulations of state owned enterprises and established that 74.3% of the corporations had not complied with the 30% contracts award to SMEs directive.

**Table 4.49: Percentage of Contracts Awarded to SMEs**

Indicators	Over					
	None	10%	20%	30%	30%	Mode
Percentage of contracts awarded to SMEs	31	41	24	11	5	2

#### 4.9.4 Capacity Building for SMEs

Many bidders are limited in various capacity issues in public procurement and thus require training. The indicator measured the number of bidder conferences the corporations had held for SMEs on procurement opportunities. From Table 4.50, 18 respondents indicated to have not held any bidder conference for SMEs, 56 respondents indicated 1 conference, 22 respondents indicated 2 conferences, 14 respondents indicated 3 and 2 respondents indicated 4 conferences and above. On average only 1 bidder conference was held for SMEs. Findings are in agreement with Basheka (2009), who observed that capacity building was not limited to government staff but also to service providers

**Table 4.50: Bidder Conferences Held for SMEs**

Indicator	0	1	2	3	4 and	Mode
					above	
Number of bidder conferences held for SMEs	18	56	22	14	2	2

#### 4.9.5 Availability of Funds

Most state corporations are funded by the government through the exchequer. The study sought to establish how early funds allocated for procurement activities are availed. The measure was on five sub indicators representing after invoicing, after delivery of goods, after award of contracts, upon commencement of procurement process and before commencement of the process.

From Table 4.51, 41 respondents indicated that funds were availed after invoicing, 20 respondents indicated after delivery of goods, 25 respondents indicated after award of

contracts, 24 respondents indicated upon commencement of the procurement process and only 2 respondents indicated before commencement of the process. On average, funds allocated for procurement activities were availed to organizations from the national treasury after invoicing for goods delivered and services rendered. Findings are in tandem with Kamar and Ongo'ndo (2007), who observed that insufficient allocation of financial resources due to financial constraints and mixed government priorities slow down procurement reforms.

Financial and material shortage was a perennial problem to service delivery (Lienert, 2003). The results also agree with the study by Ameyaw, Mensah and Osei - Tutu (2003) cited in (Basheka, 2012) who established inadequate funding as one of the major challenges of non compliance to PP.

**Table 4.51: Availability of Funds for Procurement Activities**

<b>Indicator</b>	<b>After invoicing</b>	<b>After delivery of goods/services</b>	<b>After award of contract</b>	<b>Upon contract commencement</b>	<b>Before commencement of process</b>	<b>Mode</b>
Availability of funds for procurement	41	20	25	24	2	1

#### **4.9.6 Procurement Staff Training on 30% Contract Award Directive**

For purchasers to effectively implement the 30% contracts directive, it is important that they are trained on the same. The indicator measured the number of trainings corporations held for staff on the 30% contracts award directive. From Table 4.52, 28 respondents indicated not to have had any training, 40 respondents indicated to have had 1 training, 27 respondents indicated 2 trainings, 13 respondents reported 3 trainings and 4 respondents indicated over 4 trainings. On average the institution had had 2 trainings for staff on the 30% contracts award to SMEs directive.



Findings are in agreement with the observations of Gelderman *et al.*, (2006) who observed that educating and training public purchasers was an effective tool for increasing implementation and compliance with the directives. Compared with the number of trainings held for service providers (SMEs), trainings held for staff on the 30% award directive were higher than those held for SMEs.

**Table 4.52: Trainings held for Staff on the 30% Contracts award Directive**

Indicator	4 and					Mode
	0	1	2	3	above	
Number of trainings held for staff on the 30% contracts award directive	28	40	27	13	4	2

#### **4.9.7 Actual Implementation of 30% Award Directive**

All procuring entities are required by law to fully embrace the 30% contracts award directive. The indicator measured the extent to which the state corporations had embraced the directive. From Table 4.53, 15 respondents indicated to have not embraced the directive, 29 respondents indicated 10%, 46 respondents indicated 20%, 21 respondents indicated 40% and only 1 respondent indicated to have embraced the directive at over 60%. On average 30% directive is embraced at 20%.

Findings tally with Gitari and Kabare (2014) who stated that implementation of the SMEs regulations was still a challenge because of long term suppliers' relationships that hindered upcoming SMEs from accessing procurement opportunities. Findings also agree with Obanda (2011) who stated that regulatory framework implementation in procurement affects access to procurement opportunities by SMEs. Kathure, (2012) also established that despite the preferential treatment of SMEs by the government, comparative tally of public contracts secured by upcoming SMEs against those secured by large enterprises were very small.

**Table 4.53: Extent Corporations had embraced the 30% Directive**

<b>Indicator</b>	<b>0%</b>	<b>10%</b>	<b>20%</b>	<b>40%</b>	<b>Over 60%</b>	<b>Mode</b>
Extent state corporations had embraced the 30% directive	15	29	46	21	1	3

#### **4.9.8 Contracts Awarded to SMEs Delivered on Time, at Cost and to Quality.**

In determining the capacity of the special group to deliver goods and services as per requirement, the study measured the percentage of contracts awarded to SMEs that were delivered on time, at cost and to quality requirements of the procuring entities. From Table 4.54, 11 respondents indicated 30-34 %, 15 respondents indicated 35-39%, 60 respondents indicated 40-44%, 24 respondents indicated 45-49% and 2 respondents indicated 50%. On average, the percentage of contracts awarded to SMEs that were delivered in time, at cost and quality requirements was 40-44%.

From the findings, it can therefore be inferred that SMEs have the capacity to deliver contracts awarded as per requirements of PEs. Findings are in line with Luyt (2008) who indicated that monitoring delivery of goods and services ensures scarce resources are efficiently and effectively utilized.

**Table 4.54: Contracts awarded to SMEs Delivered in Time, at Cost and Quality**

<b>Indicator</b>	<b>30-34 %</b>	<b>35-39 %</b>	<b>40-44 %</b>	<b>45-49 %</b>	<b>Over 50%</b>	<b>Mode</b>
Percentage of contracts awarded to SMEs that were delivered to quality, time, and cost requirements	11	15	60	24	2	3

Factor analysis was done to determine the total scores for the variable that was used for further analysis. Factor scores for the indicators were extracted from the analysis then used to compute the total scores for the variables used for the inferential analysis. Table 4.55 presents the factor scores for the Preference and Reservations Regulations, (2011).

**Table 4.55: Factor Scores for Implementation of PRR, (2011)**

Indicators	Factor scores
Number of contracts given preference to the local contractors since 2011	0.480593
Number of contracts awarded to the Youth, Women and PWD from 2011 to 2013	0.520427
Total Value of contracts awarded to Youth, Women and PWD from 2011 to 2013	-0.10766
Influence to award contracts to SMEs	-0.06183
Proportion of contracts awarded to SMEs from 2011 to 2013	0.193198
Number of bidder conferences held for SMEs from 2011 to 2013	0.174102
Availability of funds for procurement activities	0.168073
Number of trainings held for staff on the 30% contract award directive	0.079654
Extent corporations have embraced 30% directive	-0.1757

#### 4.9.9 Regression Analysis for Implementation of PRR, (2011) and Performance

OLS was carried out to determine the relationship between the two variables and the effect of implementation of PRR, (2011) on performance. The regression was used as the inferential analysis to determine the effect of implementation of PRR, (2011) on organizational performance. The data were used to fit the regression model  $Y = \beta_0 + \beta_1 X_4$  to determine with statistical significance this effect where X represented implementation of PRR, (2011) and Y denoted organizational performance.

From Table 4.56, the value of R and  $R^2$  were .617 and 0.380 respectively. The R value of .617 showed that there was a positive linear relationship between the variable implementation of PRR, (2011) and organizational performance. The  $R^2$  value indicated that explanatory power of the independent variables was 0.380. This means that 38% of the variation in performance was explained by the model  $Y = \beta_0 + \beta_1 X_4$ .

**Table 4.56: Model Summary for Implementation of PRR, (2011) and Performance**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.617 <sup>a</sup>	0.38047	0.37484	7.35553

a. Dependent Variable: Organizational Performance

The ANOVA showed an F statistic that had a significance level of 0.000 as indicated on Table 4.57. This showed that the coefficient in the equation fitted was not equal to zero implying a good fit. This implied that considering the simple regression model fitted implementation of the Preference and Reservations Regulations, (2009) had an effect on organizational performance of Kenyan state corporations.

**Table 4.57: ANOVA for Implementation of PRR, (2011) and Performance**

	Sum of Squares	df	Mean Square	F	Significance
Regression	3654.93	1	3654.93	67.5541	.000 <sup>b</sup>
Residual	5951.41	110	54.1038		
Total	9606.35	111			

b. Predictors: (Constant), Preference and Reservations Regulations, (2011) implementation

Table 4.58 presents the results of coefficients to the model  $Y = 2.823 + 11.102X_4$ . The model coefficient of PRR was significant at the 0.05 level of significance. This was because the significance level was 0.000, which was less than 0.05. Increasing the implementation of the Preference and Reservation Regulations, (2011), increased the performance by 11.102 measures.

**Table 4.58: Coefficients for Implementation of PRR, (2011) and Performance**

Model	Unstandardized		T	Sig.
	B	Std. Error		
(Constant)	2.823	3.408	0.828	0.409
Preference and Reservation Regulations, (2011) implementation	11.102	1.351	8.219	.000

The constant 2.823 was insignificant implying that at zero implementation of the PRR (2011), organizations did not have any significant performance. It was insignificant at 0.05 level of significance since level of significance of its T-statistic was 0.409 which was greater than 0.05. A model dropping the constant term was fitted to determine the effect of

implementation of PRR, (2011) on performance without considering the constant term. Dropping the constant term only had an implication of zero performance for zero implementation of regulations on the single estimator model. Conclusions on the existence of the constant term required a model considering other factors influencing performance. The regression model fitted was one passing through the origin  $Y = \beta_1 X_4$ .

From Table 4.59, the value of R and  $R^2$  were .739 and 0.689 respectively. The R value of showed that there was a positive linear relationship between the variable implementation of PRR, (2011) and organizational performance. The  $R^2$  value indicated the explanatory power of the independent variables of 0.689. This means that 68.9 % of the variation in performance was explained by the model  $Y = \beta_1 X_4$ .

**Table 4.59: Model Summary for Implementation of PRR, (2011)**

<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
.739 <sup>a</sup>	0.689	0.681	7.34512

a. Independent Variable: Organizational Performance

The ANOVA showed an F statistic that had a significance level of 0.000. This showed that the coefficient in the equation fitted was not equal to zero implying a good fit.

**Table 4.60: ANOVA for Implementation of PRR, (2011)**

	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
<b>Regression</b>	106044.3202	1	106044	1965.58	.000 <sup>b</sup>
<b>Residual</b>	5988.53451	111	53.9508		
<b>Total</b>	112032.855 <sup>d</sup>	112			

b. Predictor: Preference & Reservations Regulations (2011), implementation

The results of coefficient to the model  $Y = 12.197X_4$  estimate was significant at the 0.05 level of significance as shown on Table 4.61. This was because the significance level was 0.000, which was less than 0.05 and increasing the implementation of the PRR (2011), increased the performance of the state corporations by 12.197 measures.

**Table 4.61: Coefficients for Implementation of PRR, (2011)**

Model	Coefficients	Std. Error	T	Sig.
Preference and Reservation Regulations, (2011) implementation	12.197	0.27511	44.334	0.000

The standardized residual plot Appendix V (iv) for the fitted model showed that the residuals were equally distributed about zero all through as the regression standardized predictors increased. This showed no violation of linearity which was a requirement for regression. The plot also showed no clear indication or pattern of increasing or decreasing plots with increase in the regression predictor values. This implied no signs of heteroscedasticity which means that the residual from the regression were homoscedastic.

The objective of the study was to determine the effect of implementation of Preference and Reservations Regulations, (2011) on organizational performance of Kenyan state corporations. Based on this objective and literature review, the following null hypothesis was formulated for testing.

*H<sub>04</sub>: There is no significant effect of Preference and Reservations Regulations, (2011) implementation on organizational performance of Kenyan state corporations.*

The hypothesis was tested by regressing implementation of PRR, (2011) on organizational performance. Given the level of significance of the ANOVA (0.000), regression results presented demonstrate that implementation of PRR, (2011) affected performance of state corporations. The null hypothesis that implementation of the PRR, (2011) has no effect on performance of state corporations was therefore rejected. As the implementation of the PRR, (2011) increases, the performance of state corporations increases too.

Findings tally with Ngeno and Namusonge, (2014) who established that most state corporations had realized the potential of the reservations practices in establishing a strong market orientation for their customers and thus results to better performance. The authors' findings indicated that preservations practices explained 92.4% of the variance of state

corporations' performance. The findings are however inconsistent with Boddo, (2010) who established that despite the enormous benefits of the preference and reservations scheme, most entities did not apply them. He further noted that while the SMEs were responsible for three-quarters of Uganda's GDP, their share in PP was still limited and estimated to represent only 15% of the PP opportunities. Findings tally with Gitari and Kabare (2010) who established that the access to procurement opportunities by SMEs in public secondary schools was relatively low as 85.5 % of the procurement contracts were awarded to established suppliers.

The government is committed to empowering the disadvantaged groups by advocating youth, women and people with disabilities and SMEs access to government contracts. This has been done through the national sensitization and recruitment drive on the 30% of all government procurement opportunities. However, the overall lack of procurement knowledge remains a major weakness to the efficiency of the preference and reservations regulations implementation. PEs should publish procurement opportunities in their websites and in both the print, TV and radio media to allow the special groups to access the same.

PPOA should undertake advocacy activities to ensure sensitization and training of Kenyan SMEs on how to prepare bid documents using various channels including radio programmes. While the country is endowed with well distributed FM radio stations, the stations have not been well utilized. Hosting talk shows on local radio throughout the country is one way of enhancing knowledge on accessibility to procurement opportunities by SMEs. PEs should also keep administrative procedures to a minimum as the SMEs do not have specialized administrative capacities. The costs associated with bid preparation should also be kept to a minimum. Once the SMEs have delivered goods and services, the PEs should pay them in time to alleviate the financial burden on them.

Developing a strong SME base may increase competition in PP, which may provide the government with better value for money and increased efficiency. The benefits of competition in PP are well accepted and for SMEs to win tenders, PEs must ensure enough

is done to improve accessibility to procurement opportunities. Increased participation by Kenyan SMEs in PP will lead to capacity building, employment and wealth creation and economic development. Constant evaluation of institutional performance on implementation of the preference and reservations introduced should be enforced to ensure the objective of the regulations is achieved.

#### 4.10 Multiple Regression Model

After analyzing each variable's effect on performance using simple regression, a multiple regression analysis was conducted in order to establish the combined effect of the four variables on performance. All the independent variables, that is, implementation of Public Procurement and Disposal Act, (2005), implementation of Public Procurement & Disposal Regulations, (2006), implementation of Public Private Partnership Regulations, (2009) and implementation of Preference and Reservation Regulations, (2011) were used to fit the multiple linear regression model  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4$ .

From Table 4.62, the R value was 0.983 and R<sup>2</sup> value was 0.956. The R<sup>2</sup> of 0.965 implied that 96.5% of the variation in the dependent variable (performance) was explained by the variation of the model. This showed a very good fit as it was above the 80% recommended value.

**Table 4.62: Model Summary for Multiple Regression Model**

<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
.983 <sup>a</sup>	0.965837021	0.964572	5.953038

a. Dependent Variable: Organizational Performance

From Table 4.63, the ANOVA showed an F statistic with significance level of 0.000. This showed that the coefficients in the equation fitted were not jointly equal to zero implying a good fit.



**Table 4.63: ANOVA for Multiple Regression Model**

			Mean		
	Sum of Squares	Df	Square	F	Significance
Regression	108205.4786	4	27051.37	763.3292	.000 <sup>b</sup>
Residual	3827.376036	108	35.43867		
Total	112032.855	112			

- a. Predictors: (Constant), Public Procurement & Disposal Act, Public Procurement and Disposal Regulations, Public Private Partnership Regulations, Preference and Reservations Regulations.

Table 4.64 presents the results of coefficients to the model  $Y = 7.112 + 3.255X_1 + 3.848X_2 + 2.752X_3 + 6.058X_4$ . The model coefficients were all significant at the 0.05 level of significance. This was because the significances for  $X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$  were 0.002, 0.001, 0.012, and 0.000 respectively which were all less than 0.05. The constant term was also significant as it had a significance value of 0.019 which was less than 0.05.

The coefficient of ( $X_1$ ) implementation of PPPD, (2005) was 3.254844 which was greater than zero. The t statistic of this coefficient was 3.158846 with a p value of 0.002 which was less than 0.05. This implied that the coefficient was significant and that implementation of PPDA, (2005) had a significant effect on performance of Kenyan state corporations. A unit increase in the level of implementation of PPDA, (2005) would result in an increase in the level of performance by 3. 255 units.

The coefficient of ( $X_2$ ) implementation of PPDR, (2006) was 3.847997 which was greater than zero. The t statistic of this coefficient was 3.555135 with a p value of 0.001 which was greater than 0.05. This implied that the coefficient was significant and that implementation of PPDR, (2006) had a significant effect on performance. A unit increase in the level of implementation of PPDR, (2006) would result in an increase in the level of performance by 3.848 units.

The coefficient of ( $X_3$ ) implementation of PPPR, (2009) was 2.752438 which was greater than zero. The t statistic of this coefficient was 2.545141 with a p value of 0.012 which was less than 0.05. This implied that the coefficient was significant and that implementation of PPPR, (2009) had a significant effect on performance. A unit increase in the level of implementation of PPPR, (2009) would result in an increase in the level of performance by 2.752 units.

The coefficient of ( $X_4$ ) implementation of PRR, (2011) was 6.058028 which was greater than zero. The t statistic of this coefficient was 4.447448 with a p value of 0.000 which was less than 0.05. This implied that the coefficient was significant and that implementation of PRR, (2011) had a significant effect on organizational performance. A unit increase in the level of implementation of PRR, (2011) would result in an increase in the level of organizational performance by 6.058 units.

**Table 4.64: Coefficients for Multiple Regression Model**

Model	Unstandardized		T	Sig.
	B	Std. Error		
(Constant)	7.111961	2.997517	2.372617	0.019
Preference and Reservation Regulations, (2011) implementation	6.058028	1.362136	4.447448	0.000
Public Procurement & Disposal Regulations, (2006) implementation	3.847997	1.082377	3.555135	0.001
Public Procurement and Disposal Act, (2005) Implementation	3.254844	1.03039	3.158846	0.002
Public Private Partnership Regulations, (2009) implementation	2.752438	1.081448	2.545141	0.012

#### **4.11 Moderating Effect of Enforcement of Public Procurement Legal Framework Implementation on Organizational Performance**

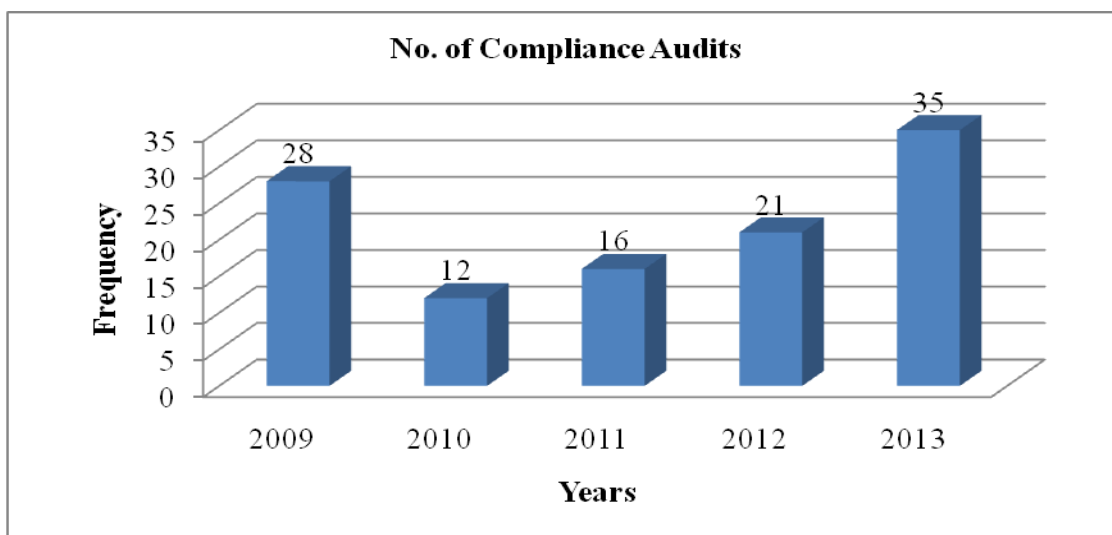
The fifth objective of the study was to determine the moderating effect of enforcement on the relationship between the PP legal framework implementation and organizational performance of Kenyan state corporations. The variable was measured on the number of compliance audits conducted by the PPOA, the compliance levels, number of procurement reviews conducted by the PPARB, and the period it took the board to complete a procurement review.

##### **4.11.1 Compliance Audits**

To ensure that public institutions comply with all the elements of the public procurement legal framework, the oversight authority is supposed to conduct procurement audits. Figure 4.23 showed the number of compliance audits that were conducted by the PPOA from 2009 to 2013.

In the year 2009, 28 compliance audits were conducted, 12 audits were conducted in 2010, 16 audits were conducted in 2011, 21 audit were conducted in 2012 and 35 audits were conducted in 2013. The year 2013 had the highest number of compliance audits. Findings are in tandem with those of Okeahalm, (2004). Okeahalm conducted a study on corporate governance in Africa and established that countries such as Nigeria and Ghana suffer from weak enforcement mechanisms.

The findings were also supported by the interview respondents whereby out of the 54 accounting officers that were interviewed, only 24 confirmed to have been audited since 2009. And from the PPOA website, only 15 state corporations had been audited and reports posted on the website. It can therefore be implied that the Public Procurement Oversight Authority does not have capacity to conduct compliance audits of all the public entities in Kenya.



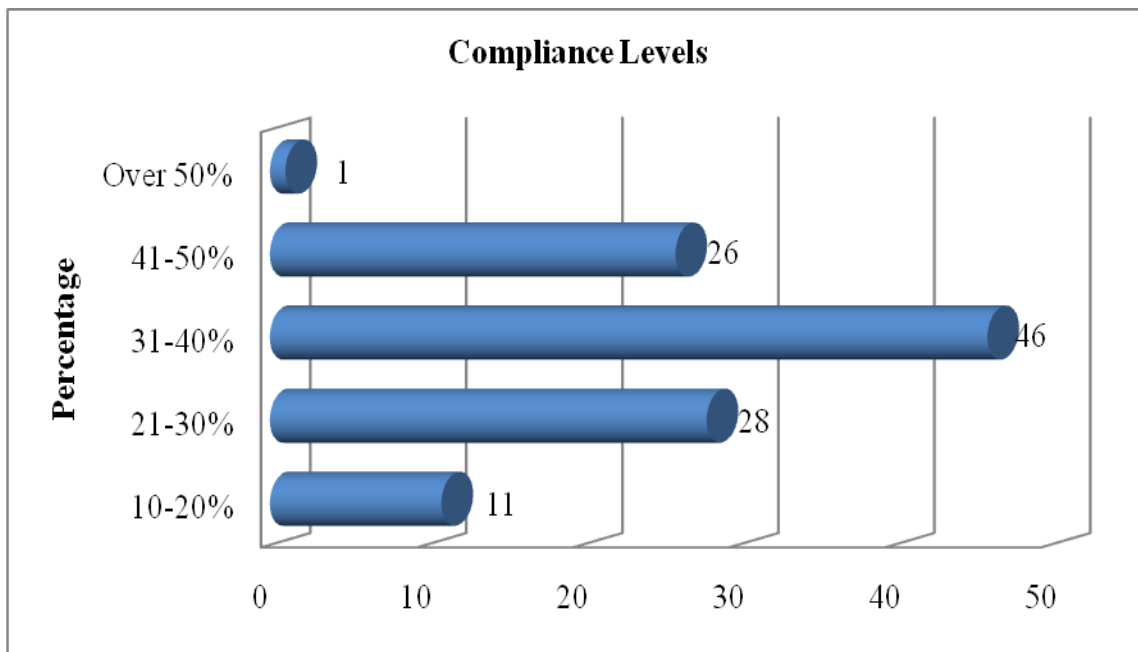
**Figure 4.23: Compliance Audits**

#### **4.10.2 Compliance Levels**

Compliance audits conducted by the oversight authority indicate the compliance levels and this is meant to assist the authority take corrective measures. Indicator established the average compliance levels from the audits conducted. From Figure 4.24, 11 respondents indicated 10-20% level of compliance, 28 respondents indicated 21 – 30%, 46 respondents indicated 31- 40%, 26 respondents indicated 41- 50%, and 1 respondent indicated over 50% compliance level. On average the corporations had 31 - 40% average level of compliance.

Findings are supported by several audits conducted by PPOA that revealed that compliance in PP in the country was inadequate (PPOA Compliance Reports, 2009, 2010, 2011, 2012; PPOA Baseline Report, 2010: PPOA Capacity Building Strategy Report, 2011-2014). Findings are further supported by the African Peer Review Mechanism, Country Review Report (2009), which indicated that non compliance with regulations was very high in Kenya. Content analysis of the audit reports from PPOA website confirmed these findings as the corporations audited had a compliance level of between 25- 50% as depicted in Appendix IV.

In addition, Sang and Mugambi (2014) in their study on the factors affecting compliance with PP laws and regulations in public institutions asserted that most PEs exhibit a below minimum level of compliance of 60% as set out in PPOA's performance monitoring plan. The findings further agree with Etse and Asenso-Boakye (2014), who conducted a study on the challenges of PP audit in Ghana and established that 78% of the PEs did not comply with the provisions of the procurement law and regulations.



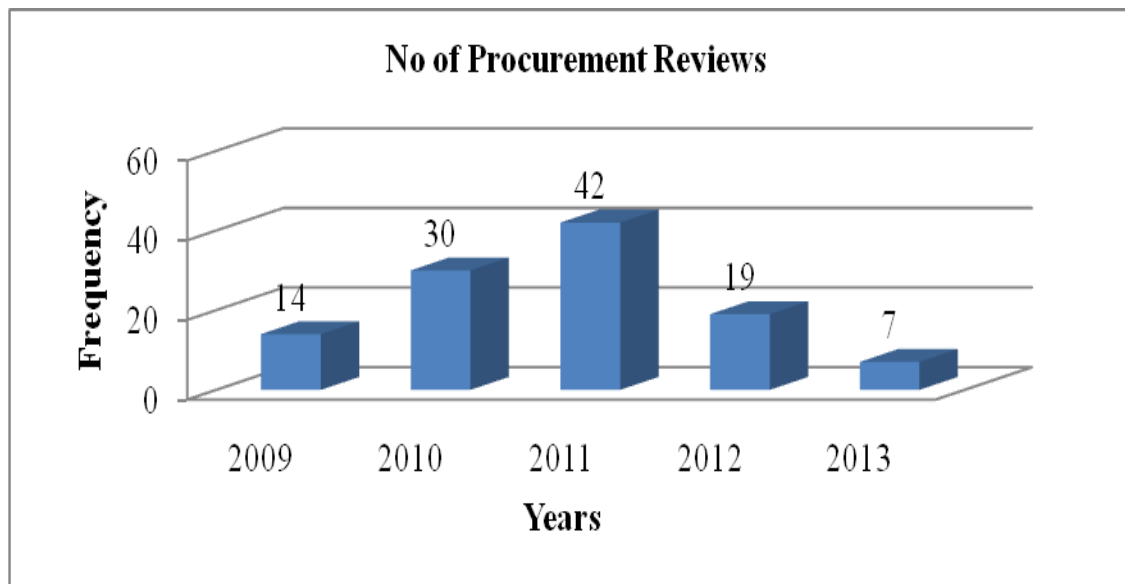
**Figure 4.24: Compliance Levels**

#### 4.11.3 Procurement Reviews

Procurement reviews are conducted where supplier (s) to a procurement proceeding feel they are not fairly treated and appeal to the public procurement administrative review board for review of that particular procurement process. The indicator measured the average number of procurement reviews conducted from 2009 to 2013. Figure 4.25 indicated that in the year 2009, corporations had 14 review cases, 30 cases in 2010, 42 cases in 2011, 19 in 2012 and 7 cases in 2013. The year 2011 had the highest number of procurement review cases.

The findings are in agreement with a study conducted by PPOA in 2012. Study established that the number of appeal cases was high and recommended that a committee of the review board be appointed to review all requests first to determine frivolity of the issue and appeals that involve trifling breaches of the Act or Regulations which cannot reasonably be said to have caused loss or damage to any candidate.

Not all procurement appeals are genuine; some appeals are filed solely for the purpose of delaying the procurement process (Kilungu, 2014). It can be implied that the decrease in number of appeals in 2012 and 2013 was as a result of the review of all the appeals by the said committee before submission to the review board.

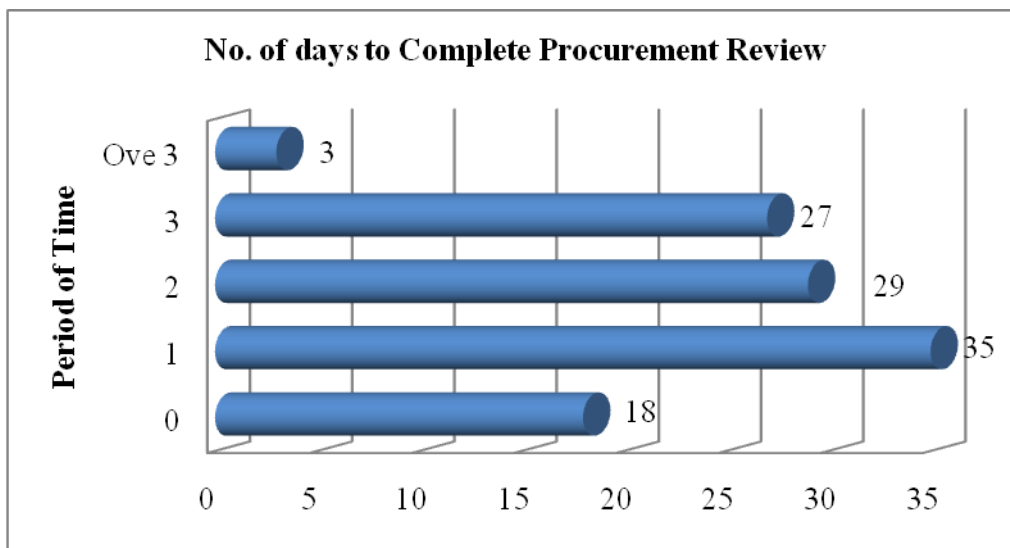


**Figure 4.25: Procurement Reviews**

#### **4.11.4 Procurement Review Period**

The procurement review should take the shortest time possible to ensure that the aggrieved suppliers get justice and that the procurement is not unnecessarily delayed to enable the organization achieve the objective of the procurement. Indicator measured the length of time taken by the public procurement review and administrative board to handle and finalize procurement review cases.

From Figure 4.26, 18 respondents indicated 0 months, 35 respondents indicated one month, 29 respondents indicated 2 months, 27 respondents indicated 3 months and 3 respondents indicated over 3 months. On average the respondents indicated 2 months. The findings are in agreement with Kilungu (2014) who established that the PP administrative board took 60 days to finalize with a procurement review. Kilungu further established that the PP and Disposal Act had capped the Kenyan administrative review period to a maximum of 81 days unlike other East African Countries that have left it open ended.



**Figure 4.26: Period it takes to finalize a Procurement Review**

#### **4.11.5 Regression Analysis on Moderating Effect of Enforcement of Public Procurement Legal Framework on Organizational Performance**

The objective was to determine the moderating effect of enforcement on the relationship between the independent variables and the dependent variable. Based on literature and the objective, the following hypothesis was formulated for testing.

*H<sub>05</sub>: There is no moderating effect of enforcement of public procurement legal framework on the relationship between the public procurement legal framework and performance of Kenyan state corporations.*

In order to establish interaction effects between the independent variables and the dependent variable, enforcement was used as a moderating variable. The hierarchical linear regression analysis was used to test the moderating influence. This test was appropriate since this study had multiple independent variables (Cauvery *et al.*, 2010). The regression analysis was done for each independent variable and the dependent variable to determine the individual moderating effect of each element of the PP legal framework implementation on performance of Kenyan state corporations.

#### **4.11.6 Regression Analysis on the Moderating Effect of Enforcement of PPDA, (2005) on Organizational Performance**

A regression analysis was done to determine the effect that enforcement of the Act has on the relationship between implementation of PPDA, (2005) and organizational performance. The variable implementation of PPDA, (2005) intersection Enforcement ( $X_1 * X_5$ ) was computed and used in the regression model  $Y = \beta_0 + \beta_1 X_1 * X_5 + \beta_2 X_1$ .

From Table 4.65, the value of R and  $R^2$  were 0.654 and 0.427 respectively. This means that about 42.7% of the variation in performance was explained by the model  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_1 * X_5$ .

**Table 4.65: Model Summary for Enforcement of PPDA, (2005) on Performance**

<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
.654a	0.427	0.417	7.10494

a. Dependent Variable: Organizational Performance

From Table 4.66, ANOVA for regression showed an F statistic that had a significance level of 0.000. This showed that the coefficients of the equation fitted were jointly not equal to zero implying a good fit.



**Table 4.66: ANOVA for Enforcement of PPDA, (2005) on Performance**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	4104.004	2	2052.002	40.65	.000b
Residual	5502.341	109	50.48		
Total	9606.346	111			

b. Predictors: constant, Enforcement of PPDA, (2005) implementation

The results of coefficients that were used to generate the line,  $Y = 16.073 + 1.752 X_1 * X_5 + 1.933 X_1$  showed that the coefficient of PPDA, (2005) intersection enforcement was significant since it had a p-value of 0.000 which was less than 0.05 as shown on Table 4.67. Since the coefficient of  $X_1 * X_5$  was significant, it implied that the enforcement of Act had a moderating effect on the relationship between PPDA, (2005) implementation and performance.

**Table 4.67: Coefficients for Enforcement of PPDA, (2005) on Performance**

Model	B	Std. Error	t	Sig.
(Constant)	16.073	2.536	6.338	0.000
Public Procurement and Disposal Act, (2005) intersection Enforcement	1.752	0.468	3.747	0.000
Public Procurement and Disposal Act, (2005)	1.933	1.879	1.029	0.306

#### 4.11.7 Regression Analysis on the Moderating Effect of Implementation of PPDR, (2006) on Organizational Performance

A regression analysis was done to determine the effect that enforcement of regulations has on the relationship between PPDR, (2006) implementation and Organizational Performance. The variable PPDR, (2006) intersection Enforcement ( $X_2 * X_5$ ) was computed and used in the regression model  $Y = \beta_0 + \beta_1 X_2 + \beta_2 X_2 * X_5$ . Table 4.54 present the regression model results. From table 4.68, the value of R and  $R^2$  were 0.713 and 0.508 respectively. This means that about 50.8% of the variation in Performance was explained by the model  $Y = \beta_0 + \beta_1 X_2 + \beta_2 X_2 * X_5$ .

**Table 4.68: Model Summary for Enforcement of PPDR, (2006) on Performance**

<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
.713 <sup>a</sup>	0.50809	0.499064	6.584286

a. Dependent Variable: Organizational Performance

From Table 4.69, the ANOVA showed an F statistic that had a significance level of 0.000. This showed that the coefficients of the equation fitted were jointly not equal to zero implying a good fit.

**Table 4.69: ANOVA for Enforcement of PPDR, (2006) on Performance**

	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	4880.89	2	2440.44	56.2926	.000 <sup>b</sup>
Residual	4725.46	109	43.3528		
Total	9606.35	111			

b. Predictors: Constant, Enforcement of PPDR, (2006) implementation

Table 4.70 also presented the results of the coefficients that was used to generate the line,  $Y = 16.23 + 2.94X_2 \cdot X_5 - 1.13X_2$ . The coefficient of PPDR, (2006) intersection Enforcement was significant since the p-value was 0.000 which was less than 0.05. Since the coefficient of  $X_2 \cdot X_5$  was significant, this implied that enforcement of regulations had a moderating effect on the relationship between PPRD, (2006) implementation and performance.

**Table 4.70: Coefficients for Enforcement of PPDR, (2006) on Performance**

<b>Model</b>	<b>B</b>	<b>Std. Error</b>	<b>T</b>	<b>Sig.</b>
(Constant)	16.2351	2.46763	6.57924	0.000
Public Procurement & Disposal Regulations, (2006) intersection Enforcement	2.94083	0.48104	6.11352	0.000
Public Procurement & Disposal Regulations, (2006) implementation	-1.13	1.80868	-0.6248	0.53343

#### 4.11.8 Regression Analysis on the Moderating Effect of Enforcement of the PPPR, (2009) on Organizational Performance

A regression analysis was done to determine the effect that enforcement of regulations has on the relationship between PPPR, (2009) implementation and Performance. The variable PPPR, (2009) intersection Enforcement ( $X_3 * X_5$ ) was computed and used in the regression model  $Y = \beta_0 + \beta_1 X_3 + \beta_3 X_3 * X_5$ .

From Table 4.71, the values of R and  $R^2$  were .662 and 0.438 respectively. This means that about 43.8% of the variation in performance was explained by the model  $Y = \beta_0 + \beta_1 X_3 + \beta_3 X_3 * X_5$ .

**Table 4.71: Model Summary for Enforcement of PPPR, (2009) on Performance**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.662 <sup>a</sup>	0.43872	0.42842	7.03323

a. Dependent Variable: Organizational Performance

The ANOVA result showed an F statistic that had a significance level of 0.000. This showed that the coefficients of the equation fitted were jointly not equal to zero implying a good fit.

**Table 4.72: ANOVA for Enforcement of PPPR, (2009) on Performance**

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	4214.51	2	2107.26	42.5998	.000 <sup>b</sup>
Residual	5391.83	109	49.4664		
Total	9606.35	111			

b. Predictors: Constant, Enforcement of PPPR, (2009) implementation

Table 4.73 also presents the results of coefficients that were used to generate the line,  $Y = 16.309 + 0.363X_3 + 2.457X_3 * X_5$ . The coefficient of PPPR, (2009) intersection enforcement was significant since the p-value was 0.000 which was less than 0.05. Since the coefficient of  $X_3 * X_5$  was significant, this implied that the enforcement of regulations had a moderating effect on the relationship between PPPR, (2009) and performance.

**Table 4.73: Coefficients for Enforcement of PPPR, (2009) on Performance**

Model	B	Std. Error	t	Sig.
(Constant)	16.3089	2.45943	6.63115	0.000
Public Private Partnership regulations intersection Enforcement	2.45699	0.53253	4.6138	0.000
Public Private Partnership Regulations, (2009) implementation	0.36291	1.96692	0.18451	0.85396

#### 4.11.9 Regression Analysis on Moderating Effect of Enforcement of PRR, (2011) on Organizational Performance

A regression analysis was done to determine the moderating effect of enforcement of regulations on the relationship between Preference and Reservations Regulations implementation and Performance. The variable PPR, (2011) implementation intersection Enforcement ( $X_4 * X_5$ ) was computed and used in the regression model  $Y = \beta_0 + \beta_1 X_4 + \beta_4 X_4 * X_5$ . From Table 4.74, the value of R and  $R^2$  were .662 and 0.437 respectively. This means that about 43.7% of the variation in performance was explained by the model  $Y = \beta_0 + \beta_1 X_4 + \beta_4 X_4 * X_5$ .

**Table 4.74: Model Summary for Enforcement of PRR, (2011) on Performance**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.662 <sup>a</sup>	0.43771	0.42739	7.03958

a. Dependent Variable: Organizational Performance

The ANOVA results showed an F statistic that had a significance level of 0.000. This showed that the coefficients of the equation fitted were jointly not equal to zero implying a good fit.

**Table 4.75: ANOVA for Enforcement of PRR, (2011) on Performance**

	Sum of Squares	df	Mean Square	F	Sign.
Regression	4204.77	2	2102.39	42.4247	.000 <sup>b</sup>
Residual	5401.58	109	49.5557		
Total	9606.35	111			

b. Predictors: Constant, Enforcement of PPDR, (2006) implementation.

Table 4.76 also presents the results of coefficients that were used to generate the line,  $Y = 7.31815 + 5.77X_4 + 1.440 X_4 * X_5$ . The coefficient of PPR, (2011) implementation intersection enforcement was significant since the p-value was 0.00118 which was less than 0.05. Since the coefficient of  $X_4 * X_5$  was significant, this implied that enforcement of regulations had a moderating effect on the relationship between PPR, (2011) implementation and performance.

**Table 4.76: Coefficients for Enforcement of PRR, (2011) on Performance**

Model	B	Std. Error	t	Sig.
(Constant)	7.31815	3.52945	2.07345	0.04049
Preference and Reservations Regulations, (2011) implementation	5.77038	2.05741	2.80468	0.00597
Preference and Reservation Regulations intersection enforcement	1.44073	0.43252	3.33097	0.00118

From the findings, all the independent variables were positively moderated by enforcement. Given the level of significance of the ANOVA (0.000) for all the variables, regression results presented demonstrate that enforcement moderated the relationship between the PP legal framework and performance of state corporations. The null hypothesis that there is no moderating effect of enforcement on the relationship between the PP legal framework and performance of Kenyan state corporations was therefore rejected. Findings are in tandem with other scholars who agree that enforcement improves compliance (Cunningham & Kagan, 2005; Imperto, 2005; Zubic & Sims, 2007 Sang &

Mugambi, 2014; Etse & Asenso-Boaky, 2014 and Kilungu, 2014). Hui *et al.*, (2011) in their study on procurement issues in Malaysia also established that procurement review was a strong incentive for procurement officials to abide by the rules. The number of compliance audits conducted by PPOA was very low and this was confirmed by content analysis of the PPOA website which indicated that only 15 state corporations had been audited since 2009.

From the findings, it can be implied that the PPOA has no capacity to conduct compliance audits of all the PEs in Kenya and this can indeed be a reason of non implementation and compliance to the law. Compliance levels exhibited a below minimum level of compliance of 60% as set out in PPOA's performance monitoring plan and this can be attributed to lack of compliance audits by the authority.

These findings are also in agreement with a number of studies by other scholars (Zubic & Sims, 2011; Acevedo *et al.*, 2010; Ambe & Badenhurst-weiss, 2012; Stemele, 2009; imperto, 2005; Raymond, 2008; Hui *et al.*, 2011; Eyaa & Oluka, 2011; Woolf, 2002; Namusonge, 2007; Manasseh, 2007 and Este & Boaky, 2014) who contend that implementation and compliance levels with the PP legal framework in most countries are very low and this affects performance of PEs in delivery of services to the citizens.

Compliance with the laws and regulations governing PP is a decisive way for ensuring better administration of public funds; it serves as antidote to corruption, ensures transparency and fair competition and guards against errors and irregularities. Failure to comply indicates threats of abuse and misappropriation of resources. Procurement audit of corporations by PPOA is meant to determine whether proper procedures have been followed; ascertain whether activities of the corporation are in accordance with relevant law and regulations; determine whether proper records have been maintained; ensure corporation activities are undertaken within the approved budgetary provisions and ascertain whether internal controls procedures established by the corporation are adequate and strong enough to protect public resources and ensure efficiency and effectiveness of operation.

#### 4.12 Joint Effect of Independent Variables and Moderating Variable on the Independent Variable

After analyzing each variable's effects and the moderating effect on performance, analysis was done to determine the joint effect of the moderating variable and all the independent variables on performance. The independent variables, that is, Public Procurement and Disposal Act, (2005), Public Procurement & Disposal Regulations, (2006), Public Private Partnership Regulations, (2009) and Preference, Reservation Regulations, (2011) and the moderating variable (enforcement) were used to fit the multiple linear regression model  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5$ .

Table 4.77 showed an R value of 0.97 and R<sup>2</sup> value of 0.947. The R<sup>2</sup> value of 0.947 implied that 94.7% of the variation in the dependent variable organizational performance was explained by the variation of the model (independent variables) under the influence of the moderating variable. From the findings, with a change in one unit of the PPDA, (2005) implementation, the dependent variable varies by 2.674 and the enforcement has a moderating influence on the independent variables by 2.589; this analysis indicates that there is individual and cumulative interaction of variables to influence performance.

**Table 4.77: Model Summary for Multiple Regressions including Moderating Variable**

<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
.974 <sup>a</sup>	0.947817	0.946384	7.156233

a. Independent Variable: Organisational Performance

The ANOVA results showed an F statistic with significance level of 0.000. This showed that the coefficients in the equation fitted were not jointly equal to zero implying a good fit.

**Table 4.78: ANOVA for Multiple Regressions including Moderating Variable**

			Mean		
	Sum of Squares	df	Square	F	Significance
Regression	6234.432	5	1246.886	39.19731	.000 <sup>b</sup>

- b. Predictors: (Constant), Public Procurement & Disposal Act, Public Procurement and Disposal Regulations, Public Private Partnership Regulations, Preference and Reservations Regulations, and enforcement.

Table 4.79 presents the results of the coefficients to the model  $Y = 9.321 + 2.674X_1 + 3.920X_2 + 2.385X_3 + 5.248X_4 + 2.589X_5$ . The model coefficients were all significant at the 0.05 level of significance. This was because the significances for  $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$  and  $X_5$  were 0.010, 0.000, 0.026, 0.000 and 0.005 respectively which were all less than 0.05. Since the coefficient of the overall regression model was significant, it implied that the independent variables and the moderating variable had a joint effect on performance.

Since the coefficients of all the variables were significant, study concluded that implementation of the PP legal framework had a significant effect on performance of Kenya state corporations. In terms of determining the effect, the independent variables can be ranked as follows based on the results of the analysis: PRR, (2011) implementation; PPDR, (2006) implementation; PPDR, (2006) implementation and PPPR, (2009) implementation.



**Table 4.79: Coefficients for Multiple Regressions including Moderating Variable**

<b>Model</b>	<b>Unstandardized Coefficients</b>		<b>T</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>		
(Constant)	9.321	3.000	3.107	0.002
Public Procurement and Disposal Act, (2005) implementation	2.674	1.017	2.629	0.010
Public Procurement & Disposal Regulations, (2006) implementation	3.920	1.048	3.742	0.000
Public Private Partnership Regulations, (2009) implementation	2.385	1.054	2.263	0.026
Preference and Reservation Regulations, (2011) implementation	5.248	1.348	3.894	0.000
Enforcement of the Public Procurement Legal Framework	2.589	0.898	2.882	0.005

The significance of PP is far reaching and affects many different areas of the economy. There is need therefore to put measures in place to ensure that PP yield maximum benefits to the public. Auditing of PP activities is one of the means of making PP achieve desired expectations of value for money, transparency and fair competition.

Laws and regulations put in place to safeguard public procurement are of no use if they are not enforced to ensure public entities perform as expected. The PPOA should therefore take auditing of PEs seriously to ensure that there is no mismanagement of resources and that these resources are prudently managed and utilized in achieving value for the Kenyan citizens. Public procurement is an important function that supports the service delivery arm of government whereby public sector agencies acquire goods, services, construction, and development projects. Given the amount of resources expended by these agencies and through PP, procurement should be placed at the centre of economic development and transformation.

A well organized procurement system contributes to good governance by increasing confidence that public funds are well spent. The implementation of the stipulated PP structures determines the effective implementation of the PP legal framework. The procurement structures charged with the responsibilities of PP should all be in place for PP to be fair, equitable, transparent and cost effective.

Public procurement should stimulate growth of the economy by facilitating service delivery and should not become an end in itself. Inordinate delays, malpractices and incompetence of officials managing procurement erode public confidence in government which ultimately leads to damages to the economy.

#### **4.13 Results of Hypotheses Test**

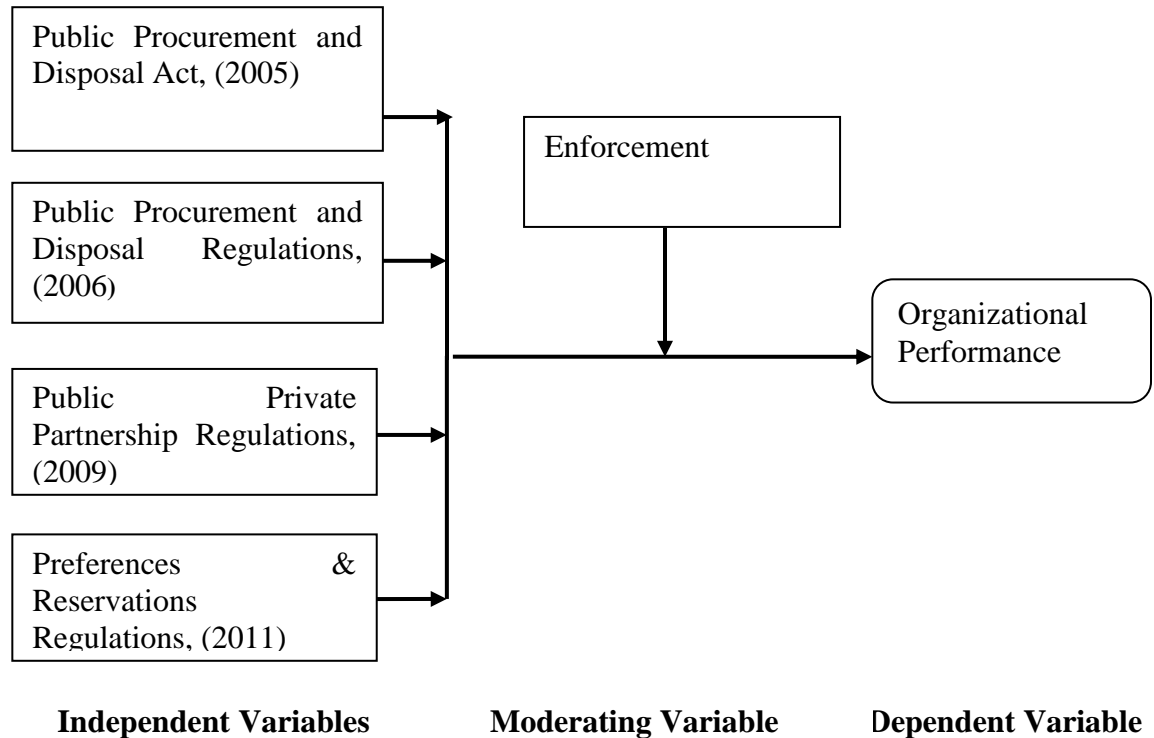
The results of the regression analysis indicated that all the five hypotheses were not confirmed. In order of influence on organizational performance, the study established the following ranking: Preference and reservations Regulations, (2011) implementation; Public Procurement and Disposal Regulations, (2006) implementation; Public Procurement and Disposal Act (2005) implementation; and Public Private Partnership Regulations, (2009) implementation. Table 4.808 summarizes the outcome of the research hypothesis testing.

**Table 4.80: Summary of Research Hypotheses Test Results**

<b>Research Objective</b>	<b>Hypotheses</b>	<b>Test Results</b>
<b>Objective 1:</b> To determine the effect of the Public Procurement and Disposal Act, (2005) implementation on the Performance of Kenyan state corporations.	<b>Hypothesis 1:</b> $H_0$ : There is no significant effect of the Public Procurement and Disposal Act, (2005) implementation on the Performance of Kenyan state corporations.	<b>Null hypothesis rejected</b>
<b>Objective 2:</b> To establish the effect Public Procurement and Disposal Regulations, (2006) implementation on the Performance of Kenyan state corporations.	<b>Hypothesis 2:</b> $H_0$ : There is no significant effect of the Public Procurement and Disposal Regulations, (2006) implementation on the Performance of Kenyan state corporations.	<b>Null hypothesis rejected</b>
<b>Objective 3:</b> To determine the contribution of the Public Private Partnership, (2009) implementation on the Performance of Kenyan state corporations.	<b>Hypothesis 3:</b> $H_0$ : There is no significant contribution of the Public Private Partnership Regulations, (2009) implementation on the Performance of Kenyan state corporations	<b>Null hypothesis rejected</b>
<b>Objective 4:</b> To determine the effect of the Preference and Reservation Regulations, (2011) implementation on the Performance of Kenyan state corporations.	<b>Hypothesis 4:</b> $H_0$ : There is no significant effect of the Preference and Reservation Regulations, (2011) implementation on the Performance of Kenyan state corporations	<b>Null hypothesis rejected</b>
<b>Objective 5:</b> To determine the moderating effect of enforcement on the relationship between the public procurement legal framework and organizational performance of Kenyan state corporation.	<b>Hypothesis 5:</b> $H_0$ : There is no significant moderating effect of enforcement on the relationship between the public procurement legal framework and organizational performance of Kenyan	<b>Null hypothesis rejected</b>

#### 4.14 The Optimal Model

Based on the outcomes of the requisite and inferential analysis, the following figure is the optimal model for the study. All the variables were found to be valid; none of them was rendered redundant. There was no need for revision as hypotheses were tested and all the variables statistically established to be relevant. The Optimal model is presented in the figure below.



**Figure 4.27: Implementation of Public Procurement Legal Framework and Organizational Performance Optimal Model**

Chapter four has presented findings regarding the respondents, firm demographics, and descriptive statistics of the study variables based on frequencies, mean scores and standard deviations. The chapter also has presented hypotheses tested using Ordinary Linear Squares and multiple regression analyses. Results indicated that all the five hypotheses tested were rejected. Results suggest that managers and policy makers to ensure effective implementation and compliance to the PP legal framework for improved performance.

## **CHAPTER FIVE**

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

#### **5.1 Introduction**

This chapter presents the summary of the research work undertaken, discusses the research findings, the conclusions that were drawn, recommendations made, knowledge gained and the suggested areas of further research based on the analyzed data related to the general and specific objectives of the study.

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

The overriding purpose of the study was to determine the effect of the public procurement legal framework implementation on organizational performance of Kenyan state corporations. The study specifically determined the effect of the Public Procurement and Disposal Act, (2005) implementation; assessed the effect Public Procurement and Disposal Regulations, (2006) implementation; established the contribution of Public Private Partnership Regulations, (2009) and determined the effect of the Preference and Preservations Regulations, (2011) implementation on organizational performance of Kenyan State Corporations.

Study also examined the moderating effect of enforcement on the relationship between the public procurement legal framework and organizational performance of Kenyan state corporations. Study established that there is a significant effect of the public procurement legal framework implementation on organizational performance of Kenyan state corporations.

##### **5.2.1 Implementation of Public Procurement & Disposal Act, (2005) and Organizational Performance**

The first objective of the study was to determine the effect of the PPDA, (2005) implementation on performance of Kenyan State Corporations. The regression analysis indicated a positive linear relationship between the PPDA, (2005) and performance. The  $R^2$  value indicated an explanatory power of the independent variable at 0.353, meaning that

35.3% of the variation in performance was explained by the implementation of the PPDA, (2005). The constant indicated that at zero implementation of the PPDA (2005), organizations performed at 12.134 measures and increasing implementation of PPDA, (2005) increased the performance by 7.962.

Findings indicated that implementation of the PPDA, (2005) had to a greater extent achieved the objectives of efficiency, (value for money); competition; transparency and accountability. This was evidenced by the reduction in the number of complaints on quality of goods and services delivered by suppliers and procurement performance; conducting of market surveys before award of contracts; internal controls put in place to monitor procurement process performance; advertising tenders on the print media and reporting to the Oversight Authority on significant procurement and disposal proceedings.

### **5.2.2 Implementation of Public Procurement & Disposal Regulations, (2006) and Organizational Performance**

The second objective of the study aimed at establishing the effect of PPDR, (2006) implementation on the performance of Kenyan State Corporations. The regression model showed a positive linear relationship between PPDR, (2006) and performance. The  $R^2$  value indicated the explanatory power of the independent variable of 0.339. This means that 33.9% of the variation in performance was explained by the implementation of the PPDR, (2006). The constant indicated that at zero implementation of the regulations, organizations performed at 10.945 measures and increasing the implementation of the PPDR (2006), increased the performance by 8.267.

Findings indicated that corporations had put in place structures to govern the procurement process. This included the appointment of the relevant committees that adjudicated on procurement and disposal issues (tender, procurement, disposal and tender processing committee). Findings indicated that 75% of the corporations surveyed prepared procurement plans and updated them to suit project needs; 79.7% of the corporations have records management units and 70% of the respondents were not familiar with the procurement rules and regulations.

### **5.2.3 Implementation of Public Private Partnership Regulations, (2009) and Organizational Performance**

The third objective of the study aimed at establishing the contribution of PPPR, (2009) on the performance of Kenyan State Corporations. The study showed a positive linear relationship between PPPR, (2009) implementation and organizational performance. The  $R^2$  value indicated an explanatory power of the independent variable of 0.32911. This means that 32.9% of the variation in performance was explained by the implementation of the PPPR, (2009).

The constant indicated that at zero implementation of the PPPR, (2009), organizations performed at 12.499 measures and increasing the implementation of the PPPR (2009), increased the performance by 8.131 measures. Findings indicated that 52% of the corporations had been involvement in PPP projects and the methods of PPP contractor identification was negotiation and open tender. The criterion for supplier selection was past performance and supplier performance evaluation was based on performance and technology. Monitoring and evaluation of project implementation was done to ensure the project objectives of quality, cost and time were achieved.

### **5.2.4 Implementation of Preference & Reservation Regulations, (2011) and Organizational Performance**

The fourth objective of the study aimed at establishing the effect of PRR, (2011) on the performance of Kenyan state corporations. The study showed a positive linear relationship between PRR, (2011) implementation and organizational performance. The  $R^2$  value indicated an explanatory power of the independent variable of 0.380. This means that 38% of the variation in performance was explained by the implementation of the PRR, (2011).

The constant term indicated that at zero implementation of the PRR, (2011), organizations performed at 2.823 measures. Increasing implementation of the PRR, (2011) increased the performance by 11.102. The constant of 2.823 was insignificant implying that at zero implementation of the PRR, organizations did not have any significant performance. It was insignificant at 0.05 level of significance since the level of significance of its t-statistic was

0.409 which was greater than 0.05. A model dropping the constant term was fitted to determine the effect of the implementation of PRR, (2011) on performance without considering the constant term. The regression model fitted was one passing through the origin  $Y = \beta_1 X_4$ . The regression showed a positive linear relationship between PRR, (2011) implementation and organizational performance. The  $R^2$  value indicated an explanatory power of the independent variable at 0.689 meaning that 68.9% of the variation in performance was explained implementation of the Preference and Reservation Regulations

It was established that corporations are occasionally influenced to award contracts to the special groups. The corporations had embraced the 30% contracts award to the youth, women and people with disabilities by 10%. However, study revealed that the challenge with implementation of the PRR, (2011) was availability of funds for procurement activities.

Most corporations that dependent on the national treasury for funding indicated that the funds were availed very late and in most cases the special groups are awarded contracts with anticipation of receiving the money which was against the provision of law which stipulate that a PE must ensure that funds are available before commencement of a procurement process.

#### **5.2.5 Enforcement of Public Procurement Legal Framework and Organizational Performance**

The fifth objective of the study was to determine the effect of the moderating variable on the relationship between all the independent variables of PPDA, (2005); PPDR, (2006); PPPR, (2009); PRR, (2011) and organizational performance. Regression showed all coefficients significant at the 0.05 level of significance. The significances for  $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$ , and  $X_5$  were 0.010, 0.000, 0.026, 0.000 and 0.005 respectively which were all less than 0.05. The  $R^2$  value was 0.947 implied that 94.7% of the variation in the dependent variable (organizational performance) was explained by the variation of the model.



Findings indicated that most of the corporations surveyed had not been audited by the public procurement oversight authority from 2009 to 2013 financial year. Those that had been audited exhibited very low compliance levels of 31-40% which was below the accepted minimum 60% set out by the PPOA's performance plan. On average, it was established that PPARB take 35 days to finalize review cases.

### **5.3 Conclusion**

The study determined the effect of the PP legal framework implementation on performance of Kenyan state corporations. A conceptual model was developed to empirically test these effects. Data was collected from procurement practitioners in state corporations and accounting officers as key informants that facilitated the testing of the model. The research concluded that there is a significant effect of PP legal framework on performance of State Corporations.

In order of influence, study concluded that the PPR, (2009) implementation was the most significant element of the legal framework that affect performance of Kenyan state corporations, however, the average percentage of contracts awarded to the SMEs was low. The main challenge established by the study to be hindering effective implementation was inadequate funding for procurement of goods and services and poor accessibility of procurement opportunities by SMEs.

Implementation of PPDR, (2006) positively determined the performance of Kenyan state corporations; however, almost all the corporations had a challenge with records management. The PPDA, (2005) was ranked third in effect on performance. Competitive open tender method was used by state corporations and executed in accordance with established procedures set out in the procurement guidelines and detailed in the standard bidding documents.

However, the method only accounted for 30% of the procurement budget and corporations were yet to implement the e-procurement system to facilitate transparent and accountable procurement. The study also determined a positive contribution of the PPPR, (2009)

implementation to the performance of the state corporations thus enhancing economic stimulation, promoting investment and creation of value for money. Overall, the results revealed a significant relationship between the PP Legal Framework implementation and performance of Kenyan state corporations. Study also established a moderating effect of enforcement of the rules and regulations on the relationship between the PP Legal Framework implementation and performance of Kenyan state corporations.

#### **5.4 Recommendations**

Based on the research findings, several recommendations can be made.

All state corporations should advertise tenders in the open media, PPOA and corporations' websites to increase greater dissemination of information, include increasing the level of public access to PP information. In order to get the best possible procurement outcomes (best value for money), corporations should generate the strongest possible competition by giving bidders the opportunity to compete on a level playing ground. This will enable corporations to maintain integrity in PP which is one of the most important pillars of national procurement systems, and since public interest requires that government business be conducted in a manner guaranteeing that expenditures are made in an economically rational way.

Effort should be made by all state corporations in implementing the e-procurement system which will facilitate publicly disclose of information and conducting market research on prices and terms of commodities.

All state corporations should conduct procurement within the procurement plans to avoid budget overruns and accumulation of domestic arrears. It is extremely important that procurement records are complete, accurate, accessible, comprehensive and securely maintained for efficient performance of both the internal and external audits. State corporations should ensure that all procurements have complete records at 100%

To address the problem of inadequate resources for implementation of projects, there is a clear need for the public sector funding to be increased in an integrated programmatic partnership that will attract and sustain resources and the interest of the private sector in order to accelerate development through sustainable public development.

With the existing legal framework that supports PPP in Kenya, there is adequate ground for partnerships as this will not only mobilize substantial resources but also take advantage of the private sector efficiencies and technology under the regulations and support the public sector to deliver results that will stimulate and sustain improved performance of corporations. More importantly, state corporations should adopt the key management strategy of staff disclosing, and taking steps to avoid, any conflict of interest (real or apparent) in connection with procurement. For preference and reservations regulations to be well implemented, the financial resources must be adequate to allow budgeting and procurement of goods and services. Government should therefore allocate adequate financial resources and avail the same to state corporations on time.

PPOA should conduct procurement audits to ensure that all state corporations fully implement and comply with procurement rules and regulations. Corporations found not to comply should be penalized as enforcement action increases penalties and lead to greater levels of implementation and compliance with laws thus improving performance. Alongside sanctioning those entities that perform poorly in implementation of the PP legal framework, Government/PPOA need to recognize and reward those who perform well across the government.

## **5.5 Knowledge Gained**

The study contributes to the literature by reviewing the fragmented discussion of the PP legal framework implementation, thereby discussing theories underpinning these relationships and what conditions are required to make them important drivers of organizational performance. Furthermore, empirical studies that focus on the effect of the PP legal framework implementation were reviewed.

The study focused strongly on the indicators that improve measurement of the performance of the state corporations that are governed by the PP rules and regulations in carrying out the procurement of goods, services and works. Additionally, the study provided extant data on the relationship between the PP legal framework implementation and organizational performance.

Knowledge gained was that the implementation of the elements of the PP legal framework significantly influences organizational performance. Another contribution to the body of knowledge was that the relationship between the PP legal framework implementation and organizational performance is significantly moderated by enforcement. The study has documented the benefits of ensuring implementation and compliance with the PP rules and regulations, its uptake and areas of intervention to make Kenyan state corporations perform better.

## **5.6 Implications of Study on Policy, Theory and Practice**

This study sought to determine the effect of the PP legal framework implementation on performance. Specifically the study sought to establish the effect of the main elements of the legal framework on performance of Kenyan state corporations and the moderating effect of enforcement on the relationship between the legal framework implementations and organizational performance. The study came up with findings that will enhance understanding of effects of PP legal framework implementation on performance of Kenyan state corporations. The results have implications on theory, policy and practice.

### **5.6.1 Theoretical Implications**

The results of the study contribute to strengthening the existing body of literature by confirming empirically that implementation of the PP legal framework influences performance of Kenyan state corporations. The study contributes to PP theory by establishing the specific effects of the procurement rules and regulations on organizational performance. The study further extended the theoretical discourse on the principal agent theory by empirically illustrating the magnitude of the relationship between the PP legal framework, enforcement and performance of Kenyan state corporations.

Findings of this study may be invaluable to researchers and scholars in providing more insights on how effective implementation of the PP legal and regulatory framework affects corporate performance of PEs in Kenya. This study may lay a theoretical framework for future empirical study on the influence of PP legal framework on organizational performance of PEs. Other than being useful in terms of availing literature review, findings of this study may be of great importance to procurement professionals in both the private and public sector as it adds to the body of knowledge on theory and practice of effective PP practices.

As mentioned earlier, there have been very few attempts to empirically research on the effect of PP legal framework implementation on organizational performance; the implication is that this study may be a source of inspiration to other researchers in developing a more practical methodology for operationalizing PP legal framework implementation to assist procurement practitioners and PEs in general comply with the rules and regulations in improving performance of their organizations and thus increasing customer satisfaction and creating public confidence of the organization.

#### **5.6.2 Implications on Policy**

Findings of this study have policy implication for the Government and Kenyan state corporations. State corporations are one of the key public sectors identified to help spur economic growth and help achieve the country's Vision 2030. The performance of state corporations is important and therefore the results of this study will assist these corporations in ensuring compliance with PP rules and regulations while minimizing its negative consequences such as slow service delivery due to bureaucratic delays.

Non effective implementation of the PP rules and regulations by PEs is worrisome to stakeholders and policy makers. Therefore by enhancing implementation and compliance, vast resources usually lost through non-compliance and inefficiency in PP will be saved thus improving performance.

Further, results of study indicated that the implementation of PPP regulations had statistical significant contribution to the performance of Kenyan state corporations. This indicates that Government and PEs decision makers should focus more on PPP involvement in order to enhance performance of the corporations and overall economic development of the country.

Enforcement of the rules and regulations increased levels of compliance; however, results also indicated that the compliance audits conducted by the oversight authority were very low. The implication is that PPOA should focus more on enforcement as it is an incentive for state corporations to adhere to the rules and regulations thus improving their performance in delivering quality services to citizens.

From the descriptive statistics, the study revealed that e-procurement solution had not been embraced by state corporations yet it highly contributed to transparency of the procurement process and increased efficiency. State corporations need to embrace the e- procurement technology to improve performance in terms of transparency. Policy makers in government to encourage state corporations to invest in the e-procurement solution as this will lead to increased transparency and efficiency of the procurement process.

### **5.6.3 Implications on Practice**

While the government has put in place the PP rules and regulations to govern the function of PP, study results indicated very low levels of compliance. This has been the source of great inefficiency which has had a negative impression and impact on the performance of state corporations.

Results from both primary and secondary data indicated a very small number of compliance audits carried out by PPOA. The PPOA should therefore enhance compliance audits and punitively deal with state corporations found floating the rules. This will no doubt increase compliance to the rules and regulations and improve performance.

The Findings also revealed the PRR, (2011) implementation had a statistically significant effect on performance. However, the challenge was on the accessibility of the procurement opportunities by the target groups and lack of financial availability to implement the procurement activities. The implication is that state corporations should have programs in place to create awareness on procurement opportunities to the SMEs and the government to provide adequate funding and on time to enable PEs implement the procurement activities effectively.

### **5.7 Areas for Further Research**

The present study was carried in Kenyan State Corporations. It is suggested that a more elaborate study cutting across all other public entities both in the central and county government that provide services to the citizens of Kenya using public funds and governed by the PP legal framework be undertaken to determine further influence or effect of PP legal framework on organizational performance of PEs.

The study focused on four elements of the PP framework notably; PPDA, (2005); PPDRs, (2006); PPPR, (2009) and PRR, (2011). This limited the study from exploring other factors that influence organizational performance of state corporations. The study therefore proposes further studies to be undertaken to help establish other factors that affect performance.

The findings presented here cannot be generalized to the private sector, where there are no laws that govern procurement activities as procurement policies vary from firm to firm even within the same industry. Therefore replication of this study can be carried out in the private sector organizations since they are also key players in PP.

The study relied on procurement practitioners and accounting officers; future studies could analyze the effect of the public procurement legal framework implementation on organizational performance from the perspective of both the users of procurement of goods and services and all those involved in the procurement process including services providers.

Similar studies in future could compare the level of implementation over time to measure progress made in the next decade. Similar studies could also be done within East African Community to compare the extent of implementation and compliance levels among the countries. Results from such studies could inform policy regarding enhancement of regulatory implementation and compliance.

The PP regulations were amended effective June 2013. Study recommends further studies to be conducted to establish the effect of the amendments of the regulations on organizational performance of Kenyan state corporations and all government entities. The PPDA, (2005) is being amended and the proposed amendments should include improving efficiency through reduction of time it takes to conduct procurement.

The chapter has presented the summary of the findings of the study and these were discussed based on the objectives. Some of the findings supported previous results while others contrasted previous research findings. Further, the chapter presented policy, practice and theoretical implications in the field of public procurement. Recommendations and areas for further research have been suggested and also limitations of the study have been presented.



## REFERENCES

- Abebe, G. (2012). Efficiency, accountability and transparency in public procurement, the level of compliance in Africa: (Ethiopian case) - *5th International Public Procurement Conferences (IPPC)*, Dublin: IPPC.
- Acevedo, G. I., Rivera, K., Lima, L. and & Hwang, H. (2010). *Challenges in monitoring and evaluation: an opportunity to institutionalize M & E systems*. Washington DC: The International Bank for Reconstruction and Development/ the World Bank.
- Achuora, J., Arasa, R. & Onchiri, G. (2012). Precursors to effectiveness of public procurement audits for constituency development funds (CDF) in Kenya: *European Scientific Journal*, 8 (25).
- Aduamoah, M. & Campion, C. B. (2012). An evaluation of procurement challenges in Kumasi Polytechnic. *International Journal of Business and Management: Cases* 1 (4).
- Agaba, E. & Shipman, N. (2007). *Public procurement reform in developing countries; The Ugandan Experience*: Boca Raton, FL: Academics Press.
- Aglomasa, E.K. (2008). An evaluation of the public procurement act: The case of Ghana Audit Service: Master's Thesis, Kwame Nkrumah University of Science and Technology, Kumasi, KNUST Library
- Aikins, S.K. (2012). Ghana's judgment debt and financial governance problems recommended practical solutions (the Aikins plan). Modern Ghana. Retrieved from <http://www.modernghana.com/news/407517/1/ghanas-judgment-debt-and-financial-governance-prob.html>.
- Akech, J. M. M. (2005). Development partners and governance of public procurement in Kenya: Enhancing democracy in the administration of Aid. *International Law and Politics*, 37(4), 829-868.
- Allen, B. & Reser, D. (1990). Content analysis in library and information science research: *Library & Information Science Research*, 12(3), 251-260
- Alfresco. (2009). The importance of records management within governance, retention and compliance, *Alfresco White Paper Series*.
- Alchian, A. & Demsetz, H. (1972). Production, information costs, and economic organization: *American Economic Review*, 62 (4), 777-795.
- Amayi, F. K. & Ngugi, G. K. (2013). Determinants of public procurement performance in Kenya: Case of Ministry of Environment, Water and Natural Resources. *International Journal of Social Sciences and Entrepreneurship*.1 (5), 647-667.

- American Bar Association, (2000). *The model procurement code for state and local governments*: Chicago, IL: American Bar Association.
- Ameyaw, C., Mensah, S. & Osei-Tutu, E. (2012). Public procurement in Ghana: The implementation challenges to the public procurement law 2003 (Act 663): *International Journal of Construction Supply Chain Management*, 2(2), 55-65.
- Ambe, I.M., & Badenhorst-Weiss, J.A. (2012). Procurement challenges in the South Africa public sector: *Journal of Transport and Supply Chain Management*, (1), 242-261.
- Ambe, I.M., & Badenhorst-Weiss, J.A. (2011a). An exploration of public sector supply chains with specific reference to the South African situation: *Journal of Public Administration*, 46 (3), 1100–1115.
- Armstrong, M. (1996). *A Handbook of Personnel Management Practice*, (6<sup>th</sup> Ed.): London: Kogan Page.
- Armstrong, M. (2006). *A Handbook of Human Resource Management*, (10<sup>th</sup>Ed.): London: Kogan Page.
- Armstrong, J.S., Green, K., Jones, R., & Wright, M. (2008). Predicting elections from politicians' faces: Retrieved from [http://forecastingprinciples.com/Faces\\_24\\_octR.pdf](http://forecastingprinciples.com/Faces_24_octR.pdf).
- Anderson, D. R., Sweeney, D. J., & Williams, T. A. (2007). *Statistics for Business and Economics*: New York: West Publishing Company.
- Arrowsmith, S. (2010). Public procurement: *Basic concepts and coverage of procurement rules in procurement relations: An introduction*. EU: Asia Inter University Network.
- Arrowsmith, S., Linarelli, J., & Wallace, D. (2000). *Regulating public procurement: National and international perspectives*. The Hague. The Netherlands: Kluwer Law International.
- Atkison, W. (2003). New buying tools present different ethical challenges: *Purchasing*, 132 (4), 27-30.
- Atkinson, A., Waterhouse, J., & Wells, R. (1997). A stakeholder approach to strategic performance measurement, *Sloan Management Review*.
- Babbie, E. (2004). *The Practice of Social Research*, (10th Ed.): Thomson-Wadsworth, 178-217.

- Bagozzi, R.P. (1994). Structural equation models in marketing research: Basic principles. In R.P. Bagozzi (Ed.), *Principles of Marketing Research*, Oxford: Blackwell.
- Barret, P. (2000). Balancing accountability and efficiency in a more competitive public sector environment: *Australian Journal of Public Administration*, 59 (3), 58-70.
- Basheka, B. C. (2012) Public procurement skills requirements framework for local government procurement professionals in Uganda: A self-perspective approach. *Journal of Public Procurement*, 8 (3), 379-406
- Basheka, B.C., & Mugabira, M.I. (2008), measuring professionalism variables and their implication to procurement outcomes in Uganda, the 3rd international public procurement conference proceedings *Procurement and Contract Management*, 1, 1- 4.
- Basheka, B. C. (2008). Procurement planning and accountability of local government procurement systems in developing countries: *International Journal of Procurement Management*, 8 (3), 379- 406.
- Basheka, B. C. (2009) Public procurement corruption and its implications on effective service delivery in Uganda: An empirical study: *International Journal of Procurement Management*, 2 (2), 415- 440.
- Bauld, S. & McGuiness, K. (2006). *Value for money: Summit*, 9 1(1), 20-21.
- Baxter, P. (2008). *Research Methods* (3<sup>rd</sup> Ed): New Jersey: Pearson Publishers.
- Benington, J. & Moore, M. H. (2010). *Public Value: Theory and Practice*, New York: Palgrave Macmillan.
- Belisario, C. R., Caenna, F. S., Cortez, V. S., Septimo, A. s., Halili, R. T., Vincente, Y. & Manahah, L. R. (2011). APEC procurement transparent standards in the Philippines, USA: APEC.
- Bryman, A., & Bell, E. (2007). Planning a research project and formulating research questions. In: *Business Research Methods*. New York: Oxford University Press. 75-92
- Boddo, E. (2010). Tapping the potential: Procurement tied and the use of country systems in Uganda: *A case study from the European Network on debt and development (Eurodad)* with the Uganda national NGO forum. Unpublished Masters Project, Kampala: Makerere University
- Bolton, P. (2006). Government procurement as a policy tool in South Africa: *Journal of Public procurement*, 6 (3), 193-217.

- Bowersox, D. J. (1998). *Logistics Management*, (3rd Ed.), New York: Macmillan.
- Bruijn, H.D. (2007). *Managing Performance in the Public Sector*, (2<sup>nd</sup> Ed.); London: Routledge.
- Bukhala, S. (2003). Use of strategic approach to procurement of goods and services in Kenyan public universities: Unpublished MBA Project, Nakuru: Egerton University.
- Callender, G., & Mathews, D. (2000). Government purchasing: "An evolving profession". *Journal of Public Budgeting, Accounting & Financial Management* 12 (2), 272 - 290.
- Caldwell, N. (2005). Promoting competitive markets: The role of public procurement: *Journal of Purchasing and Supply Management*, 11 (5-6), 242 -251.
- Cameron, A. C., & Trivedi P. K. (2005). Micro econometrics: *Methods and Applications* (MMA), New York: Cambridge University Press.
- Carr, A. S. & Smeltzer, L. R. (2000). An empirical study of purchasing and supply management skills required for new millennium: *The 19th International Annual Conference*, Western Ontario: IPSERA.
- Castillo, E. (2009). Process optimization: A statistical approach, NY. Springer (International series in operations research and management science): *Journal of Quality Technology*, 40 (2).
- Chakraborty, D. (2009). *Research Methodology* (1st Ed.): New Delhi: Saurabh Publishing House.
- Chekol, G. A., & Tehulu, T. A. (2014). Public procurement reform in Ethiopia: Factors leading to effective public procurement implementation: The case of Amhara Region: *European Journal of Business and Management*, 6 (23), 153-158.
- Chopra, P. (2005). *Purchasing and Supply Chain Management*, (4<sup>th</sup> Ed.); Washington: Kogan Page Publishers,
- Choi, J. (2010). A study of the role of public procurement - can public procurement make society better: *The International Public Procurement Conference*. Seoul, South Korea.
- Clarke, T. (2004). *Theories of Corporate Governance: The philosophical foundations of corporate governance*, New York: Routledge, Taylor & Francis Group.
- Collier, B. (2002). The role of ASIC in corporate governance: *Paper presented at the corporate governance Summit*, Canberra: ASIC.

- Common Wealth of Australia, (2012). Commonwealth procurement rules: *Achieving value for money*, Canberra, Sydney: Commonwealth.
- Costello, A. B., & Osborne, J. W. (2005). Exploratory Factor Analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research, and Evaluation*, 10 (7), 1-9.
- Coakes, S. J., & Steed, L. G. (2001). *SPSS: Analysis without anguish*. Brisbane, AU: Jacaranda Wiley.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences*, (2<sup>nd</sup> Ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Constable, S., Passmore, E., & Coats, D. (2008). *Public Value and Local Accountability in the NHS*: London: Work Foundation.
- Cooper, R., Frank, G., & Kemp, R. (2000). A multinational comparison of key ethical issues helps and challenges in the purchasing and supply management profession: The key implications for Walker, Jeff Mayo, Brammer, Touboulis & Lynch 3578 business and the professions. *Journal of Business Ethics*, 23 (1), 83-100.
- Cooper, D. R. & Schindler, P.S. (2006). *Business Research Methods*, (9<sup>th</sup> Ed.): New Delhi-India: McGraw-Hill Publishing, Co. Ltd.
- Cooper, D. R. & Schindler, P.S. (2008). *Business Research Methods*, (10<sup>th</sup> Ed.); New Delhi- India: McGraw-Hill Publishing, Co. Ltd.
- Cooper, D. R. & Schindler, P.S. (2011). *Business Research Methods*, (11<sup>th</sup> Ed); Singapore: McGraw-Hill Publishing, Co. Ltd.
- Cousin, D. P., Lawson, B. & Squire, B. (2006). An empirical taxonomy of purchasing functions: *International Journal of Operations & Production Management*, 26 (7), 13-24.
- Crown Agents. (2011). Public Procurement in Kenya, Review report of public entities, Nairobi: PPOA.
- Cummings, G. & Qiao, Y. (2003). The use of qualification based selection in public procurement: a survey research, *Journal of Public Procurement*, 3 (2), 215-216.
- Daft, R.L. (2004). *Organization Theory and Design*, (8<sup>th</sup> Ed.), Cincinnati, OH: Southwestern.
- Daft, R.L. (2009). *Organization Theory and Design*: Cincinnati, OH: Southwestern Publishers.

- Davis, J H., Schoorman, F. D. & Donaldson, L. (1997). Toward a stewardship theory of management: *Acad. Management*, 22 (1), 20-47.
- Daily Nation (20th May, 2011). Mars Group: *Major scandals cost this country a lot of money*. Nairobi: Nation Media Group.
- Dempsey, B. (2003). *Research Methods*, (4<sup>th</sup> Ed.): New Jersey: Pearson Publishers.
- De Toni, A. & Nassimbeni, G. (2000a). A method for the evaluation of suppliers 'co design effort: *International Journal of Production Economics*, (72), 169-180.
- De Vaus. (2002). *Surveys in Social Research*, (5th Ed.), London: Rout ledge,
- Dickert, S., Fiedler, S., Andreas, S. & Nicklisch, A. (2013). Social value orientation and information search in social dilemmas: An eye-tracking analysis. *Organizational Behavior and Human Decision Processes* 120 (2), 272–284.
- Dillman, D. (2000). Constructing the Questionnaire, *Mail and Internet Surveys*: New York: John Wiley & Sons.
- Donaldson, L. (1990). The ethereal hand – organizational economics and management theory: *Acad. Management*. 15 (3), 369-381.
- Dowling, J. B., & Pfeffer, J. (1975). Organizational legitimacy: Social values and organizational behavior. *Pacific Sociological Review*, 18(1), 122-136.
- Dunn, M. B. & Jones, C. (2010). Institutional logics and institutional pluralism: The contestation of care and science logics in medical education, 1967–2005. *Administrative Science Quarterly* 55(1), 114-149.
- Ellmers, B. (2011). Helping or hindering Procurement, tied aid and the use of country systems in Bangladesh [online]. Brussels: European network on debt & development (eurodad). Retrieved from [http://eurodad.org/uploadedfiles/whats\\_new/reports/bangladesh%20final%20version.pdf](http://eurodad.org/uploadedfiles/whats_new/reports/bangladesh%20final%20version.pdf).
- Elkington, J. (1997). *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*. Capstone: Oxford.
- Emrah, C. (2010). Measuring customer satisfaction: Must or not? *Journal of Naval Science and Engineering*, 6 (20), 76-88.
- Eriksson, M. (2005). *Procurement of complex technical systems strategies for successful projects* Unpublished PhD Thesis. Stockholm, Sweden: KTH, Royal Institute of Technology.

- Etse, D. & Asenso-Boakye, M. (2014). Challenges of public procurement audit; A perspective of Ashanti regional office of Ghana audit services: *International Journal of Economics, Commerce and Management*, 2 (3).
- Etzioni, A. (1975). *A Comparative Analysis of Complex Organizations*: New York: Free Press.
- Eyaa, S. & Oluka, P.N. (2011). Explaining non-compliance in public procurement in Uganda: *International Journal of Business and Social Science*. 2 (11), 35 - 44.
- European Union Chamber of Commerce in China, (2010). Public procurement in china: *European Business Experiences Competing for Public Contracts in China Retrieved from* <http://www.publictendering.com/pdf/PPStudyENFinal.pdf>.
- European Commission (2011b): Proposal for a directive on public procurement, Brussels: E.U.
- Everitt, B.S. (2000). *Cambridge Dictionary of Statistics* (2<sup>nd</sup> ed.): CUP. Shanghai Finance University Press
- Facultat d' Economia. (2006). Oficina de relaciones internacionales: Programs de Intercambio (International Office: Exchange Programmes). Retrieved from <http://www.uv.es/economia/ori/>
- Field, A. (2009). *Discovering statistics using SPSS*. London: Sage Publishers.
- Freeman, R.E & Philips R. A. (2002). Stakeholders Theory: A libertarian defense. *Business Ethics Quarterly*, (12), 331-349.
- Freeman, R. E. (1984). *Strategic management: A Stakeholder Approach*, MA: Pitman, Marshfield.
- Freeman, R. E. (2004). Stakeholder theory of modern corporation in T. Donaldson & P. Werhane, (eds.): *Ethical Issues in Business: A Philosophical Approach* (7<sup>th</sup> Ed.), Englewood Cliffs, NJ: Prentice Hall,
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007) *Educational Research: An introduction*. Boston: Pearson Education
- Gelderman, J. C., Ghijsen, W. P. & Brugman, J. M. (2006). Public procurement and EU tendering directives - Explaining non-compliance: *International Journal of Public Sector Management*, 19(7), 702-714
- Gesuka, D. M. & Namusonge, G. S. (2013). Factors affecting compliance of public procurement regulations in Kenya: A case study of Butere district. *International Journal of Social Sciences and Entrepreneurship*, 1 (5), 882-896.

- Geo, R. G. (2008). Public procurement reforms in Ghana: An evaluation of the implemented changes, Unpublished Master Thesis. Ghana: Hogskolen I Molde University College.
- Ghana Audit Service, (2012). Procurement audit report of the auditor general on the driver, vehicle and licensing authority (DVLA) headquarters covering the period January 2008 to December 2009: Accra: Ghana Audit Service. Retrieved from [http://www.ghaudit.org/reports/DVLA\\_SINGLES\\_COVER.pdf](http://www.ghaudit.org/reports/DVLA_SINGLES_COVER.pdf).
- Gibson, K. (2000). The moral basis of stakeholders' theory: *Journal of Business Ethics*, (26), 245-275.
- Gichio, D. (2014). Public procurement in Kenya: *Cash cow for the corrupt or enabler for public service delivery?* Transparency International: Advocacy & legal advisory centre.
- Gill, J. & Johnson, P. (2005). *Research Methods for Managers*: London: Paul Chapman Publishing Ltd.
- Gitari, M. W. & Kabare, K. (2014). Factors affecting access to procurement opportunities in public secondary schools by small and medium enterprises in Kenya: A survey of Limuru sub-county. *International Journal of Current Business and Social Sciences*, 1 (2), 220-250.
- Glantz, S. A. & Slinker, B. K. (1990). *Primer of Applied Regression and Analysis of Variance*: New York: McGraw Hill Publishers Ltd.
- Gunningham, N. & Kagan, R. A. (2005). Regulation and business behavior: *Law & Policy*, (27), 213-18.
- Gunasekaran, A., Patel, C. & Tirtiroglu, E. (2001). Performance measures and metrics in a supply chain environment. *International Journal of Operations and Production Management*, (21), 71 - 87.
- Gunasekaran, A. (2005). Benchmarking in public sector organizations, benchmarking: *International Journal*, 12 (4), 289-92.
- Guthrie, J., Cuganesan, S., & Ward, L. (2007). Extended performance reporting: Evaluating corporate social responsibility and intellectual capital management: *Issues on Social and Environmental Accounting*. 1 (1), 1-25.
- Gordon, S.R. (2008). *Supplier Evaluation and Performance Excellence: A Guide to Meaningful Metrics and Successful Results*. Manhattan: J. Ross Publishing.



- Republic of Kenya, (2004). Guidelines on terms and conditions of service for state corporations' chief executive officers, chairmen and board members, management staff and unionsable staff. Nairobi: Government Printer.
- Grantt, R. M. (1991). Contemporary strategy analysis: Concepts, techniques applications. Cambridge, MA: Basil Blackwell.
- Hall, J. (2009). Environmental supply chain dynamics: *Journal of Production*, (8), 455-71.
- Hambrick, D. C. & Mason, P. A. (1984) Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9 (2), 193-206.
- Hatten, K. J., Schendel, D. E. & Copper, A. C. (1978). A strategic model of US brewing industry: *Academy of Management Journal*, 21 (4), 592-610.
- Health, J. & Norman, W. (2004). Stakeholder theory, corporate governance and public management: *Journal of Business Ethics*, (53), 247-265.
- Heidt, T.V.D. (2008). Developing and testing model of cooperation inter-organizational relationships in product innovation in an Australian manufacturing context: *A multi - stakeholder perspective*. Southern Cross University: Lismore.
- Helfat, C. E., Finkelstein, S., Mitchell, W., Peteraf, M. A., Singh, H., Teece, D. J. & Winter, S. G. 2007. Dynamic capabilities: *Understanding Strategic Change in Organizations*. New York: Wiley.
- Heinrich, C.J. (2007). Measuring public sector performance and effectiveness, in B.G. Peters and J. Pierre (eds) *The Handbook of Public Administration*: London: Sage.
- Henrich, J., Boyd, R., Bowles, S., Camerer, C., Fehr, E., Gintis, H., McElreath, R., .... & Tracer, D. (2005). Economic man in cross-cultural perspective: Behavioral experiments in 15 small-scale societies. *Behavioral and Brain Sciences*, (28), 795 - 855.
- Hilletofth, P. (2009). How to develop a differentiated supply chain strategy: *Industrial Management and Data Systems*, 109 (1), 16 - 33.
- Hughes, J. (2003). Accountability rules: *Supply Management*, 8 (4), 17-18.
- Hughes, J. & Wadd, J. (2012), Getting the most out of SRM: *Supply Chain Management Review*.
- Hommen, L., & Rolfstam, M. (2009), Public procurement and innovation: Towards taxonomy. *Journal of Public Procurement*, 9 (1), 17-56.

- Holcomb, T. R., Hitt, M. A., Ireland, R. D., & Certo, S. T. (2007), Resources, industry membership, and firm performance: The role of capability configurations for IPO-stage new ventures. *Paper presented at Babson college entrepreneurship research conference (BCERC)* Irene M. McCarty Ward for best paper on the topic of high Technology.
- Hofer, C. W. (1983). A new measure for assessing organizational performance: In R. Lamb (Ed.), *Advances in Strategic Management*, 2, 43-55.
- Hsieh, H. F. & Shannoh, S. E. (2005), Three Approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277-1288.
- Hubbard, G. (2009). Measuring organizational performance: Beyond the triple bottom-line. *Business Strategy and the Environment*, 19, 177-191.
- Hui, W. S., Othman, R. O., Normah, O., Rahman, R. A., & Haron, N. H. (2011), Procurement issues in Malaysia. *International Journal of Public Sector Management*, 24(6), 567-593.
- Humferys, P. (2001). Designing a management development programme for procurement executives: *The Journal of Management Development*, 20 (7), 604-623
- Imperato, G. L. (2005). Corporate crime, responsibility, compliance and governance: *Journal of Health Care Compliance*, 7(3), 11-19.
- Isaac, S., & Michael, W. B. (1995), Handbook in research and evaluation: San Diego, CA: Educational and Industrial Testing Services.
- Ivar. S., Paula, R. & Erik. C. (2011), Public procurement in Europe: *Cost and Effectiveness*. London: PWC, European Commission.
- Ireland, R., Covin, J. & Kuratko, D. (2009). Conceptualizing corporate entrepreneurship strategy: *Entrepreneurship Theory and Practice*, 33 (1), 19-46.
- Jansen, C.E.C. (2006). Sleutelpublicatie: Beter aanbesteden in de bouw, Regieraad bouw, the Netherlands.
- Jensen, M.C. & Meckling, W.H. (1976), Theory of the firm: managerial behavior, agency costs and ownership structure: *Journal of Finance and Economics*, (3), 305- 360.
- Jones, A. B. & Rachlin, H. (2006), Social discounting: *Psychological Science*, 17 (4) 283- 286.
- Johnson, P. & Duberley, J. (2000), *Understanding Management Research: An Introduction to Epistemology*, London: Sage Publishers.

- Jones, A. B. & Carey, S. (2010). Nurse prescribing roles in acute care: an evaluative case study. *Journal of Advanced Nursing*, 67 (1), 117-126.
- Joppe, G. (2000). From supply to demand chain management; efficiency and customer satisfaction: *Journal of Operations Management*, 20 (6), 741-761.
- Joreskog, K. G. & Moustaki. I. (2006), *Factor Analysis of Ordinal Variables with Full Information Maximum Likelihood*: Hillsdale, NJ: Lawrence Erlbaum Associates.
- Jurison, J. (1995). The role of risk and return in information technology outsourcing decisions: *Journal of Information Technology*, (10), 239 - 247.
- Juma, M.O. (2010). Public procurement reforms in Kenya: *Presentation to the OECD-DAC conference*, 3rd-5th May, Nairobi: PPOA.
- Kaiser, H.F. (1974). An index of factorial simplicity: *Psychometrika*, 39, 31-36.
- Kamar, N. & Ongo'ndo, M. (2007), Impact of e-government on management and use of government information in Kenya: World library and information congress: The 73<sup>rd</sup> IFLA general conference and council, 19 - 25 August, Durban: IFLA.
- Kannan, V. R. & Tan, K. C. (2002), Supplier selection and assessment: Their impact on business performance. *Journal of Supply Chain Management*, 38 (4), 11-21.
- Kaplan, R. S. and D. P. Norton (October, 2005), The Office of Strategy Management, *Harvard Business Review*, 72-80.
- Kaplan, R.S. & Norton, D. P. (1992). The balanced scorecard: Measures that drive performance: *Harvard Business Review*, 70 (1), 71-79.
- Kaplan, R.S. & Norton, D. P. (1996). The balanced scorecard: *Translating strategies into action*. Boston, MA: Harvard Business School Press.
- Kaplan, R.S. & Norton, D. P. (1992). The balanced scorecard: Measures that drive performance. *Harvard Business Review*, 83 (7/8), 172-180.
- Kapila, P. (2008). Business ethics: *Journal of Management*, 12 (1), 224-237.
- Kariuki, P., Awino, Z. B. & Ogutu, M. (2012). Firm strategy, Business environment and the relationship between firm level factors and performance. *Journal of Department of Business Administration*, 2 (1), 95-122.
- Karjalainen, K., Katariina, K. & Erik, M. V. R. (2009). On-compliant work behavior in purchasing: An exploration of reasons behind maverick buying. *Journal of Business Ethics*, (85), 245-261.

- Kathure, B. N. (2013). Challenges faced by small and medium enterprises suppliers when bidding for tenders: A case of Thika District. *International Journal of Academy Research in Business and Social Sciences* 3 (12).
- Kaspar, L. & Puddephatt, A. (2012). Benefits of transparency in public procurement for SMEs: *General lessons for Egypt*, Global Partners & Associates.
- Kasunic, M. (2005). *Designing an effective survey*. Handbook, CMU/SEI - HB - 00. Pittsburgh: Carnegie Mellon Software Engineering Institute
- Kenya National Bureau of Statistics, (2010). *The Kenya Economic Survey Report*, Nairobi: Government Press.
- Kenya National Bureau of Statistics, (2013). *The Kenya Economic Survey Report*, Nairobi: Government Press.
- Kenyanchui, J., Oloko, M. & Okibo, W. (2014). Influence of supply chain management practices on operational performance of public health institutions: Case of Kisii level five hospital, Kisii County, Kenya. *The International Journal of Business and Management*, 2 (4), 139-149.
- Kelman, S. (1990). Procurement and public management: *The fear of discretion and the quality of government performance*. Washington, DC: The AEI Press.
- Kennerley, M. & Neely, A. (2003). Measuring performance in a changing business environment: *The International Journal of Operations and Production Management*, 23 (2), 213-229.
- Kenya, N. P., Mamatia, F. W. & Onyango O. J. (2006). Submission 46 evaluation of influences of public procurement regulation on procurement practices among secondary schools in Mosoch division, Kisii County, Kenya.
- Kiama, G. P. (2014). Factors affecting implementation of public procurement act in SACCO societies in Kenya. *International Journal of Academic Research in Business and Social Science*, 4 (2), 169-194.
- Kipkorir, J. (2013). The role of proactive procurement on strategic procurement performance at public institutions in Kenya: a survey of Rongai sub-county in Nakuru county, *International Journal of Social Sciences and Entrepreneurship*, 1 (3), 102-115.
- Kilungu, J. (2010). *Kenya Procurement Journal 5*: Nairobi: Public procurement oversight authority
- Kilungu, J. (2014). Towards simplification of the procurement bid challenge system in East Africa: *Paper presented at the Kenya institute of supply management 5th annual*

*conference held in Kigali Rwanda: Building effective procurement systems.* Nairobi: KISM.

KIM. (2009). *Fundamentals of Management Research Methods*, Nairobi: Moran Publishing.

Kingori, N. (2012). Factors affecting procurement manual adoption by secondary schools in Kenya, Unpublished Masters Research Project, Jomo Kenyatta University of Science and Technology. Juja: JKUAT.

Kioko, N. J. & Were, S. (2014). Factors affecting efficiency of the procurement function at the public institutions in Kenya, A case of Supplies Branch in Nairobi. *International Journal of Business & Law Research* 2(2), 1-14.

Knight, L., Harland, C., Telgen, J., Thai, K. V., Callender, G. & Mcken, K. (2007). *Public Procurement International Cases and Commentary*, London: Routledge.

Kobia, M. & Mohammed, N. (2006). The Kenyan experience with performance contracting: *Discussion Paper, 28<sup>th</sup> AAPAM Annual Roundtable Conference*, Arusha, Tanzania.

Kombo, D.K. & Tromp, D.L.A. (2006). *Proposal And Thesis Writing: An introduction*; (1<sup>st</sup> Ed.). Nairobi: Paulines Publications Africa.

Kothari, C.R. (2004). *Research Methodology: Methods and Techniques*. (2<sup>nd</sup> Revised Ed.), New Delhi: New Age International (P) Limited.

Kothari, C.R. (2008). *Research Methodology: Methods and Techniques*. (2<sup>nd</sup> Ed.). New Dehli: New Age International Publishers.

Krishnaswamy, K., Sivakumar, A. & Mathirajan, M. (2006). *Management Research Methodology: Integration of Principles, Methods and Techniques*. New Delhi: Dorling Kindersley Pvt. Ltd.

Langevoort, D. C. (2002). Monitoring the behavioral economics of corporate compliance with law. *Columbia Business Law Review*, (71), 71-118.

Lan, G. Z., Riley, L. & Cayer, N. J. (2005). How can local government become an employer of choice for technical professionals? Lessons and experiences from the city of Phoenix: *Review of Public Personnel Administration*, 25 (3), 225-242.

Lasch, R. & Janker, C.G. (2005). Supplier selection and controlling using multivariate analysis: *International Journal of Physical Distribution & Logistics Management*, 35 (6), 409-425.

- Lazarides, T. (2011). Corporate governance legal and regulatory framework's effectiveness in Greece: A response. *Journal of Financial Regulation and Compliance*, 19(3), 244-253.
- Lenz, R.T. (1980). Environmental strategy, organization structure and performance: Pattern in one industry. *Strategic Management Journal*, 1(3), 209-226.
- Leedy, P.D. & Ormrod, J.E. (2006). *Practical Research: Planning and Design* (8th Ed.). New Jersey: Merrill Prentice-Hall.
- Leenders, M. R., Johnson, P.F., Flynn, A.E., & Fearon, H.E. (2006). *Purchasing and Supply Management* (13<sup>th</sup> Ed.), New York, USA: McGraw Hill Irwin.
- Leenders, K. (2004). *Purchasing and Supplies Management*, (4th Ed.): Pearson Publishers.
- Lewa, M. (2007). Management and organization of public procurement in Kenya: *A review of proposed changes*. Nairobi: University of Nairobi.
- Lindblom, C. K. (1994), The implications of organizational legitimacy for corporate social performance and disclosure: *Critical Perspectives on Accounting Conference*, New York.
- Lind, E. A., & Van Den Bos, K. (2002). When fairness works: Toward a general theory of uncertainty management. In B. M. Staw & R. M. Kramer (Eds.): *Research in Organizational Behavior*. 24. 181–223. Greenwich, CT: JAI Press.
- Lienert, I. (2003). Civil service reform in Africa: Mixed results after 10 years: *International Monetary Fund Finance and Development* (35), 2.
- Lisa, I. (2010). Compliance Culture: A conceptual framework, *Journal of Management and Organization*, 19 (7), 702-714.
- Local Enterprise Authority, (2009). Packaged government and parastatals procurement from SMEs study, Botswana: LEA.
- Lomax, R.G. (2007). Statistical Concepts, *A Second Course*. 10.
- Lord Phillips of Worth Maltravers, (2011). Judicial independence and accountability: A view from the Supreme Court, Gustave Tuck Lecture, (19).
- Lubale, G. (2013). Untapped huge business opportunities: Are the youth in Kenya sleeping Giants? Nairobi: Government Press.

- Luyt, D. (2008). *Media and advocacy head of the public service accountability monitor (PSAM), at the monitor (PSAM)*. Paper presented at the United Nations social forum on 2nd September 2008 in Geneva, Switzerland: UN.
- Lysons, K. & Farrington, B. (2006). *Purchasing and Supply Chain Management*; 7th ed. London: Prentice Hall.
- Machuki, V.N. (2011). *External environment strategy co alignment, firm level institutions and performance of publicly quoted companies in Kenya*, Unpublished PhD Thesis: Nairobi: University of Nairobi.
- Malcolm, (2014). Procurement innovation and SMEs: *Paper presented at the Kenya institute of supply management 5th annual conference held in Kigali Rwanda: Building effective procurement systems* Nairobi: KISM.
- Manasseh, P.N. (2007). *A Text Book of Principles of Auditing*. Nairobi: McMore Accounting Books.
- Marris R. (1964). *The Economic Theory of Managerial Capitalism*: London, Macmillan.
- Mayring, P. (2000). Qualitative content analysis: *Forum: Qualitative Social Research*, 1(2). Retrieved from <http://217.160.35.246/fqs-texte/2-00/2-00mayring-e.pdf>.
- McCann, P. (2004). The changing definition of organizational effectiveness: *Human Resource Planning*, 27 (1), 7-30.
- McGeorge, J. & Adams, J. (2003). *Tender evaluation training programme*; New Zealand: Transit.
- Memba, F., Gakure, W. & Karanja, K. (2012). Venture Capital: Its impact on growth of small and medium enterprises in Kenya: *International Journal of Business and Social Sciences*, 7, 35- 40.
- Migosi J., Ombuki, C., Ombuki, K.N. & Evusa, Z. (2014). Determinants of non - compliance of public procurement regulations in Kenyan secondary schools: *International Journal of Educational Administration and Policy Studies*, 5 (7), 154-159.
- Monczka, R. M., Trent, R. J. & Callahan, T. J. (1993). Supply base strategies to maximise supplier performance. *International Journal of Physical distribution and Logistics Management* 23(4), 42-54.
- Monczka, R., Trent, R., Handfield, & Robert. (2005). *Purchasing & supply chain management*, (3<sup>rd</sup> Ed.). Thomson South-Western: Mason.
- Moore, M. H. (1995). Creating public value: *Strategic Management in Government*, Cambridge, Mass: Harvard University Press.

- Morris, M. (2001). *Descriptive Research Methods*, (2<sup>nd</sup> Ed.). Newport: Wadsworth Publishing.
- Mugenda, O. & Mugenda, A. (2003). *Research Methods: Qualitative and Quantitative Approaches*. Nairobi: Acts Press.
- Mugenda, O. & Mugenda, A. (2008). *Social Science Research: Theory and Principles*. Nairobi: Acts Press.
- Mugenda, O. & Mugenda, A. (2012). *Research Methods Dictionary*: Nairobi: Applied Research & training Services Press.
- Mugo, H. (2013). Determinants of procurement regulatory compliance in Kenyan electricity generating company: *International Journal of Social Science and Entrepreneurship*, 1 (7), 267-25.
- Mutava, C. (2014). Impact of public procurement procedures on maintenance works: A case of the ministry of housing, national social security fund and Kenyatta national hospital. *FIG Congress 2014: Engaging the Challenges-Enhancing the relevance*: Kuala Lumpur. Malaysia 16-21 June.
- Mutero, R. N. (2013). Public Private Partnership Act - *Regulatory framework*. Nairobi: Anjarwalla & Khanna.
- Mutunga, W.M., Tonui, P.K., Ibrahim, M.K., Ojwang, Wanjala, S.C. & Ndungu, N.S. (2013). The Supreme Court of Kenya.
- Muranda, Z. (2006). Financial distress and corporate governance in Zimbabwean Banks: *Corporate Governance*, 6 (5), 643 – 654.
- Muriungi, I. (2014). Public participation and civilian oversight: *The key to improving integrity in public procurement*, Transparency International: Advocacy & legal advisory centre.
- Murphy, R O., Ackermann, K A., Michel, J. J. & Handgraaf. (2011). Measuring social value orientation: *Judgment and Decision Making*: 6, (8), 771–781.
- Murphy, R. O., Ackermann, K. A., & Handgraaf, M. J. J. (2011). Measuring social value orientation, *Judgment and Decision Making*, 6 (8), 771-781.
- Mwangi, T. D. & Kariuki, T. J. (2013). Factors affecting compliance of public hospitality entities to public procurement laws and regulations in Kenya: *International Journal of Business and Commerce*; 2 (10), 66-78.
- Mungai, S. & Muturi, W. (2014). Effects of procurement regulations on efficiency of procurement of foodstuffs in public secondary schools in Kenya: A survey of



- Nyaribari Chache Constituency. *International Journal of Science and Research Publications*, 4 (5), 1-9.
- Munywoki, J. M. (2007). *The effect of technology transfer on organizational performance: A study of medium and large manufacturing firms in Kenya*, Unpublished PhD Thesis. Nairobi: University of Nairobi.
- Muraguri, J. T. (2013). *Implementation of the Youth Preference and Reservations Policy in Public Procurement: The case of state owned enterprises in Nairobi*. Unpublished Masters Thesis, Nairobi: University of Nairobi.
- Mwangi, M.M. (2013). Strategic planning and performance of State Corporations of the Government of Kenya: Master's Thesis, Nairobi: University of Nairobi.
- Nachmias C. F. & Nachmias, D. (2008). *Research Methods in Social Science*, (5th Ed.), London: St. Martin Press, Inc.
- Nagelkerke, N.J.D. (1992). Maximum Likelihood Estimation of Functional Relationships: Pays-Bas, Lecture Notes in Statistics, 69, 110.
- Namusonge, G.S. (2007). Entrepreneurial finance and micro, small and medium enterprises innovations in Kenya, *proceedings of 2006, Jomo Kenyatta university of agriculture and technology, scientific, technological and industrialization conference*, JKUAT - Harnessing scientific and technological synergies for innovation and rapid industrialization.
- Nelson, R. R. & Winter, S. G. (1982). *An evolutionary theory of economic change*: Cambridge, MA: Belknap Press of Harvard University Press.
- Ngeno, K.J., Namusonge, G.S. & Nteere, K.K. (2014). Effect of discriminatory public procurement practices on organizational performance: A survey of public sector corporations in Kenya: *Global Journal of Commerce and Management Perspective*, 3(4), 245- 256.
- Njeru, S.E., Ngugi, P.K., Arasa, R. & Kahiri, J. (2014). Procurement policies and implementation practices in tertiary public training institutions in Kenya: *Global Advanced Research Journal of Management and Business Studies*, 3 (4), 166-170.
- Njiru, E. (2008). The role of state corporations in a developmental State: The Kenyan Experience: *A paper presented to 30<sup>th</sup> African association for public administration and management annual roundtable conference: Accra Ghana on 6<sup>th</sup> – 10<sup>th</sup> October*.
- Nichols T. (1969). *Ownership, control, and ideology*: London: Allen & Unwin.

- Njuguna, J. I. (2008). Organizational learning, competitive advantage and firm performance: *An empirical study of Kenyan small and medium sized enterprises in the manufacturing sector*. Unpublished PhD Thesis: Jomo Kenyatta University of Agriculture and Technology.
- Ntayi, J.M., Gerrit, R. & Eyaa, S. (2009), Supply chain swiftness in a developing country: the case of Uganda small and medium sized enterprises, *E-Journal of Business and Economic Issues*, 4(1).
- Ntayi, J.M., Ngoboka, P.T., Mutebi, H., & Sitanda, G. (2012). Social value orientation and regulatory compliance in Ugandan public procurement: *International Journal of Social Economic* 39 (11), 900-920.
- Nunnally, J. C. & Bernstein, I. H. (1994). *Psychometric Theory*: (3rd Ed.). New York: McGraw-Hill.
- Nunnally, J. C. (1978). *Psychometric Theory*: (2nd Ed.) New York: McGraw - Hill.
- Nyaoga, J.M. & Mogere, A.G. (2013). *Getting the deal through: Public procurement: An overview of regulations in 37 jurisdictions worldwide in Global competition review* by Hans - Joachim PrieB, Fresh field Bruckhaus Deringer.
- Nzau, A. & Njeru, A. (2014). Factors affecting procurement performance of public universities in Nairobi County: *International Journal of Social Sciences and Project Planning Management*, 1 (3), 147-156.
- Oanda, C. (2013). Public procurement in the counties: Responsibilities and controls. *Paper Presented at the Financial Management and Reporting Conference for Counties*, Safari Park Hotel, Nairobi, (24 – 26 April). Nairobi: Government Printers.
- Obanda, W. P. (2010). Fighting corruption in tactical procurement: Unpublished PHD Dissertation: University of Twente.
- Obanda, W. P. (2011). Small and medium enterprises and public procurement contract in developing countries. Kampala: Longhorn Publishers.
- Obongo, S. O. (2009). Implementation of performance contracting in Kenya: *International Public Management Review*, 10 (2).
- Odhiambo, W. & Kamau, P. (2003). Public procurement: *Lessons from Kenya, Tanzania, and Uganda*: Working Paper No. 208.
- ODPP, (2007). Office of the director of public procurement authority: *Annual Report*. Malawi.

- OECD, (2008). Compendium of country examples and lessons learned from applying the methodology for assessment of national procurement systems. Paris: OECD Publishing.
- Ofori-Mensah, M. & Rutherford, L. (2011). Effective parliamentary oversight: Mission impossible, *Governance Newsletter*, 17 (3), 1-9.
- Ogachi, J.K. (2014). An insight into procurement standards practices in Africa. Developing country studies: *European Journal of Business and Management* 4 (19), 182-193.
- Ogachi, J.K. (2011). The status of the procurement profession in Kenya: Baseline indicators; *Centre for Advanced Procurement Studies*, Nairobi: Research Paper Published.
- Ogot, M., Mulinge, M. & Muriuki. R. (2010). Impact of public procurement law on profit oriented state owned corporations in Kenya. Towards new horizons in public procurement, Nairobi: *PrAcademics Press*.
- Ojo, E. A. & Gbadebo, A. M. (2014). An assessment of non-compliance with procurement proceedings in procurement of works in Nigeria: *International Journal of Economic and Business Management*, 2(3), 25-34.
- Okeahalam, C. C. (2004). Corporate governance and disclosure in Africa: Issues and challenges. *Journal of Financial Regulation and Compliance*, 12(4), 359-370.
- Ohemeng, K. L. F. (2009). Constraints in the implementation of performance management systems in developing countries: The Ghanaian case. *International Journal of Cross Cultural Management*, 9 (1), 109-132.
- Ong'olo, D.O. (2006). Public private partnerships practice and regulatory policy in Kenya: Nairobi: The Institute of Economic Affairs (IEA, Kenya)
- Okundi, B. (2013). Procurement laws review key to the success of devolution. Retrieved from <http://www.the-star.co.ke/news/article-132577/procurement-laws-review-ke-success-devolution>:
- O'Leary, N. (2004). An analysis of the works and supplies directives of the European Communities. *Public Procurement Law Review*, 1 (1), 40-56.
- Ombuki, K., Arasa, R., Ngugi, P. & Muhwezi, M. (2014). Environmental factors influencing procurement regulatory compliance by Kenya's public universities. *International Journal of Social Sciences and Entrepreneurship*, 1 (9), 407-417.
- Ondiek, B.A. & Ochieng, D.F. (2013). Effectiveness and efficiency of public procurement and disposal Act in shaping competitive purchasing and disposal in the civil service

- in Kenya. *International Journal of Innovative Research and Development*, 2(6), 2278 – 2311.
- Onyinkwa, J. (2013). Factors influencing compliance to procurement regulations in public secondary schools in Kenya: A case of Nyamache district, Kisii County. *Journal of Contemporary Research in Business*, 5(1), 561-592.
- Orodho, J.A. (2005). Elements of education and social science research methods. Nairobi: Masola Publishers.
- Organization for Economic Cooperation and Development, (2003). Working party of the trade committee: Transparency in government procurement: The benefits of efficient governance and orientations for achieving it. (TD/TC/WP (2002)31/FINAL). Paris: OECD.
- Organization for Economic Cooperation and Development, (2005). *Fighting corruption and promoting integrity in public procurement*. Paris: OECD.
- Organization for Economic Cooperation and Development/Development Assistant Committee (2006), Joint venture for procurement: *Methodology for Assessment of National Procurement Systems*, 4, 1-16.
- Organization for Economic Cooperation and Development, (2007). Integrity in public procurement: *Good practice from A to Z*, Paris: OECD Publishing.
- O'Regan, N. & Ghobadian, A. (2004), 'Testing the homogeneity of SMEs. The impact of size on managerial and organizational processes: *European Business Review*, 16 (1), 64-79.
- Osei-Tutu, E., Mensa, S. & Ameyaw, C. (2011). *The Level of Non compliance with the Public Procurement Act (663)*, Nigeria. Management and Innovation for a suitable Environment, Amsterdam, the Netherlands.
- Osborn, J. W., Christensen, W.R. & Gunter, J. (2001). Educational psychology from a statistician's perspective: A review of the power and goodness of educational psychology research. *Paper presented at the National meeting of the American Education Research Association (AERA)*, Seattle: WA
- Osborn, J. & Waters, E. (2002). Four assumptions of multiple regression that researchers should always test. *Practical Assessment, Research & Evaluation*: 8 (2). Retrieved from- <http://PAREonline.net/getvnasp?v=8&n=2>.
- O'Toole, T. & Donaldson, B. (2002). Relationship performance dimensions of buyer-supplier exchanges. *European Journal of Purchasing and Supply Management* (8), 197-207.

- Patton, M.Q. (2002). *Qualitative Research and Evaluation Methods*: Thousand Oaks, CA: Sage.
- Pallant, J. (2007). *SPSS Survival Manual: a step by step guide to data analysis using SPSS for windows* (3rd Ed.), London: Open University Press.
- Pandey, I. M. (1999). *Financial Management*, (8th Ed.): New Delh: Vikas Publishing House
- Parker, R. & Bradley, L. (2000). Organizational culture in the public sector: Evidence from six organizations. *International Journal of Public Sector Organizations*, 13(2), 125-141.
- Park, J., Shin, K., Chang, T.W. & Park, J. (2010). An integrative framework for supplier relationship management: *Journal of Industrial Management & Data Systems*, 110 (4), 495-515.
- Penrose, E. T. (1959). *The Theory of the Growth of the Firm*: New York, NY: John Wiley & Sons.
- Peterson, O.T. & Van Fleet, D.D. (2004). The ongoing legacy of R. L. Katz: An updated typology of management skills. *Management decision*: 42 (10), 129.
- Peschel, D. (2008). Total quality management and the Malcolm Baldrige National Quality Award: Benefits and directions for banking institutions. *Business Renaissance*, 3(4), 49-66.
- Public Procurement Regulations, (2001). The Exchequer and Audit, Nairobi: The Government Press.
- Public Procurement Oversight Authority, (2007). *Assessment of the procurement system in Kenya*. Nairobi: PPOA.
- Public Procurement and Disposal of Public Assets Authority: (2012). PPDA Assessment Report, Uganda: PPDA
- Public Procurement Oversight Authority, (2010). *PPOA Journal*: October Edition, PPOA: Nairobi.
- Public Procurement Oversight Authority, (2010). *Background Information*: Nairobi: PPOA.
- Public Procurement Oversight Authority, (2011), Final report Procurement review of National Social Security Fund (NSSF). Retrieved from: <http://www.ppoa.go.ke/downloads/Review%20Reports/NSSF%20Procurement%20Review.pdf>.

Public Procurement Oversight Authority,(2011). Final report procurement review of Egerton University Retrieved from: <http://www.ppoa.go.ke/downloads/Review%20Reports/EGERTON%20FINAL%20PROCUREMENT%20REVIEW%20REPORT.pdf>.

PPRA, (2007). *Assessment of the Country's Procurement System*. Final Report: Ghana.

RPPA, (2012). Summary report on assessment of public procuring entities on compliance with procurement law, regulations and procedures for the financial year 2010-2011.

Price Water House Coopers (2009); Value of sustainable procurement practices: A quantitative analysis of value drivers associated with sustainable procurement practices.

Proimos, A. (2005). Strengthening corporate governance regulations: *Journal of Investment Compliance*, 6 (40), 75-84.

Polasky, S., Arpenter, S. R., Folke, C. & Keeler, B. (2011). Decision - making under great uncertainty: environmental management in an era of global change. *Trends in Ecology & Evolution*, 26 (8), 398-404.

Pohlman, J. T. & Leitner, D. W. (2003). A comparison of ordinary least squares and logistics regression: *Ohio Journal of Science*, 3 (5).

PwC, London Economics & Ecorys. (2011). *Public Procurement in Europe: Cost and Effectiveness*, 93-103.

Raymond, J. (2008). Benchmarking in public procurement, benchmarking: *An International Journal*, 15 (6), 782 – 793.

Rhee, C. Y. & Hangyong, L. (2007). Public-private partnerships in infrastructure and macro economy: The Experience of Korea. In J-H Kim, ed. *Performance Evaluation and Best Practice of Public-Private Partnerships*: Seoul: Korea Development Institute.

Rembe, J. M. (2010). Reforming the procurement recordkeeping: *Procurement Journal*: 5. PPOA.

Republic of Kenya, (2003). *Economic Recovery Strategy for Wealth and Employment Creation 2003-2007*, Nairobi: Government Press.

Republic of Kenya, Kenya Gazette Supplement Acts (2005): *Public Procurement and Disposal Act, 2005*, Supplement No. 77, Act No. 3. Nairobi: Government Press.

- Republic of Kenya, Kenya Gazette Legal Notice No. 58 (2011): *Public Procurement and Disposal (Preference and Reservations Regulations 2011)*: Legal Notice No. 58. Nairobi: Government Press.
- Republic of Kenya, Kenya Gazette Supplement No. 92 (2006): *Public Procurement and Disposal Regulations 2006*, Supplement No. 92, Nairobi: Government Press.
- Republic of Kenya, Kenya Gazette Supplement Acts (2007). *Supplies Practitioners Management Act*, (2007), Supplement No. 113, Act No. 17, Nairobi: Government Press.
- Republic of Kenya, (2009). *Public Private Partnerships Regulations*: Kenya Gazette Supplement No. 17, Legislative Supplement No.13. Nairobi: Government Press.
- Republic of Kenya, (2009). Laws of Kenya: The State Corporations Act, Chapter 446. Nairobi: National Council of Law Reporting.
- Republic of Kenya, (2009). Public Procurement and Disposal General Manual, PPOA, Nairobi. Government Press.
- Republic of Kenya, (2011). Ethics and Anti-corruption Commission: *Annual Report 2010-2011*, Nairobi: Government Press.
- Republic of Kenya, (2012). Ethics and Anti-corruption Commission: *Annual Report 2011-2012*, Nairobi: Government Press.
- Republic of Kenya, (2012). *Constitution of Kenya, 2010*, National council for law reporting, 4th Upper Hill Close, off Ngong Rd, Nairobi: Government Press.
- Republic of Kenya, (2013). Report of the presidential taskforce on parastatals reform. Nairobi: Government Press.
- Report on evaluation of performance of public agencies for the financial year 2010-2011; office of the prime minister: *Evaluation report*, (2013). Nairobi: Government Press.
- Robert, R. (2003). China's legal framework for public procurement: *Journal of Public Procurement*, 3(3) 370-388.
- Robert C. T. & Lisa M. B. (2006). *Overview of Canadian government procurement law*: 1 (42), *American Bar Association*.
- Rossi, C. L. (2010). Compliance: an over-looked business strategy. *International Journal of Social Economics*, 37(10), 816-831.

- Rungtusanatham, M., Rabinovich, E., Ashenbaum, B. & Wallin, C. (2007), Vendor owned inventory management arrangement in retail; an agency theory perspective. *Journal of Business Logistics*, 28 (1), 11-35.
- Sabiiti, C.K. Muhumuza, E. & Basheka, B.C. (n.d) developing public procurement performance measurement systems in developing countries: The Uganda Experience.
- Sauber, M.H. (2008). Developing supply chain management program: a competency model: *Quality assurance in education*, 16 (4), 375-391.
- Saunders, M. Lewis, P. & Thornhill, A. (2003). *Research Methods for Business student*, (3rd Ed), Harlow: Pearson Education.
- Saunders, M. & Thornhill, H. (2009). *Research Methods for Business Student: Benelux BV* New Hall.
- Sang, W.K. & Mugambi, F. (2014). Factors affecting compliance with public procurement laws and regulations in public institutions in Kenya: A case study of public entities in Mombasa County. *International Journal of Social Science and Entrepreneurship* 1(11), 650-671.
- Sekaran, U. (2006). *Research Methods for Business: A Skill Building Approach* (4th Ed.). New Delhi: wiley-India
- Schnequa, D.N. & Alexandru, R.V. (2012). Understanding and tracing accountability in the public procurement process: *Public Performance & Management Review*; 36 (2), 290 - 315.
- Scott, W. R. (2001). *Institutions and Organizations*: Thousand Oaks, CA: Sage, (2<sup>nd</sup> Ed.)
- Scott, W. R. (2004). *Institutional Theory*: Encyclopedia Theory, CA: Thousand Oak.
- Sheoraj, R. (2007). The state of skills readiness in the South Africa public service: an overview of provincial and local government. Masters' Thesis - South Africa: University of Pretoria
- Shu, H. W., Othman R., Omar H., N., Abdul R., R. & Husna, H., N. (2011). "Procurement issues in Malaysia." *International Journal of Public Sector Management*, 24 (6), 567-593.
- Schulten, T., Alsos, K., Burgess, P., & Pedersen, K., (2012), *An overview on regulation and practices with a focus on Denmark, Germany, Norway, Switzerland and the United Kingdom*.



- Shiundu, D. & Rotich, G. (2014). Factors influencing efficiency in procurement systems among public institutions: A case of City Council of Nairobi. *International Academic Journals*, 1 (1), 79-96.
- Smith, A. D. (1998). *Nationalism and Modernism*: London: Routledge.
- Snedecor G.W. & Cochran, W.G. (1989). *Statistical Methods*: (8th Ed.) Iowa: Iowa State College.
- Soundry, O. (2007). A principal agent analysis of accountability in public procurement: In Gustavo Piga & Khi V. Thai (Eds), *Advancing Public Procurement: Practices, Innovation and Knowledge-sharing*. Boca Raton, FL: PrAcademics Press.
- Sparrow, M. K. (2000). *The regulatory craft: Controlling risk, solving problems and managing compliance*. Washington, DC: Brookings Institution Press.
- Strakexgroup. (2014). A review of the public private partnerships Act No. 15 of 2013 Retrieved from: <http://stralexgroup.blogspot.com/2013/09/a-review-of-public-private-partnerships.html>
- Stieb, J. (2008). A critique of positive responsibility in computing: *Science and Engineering Ethics*, 14 (2), 219-233.
- Staples, W.J. & Dalrymple, J. F. (2008). Current issues in public sector construction procurement: *Paper presented to the 22nd ANZAM Conference 2-5 December, Managing in the pacific century*, University of Auckland: ANZAM
- Stemele, B. M. (2009). Assessing good governance in procurement at Lejweleputswa district municipality: Masters Dissertation: University of Stellenbosch.
- Susan, A.M., & Namusonge, G.S. (2014). Factors affecting the rate of disposal of assets in public sector organizations: A case of Yatta Sub County - Kenya. *International Journal of Academic Research in Business and Social Sciences*, 4(5), 2222 – 6990.
- Tabachnik, B. G. & Fidell, L. S. (1996). *Using Multivariate Statistic*: (3rd Ed.). New York: Harper Collins College Publishers.
- Tabachnik, B. G. & Fidell, L. S. (2001). *Using Multivariate Statistic*: (4<sup>th</sup> Ed.). Needham Heights, MA: Allyn and Bacon.
- Tabachnick, B, G. & Fidell, L. S. (2007). *Using Multivariate Statistics* (5<sup>th</sup> Ed.). Boston: Pearson International Edition.
- Tadeo, M., Karuhanga, B. & Mukokoma, M. (2011). Compliance and service delivery, case study of local government procurement units in Uganda. Unpublished Masters

Project. School of Management and Entrepreneurship, Uganda: Kyambogo University.

- Takagi, S. & Hosoe, N. (2008). Measuring effects of competition on retail charges in public procurement bidding: (*RIETI Discussion paper No. 08-J-004*).
- Tan, C. S. & Smyrnios, K. X. (2011). How do Australian fast-growth small-to-medium enterprises measure performance: *Journal of Enterprising Culture*, 19 (1), 44-60.
- Tangen, S. (2003). An overview of frequently used performance measures: *Work Study*, 52 (7), 347-354.
- Tasmania. (2006). Department of treasury and finance: *Guidelines on tender evaluation using weighted criteria for building works and services*.
- Taylor, S. (2011). The challenge of competitive neutrality in public procurement and competition policy: the U.K health sector as case study: Competition Policy International 7. Retrieved From [http://www.wragge.com/published\\_articles\\_7650.asp](http://www.wragge.com/published_articles_7650.asp).
- Teelken, C., & Smeenk, S. (2003). 'Toward a single quality assessment system in higher education: Composing an outline for international comparative quality assessment, european conference on educational research, University of Hamburg, 17–20 September, education online: Retrieved from <http://www.leeds.ac.uk/educol/documents/00003538.htm>.
- Thai, K. V. (2001). Public procurement re-examined. *Journal of Public Procurement*, 1 (1), 9-50.
- Thai, K. V. (2006). Advancing public procurement practices. Thai, K.V and Piga, G. *Innovations and knowledge sharing* (ch.1), Pr Academics Press.
- Thai, K. V. (2009). *International Handbook of Public Procurement*: CRC, Pross, Taylor and Francis Group.
- The Mars Group, (2011). *Corruption in Government*: Report for the year 2010 Nairobi: The Mars Group: Retrieved from [www.marsgroup.org](http://www.marsgroup.org).
- The Standard, (27th June, 2013). *Technology Failed*. The Standard Newspaper: Nairobi: The Standard.
- Thurston, A. (2005). Fostering trust & transparency through information systems: The World Bank (development economics vice presidency & poverty reduction and economic management network): *PREM Notes*, (97), ACARM Newsletter, 36.

- Thuo, W. & Njeru, A. (2014). Effects of public procurement reforms on service delivery at national spinal injury referral hospital, Nairobi: *International Journal of Business and commerce*, 3 (8), 70-81.
- Tukamuhabwa, B. R. (2012). Antecedents and consequences of public procurement non-compliance behavior: *Journal of Economics and Behavioral Studies*, 4 (1), 34-46.
- Trochim, W. M. (2000). *The Research Methods Knowledge Base*: Retrieved from <http://www.socialresearchmethods.net/kb/>
- UNDP. (2010). Accountability in public procurement transparency and the role of civil society. Procurement Capacity Development Centre
- Uyarra, E. & Flanagan, K. (2009). Understanding the innovation impacts of public procurement: *Manchester Business Working Paper*: No. 574. Retrieved from <http://www.mbs.ac.uk/research/working paper>.
- USAID. (2011). Statement on peer review of U.S. Global Development Efforts Washington, D.C. Press release. Retrieved from [www.usaid.gov/press/releases/2011/ps110728.html](http://www.usaid.gov/press/releases/2011/ps110728.html).
- Vavra, T.G. (1997). Improving your measurement of customer satisfaction: A guide to creating, conducting, analyzing, and reporting customer satisfaction measurement programs: *American Society for Quality*, 44-60.
- Van Weele, A. J. (2005). Purchasing & supply chain management: *Analysis, Strategy, planning and practice*, (4<sup>th</sup> Ed.). London: Thomson Learning.
- Verbeeten, F. & Boons, A. (2009). Strategic priorities, performance measures; an empirical analysis in Dutch firms: *European Management Journal*, (27), 113-128.
- Walker, C. (2003), "Setting up a public procurement system: The six step method." In S. Arrowsmith and M. Trybus (Eds.). *Public Procurement: the Continuing Revolution* Dordrecht, The Netherlands: Kluwer Law International.
- Waiganjo, J. W., Mukulu, E., & Kahiri, J. (2012). Relationship between strategic human resource management and firm performance of Kenya's corporate organizations: *International Journal of Humanities and Social Science*, 2(10), Special Issues.
- Wanjohi, M. A. (2012). Challenges facing small medium enterprises in Kenya and the efforts in progress: Nairobi: Acts Press.
- Wernerfelt, B. (1984). A resource-based view of the firm: *Strategic Management Journal*, 5(2), 171-180.

- Wilmshurst, T., & Frost, G. (2000). Corporate environmental reporting: a test of legitimacy theory. *Accounting, Auditing, and Accountability Journal*: 13(1), 10-26.
- Witting, W. A. (1999). Building value through public procurement, A focus on Africa: Durban: *9th international anti- corruption conference, 10-15 October*. Durban: South Africa
- Wittig, W. A. & Jeng, H. (2005). *Challenges in public procurement*: Comparative views of public procurement reform in Gambia. In challenges in public procurement: *An international Perspective* Vol. 3. Boca Raton FL, USA: Pr Academics Press.
- Woolf, E. (2002). *Auditing Today*: London: Prentice Hall.
- World Bank. (2009). Assessment of implementation of the public procurement regulations report: Procurement Service Unit, South Asia Region - Bangladesh. Washington D.C: W.B.
- Xingxing, Z. & Kaynak, H. (2012). An agency theory perspective on supply chain quality Management. *International Journal of Operations and Production Management*, 32 (4), 423-446.
- Zikmund, W.G. (2010). *Business Research Methods*, Florida: The Dryden Press.
- Zikmund, W.G. (2003). *Business Research Methods*, (7th Ed.). Thomson: South Western.
- Zinbarg, M. (2005). *Research Methods*, (1<sup>st</sup> Ed.): Pearson Publishers: New Jersey.
- Zollo, M. & Winter, S. (2002). Deliberate learning and the evolution of dynamic capabilities: *Organization Science*, (13), 339-351.
- Zubicic, J. & Sims, R. (2011). Examining the link between enforcement activity and corporate compliance by Australian companies and the implications for regulators: *International Journal of Law and Management*: 53(4), 299-308.
- Zucker, L. G. (1987). Institutional theories of organization: *Ann. Rev. Sociology*. (13), 443-464.

**APENDICES**  
**APPENDIX I: DATA COLLECTION QUESTIONNAIRE**

This study seeks to determine the effect of the public procurement legal framework implementation on performance of Kenyan state corporations. To achieve this objective, relevant questions have been provided to gather data for analysis. Kindly spare some time to provide the requested information as accurately as possible. Any information supplied will be strictly confidential and will be used for academic purposes only.

**Section 1: Demographic and General Information**

1. How many years of experience do you have in public procurement and supply management? [       ]

2. What is your highest academic qualification? Please (✓) as appropriate

None	[       ]
School Certificate	[       ]
College Diploma	[       ]
Bachelors' degree	[       ]
Masters Degree	[       ]
Doctorate Degree	[       ]

3. What is your professional qualification in procurement and supply management?

None	[       ]
Certificate	[       ]
Advanced certificate	[       ]
Diploma	[       ]
Post Graduate Diploma	[       ]
Professional Degree	[       ]

4. Please indicate your membership category in your procurement professional body?

None	[       ]
Student Member	[       ]
Associate Member	[       ]
Full Member	[       ]
Affiliate Member	[       ]
Fellow Member	[       ]

5. Have you had any training on the public procurement rules and regulations?

Yes	[       ]
No	[       ]

## **Section 2: Public Procurement and Disposal Act, (2005) Implementation and Organizational Performance.**

Please answer each question appropriately in relation to the Public Procurement and Disposal Act, (2005) implementation.

### **Efficiency**

6 a) Please indicate number of complaints received on the quality of goods and services delivered in the following years

2009	[	]
2010	[	]
2011	[	]
2012	[	]
2013	[	]

b) Please indicate the number of complaints received from internal users on procurement performance in the following years

2009	[	]
2010	[	]
2011	[	]
2012	[	]
2013	[	]

c) How many market surveys did your organization carry out before procurement of goods and services in the following years?

2009	[	]
2010	[	]
2011	[	]
2012	[	]
2013	[	]

d) Please indicate the number of internal procurement audits conducted in the following years.

2009	[	]
2010	[	]
2011	[	]
2012	[	]
2013	[	]

### **Competition**

7. a) How many open tenders were advertised on the print media in the following years?

2009	[	]
2010	[	]
2011	[	]

2012 [ ]

2013 [ ]

b) How much procurement on average does your organization make in a financial year using the following methods? (State in Kshs. Millions or thousands).

Open tenders [ ]

Restricted tenders [ ]

Direct tenders [ ]

Request for Quotations [ ]

Expression of interest/Request for Proposals [ ]

Low value procurement [ ]

Specially permitted procedure [ ]

### **Equal Treatment**

8. How long does it take your corporation to pay suppliers?

Immediately [ ]

30 days [ ]

60 days [ ]

90 days [ ]

120 days [ ]

### **Transparency**

9. How often does your corporation use e Procurement for procurement of goods and services?

Never [ ]

Occasionally [ ]

Regularly [ ]

Always [ ]

### **Accountability**

10. Please indicate the frequency of reporting to PPOA

Monthly [ ]

Quarterly [ ]

Half Yearly [ ]

Annually [ ]

Never [ ]

### **Ethical Standards (Professionalism)**

a) Please indicate the number of procurement officers with professional qualifications in your organization [ ]

b) How many of the procurement staff in your organization are members of KISM? [ ]

### **Section 3: Public Procurement & Disposal Regulations, (2006) Implementation and Organizational Performance.**

11. Please answer each question appropriately in relation to the Public Procurement and Disposal Regulations, (2006) implementation.

#### **Organizational Structure**

a) To which Function does the procurement unit report?

Operations	[	]
Human Resources	[	]
Administration	[	]
Finance & control	[	]
Accounting officer	[	]

b) Who appoints the members of the tender, procurement and disposal committees?

Operations	[	]
Human Resources	[	]
Administration	[	]
Finance & control	[	]
Accounting officer	[	]

c) How often is the evaluation committee appointed for each tender?

Never	[	]
Occasionally	[	]
Often	[	]
Very Often	[	]
Always	[	]

d) How often does the disposal committee meet to deliberate on disposal issues?

Monthly	[	]
Quarterly	[	]
Half Yearly	[	]
Annually	[	]
Never	[	]

e) How often are delivered goods inspected by a committee appointed by the Accounting Officer?

Monthly	[	]
Quarterly	[	]
Half Yearly	[	]
Annually	[	]
Never	[	]



### **Methods of Procurement**

12 a) Open tender is used for all contracts above kshs.

One Million	[	]
Three Million	[	]
Four Million	[	]
Five Million	[	]
Six Million	[	]

b) How often are restricted and direct tender methods approved by the tender committee?

Never	[	]
Occasionally	[	]
Often	[	]
Very Often	[	]
Always	[	]

### **Procurement Planning**

13 a) Does the corporation prepare annual procurement plan?

Yes	[	]
No	[	]

b) Is the procurement plan updated to suit project needs?

Yes	[	]
No	[	]

### **Records Management**

14 a) Does the organization have a records management unit?

Yes	[	]
No	[	]

b) How often are all procurement records accurate and readily available?

Never	[	]
Occasionally	[	]
Often	[	]
Very Often	[	]
Always	[	]

c) After how many years are records disposed of in your organization?

Two years	[	]
Three years	[	]
Four years	[	]
Five years	[	]
Six years	[	]

d) What is the level of qualification of the records management staff in your organization?

O level	[	]
Certificate	[	]
Diploma	[	]
Higher Diploma	[	]
First Degree	[	]

#### **Familiarity with Rules and Regulations**

15. Are all those involved in the procurement process (Users and stakeholders) conversant or familiar with the procurement rules and regulations?

Yes	[	]
No	[	]

#### **Section 4: Public Private Partnership Regulations, (2009) Implementation and Organizational Performance.**

Please answer each question appropriately in relation to the Public Private Partnership Regulations implementation.

#### **Participation in PPP projects**

16 a) Has your organization been involved in any public private partnership projects since 2009?

Yes	[	]
No	[	]
I don't know	[	]

b) If your answer to the above question is yes, indicate number of projects [       ]

#### **Supplier Selection**

17. Please indicate how the contractors for PPP project were identified

Open tender	[	]
Negotiation	[	]
Restricted tender	[	]

#### **Supplier Selection Criteria**

18. Please indicate the criteria that was used in selecting contractors for PPP

Financial Capacity	[	]
Past performance	[	]
Price	[	]
Experience	[	]
Quality	[	]

**Due Diligence**

19. How often does the organization carry out due diligence of PPP contractors before award of contracts?

Never	[	]
Annually	[	]
Half Yearly	[	]
Quarterly	[	]
Monthly	[	]

**Supplier Performance Evaluation**

20. Kindly indicate the criteria your organization use for supplier performance evaluation

Quantity	[	]
Past performance	[	]
Price	[	]
Experience	[	]
Quality	[	]

**Project Implementation Monitoring and Evaluation**

21 a) How often does the organization monitor performance of projects?

Monthly	[	]
Quarterly	[	]
Half Yearly	[	]
Annually	[	]
Never	[	]

b) Please indicate the number of contracts completed to quality requirements in the year

2009	[	]
2010	[	]
2011	[	]
2012	[	]
2013	[	]

c) Please indicate the number of contracts completed in time in the year

2009	[	]
2010	[	]
2011	[	]
2012	[	]
2013	[	]

d) Please indicate the number of contracts completed at cost in the year

2009	[	]
2010	[	]
2011	[	]
2012	[	]

2013 [ ]

**Section 5: Preference and Reservation Regulations, (2011) implementation and Organizational Performance.**

Please answer each question appropriately in relation to the Preference and Reservation Regulations implementation

**Qualification and capacity of SMEs**

22. How many contracts has the organization given preference to, to the local contractors since 2011? [ ]

23. How many contracts has the organization awarded to the Youth, Women and Persons with Disabilities? [ ]

24. What is the total value of contracts that the organization has awarded to the Youth, Women and Persons with Disabilities? [ ]

**Influence to award contracts to SMEs**

25. How often is the organization influenced to award contracts to SMEs?

Never [ ]

Occasionally [ ]

Often [ ]

Very Often [ ]

Always [ ]

**Percentage of contracts awarded to SMEs**

26. What proportion of contracts has the organization awarded to SMEs?

None [ ]

10 % [ ]

20% [ ]

30% [ ]

Over 30% [ ]

**Capacity Building for SMEs**

27. How many bidder conferences did the organization hold for SMEs?

None [ ]

One [ ]

Two [ ]

Three [ ]

Four and above [ ]

**Availability of Funds**

28. When are the funds allocated for procurement activities availed to the corporation?

After invoicing	[	]
After delivery of goods/services	[	]
After award of contract	[	]
Upon contract commencement	[	]
Before commencement of process	[	]

**Training of Staff on 30% Contract award Directive**

29. How many training did the institution hold for staff on the 30% directive in the year?

None	[	]
One	[	]
Two	[	]
Three	[	]
Four and above	[	]

**Implementation of the 30% Directive**

30. To what extent has your corporation embraced the 30% directive?

0%	[	]
10 %	[	]
20%	[	]
40%	[	]
Over 60%	[	]

**Delivery of Contracts**

31. Indicate the percentage of contracts awarded to SMEs that were delivered to quality, time and cost requirements [ ]

**Section 6: Enforcement of the Public Procurement Legal Framework and organizational Performance.**

Please answer each question appropriately in relation to the enforcement of the legal framework by the oversight authority.

**Compliance Audits**

32. Please indicate the number of compliance audits carried out by PPOA in your organization in the following years.

2009	[	]
2010	[	]
2011	[	]
2012	[	]
2013	[	]

**Compliance Levels**

33. What was the compliance level? [       ]

**Procurement Review**

34. How many procurement related cases were reviewed in your organization in the following year by the review board?

2009	[       ]
2010	[       ]
2011	[       ]
2012	[       ]
2013	[       ]

**Period of Procurement Review**

35. On average how long does it take to handle and finalize procurement related cases?

One month	[       ]
Two months	[       ]
Three months	[       ]
Four months	[       ]
Above four months	[       ]

**Section 7: Organizational Performance**

Please answer each question appropriately in relation to Organizational performance

**Customer Satisfaction**

36 a) Has your organization carried out customer satisfaction survey since 2009?

Yes	[       ]
No	[       ]
I don't know	[       ]

b) What was the level of customer satisfaction? [       ]

c) Has your organization carried out employee satisfaction survey since 2007?

Yes	[       ]
No	[       ]
I don't know	[       ]

d) What was the level of employee satisfaction? [       ]

f) Please indicate the percentage increase in level of customer satisfaction for the following years.

2009	[       ]
2010	[       ]
2011	[       ]
2012	[       ]

2013 [       ]  
g) Please indicate the percentage increase in level of employee satisfaction for the following years.

2009 [       ]  
2010 [       ]  
2011 [       ]  
2012 [       ]  
2013 [       ]

### **Timely Delivery**

37 a) Please indicate the percent decrease in delayed contracts of the awarded contracts in the following years.

2009 [       ]  
2010 [       ]  
2011 [       ]  
2012 [       ]  
2013 [       ]

b) Please indicate the percent decrease in undelivered contracts of the awarded contracts for the following years.

2009 [       ]  
2010 [       ]  
2011 [       ]  
2012 [       ]  
2013 [       ]

### **Quality**

38 a) Please indicate the percentage reduction in number of rejected deliveries for the following years.

2009 [       ]  
2010 [       ]  
2011 [       ]  
2012 [       ]  
2013 [       ]

b) Please indicate the percentage reduction in return to store cases reported for the following years

2009 [       ]  
2010 [       ]  
2011 [       ]  
2012 [       ]  
2013 [       ]

**Revenue Growth**

39 a) Please indicate the percentage increase in revenue for the following years.

2009	[	]
2010	[	]
2011	[	]
2012	[	]
2013	[	]

b) Please indicate the percentage increase in annual budget from 2009 to 2013.

2009	[	]
2010	[	]
2011	[	]
2012	[	]
2013	[	]

c) Please indicate the percentage increase in annual spending from 2009 to 2013.

2009	[	]
2010	[	]
2011	[	]
2012	[	]
2013	[	]

**Market Share Growth**

40. Please indicate the percentage increase in market share for the following years.

2009	[	]
2010	[	]
2011	[	]
2012	[	]
2013	[	]

**Cost Reduction**

41 a) Please indicate the percentage decrease in organizational expenditure for the following years.

2009	[	]
2010	[	]
2011	[	]
2012	[	]
2013	[	]

b) Please indicate the percentage reduction in cost of procurement for the following years.

2009	[	]
2010	[	]
2011	[	]
2012	[	]
2013	[	]



42. In your opinion, kindly give suggestions on how the implementation of the procurement rules and regulations can be improved to enhance organizational performance.

.....

.....

.....

.....

.....

.....

.....

**THANK YOU FOR YOUR TIME**

## **APPENDIX II: INTERVIEW GUIDE FOR ACCOUNTING OFFICERS**

1. Has the implementation of the PPDA,( 2005) achieved the intended objectives of value for money, transparency, accountability, competition, fair treatment and ethics?
2. Does your organization recruit professionally qualified personnel in the procurement unit?
3. Does the organization prepare procurement plans and how effectively are they implemented?
4. Which method of procurement is commonly used by the corporation in the purchase of goods and services?
5. Are procurement records well managed? How long does it take to dispose procurement records?
6. Are all those involved in the procurement process conversant with the procurement rules and regulations?
7. Has the corporation been involved in any Public, Private, Partnership project?
8. How were the suppliers identified, selected and evaluated for the PPP projects?
9. How does the organization manage suppliers' performance and relationship?
10. Has your organization given preference to local contractors since 2011?
11. To what extent has the organization embraced the 30% contracts award to SMEs?
12. Has the organization conducted any awareness training to the SMES on procurement opportunities?
13. Has your organization been audited by PPOA since 2009?
14. If yes, what was the compliance level?
15. Has your organization been involved in any procurement review since 2009?
16. If yes, how long did it take to finalize the review?
17. How do you ensure compliance to the procurement rules and regulations?
18. How has the implementation of the Public Procurement Legal Framework affected performance of the cooperation?
19. What suggestion would you offer as a means of improving compliance to the procurement rules and regulations?

### APPENDIX III: MATRIX FOR ALIGNING THEORIES WITH VARIABLES

No.	Theory/Model	Specific /Objectives	Constructs	Method of Analysis
1.	Principal Agent Theory;	Public Procurement Disposal Act, (2005)	<ul style="list-style-type: none"> <li>• Value for Money</li> <li>• Competition</li> <li>• Equal Treatment</li> <li>• Transparency</li> <li>• Accountability</li> <li>• Professionalism/Ethical Standards</li> </ul>	Univariate (Central Tendency)
2.	Institutional Theory; Legitimacy Theory	Public Procurement & Disposal Regulations, (2006)	<ul style="list-style-type: none"> <li>• Organization Structure</li> <li>• Procurement Methods</li> <li>• Procurement Planning</li> <li>• Records Management</li> <li>• Familiarity with Rules</li> </ul>	Univariate (Central Tendency)
3.	Decisions Theory; Stakeholders Theory.	Public Private Partnership Regulations, (2009)	<ul style="list-style-type: none"> <li>• Supplier identification</li> <li>• Supplier selection</li> <li>• Supplier Performance Mgtm</li> <li>• Supplier relationship management</li> <li>• Project M &amp; E</li> </ul>	Univariate (Central Tendency)
4.	Public Value Theory	Preference and Reservations Regulations, (2011)	<ul style="list-style-type: none"> <li>• Contracts awarded to SMEs</li> <li>• Influence to award contracts</li> <li>• Capacity Building</li> <li>• Funds availability</li> <li>• Qualifications of SMEs</li> </ul>	Univariate (Central Tendency)
5.	Four Pillars Model	Enforcement	<ul style="list-style-type: none"> <li>• Compliance Audits</li> <li>• Compliance levels</li> <li>• Procurement Reviews</li> <li>• Procurement Review Period</li> </ul>	

## **APPENDIX IV: LIST OF KENYAN STATE CORPORATIONS**

### **Purely Commercial State Corporation**

1. Agro-Chemical & Food Company
2. Kenya Meat Commission
3. Muhoroni Sugar company Ltd
4. Nyayo Tea zones Development Corporation
5. South Nyanza Sugar Company Ltd
6. Chemilil Sugar Company Ltd
7. Nzoia Sugar company Ltd
8. Simlaw Seeds Kenya
9. Simlaw Seeds Tanzania
10. Simlaw Seeds Uganda
11. Kenya National Trading Corporation (KNTC)
12. Kenya Safari Lodges Ltd
13. Golf Hotel Kakamega
14. Kabarnet Hotel Limited
15. Mount Elgon
16. Sunset Hotel Kisumu
17. Jomo Kenyatta Foundation
18. Kenyatta University Enterprise Limited
19. Kenya Literature Bureau (KBL)
20. Rivatex (East Africa) Ltd
21. School Equipment Production Units
22. University of Nairobi Enterprise Ltd
23. University Of Nairobi Press (UONP)
24. Development Bank of Kenya Ltd
25. Kenya Wine Agencies Ltd (KWAL)
26. KWA Holdings
27. New Kenya Co-operative Creameries
28. Yatta Vineyard Ltd
29. National Housing Ltd
30. Research development Unit Company Ltd
31. Consolidated Bank Of Kenya
32. Kenya National Assurance Co. (2001) Ltd
33. Kenya Reinsurance Corporation Ltd
34. Kenya National Shipping Line

### **State Corporation with Strategic Function**

1. Kenya Animal Genetics Resource Centre
2. Kenya Seed Company (KSC)
3. Kenya Veterinary Vaccine Production Institute
4. National Cereal & Produce Board (NCPB)
5. Kenyatta International Conference Centre

6. Geothermal Development Company (GDC)
7. Kenya Electricity Generating Company (KENGEN)
8. Kenya Electricity Transmission Company (KETRACO)
9. Kenya Pipeline Company (KPC)
10. Kenya power & Lightening Company (KPLC)
11. National Oil Corporation of Kenya
12. National Water Conservation & Pipeline Corporation
13. Numerical Machining Company
14. Kenya Broadcasting Corporation (KBC)
15. Postal Corporation of Kenya
16. Kenya Development Bank (After Merger of TFC, ICDC, KIE, IDB, AFC)
17. Kenya EXIN Bank
18. Kenya Post Office Savings Bank
19. Kenya Airports Authority (KAA)
20. Kenya Ports Authority (KPA)
21. Kenya Railways Corporation

#### **State Agencies - Executive Agencies**

1. Biashara Kenya (After Merging Small and Micro Enterprise Authority, Women Fund, Uwezo Fund & Youth Enterprise Development Authority)
2. Internal Revenue Service ( After transfer of customers department from KRA)
3. Kenya Intellectual Property Service (After Merging with Kenya Copyright board, Kenya Industrial Property Institute and Anti-Counterfeit Agency )
4. Kenya Investment Promotion Service (After merging with KTB,EPC, Brand Kenya Board and KenInvest)
5. Konza Technopolis Authority.
6. Bomas Of Kenya
7. Water Service Trust Fund
8. Leather Development Council
9. Agricultural Development Corporation
10. Anti-Female Genital Mutilation Board
11. Constituency Development Fund
12. Crops Development and Promotion Service (new)
13. Custom and Boarder Security Service ( Successor to the Kenya Citizens and Foreign National Management Service)
14. Drought Management Authority
15. Export Processing Zone Authority (EPZA)
16. Financial Reporting Centre
17. Fisheries Development and Promotion Service (new)
18. Higher Education Loans Boards
19. Information Communication Technology Authority

20. Investor Compensation Fund Board
21. Kenya Academy of Sports
22. Kenya Accountants & Secretaries National Examination Board
23. Kenya Deposits Protection Authority
24. Kenya Ferry Service Ltd (KFS)
25. Kenya Film Development Service
26. Kenya Institute of Curriculum Development
27. Kenya Law Reform Commission
28. Kenya Medical Supplies Authority
29. Kenya National Bureau of Statistics
30. Kenya National Examination Council (KNEC)
31. Kenya National Highway Authority (KeNHA)
32. Kenya National Innovation Agency
33. Kenya Ordnance Factories corporation
34. Kenya Road Board (KRB)
35. Kenya Trade Network Agency
36. Kenya Wildlife and Forestry Conservation Service
37. Kenyatta national Hospital
38. LAPSET Corridor Development Authority
39. Livestock Development and Promotion service (new)
40. Local Authorities Provident Fund
41. Moi Teaching and Referral Hospital
42. Nairobi Centre for International Arbitration
43. National Aids Control Council
44. National Cancer Institute Of Kenya
45. National Coordinating Agency for Population and Development
46. National Council for Law Reporting
47. National Council for people with Disabilities
48. National Hospital Insurance Fund
49. National Industrial Training Authority
50. National Irrigation Board
51. National Museums of Kenya
52. National Quality Control Laboratories
53. National Social security Fund Board of Trustees
54. National Youth Council
55. Nuclear Electricity Board
56. Policy holders Compensation Fund
57. Sports Kenya
58. Kenya Cultural Centre
59. Tourism Fund
60. Unclaimed Financial assets Authority
61. Water Resource Management Authority
62. National Campaign Against Drug Abuse Authority

### **State Agencies – Independent Regulatory Agencies**

1. Agriculture, Fisheries and Food Authority
2. Commission for University Education
3. Communication Commission of Kenya
4. Competition Authority
5. Council for Legal Education
6. Energy Regulatory Commission
7. Health service Regulatory Authority
8. Kenya Bureau Of Standards (KBS)
9. Kenya Civil Aviation Authority (KCAA)
10. Kenya Film Regulatory Service
11. Kenya Maritime Authority
12. Kenya National Accreditation Service
13. Kenya Plant and Animal Health Inspectorate Service (After taking over function of National Biosafety Authority)
14. Livestock Regulatory Authority
15. National Commission for Science, Technology and Innovations
16. National Construction Authority
17. National Environmental Management Authority. (NEMA)
18. National Land Transport & Safety Authority
19. Public benefits Organization Regulatory Authority
20. Public Procurement Oversight Authority
21. Technical & Vocational & Training Authority.
22. Tourism Regulatory Authority
23. Water Service Regulatory Board
24. Financial Supervisory Council ( After merge of Capital Markets Authority, Insurance Regulatory Authority, Retirement Benefits Authority & SACCO Societies Regulatory Authority)
25. Mining and Oil Regulatory Service

### **State Agencies – Research Institutions, Public Universities, Tertiary Education and Training Institutions**

1. Bukura Agricultural College
2. Chuka University
3. Cooperative University college
4. Dedan Kimathi University
5. Egerton University
6. Embu University College
7. Garissa University College
8. Jaramogi Oginga Odinga University of Science and Technology
9. Jomo Kenyatta University of Agriculture and Technology.
10. Karatina University

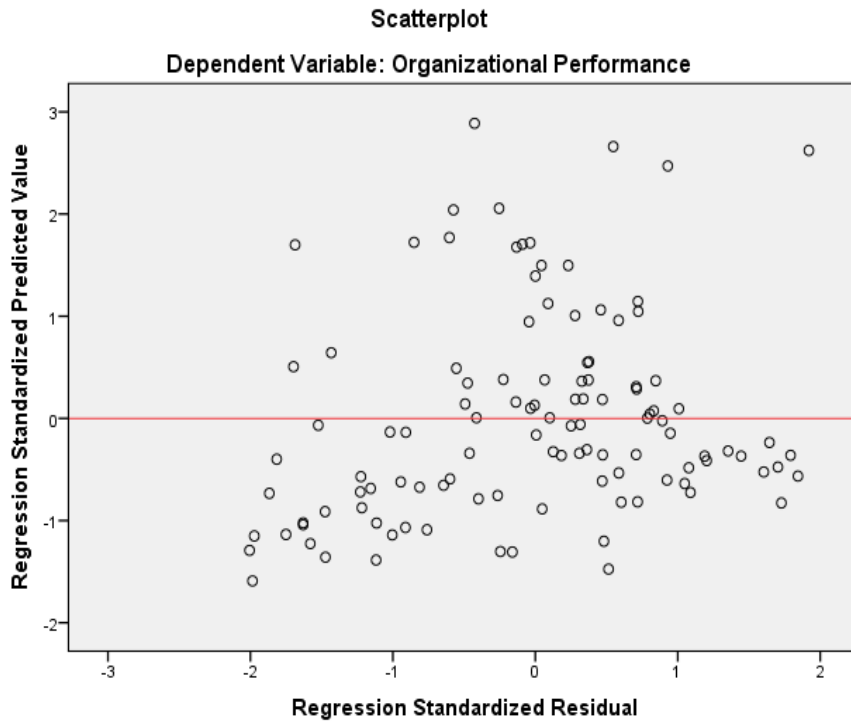
11. Kenya Agriculture and Livestock Research Organization
12. Kenya Forestry Research Institute
13. Kenya industrial Research and Development Institute
14. Kenya Institute of Mass Communication
15. Kenya Institute of Public Policy Research & Analysis (KIPPRA)
16. Kenya Marine & Fisheries Research Institute
17. Kenya Medical Research Institute (KEMRI)
18. Kenya Medical Training College (KMTTC)
19. Kenya Multi-Media University
20. Kenya School of Government
21. Kenya School of Law
22. Kenya Utalii College (KUC)
23. Kenya Water Institution
24. Kenyatta University
25. Kibabii University College
26. Kirinyaga University College
27. Kisii University
28. Laikipia University
29. Maasai Mara University
30. Machakos University College
31. Maseno University
32. Masinde Muliro University of Science & Technology
33. Meru University of Science & Technology
34. Moi University
35. Murang'a University College
36. National Crime Research Centre
37. Pwani University
38. Rongo University College
39. South Eastern Education Science & Technology Kenya University
40. Taita Taveta University College
41. Technical University Of Mombasa
42. The Technical University of Kenya
43. University of Eldoret
44. University Of Kabianga
45. University of Nairobi.

**Source: Taskforce on Parastatal Reforms Report, (2013)**

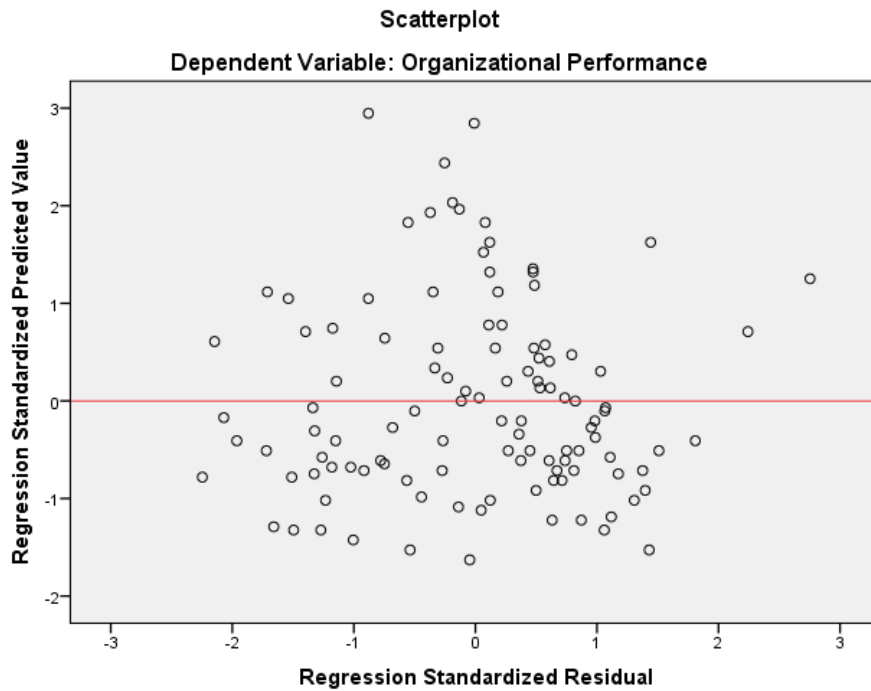


## APPENDIX V: STANDARDIZED RESIDUE PLOTS

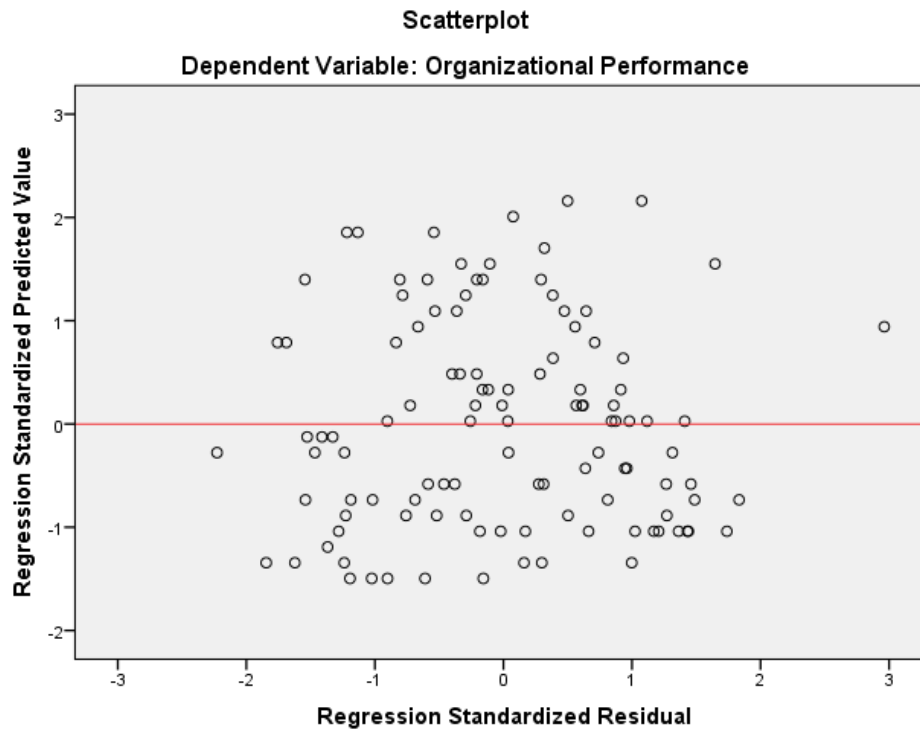
### (i) Standardized Residue Plot for PPDA, (2005)



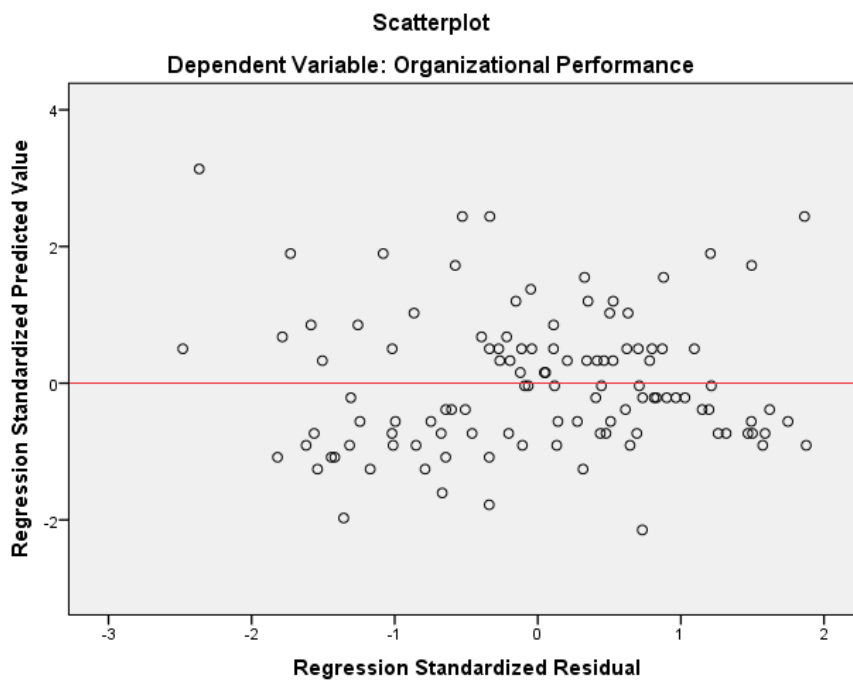
### (ii) Standardized Residue Plot for PPDR, (2006)



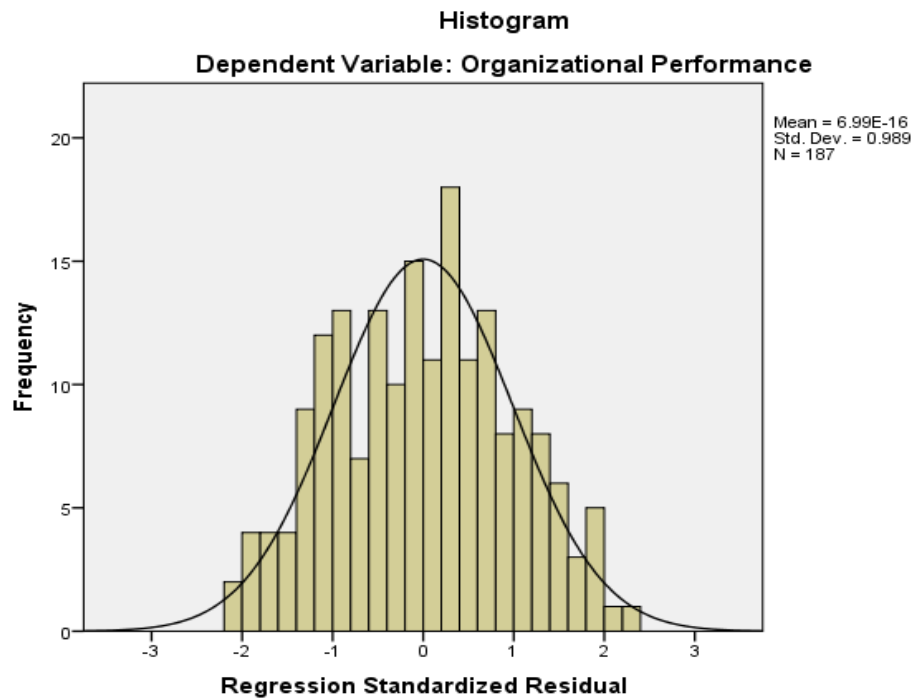
**(iii) Standardized Residue Plot for PPPR, (2009)**



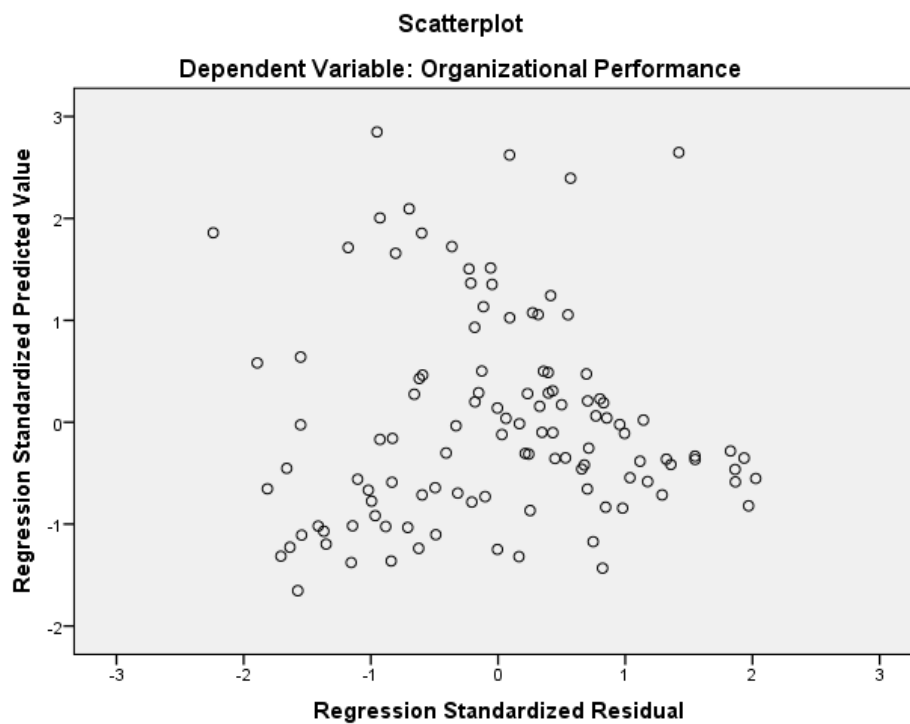
**(iv) Standardized Residue Plot for PRR, (2011)**



**(v) Standardized Residue Histogram for Organizational Performance**



**(vi) Standardized Residue Plot for Multiple Regression**



## APPENDIX VI: KAISER MEYER OLKIN MEASURE OF ADEQUACY

### (i) Public Procurement and Disposal Act, (2005)

#### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.813
Bartlett's Test of Approx. Chi-Square	304.946
Sphericity df	45
Sig.	.000

### (ii) Public Procurement and Disposal Regulations, (2006)

#### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.762
Bartlett's Test of Approx. Chi-Square	570.259
Sphericity df	45
Sig.	.000

### (iii) Public Private Partnership Regulations, (2009)

#### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.752
Bartlett's Test of Approx. Chi-Square	269.435
Sphericity df	45
Sig.	.000

### (iv) Preference & Reservations Regulations, (2011)

#### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.702
Bartlett's Test of Approx. Chi-Square	175.377
Sphericity df	55
Sig.	.000

**(v) Enforcement: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.735
	Approx. Chi-Square	272.652
Bartlett's Test of Sphericity	df	45
	Sig.	.000

**(vi) Performance: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.865
	Approx. Chi-Square	1789.536
Bartlett's Test of Sphericity	df	45
	Sig.	.000

## APPENDIX VII: FACTOR LOADING MATRIX

### Independent variables

Sub Variable	Component Factor Loadings			
	1	2	3	4
Number of complaints on procurement performance from 2009 to 2013	0.953	-0.251	0.004	0.327
Number of complaints received on quality from 2009 to 2013	0.719	-0.238	0.093	0.405
Number of Market survey conducted from 2009 to 2013	0.895	-0.176	-0.037	0.259
Number of internal Procurement audits conducted from 2009 to 2013	0.875	-0.187	0.101	0.156
Number of open tenders advertised in the print media for the last one year	0.502	-0.236	-0.002	0.4
Number of tenders posted on entity and PPOA websites from 2009 to 2013	0.598	-0.319	-0.089	0.208
Methods of procurement used and average annual budget expenditure spent	0.954	-0.297	0.383	0.403
Number of restricted and direct tenders conducted from 2009 to 2013	0.544	-0.016	0.002	0.127
Number of days it takes corporations to pay suppliers	0.862	-0.136	-0.033	0.379
Percentage of tenders awarded that were advertised on print media	0.468	-0.218	-0.175	0.245
Number of reports submitted to PPOA from 2009 to 2013	0.846	0.212	-0.159	0.242
Number of open tenders advertised on print media from 2009 to 2013	0.869	-0.434	-0.13	-0.464
Number of procurement officers with professional qualifications	0.915	0.346	0.424	0.475
Number of the procurement staff that are members of KISM	0.917	0.476	0.382	0.435
Function that the Procurement Unit reports to	0.227	0.834	0.255	-0.184
Appointing authority of the tender, procurement and disposal committees	0.424	0.820	0.366	-0.209
Contracts amounting to Kshs handled by the Procurement committee	0.615	0.591	0.083	-0.203
Appointment of evaluation committee for each tender	0.617	0.967	-0.034	-0.176
Frequency of disposal committee meetings	0.592	0.706	0.05	-0.228
Inspection of delivered goods and equipments by a committee	0.388	0.734	0.212	-0.434
Involvement of Procurement unit in formulation of the procurement strategy	0.453	0.509	-0.159	-0.13
Amount for use of open tender	0.546	0.640	0.242	-0.464
Frequency of approval of restricted and direct tender methods	0.538	0.894	0.162	-0.096
Frequency of market surveys to inform award of contracts	0.327	0.654	-0.042	-0.06
Availability of accurate and reliable procurement records	0.22	0.789	-0.043	-0.023

Level of relevant training of the records management staff in the organization	-0.026	0.915	-0.105	0.239
Period it takes to dispose procurement records	-0.079	0.868	-0.149	0.048
Preparation of annual procurement plans	0.346	0.745	0.354	0.388
Frequency of updating procurement plans to suit project needs	0.424	0.803	0.548	0.453
Establishment of a records management unit	-0.204	0.919	0.435	0.546
Participation in public private partnership projects since 2009	0.442	0.105	0.788	-0.11
Number of PPP projects implemented from 2009 to 2013	0.177	0.328	0.810	-0.206
Method of contractor identification	0.05	-0.011	0.807	0.136
Percentage of all PPP contracts executed identified by open tenders	0.201	0.062	0.611	0.105
Criteria for selection of contractors	0.297	0.215	0.721	-0.046
Frequency of due diligence conducted before award of PPP contracts	0.354	0.59	0.757	0.027
Frequency of supplier performance evaluation	0.548	0.536	0.719	0.044
Monitoring and evaluation of project implementation	0.435	0.392	0.712	-0.074
Suppliers Performance feedback	0.525	0.41	0.591	-0.133
Number of contracts completed to quality from 2009 to 2013	0.843	0.113	0.705	-0.042
Number of contracts completed in time from 2009 to 2013	0.395	0.487	0.847	0.181
Number of contracts completed at cost from 2009 to 2013	0.17	0.427	0.791	-0.012
Number of contracts given preference to the local contractors from 2011 to 2013	0.03	0.301	0.632	0.748
Number of contracts awarded to the Youth, Women and PWDs from 2011 to 2013	0.138	0.205	0.555	0.810
Total Value of contracts awarded to Youth, Women and PWDs from 2011 to 2013	0.29	-0.008	-0.291	0.707
Total number of contracts awarded to SMEs from 2011 to 2013	0.392	0.233	-0.376	0.741
Influence of corporations to award contracts to SMEs	0.346	0.424	-0.204	0.721
Proportion of contracts awarded to SMEs of all the contracts from 2011 to 2013	0.476	0.382	-0.179	0.856
Number of bidder conferences held for SMEs from 2011 to 2013	0.475	0.347	-0.33	0.757
Availability of Funds for procurement activities	0.435	0.375	-0.186	0.784
Trainings held for staff on the 30% contracts award directive	0.486	0.179	-0.314	0.755
Extent corporations have embraced the 30% contracts award directive	0.354	0.034	-0.035	0.791
Percentage of contracts awarded to SMEs delivered on time, at cost and quality	0.181	0.201	-0.042	0.817

**Dependent variable**

<b>Indicators</b>	<b>Component Factor Loadings</b>	
	<b>1</b>	<b>2</b>
Customer satisfaction surveys conducted from 2009 to 2013	0.814	-0.184
Level of customer satisfaction	0.755	-0.107
Number of contracts not delivered on time in the current financial year	0.780	-0.154
Number of contracts not delivered at all from 2009 to 2013	0.813	0.004
Number of employee satisfaction surveys conducted from 2009 to 2013	0.847	-0.101
Level of employee satisfaction	0.820	0.254
Percentage reduction in number of rejected deliveries from 2009 to 2013	0.928	-0.052
Percentage increase in level of customer satisfaction from 2009 to 2013	0.988	-0.02
Percentage increase in revenue from 2009 to 2013	0.763	0.058
Percentage increase in market share from 2009 to 2013	0.874	0.261
Percentage decrease in fraud and corruption cases from 2009 to 2013	0.757	-0.113
Percentage increase in level of employee satisfaction from 2009 to 2013	0.951	0.025
Percentage decrease in delayed contracts awarded from 2009 to 2013	0.805	0.193
Percentage decrease in undelivered contracts from 2009 to 2013	0.857	0.508
Percentage decrease in organizational expenditure from 2009 to 2013	0.857	0.668
Percentage reduction in procurement process cost from 2009 to 2013	0.800	0.183
Percentage increase in annual budget 2009 to 2013	0.797	-0.374
Percentage increase in annual spending for the entity from 2009 to 2013	0.798	-0.096

**Moderating variable**

<b>Sub variable</b>	<b>Component Factor Loadings</b>	
	<b>1</b>	<b>2</b>
Number of compliance audits conducted by PPOA from 2009 to 2013	0.953	0.507
Compliance levels from 2009 to 2013	0.732	0.668
Number of Procurement cases reviewed from 2009 to 2013	0.766	0.182
Number of days it takes the PPARB finalize a procurement review	0.914	-0.373



## APPENDIX VIII: FACTOR SCORES

Sub Variable	Component Factor Scores			
	1	2	3	4
Number of complaints on procurement performance from 2009 to 2013	0.156	- 0.099	0.296	0.016
Number of complaints received on quality from 2009 to 2013	0.178	- 0.036	0.203	0.346
Number of Market survey conducted from 2009 to 2013	0.174	- 0.396	0.119	0.388
Number of internal Procurement audits conducted from 2009 to 2013	0.117	- 0.336	0.332	0.22
Number of open tenders advertised in the print media for the last one year	0.187	- 0.176	- 0.041	0.135
Number of tenders posted on entity and PPOA websites from 2009 to 2013	0.154	0.355	0.419	-0.19
Methods of procurement used and average annual budget expenditure spent	0.153	0.456	0.063	- 0.162
Number of restricted and direct tenders conducted from 2009 to 2013	0.193	0.056	0.006	0.147
Number of days it takes corporations to pay suppliers	0.138	0.019	- 0.203	0.069
Percentage of tenders awarded that were advertised on print media	0.134	0.421	- 0.046	- 0.068
Number of reports submitted to PPOA from 2009 to 2013	0.105	0.146	0.234	- 0.248
Number of open tenders advertised on print media from 2009 to 2013	0.069	- 0.013	0.102	-0.08
Number of procurement officers with professional qualifications	0.089	0.154	0.147	0.154
Number of the procurement staff that are members of KISM	0.051	-0.19	- 0.162	0.005
Function that the Procurement Unit reports to	- 0.126	0.135	0.223	- 0.332
Appointing authority of the tender, procurement and disposal committees	- 0.217	0.164	0.066	0.228
Contracts amounting to Kshs handled by the Procurement committee	- 0.203	0.108	0.069	- 0.067
Appointment of evaluation committee for each tender	- 0.046	0.116	- 0.068	0.185
Frequency of disposal committee meetings	- 0.069	0.089	0.051	0.169
Inspection of delivered goods and equipments by a committee	- 0.013	0.154	-0.19	0.293
Involvement of Procurement unit in formulation of the procurement strategy	0.102	0.147	- 0.162	- 0.125
Use of open tender for all contracts above kshs. 6 million	-0.08	0.154	0.005	0.418

Frequency of approval of restricted and direct tender methods	0.042	0.125	-	-
Frequency of market surveys to inform award of contracts	0.133	0.121	0.035	-
Availability of accurate and reliable procurement records	0.172	-	-	-0.2
Level of relevant training of records management staff	0.315	0.062	0.003	-
Period it takes to dispose procurement records	0.014	0.072	-0.32	0.038
Preparation of annual procurement plans	0.216	0.187	0.028	-0.26
Frequency of updating procurement plans to suit project needs	0.119	0.178	0.219	0.181
Establishment of a records management unit	0.166	-	-	-
Participation in public private partnership projects since 2009	-	0.177	0.204	0.285
Number of PPP projects implemented from 2009 to 2013	0.204	0.078	0.221	0.246
Method of contractor identification	0.171	0.11	0.028	-
Percentage of all PPP contracts executed identified by open tenders	0.285	0.054	0.187	0.296
Criteria for selection of contractors	-	0.088	0.420	0.114
Frequency of due diligence conducted before award of PPP contracts	-	0.114	0.014	0.457
Frequency of supplier performance evaluation	0.119	0.16	0.341	0.323
Monitoring and evaluation of project implementation	0.177	0.188	0.042	0.263
Suppliers Performance feedback	0.042	0.216	0.119	-
Number of contracts completed to quality from 2009 to 2013	0.014	0.178	-	-
Number of contracts completed in time from 2009 to 2013	0.187	0.219	0.177	0.078
Number of contracts completed at cost from 2009 to 2013	0.028	0.181	-	-
Number of contracts given preference to the local contractors from 2011 to 2013	-0.26	0.103	0.204	0.221
Number of contracts awarded to the Youth, Women and PWDs from 2011 to 2013	0.341	0.144	0.285	0.246
Total Value of contracts awarded to Youth, Women and PWDs from 2011 to 2013	0.42	0.103	-0.26	-
Total number of contracts awarded to SMEs from 2011 to 2013	-	-	0.222	0.098
Influence of corporations to award contracts to SMEs	0.088	0.081	0.481	-
	-	0.121	-	0.520
	0.069	0.641	-	-
	0.145	0.139	0.108	-
	0.205	0.067	0.062	-
	0.238	-	-0.09	0.193

Proportion of contracts awarded to SMEs of all the contracts from 2011 to 2013	0.201	-0.06	-	0.174
Number of bidder conferences held for SMEs from 2011 to 2013	0.222	-	-	0.168
Availability of Funds for procurement activities	0.25	0.074	-	0.080
Trainings held for staff on the 30% contracts award directive	0.191	-	0.327	-
Extent corporations have embraced 30% contracts award directive	0.178	-	0.22	-
Percentage of contracts awarded to SMEs delivered on time, at cost and quality	0.263	-	-	-
		0.166	0.078	0.221

### Dependent variables

Indicators	Component factor scores	
	1	2
Customer satisfaction surveys conducted from 2009 to 2013	0.032	0.602
Level of customer satisfaction	0.028	0.576
No. of contracts not delivered on time in the current financial year	0.099	-0.089
Number of contracts not delivered at all from 2009 to 2013	0.126	-0.128
No. of employee satisfaction surveys conducted from 2009 to 2013	0.124	0.004
Level of employee satisfaction	0.12	-0.084
Percentage reduction in Number of rejected deliveries from 2009 to 2013	0.12	0.211
Percentage increase in level of customer satisfaction from 2009 to 2013	0.125	-0.043
Percentage increase in revenue from 2009 to 2013	0.125	-0.017
Percentage increase in market share from 2009 to 2013	0.113	0.048
Percentage decrease in fraud & corruption cases from 2009 to 2013	0.118	0.217
Percentage increase in level of employee satisfaction from 2009 to 2013	0.119	-0.094
Percentage decrease in delayed contracts from 2009 to 2013	0.372	0.179
Percentage decrease in undelivered contracts from 2009 to 2013	0.134	0.069
Percentage decrease in entity expenditure from 2009 to 2013	0.144	0.07

Percentage reduction in procurement cost from 2009 to 2013	0.489	0.149
Percentage increase in annual budget 2009 to 2013	0.193	0.154
Percentage increase in annual spending for entity from 2009 to 2013	0.187	0.153

### **Moderating variable**

<b>Sub variable</b>	<b>Component factor scores</b>	
	<b>1</b>	<b>2</b>
Number of compliance audits conducted by PPOA from 2009 to 2013	0.372	0.179
Compliance levels from 2009 to 2013	0.134	0.069
Number of Procurement cases reviewed from 2009 to 2013	0.144	0.07
Number of days it takes the PPARB finalize a procurement review	0.489	0.149

## APPENDIX IX: COMPLIANCE LEVELS

<b>Name of PE</b>	<b>Year of Audit</b>	<b>Score (60% Min)</b>	<b>Remarks</b>
Kenya Institute of Administration	2010	31	Unsatisfactory
Harambee Co-op Savings & Credit Society Ltd	2010	29.3	Unsatisfactory
Communications Commissions of Kenya	2009	60.7	Satisfactory
Egerton University	2010	64.06	Satisfactory
Kenya Agricultural Research Institute	2009	53.2	Unsatisfactory
National Water Conservation & Pipeline	2010	42.24	Unsatisfactory
National Hospital Insurance Fund	2010	72.1	Satisfactory
National Social Security Fund	2009	50.3	Unsatisfactory
Postal Corporation of Kenya	2009	50.7	Unsatisfactory
Tanathi Water Service Board	2010	45.6	Unsatisfactory
Teachers Service Commission	2009	43.3	Unsatisfactory
Tana Water Service Board	2010	29.32	Unsatisfactory
Ministry of water & Irrigation	2010	49.19	Unsatisfactory
Ministry of state for Development of Northern Kenya & other Arid Lands	2009	42.1	Unsatisfactory
Eldoret Municipal Council	2009	50	Unsatisfactory

**Source:** [Http://www.ppoa.go.ke](http://www.ppoa.go.ke)

## APPENDIX X: SUMMARY OF EMPIRICAL LITERATURE, KNOWLEDGE GAPS AND STUDY CONTRIBUTIONS

Author and Year	Focus of the study and Methodology	Findings of the study	Critique and Knowledge Gaps	Contribution of the Current Study
Gelderman, Ghijsen and Brugman (2006)	Studied Public Procurement and EU tendering directives non compliance. Survey design was adopted for the study and multiple regressions was applied for data analysis.	Established that both purchaser's familiarity with the rules and organizational incentives have a positive, statistically significant impact on compliance. Inefficiency of the directives and the expected supplier resistance also influence compliance with the directives.	<p>The study focused on PP and EU tendering directives and non compliance and failed to explore its effect on the performance of public sector organizations.</p> <p>Study relied on perceptions of respondents and not objective measurable data on compliance issues.</p> <p>Sample of survey was only for purchasers. No higher level managers in the hierarchy of organizations who might have a decisive influence on the compliance were included.</p> <p>No recommendations were made on how to improve Procurement regulatory compliance and organization performance.</p>	<p>This study focused on non compliance and its effect on organizational performance of Kenyan state corporations.</p> <p>Study measured both perceptions and objective, measureable data on compliance. These will include economy (cost and benefits) and legitimacy.</p> <p>Sample included Accounting Officers, and Purchasers.</p> <p>This aimed at making recommendations on how to improve procurement regulatory compliance.</p>

## Summary of Empirical Literature, Knowledge Gaps and Study Contributions

Author and Year	Focus of the study and Methodology	Findings of the study	Critique and Knowledge Gaps	Contribution of the Current Study
PPOA (2007)	Assessed the level of compliance to the procurement law.	Established that introduction of legal and regulatory procurement framework, establishment of PPOA as an oversight body, development of a framework for contract management and appeal mechanisms were aspects that were positively affected by the law. However, institutional development capacity and functioning of procurement market were among the weakest aspects of the system.	The study was fact finding and did not establish the real reasons for low compliance on the weakest aspect of the Law. Sample was also small.	The study 1 focused on a large sample of the PEs and established the real reasons for non compliance and the challenges PEs face in implementing the legal framework.
PPRA (2007)	Assessed the Tanzania's procurement system in 20 PEs selected randomly using the OECD-DAC/WB methodology/structure of four pillars.	Established that tenders which did not use standard bidding documents accounted for 55% of the procurements, and most of the interviewed stake holders were not familiar with the Act and Regulations.	Study measured perceptions of PP practitioners only and not other stakeholders involved in the procurement process.  Study failed to explore the effect of non compliance on organizational performance of PEs	Study focused on the factors affecting effective implementation of the legal framework and its effect on organizational performance. The sample included top management.
Richard Glavee Geo (2008)	Studied factors leading to compliance with the Public Procurement Law in Ghana.	Established that both organizational goal achievement and familiarity of rules by PP practitioners have a positive, statistically		This study focused on non compliance and its effect on organizational performance of Kenyan state corporations. Sample included .

### Summary of Empirical Literature, Knowledge Gaps and Study Contributions

Author and Year	Focus of the study and Methodology	Findings of the study	Critique and Knowledge Gaps	Contribution of the Current Study
		Significant impact on compliance. Monitoring of procurement practitioners behavior though having a positive relationship with compliance was found not to be of much significance. Intra-organizational pressure was found to have significant but negative relationship with compliance.		Accounting Officers and Purchasers.
Basheka (2008)	Studied Procurement Planning and Accountability of local government procurement systems in Uganda. Used correlation research design for the study and principal component for data analysis.	Established that procurement planning process; procurement planning practices; departments involved in procurement planning, and the value of procurement planning, are significantly and positively related to accountable local Government procurement systems in Uganda.	The study was limited to procurement planning which is only one indicator of the public procurement legal framework. Other indicators of the procurement regulatory compliance that affect organizational performance of PEs were not considered.	This study focused on more indicators of the procurement regulatory compliance including institutional, economical, political and technological aspects.
Raymond (2008)	Explored the difficulties faced by public sector employees in separating the daily business of government from the political influences of its elected leaders.	Established that poor procurement practices hinder sustainable development and negatively impact upon economic growth of Sri-Lanka.	This was a case study and therefore may not be replicated in other developing countries.	Study was a survey of state corporations.



### Summary of Empirical Literature, Knowledge Gaps and Study Contributions

Author and Year	Focus of the study and Methodology	Findings of the study	Critique and Knowledge Gaps	Contribution of the Current Study
Onyikwa, Ondieki and Omari (2013)	Factors influencing compliance to procurement regulations in public secondary schools in Kenya: A case of nyamache district, kisii county.	Findings indicate that ethics, awareness and training influences compliance to the procurement regulations in public secondary schools.	The study was limited to secondary schools in Kisii county and concentrated its research undertakings on procurement regulatory framework compliance challenges. Hence the obtained findings cannot be applied to relate with compliance challenges in state corporations. Moreover, the study did not even show the relationship between the level of compliance with procurement legal framework and organizational performance.	This study focused on non compliance and its effect on organizational performance of Public entities.
Okundi (2013)	Studied on how the procurement law can help implementation of county governments in devolution process in Kenya.	Established that despite the progress made since the operationalization of the law, the Kenyan procurement system still faces a myriad of challenges. Noted that up to 30% of the national budget is lost in procurement related malpractices. In addition, the procurement law has made execution of public procurement inefficient.	Study gave recommendations on how compliance can be improved.	Study gave more recommendations on how to improve procurement regulatory compliance and organizational performance.

### Summary of Empirical Literature, Knowledge Gaps and Study Contributions

Author and Year	Focus of the study and Methodology	Findings of the study	Critique and Knowledge Gaps	Contribution of the Current Study
Ogot Mulinge and Muriuki (2010)	Studied the impact of the public procurement law on profit oriented public corporations in Kenya.	Findings indicate that regulating procurement in profit oriented public corporations had significantly promoted transparency, quality and value for money in procurements carried out. However, the study revealed that the ability by the public enterprises to bargain with suppliers for the best deal and speedy response to business opportunities were some of the areas adversely impacted by the law.	The study did not indicate the impact of the inability to bargain with suppliers and failure of speedy response to business opportunities had on the firms' profitability and growth; and accountability of the firms (performance).	The study focused on the effect of supplier relationship management on the performance of Kenyan state corporations.
Belisario et al., (2011)	Studied Asia Pacific Economic Cooperation (APEC) procurement transparency standards in the Philippines.	Established that civil society monitoring is an essential tool in ensuring adherence to the legal framework but that its capacity to monitor is limited to certain stages in the procurement process and is hampered by the limited number of monitors and the need for more technical and financial support.	Study was conducted in a developed country and may not be replicated in a developing country.	Study was conducted on an African context (Kenyan).

### Summary of Empirical Literature, Knowledge Gaps and Study Contributions

Author and Year	Focus of the study and Methodology	Findings of the study	Critique and Knowledge Gaps	Contribution of the Current Study
Eyaa and Oluka (2011)	Studied causes of non compliance in public procurement in Uganda using a structured questionnaire. Regression analysis was applied for data analysis.	Established that out of the four variables notably professionalism, familiarity with procurement regulations and institutional factors, only one variable, familiarity with procurement regulations was a significant predictor of compliance. The study model explained that 52.4% of the variation in compliance with regulations was dependent with familiarity with procurement regulations.	The study also did not explore the structure of the country's procurement legal framework and how it affects the performance of PEs.	This study focused on the structure of the country's procurement legal framework and how it influenced performance of Kenyan state corporations.
Osei-Tutu, Mensah and Ameyaw (2011)	The level of compliance with the Public Procurement Act (663) in Ghana.	Findings indicate overall compliance levels of 19.58% and 17.8% in the Ashanti and Brong Ahafo Regions respectively. The general poor level of compliance with the law is due to lack of professional procurement personnel, lack of resources to purchase in bulk, lack of understanding of the law, lack of Internet facilities to facilitate access of information from PPA.	The study drew more attention on the level of procurement regulations compliance and thus failed to address the effect on organization performance.	This study focused on compliance and organizational performance.

### Summary of Empirical Literature, Knowledge Gaps and Study Contributions

Author and Year	Focus of the study and Methodology	Findings of the study	Critique and Knowledge Gaps	Contribution of the Current Study
Ntayi, Ngoboka, Mutebi & Sitenda (2012)	Studied social value orientation and regulatory compliance in Ugandan public procurement using a survey design. Data was collected from 110 PDEs and analyzed using confirmatory factor analysis and structured equation analysis.	Study findings indicate that social value orientation, expected utility, legitimacy of the procurement law, enforcement agency and perceptions of procedural justice are significant predictors of public procurement regulatory compliance.	The item scales adapted for study were not specifically developed for a public procurement regulatory environment.	This study focused on scales that are specific to public procurement environment.
RPPA, 2012	Assessed compliance with procurement law, regulations and procedures by PEs in Rwanda.	Established that filing system of procurement was poor, payment of executed tenders was delayed; contract awards not published; delayed tender completion; a big number of tenders (in value and number) were awarded through non open competitive methods; advertising and awarding tenders of value higher than 10M Rwandan francs without any prior study; award of tenders that are not planned for; and lack of inspection and acceptance reports on completed tenders.	The study was fact finding and therefore did not show how non compliance to the procurement law affects organizational performance of public entities.	Study focused on causes of non compliance and the effects it has on organizational performance.

### Summary of Empirical Literature, Knowledge Gaps and Study Contributions

Author and Year	Focus of the study and Methodology	Findings of the study	Critique and Knowledge Gaps	Contribution of the Current Study
Mwangi and Kariuki, (2013)	Factors influencing compliance of public hospitality entities to public procurement laws and regulations in Kenya.	Established that compliance with public procurement law and regulations is affected by staff competencies with procurement law, weak internal controls and inadequate application of ICT process and systems.	The study was limited to a single public entity whose results may not be replicated on other public entities in the same industry.	This study was a survey that focused on Kenyan state Corporations.

# APPENDIX XI: DURBIN WATSON TABLES EXTRACT

Durbin-Watson Statistic: 1 Per Cent Significance Points of dL and dU																				
n	k*=1		k*=2		k*=3		k*=4		k*=5		k*=6		k*=7		k*=8		k*=9		k*=10	
	dL	dU	dL	dU	dL	dU	dL	dU	dL	dU	dL	dU	dL	dU	dL	dU	dL	dU	dL	dU
6	0.390	1.142	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	0.435	1.036	0.294	1.676	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	0.497	1.003	0.345	1.489	0.229	2.102	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	0.554	0.998	0.408	1.389	0.279	1.875	0.183	2.433	---	---	---	---	---	---	---	---	---	---	---	---
10	0.604	1.001	0.466	1.333	0.340	1.733	0.230	2.193	0.150	2.690	---	---	---	---	---	---	---	---	---	---
11	0.653	1.010	0.519	1.297	0.396	1.640	0.286	2.030	0.193	2.453	0.124	2.892	---	---	---	---	---	---	---	---
12	0.697	1.023	0.569	1.274	0.449	1.575	0.339	1.913	0.244	2.280	0.164	2.665	0.105	3.053	---	---	---	---	---	---
13	0.738	1.038	0.616	1.261	0.499	1.526	0.391	1.826	0.294	2.150	0.211	2.490	0.140	2.838	0.090	3.182	---	---	---	---
14	0.776	1.054	0.660	1.254	0.547	1.490	0.441	1.757	0.343	2.049	0.257	2.354	0.183	2.667	0.122	2.981	0.078	3.287	---	---
15	0.811	1.070	0.700	1.252	0.591	1.465	0.487	1.705	0.390	1.967	0.303	2.244	0.226	2.530	0.161	2.817	0.107	3.101	0.068	3.374
16	0.844	1.086	0.738	1.253	0.633	1.447	0.532	1.664	0.437	1.901	0.349	2.153	0.269	2.416	0.200	2.681	0.142	2.944	0.094	3.201
17	0.873	1.102	0.773	1.255	0.672	1.432	0.574	1.631	0.481	1.847	0.393	2.078	0.313	2.319	0.241	2.566	0.179	2.811	0.127	3.053
18	0.902	1.118	0.805	1.259	0.708	1.422	0.614	1.604	0.522	1.803	0.435	2.015	0.355	2.238	0.282	2.467	0.216	2.697	0.160	2.925
19	0.928	1.133	0.835	1.264	0.742	1.416	0.650	1.583	0.561	1.767	0.476	1.963	0.396	2.169	0.322	2.381	0.255	2.597	0.196	2.813
20	0.952	1.147	0.862	1.270	0.774	1.410	0.684	1.567	0.598	1.736	0.515	1.918	0.436	2.110	0.362	2.308	0.294	2.510	0.232	2.174
21	0.975	1.161	0.889	1.276	0.803	1.408	0.718	1.554	0.634	1.712	0.552	1.881	0.474	2.059	0.400	2.244	0.331	2.434	0.268	2.625
22	0.997	1.174	0.915	1.284	0.832	1.407	0.748	1.543	0.666	1.691	0.587	1.849	0.510	2.015	0.437	2.188	0.368	2.367	0.304	2.548
23	1.017	1.186	0.938	1.290	0.858	1.407	0.777	1.535	0.699	1.674	0.620	1.821	0.545	1.977	0.473	2.140	0.404	2.308	0.340	2.479
24	1.037	1.199	0.959	1.298	0.881	1.407	0.805	1.527	0.728	1.659	0.652	1.797	0.578	1.944	0.507	2.097	0.439	2.255	0.375	2.417
25	1.055	1.210	0.981	1.305	0.906	1.408	0.832	1.521	0.756	1.645	0.682	1.776	0.610	1.915	0.540	2.059	0.473	2.209	0.409	2.362
26	1.072	1.222	1.000	1.311	0.928	1.410	0.855	1.517	0.782	1.635	0.711	1.759	0.640	1.889	0.572	2.026	0.505	2.168	0.441	2.313
27	1.088	1.232	1.019	1.318	0.948	1.413	0.878	1.514	0.808	1.625	0.738	1.743	0.669	1.867	0.602	1.997	0.536	2.131	0.473	2.269
28	1.104	1.244	1.036	1.325	0.969	1.414	0.901	1.512	0.832	1.618	0.764	1.729	0.696	1.847	0.630	1.970	0.566	2.098	0.504	2.229
29	1.119	1.254	1.053	1.332	0.988	1.418	0.921	1.511	0.855	1.611	0.788	1.718	0.723	1.830	0.658	1.947	0.595	2.068	0.533	2.193
30	1.134	1.264	1.070	1.339	1.006	1.421	0.941	1.510	0.877	1.606	0.812	1.707	0.748	1.814	0.684	1.925	0.622	2.041	0.562	2.160
31	1.147	1.274	1.085	1.345	1.022	1.425	0.960	1.509	0.897	1.601	0.834	1.698	0.772	1.800	0.710	1.906	0.649	2.017	0.589	2.131
32	1.160	1.283	1.100	1.351	1.039	1.428	0.978	1.509	0.917	1.597	0.856	1.690	0.794	1.788	0.734	1.889	0.674	1.995	0.615	2.104
33	1.171	1.291	1.114	1.358	1.055	1.432	0.995	1.510	0.935	1.594	0.876	1.683	0.816	1.776	0.757	1.874	0.698	1.975	0.641	2.080
34	1.184	1.298	1.128	1.364	1.070	1.436	1.012	1.511	0.954	1.591	0.896	1.677	0.837	1.766	0.779	1.860	0.722	1.957	0.665	2.057
35	1.195	1.307	1.141	1.370	1.085	1.439	1.028	1.512	0.971	1.589	0.914	1.671	0.857	1.757	0.800	1.847	0.744	1.940	0.689	2.037
36	1.205	1.315	1.153	1.376	1.098	1.442	1.043	1.513	0.987	1.587	0.932	1.666	0.877	1.749	0.821	1.836	0.766	1.925	0.711	2.018
37	1.217	1.322	1.164	1.383	1.112	1.446	1.058	1.514	1.004	1.585	0.950	1.662	0.895	1.742	0.841	1.825	0.787	1.911	0.733	2.001
38	1.227	1.330	1.176	1.388	1.124	1.449	1.072	1.515	1.019	1.584	0.966	1.658	0.913	1.735	0.860	1.816	0.807	1.899	0.754	1.985
39	1.237	1.337	1.187	1.392	1.137	1.452	1.085	1.517	1.033	1.583	0.982	1.655	0.930	1.729	0.878	1.807	0.826	1.887	0.774	1.970
40	1.246	1.344	1.197	1.398	1.149	1.456	1.098	1.518	1.047	1.583	0.997	1.652	0.946	1.724	0.895	1.799	0.844	1.876	0.749	1.956
45	1.288	1.376	1.245	1.424	1.201	1.474	1.156	1.528	1.111	1.583	1.065	1.643	1.019	1.704	0.974	1.768	0.927	1.834	0.881	1.902
50	1.324	1.403	1.285	1.445	1.245	1.491	1.206	1.537	1.164	1.587	1.123	1.639	1.081	1.692	1.039	1.748	0.997	1.805	0.955	1.864
55	1.356	1.428	1.320	1.466	1.284	1.505	1.246	1.548	1.209	1.592	1.172	1.638	1.134	1.685	1.095	1.734	1.057	1.785	1.018	1.837
60	1.382	1.449	1.351	1.484	1.317	1.520	1.283	1.559	1.248	1.598	1.214	1.639	1.179	1.682	1.144	1.726	1.108	1.771	1.072	1.817
65	1.407	1.467	1.377	1.500	1.346	1.534	1.314	1.568	1.283	1.604	1.251	1.642	1.218	1.680	1.186	1.720	1.153	1.761	1.120	1.802
70	1.429	1.485	1.400	1.514	1.372	1.546	1.343	1.577	1.313	1.611	1.283	1.645	1.253	1.680	1.223	1.716	1.192	1.754	1.162	1.792
75	1.448	1.501	1.422	1.529	1.395	1.557	1.368	1.586	1.340	1.617	1.313	1.649	1.284	1.682	1.256	1.714	1.227	1.748	1.199	1.783
80	1.465	1.514	1.440	1.541	1.416	1.568	1.390	1.595	1.364	1.624	1.338	1.653	1.312	1.683	1.285	1.714	1.259	1.745	1.232	1.777
85	1.481	1.529	1.458	1.553	1.434	1.577	1.411	1.603	1.386	1.630	1.362	1.657	1.337	1.685	1.312	1.714	1.287	1.743	1.262	1.773
90	1.496	1.541	1.474	1.563	1.452	1.587	1.429	1.611	1.406	1.636	1.383	1.661	1.360	1.687	1.336	1.714	1.312	1.741	1.288	1.769
95	1.510	1.552	1.489	1.573	1.468	1.596	1.446	1.618	1.425	1.641	1.403	1.666	1.381	1.690	1.358	1.715	1.336	1.741	1.313	1.767
100	1.522	1.562	1.502	1.582	1.482	1.604	1.461	1.625	1.441	1.647	1.421	1.670	1.400	1.693	1.378	1.717	1.357	1.741	1.335	1.765
150	1.611	1.637	1.598	1.651	1.584	1.665	1.571	1.679	1.557	1.693	1.543	1.708	1.530	1.722	1.515	1.737	1.501	1.752	1.486	1.767
200	1.664	1.684	1.653	1.693	1.643	1.704	1.633	1.715	1.623	1.725	1.613	1.735	1.603	1.746	1.592	1.757	1.582	1.768	1.571	1.779

\*k\* is the number of regressors excluding the intercept