

CORRUPTION, INSTITUTIONS AND ECONOMIC DEVELOPMENT

BY

PROTUS SHIGOLI SHITERO

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DEDICATION

I dedicate this paper to my late parents for their inspiration and advice to always aim higher, my brother, Bramwel for his support through the study time, my classmates for their invaluable help and peer reviews.

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TABLE OF CONTENT

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
LIST OF TABLES	vii
ABSTRACT	viii
ABBREVIATIONS	ix
CHAPTER 1	1
INTRODUCTION	1
1.0 Background of the study	1
1.1 The State Of Corruption in Kenya	3
1.2 Statement of the Problem	5
1.3 Research Questions	6
1.4 Research Objectives	6
1.5 Significance of the Study	7
CHAPTER 2	8
LITERATURE REVIEW	8
2.0 Introduction	8
2.1 Theoretical Review	8
2.2 Empirical Review	10
CHAPTER 3	16
RESEARCH METHODOLOGY	16
3.0 Theoretical Framework	16
3.1 Empirical Model Specification.....	18
3.2 Estimation Methods.....	19
3.3 Data and explanation of variables	20
CHAPTER 4	22
DATA ANALYSIS, FINDINGS AND DISCUSSION	22
4.0 INTRODUCTION.....	22
4.1 DESCRIPTIVE STATISTICS	22
4.2 CORRELATION TEST	22
4.3 UNIT ROOT TEST.....	23

4.4 MODEL ESTIMATION AND DISCUSSION OF RESULTS.....	23
4.5 POST-ESTIMATION AND HYPOTHESIS TESTING	25
CHAPTER 5	27
SUMMARY, CONCLUSION AND RECOMMENDATIONS	27
5.0 INTRODUCTION.....	27
5.1 SUMMARY	27
5.2 CONCLUSION	28
5.3 POLICY RECOMMENDATIONS.....	28
REFERENCES	30
APPENDIX	34

LIST OF TABLES

Table 1: Explanation of variables	21
Table 2: Summary statistics	22
Table 3: Correlation Matrix	23
Table 4: ADF test results	23
Table 5: OLS regression results	24
Table 6: Test hypothesis	25
Table 7: Breusch-Pagan/Cook-Weisberg test	26

ABSTRACT

The study of corruption has contributed towards a conversation about the vice. It is therefore worth noting the emphasis placed on the far reaching effects of corruption largely negative. This study hence intends to contribute to the knowledge of corruption research by looking at the relationship between corruption, institutions and economic development. The focus of the study is Kenya from the year 1995 to 2012, the period takes into account two regimes in Kenya's history plagued by large scale corruption hence prompting the study. Regression analysis was conducted and the results showed that although corruption has far reaching effects on economic development, the quality of institutions holds the larger magnitude effect. This finding shifts the discourse towards strengthening of institutions as a measure to reduce corruption and enhance economic situation of people.

Key words: Corruption, Institutions, Economic Development, Regression

ABBREVIATIONS

2SLS	TWO-Stage Least squares
ADF	Augmented Dickey Fuller Test
BI	Business Intelligence
CIM	Contract Intensive Money
CPI	Corruption Perception Index
EACC	Ethics and Anticorruption Commission
EIU	Economist's Intelligence Unit
ELF	Ethno-Fractionalization index
IAD	Institutional Analysis Framework
IIEC	Interim Independent Electoral Commission
IV	Instrument Variable
KANU	Kenya Africa National Union
KNBS	Kenya National Bureau of Statistics
KNEC	Kenya National Examination Council
NARC	National Rainbow Coalition
NYS	National Youth Service
OLS	Ordinary Least Squares
SDG	Sustainable Development Goals
SGR	Standard Gauge Railway
TI	Transparency International
WBES	World Business Environment Survey

CHAPTER 1

INTRODUCTION

1.0 Background of the study

There has been increased worldwide outcry on the high levels of corruption. The United Nation's recently adopted Sustainable Development Goals (SDGs), goal sixteen target five, states the need to substantially reduce corruption and bribery in all its form is proof of the increasing attention towards the vice. Corruption undermines the legitimacy of government, human rights, democratic values and the respect for the rule of law. Scholars have also linked the consequences of corruption to corrosion of incentive structures of institutions.

Corruption is amorphous thus definitions vary with different situations and people involved. Shleifer and Vishny (1993) describe corruption as the sale by a government official of government property for personal gain. Osoba (1996) holds the opinion that corruption is an antisocial behavior that provides perpetrators with illegal gains that are deviant to societal norms hence destroying welfare of everyone else. Both definitions have a common ground involving a betrayal of trust and a benefit to illegitimate beneficiary. This study will use the definition by Osoba (1996) as it covers both the aspect of public corruption and involvement of norms that state institutional qualities.

The World Bank (2013) quotes the total amount of bribes paid in both the developed and developing countries in 2001/2002 at one trillion dollars, making up about 3% of the Gross Domestic Product (GDP) at that time. Corruption therefore is a problem of both the developed and developing world. Stevenson (2003) estimates that corruption accounts for 30 percent of the costs of all public works projects in Pakistan, while half of foreign investments in Bangladesh is eaten up. A similar picture is painted in Netherlands where according to Van DeHeuvel (2005), a parliamentary enquiry in 2002 revealed underhand dealings in the construction industry which included, "fraud, unjustified subsidies and license issuance to real bribery and money or favors to individual politicians or higher ranking public servants".

Corruption can be categorized into different distinct types. Cooksey, et al. (2002), categorize corruption with respect to its size and type. They begin with petty corruption which they define as one that includes extortion practiced by officials on the public and small businesses, as well as

citizens obtaining illicit advantages through collusions with officials. Petty corruption is perpetrated often times and appears in small scale where individuals engage in it to evade the rules and laws set in a context.

Secondly they talk of Systemic corruption. This according to Cooksey et al. (2002) involves frequent bribery on a large or small scale, for example when public officials routinely accept gifts from the public for generalized goodwill or when they exercise nepotism in official appointments or contract awarding. Endemic or systemic corruption is a situation whereby the institutional frameworks of a country are plagued with corrupt officials who endeavor through the practice of the vice. In this respect it is noted that systemic corruption is by design and not an occurrence. Michael Johnston in his book fighting corruption: social foundations for institutional reforms sites countries like Nigeria, Bangladesh and Kenya as being experiencing this type.

The third type of corruption is the grand corruption which is also known as wholesale corruption, occurs when profits accruing from bribes are huge sums and associated with business transactions usually involving politicians and senior bureaucrats and private corporations. Cooksey et al. (2002) further state that grand corruption is high level corruption since it manifests itself in the high hierarchy of leadership, where bureaucracy is rampant during auctioning, privatizing or allocating public assets. Therefore it can be concluded that unlike petty bribes, this type occurs at the very top of the leadership or policy formulation levels and has huge profits attached to it.

The fourth type is what is referred to as lootocracy. Lootocracy involves large scale misappropriation of taxpayer's money by those tasked with overseeing its expenditure. This type of corruption goes on to maintaining and consolidating state power since it is involved with clientelism and patrimonialism. Patronage relationships are fostered through theft and embezzlement of the taxpayer money to the benefit of few cronies. This type when it occurs has grave consequences to an extent of causing devastating macroeconomic imbalances in the markets.

The above four types of corruption depict the categories that corrupt practices can aptly be set up to exist. Other types are also available like political corruption but since we are interested with the economic aspect of corruption the study will use the four types and specifically endemic corruption due to its effects on institutions.

Corruption nonetheless, is a multifaceted phenomenon. It exists in different forms. The institute of economic affairs in London through their publication dubbed corruption - the world's big C detailed the different forms that corruption takes. Johnson and Sharma (2004) compile the following list as the typology of corruption: bribery and graft, kleptocracy, misappropriation, non-performance of duties, influence peddling, acceptance of improper gifts, protecting maladministration, abuse of power, manipulation of regulations, electoral malpractice, rent-seeking, clientelism and patronage and illegal campaign contributions.

1.1 The State Of Corruption in Kenya

Since post-independence Africa, lack of adequate policy implementation and corruption has been a permanent feature in the literature on African underdevelopment, Kenya not being an exception. The normalization of corruption in Kenya is evidenced by the different connotative words used to describe it like, 'kitukidogo', 'chai', '10 percent', and others. There has been a litany of different corruption scandals that have punctuated the evolution of post-independence Kenya.

The first President Jomo Kenyatta (1963/1978) and his successor Daniel Arap Moi (1978/2002) established and sustained a predominantly corrupt one-party rule under the Kenya African National Union (KANU) party Lansner(2012). The two presidents similarly established a patronage network which they used for appropriation of country's resources while ensuring a firm grip on power. Systematic looting of government assets and mismanagement of government agencies was the order of the day. According to the Kroll report commissioned by the Kibaki government to look into graft allegations against Moi, found out that during the president Moi's rule more than one billion Sterling pounds was appropriated and stashed in different accounts in twenty-eight countries according to the independent newspaper (2007).

Elliott (1997) notes that in the early 1990s, a fraudulent incentive scheme for a company trading in gold and diamonds that Kenya does not even produce cost the government 400 million dollars in public funds. This scandal later came to be known as the Goldenberg scandal, one of the grandeur ever organized. The onset of multi-party democracy spelt the end of Moi's reign in 2002. The incoming National Rainbow Coalition (NARC) government within the first two years of being in power was not spared either. President Kibaki's government was entangled in the Anglo-Leasing scandal that rocked it and threatened to cannibalize a number of his trusted

cabinet ministers. This involved a multi-million fictitious payment scheme for security contracts to ghost companies for services which were not delivered. Anglo-Leasing led to the resignation of the then Ethics and Anti-corruption permanent secretary who was the whistleblower citing security reasons. The threats to those of integrity paints a grim picture of institutional failure in taming systemic corruption as one is left alone in the cold.

As is the established norm with every regime that comes to power, Kibaki's successor's government is dubbed as the worst hit in a few decades. Multi-billion shilling disputed megaprojects have been commissioned with questions still hanging out there over the procurement process and even the viability of the projects since the procurement rules were flouted as stated in the Public Procurement and Disposal Act 2005. A clear disregard of institutional frameworks in going about business has been the hallmark of the current regime. Standard Gauge Railway (SGR) construction and the Safaricom security cameras tenders have been marred with controversies over the handling of their procurement, with worries about the inflated costs of the projects.

Hot on the heels is the National Youth Service (NYS) sleaze and the controversies surrounding the proceeds of Kenya's maiden Eurobond issued in 2014. Even in cases where theft has been reported and being investigated, opaqueness and bureaucracy shadows prosecution processes thus the perpetrators end up scot free. The opposition coalition leader has termed Eurobond as the biggest scandal in the country's history. In this regard, President Uhuru's government has seen five cabinet secretaries and several senior civil servants vacate office on corruption allegations. The private sector has not been spared either with the codename 'chickengate' which involves the former Interim Independent Electoral Commission (IIEC) and Kenya National Examination Council (KNEC) and a British company Smith and Ouzman over bribery to acquire tenders to print ballot papers and examination materials respectively. The Smith and Ouzman directors were found culpable and jailed while the Kenyan counterparts are still free.

Such scenes have led to the normalization of corruption in Kenya. Erosion of the credibility of the public institutions tasked with offering various public goods has not helped the situation. The 2014 Afro-barometer survey found that seventy percent of Kenyans perceived the police service as the most corrupt institution. In the same survey, the people's negative perception towards the parliament was also recorded. The legislature, the law making arm of the country has had its

members embroiled in corrupt scandals many times. In 2014, the Parliamentary Accounts committee was disbanded on allegations of receiving bribery to distort probe reports.

Surprisingly, the chief justice in an interview with a Dutch newspaper NRC Handelsblad stated that Kenya is a 'bandit' economy. The chief justice in the same interview went on that corruption in Kenya permeates from the bottom to the very top echelons of the society. Compromised societal fabric is a recipe for underdevelopment especially where sleaze is acceptable as a norm. Distortion of public service benefits, misallocation of resources, poor infrastructure and even insecurity has been blamed on corruption in Kenya. The president fell short of declaring corruption as a national disaster when in his state of the union address declared it a threat to national security. This shows how far-reaching the tentacles of corruption are and its institutionalization. With the legislature, the judiciary and the executive arms both in sync that corruption is rampant, the institutional frameworks that are supposed to work will definitely face problems.

Amidst all the doom and gloom, there have been glimpses of light in arresting the situation. Ethics and Anticorruption Commission (EACC) Act 2011 gave birth to the EACC. EACC is an organization tasked with the fight against corruption. Concerns have been raised over its ability to fight the vice since it has not nabbed and successfully prosecuted any high level official. However, there has been stop gap measures including the Public Officers Ethics Act 2003 which ensures declaration of wealth and assets that a public servant owns before, during and after employment so as to curb primitive accumulation. The act was moved to be compatible with the new constitution. It must be noted the legislations to combat corruption have been there since independence. But the only thing that keeps changing over the years is the naming and renaming of the institution tasked with fighting corruption.

1.2 Statement of the Problem

Corruption is a serious threat to the economic growth and development of many countries, Sub-Saharan Africa included. Kenya has over the years ranked dismally among the most corrupt nations in the world according to transparency international's Corruption Perception Index (CPI). Institutions have failed in their mandate to provide quality service. Rent seeking in the bureaucratic system has rendered them ineffectual. Consequently there has been overwhelming

levels of poverty and inequality experienced in the country which is attributed to unequal redistribution of resources especially ethnic favoritism in resource allocation.

Michela Wrong in her book *It's Our Turn to Eat* emphasized the phenomena whereby political reorientation only serves to mean new people to plunder state resources. However, scholars point that weak institutions is the predominant underlying problem in all the ongoing corrupt activities. The prevalence of weak institutions is as a result of a lack of accountability and poor governance from the regimes, hence the collapse of important structures of governance. Total disregard of government institutions and entrenched impunity is the order of the day, leaving a clear playing field for patronage politics and ethnic nationalism in resource distribution by the leaders. Skewed allocation of resources has led to some areas being marginalized, in poverty traps and lagging in provision of fundamental human needs.

To this end, it is imperative what the study is focusing on, the effect of corruption and the quality of institutions on the economic development of Kenya. Categorically, the study wants to demonstrate the nexus between corruption and the quality of institutions tasked with provision of public goods and their subsequent effect on the economic development of Kenya.

1.3 Research Questions

The study intends to address the following research questions;

1. What is the relationship between corruption, quality of institutions and economic development?
2. How does corruption affect institutional frameworks?
3. What is the effect of corruption on economic development?

1.4 Research Objectives

The general objective of the research is to explore the interplay between corruption and quality of institutions on economic development in Kenya. Specifically, the study aims to achieve the following objectives;

1. To analyze the effect corruption has on the economic development of Kenya through the quality of institutions.
2. To contextualize the interplay of corruption, quality of institutions and economic development to the Kenyan scene and create nuance in global dialogue.

3. To inform in policy considerations for anticorruption interventions in Kenya and institutional strengthening.

1.5 Significance of the Study

The dialogue on the causes, consequences and cures of corruption has often been emphasized. Unfortunately, most of the talk is barely factual hence the threat of misrepresenting the true picture of the effects of corruption and institutional quality on the economic development looms large. It is in this regard that the study gains its weight and importance. The empirical findings from this research will create a factual platform and create structured and progressive dialogue on the corruption phenomena in the context of institutions which have largely remained compromised.

Studying the relationship between corruption, institutions and economic development also serves to augment the existing literature on the subject. The inclusion of development in the study is very significant because corruption impacts squarely on the less privileged in the society.

Lastly, this study is justified by the need for more information especially empirically researched in enlightening policy dialogue frameworks and making processes.

The research paper is organized in the following manner. Chapter one looks at the introduction, and explores historical corruption and definition. Chapter two reviews the literature, both theoretical and empirical. Chapter three explains about the research methodology to be used, theoretical and empirical model and prior expectations of variable coefficient signs. Chapter four discusses the findings of the analysis and finally chapter five gives the summary, conclusion and recommendations.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter focuses on the analysis of the different relevant studies done by scholars worldwide on the issue of corruption generally. Consequently, this analysis of literature will delve into specifics on the research done on the subject of the interrelationship between corruption, institutions and economic development. The review will also endeavor to highlight the gap that this study intends to explore and fill in creating nuance on the institutionalism and effects of corruption behavior on the economic development.

2.1 Theoretical Review

Corruption is a dynamic phenomenon. Many researchers have effortlessly set out on understanding why agents engage in corrupt activities and its consequences in the larger economy. Unfortunately, these events take place regardless of the institutional arrangements available in an economy. The need for self-aggrandizement however has never been this colloquial in the history of Kenya. The seminal contributions of Tullock (1967), Rose-Ackerman (1978) and Klitgaard (1988) had a fundamental overriding theme of the public choice theory. From the original theory by James Buchanan and Gordon Tullock, public choice theory has developed different segments to include the bureaucracy, the political institutions and the politicians. As corruption has often been touted as an individual's doing, the public choice theory also referred to as the rational choice theory focuses on the decision making of these agents.

These decisions are made in a framework of cost-benefit analysis as is the case of rationality. It is noted that the need to maximize on ones decisions contributes towards the making of a corrupt being. Zey (1992) posits that human interactions are basically economic and depend much on the actors' ability to make rational choices albeit in a societal context. Zey further echoes the conceptualization of man in the neo-classical context as one who is concerned with self-interest. Therefore the study is based on the rational choice theory since it espouses the decision making behavior and how calculating an individual is as Klitgaard (1988) states, corruption is a crime of calculation, not passion.

From the onset as it was studied as rent-seeking behavior by Krueger (1974), Krueger conceptualized corruption in a market-oriented economy where rents are developed as a result of

competition. Krueger (1974) concluded that restrictions in a market economy is responsible for thriving rent-seeking since it is the only rent avenue. Absent restrictions, the innovativeness of entrepreneurs will alert them in anticipating market shifts. This statement echoes Klitgaard's (1988) assertion of monopoly coupled with discretion absent of accountability will lead to corruption.

However, finding a unilateral theory that explains corruption phenomenon is almost impossible. This is because corruption itself is a multi-disciplinary incident and coming up with a way to explain it will require a multi-disciplinary approach. The initial rational choice theory makes the basis for this argument of corruption since it's an individual's behavior problem. However, this microeconomic problem does not occur in solitude rather it takes place in a societal framework. Corruption as has been studied by Shleifer and Vishny (1993), Bardhan (1995) and Aidt (2009), shows an experience in both internal and external factors that fuel it. The internal factors include the inherent behavioral context of an individual while the external ones shed some focus on the societal engagements. The human interactions are subjected to structured rules of exchanges in a framework known as institutions. Therefore, corruption signifies a betrayal in following the rules set forth in the society through norms, trust and other cultural constraints.

To this end, and prompted by the objective of this study, we analyze corruption as an occurrence borrowing from both the institutional framework analysis and the rational choice theory to explain how an individual operates when bounded by social constraints. This follows Institutional Analysis and Development (IAD) framework pioneered by Elinor Ostrom, Roy Gradner and James Walker. Collier (2002) presents this analysis framework as a combination of rational choice theory and game theory to explain social behavior. It highlights that individual choice is subject to not only the capabilities of him/her to make a decision but also the institutions which is the political, economic and cultural environment.

Elinor Ostrom, Roy Gradner and James Walker presented the IAD framework in a two part illustration. In their framework, they had the exogenous variables and the action arena as espoused by Collier (2002). The action arena was the nucleus where decision making activities occurred while it was influenced by the critical exogenous variables. According to their framework, the exogenous part held the biophysical/material conditions, rules and attributes of the community and was important in influencing the decision making process from without.

To construct the interplay of the action arena and the exogenous variables, Collier (2002) goes further to introduce Nicholas Onuf's constructivist approach. This intended to cement the analysis framework and create a feedback loop between the agents and the structure which in this case is represented by the society. Constructivism helps in creating a space for analysis of social conduct by illustrating that individuals act at the mercy of both the social and material factors. This explains the linkages between the institutional structures and the decision making unit which is the agent. Onuf's constructivist theory is consistent with the IAD and also sees the world as a construct of social rules.

The use of the institutional choice analytic framework as developed by Collier (2002) is consistent with what this study aims to achieve. The rationality of individuals in decision making is paramount. However, these decision agents face a myriad of challenges both inherent and external. Contextualizing the theoretical dispositions of corruption helps in understanding the interactions that breed the deviant conduct. Collier's theory goes as far as explaining why we have normalized corruption practices in our society. Therefore, in explaining the reactions to individuals' behavior, the environment which is made up of rules and ideas often known as institutions play a crucial role in determining their actions. In view of this analysis, we conceptualize corruption as occurring in interplay of institutions. Thus, the theoretical review is consistent with the aspirations of the study in including the institutional framework in the analysis.

2.2 Empirical Review

A clear dichotomy has been highlighted on the effects corrupt activities have towards economic growth and development. There has been an existing controversy on the effects of corruption from the 1960s. Conventional wisdom has pitted two distinctive schools of thought on the corollary of corruption *Vis a Vis* the economy. A group of corruption academics term corruption as having efficiency improving capabilities while others adamantly go the other way. The "greasers" and "sanders" as they are commonly known have been working to show empirically the consequences of corruption on the economy while each side trying to enhance their hypothesis through empirical studies.

The greatest challenge facing corruption studies is its measurement. Corruption is considered a subjective problem hence not observable only perceived. This has led to the commonly used

measurement metric of corruption to be based on perception. Nonetheless, the study of corruption has developed from the theoretical seminal papers to more empirically bound studies. Data and models for corruption research have been developed and tested giving different results. The availability of data and a growing pool of researchers on the economic costs of corruption have led to more studies being conducted on the costs of corruption.

The seminal papers on corruption sort to enhance the different existing dogmas of the vice. Those advocating for the greasing effects of corruption were Leff (1964), Huntington (1968) and Lui (1985). Leff (1964) noting that it was a taboo studying the effects of corruption, conceive that corruption was a way of avoiding strenuous bureaucratic regimes and also was an inward system of rewards for underpaid bureaucrats. Leff courted controversy with his assertion that in place of a complex government bureaucracy, especially in developing economies, corruption may be the next best alternative. Empirically, the greasing the wheel hypothesis was fronted by Lui (1985) through his queuing model. Lui (1985) addresses corruption in a context whereby people queue for a particular government service for example license purchase.

In modeling bribery in the queuing model, Lui (1985) showed that economic agents had varying willingness to pay to circumvent red tape. In a scenario of license issuance, this model depicts that those who are able and willing to pay a particular size of the bribe to obtain the license will get it. This means the vendor of the license will sell it to those who will meet the bribe threshold. Hence Lui states that in so doing as an auction, there is a Pareto-optimal allocation of the resources reached.

In the 'sanding the wheel' hypothesis, corruption is termed as having severe repercussions on the economy. From the theoretical dispositions of seminal paper of Krueger (1974) to Rose-Ackerman (1975), Shleifer and Vishny (1993), Bardhan (1995), Kaufman and Wei (1999) and Fisman and Svenson (2007), the negative implications of corruption have been well articulated and lay bare in both theoretical and empirical forms. Corruption has been found to have an adverse effect on the allocation of public expenditure, welfare of the people, economic growth and economic development, investment and other spheres of the economy and society which include human rights. Fisman and Svenson (2007), in their survey of firms in Uganda found out that a one percentage point increase in the rate of bribe taking leads to a three percentage point decrease in the productivity growth of the firm.

Different studies have employed various analysis methods in empirical studies of corruption. Mauro (1995) using a cross-section of countries conducted a study of corruption and growth. He used data from the Economist's Intelligence Unit's (EIU) Business international's (BI) corruption and institutional efficiency indices. Mauro analyzed the data with both OLS and two-stage least squares (2SLS) using an ethno-fractionalization index known as the ELF index as an instrument to control for endogeneity. Using corruption index, Mauro found there is a negative and significant association between corruption and investment rate both in Ordinary Least Squares (OLS) and two Stage Least Squares (2SLS) with the ELF index as an instrument variable. Mauro also managed to quash the notion held by Leff (1964) and Huntington (1968) that in instances where there is slow bureaucracy corruption becomes beneficial. Mauro showed that there is no significant difference between low red-tape and high red-tape bureaucracy countries.

Consequently, Mauro analyzes further the interplay between investment rate and institutional variables. This is based on his assertion that corruption and bureaucratic efficiency have an effect on the average per capita GDP as he studied for a cross section of countries from 1960 to 1985. A one standard deviation increase in bureaucracy index leads to an increase in investment rate by 4.79 per cent of the GDP. He states that the effects are even larger when controlled for endogeneity. In analyzing corruption effects on public expenditure, Mauro (1997) concludes that corruption negatively affects growth through its ability to impede efficient and effective allocation of public expenditure. Public expenditure ends up in less productivity-led ventures hence having a knock-on effect on the growth prospect of a nation.

With a growing pool of data on corruption research, Blackburn et al. (2006) employed the dynamic general equilibrium model to find out the relationship between corruption, development and other relevant variables. While analyzing the incidence of corruption on the economy's development, Blackburn et al. (2006) identify and illustrate the reverse causality phenomena between the two. Blackburn et al. (2006) model dynamic equilibria taking into account the factors such as the initial conditions of the economies and their institutional orientation to take care of endogeneity problems.

The dynamic modeling reveals that when a country starts off on a development trajectory as poor and corrupt, there are three steady state possibilities for this country. A steady state where the

country is still poor and corrupt, or where there is partial alleviation of poverty and corruption and finally where there is prosperity without corruption. In this modeling the simultaneity of corruption and development is addressed. Furthermore, the evidence that there is a two-way causal relationship between corruption and development and there is differences in the effects across different countries is possibly explained by the differences in their institutional frameworks.

The development of empirical studies on the effects of corruption in an economy has led to scholars acquiring a wider view. In explaining the differences in the corruption levels between countries, the institutional make up of that country usually comes out as the unique difference as espoused by Mauro (1997) and Blackburn et al. (2006) in their analyses. The treatment or mistreatment of institutional environment and its significance has led to its involvement in more recent studies of corruption. It is prudent to first note the seminal studies on the institutional phenomenon so as to incorporate it in subsequent reviews. The interplay of institutions and the economic performance has been notably studied by North (1990). North (1990), showed the importance of institutions in enhancing economic growth in a country. Contrary to Neo-Classical Economist's thesis of an economy operating in perfect conditions including absence of transaction costs and perfect information, North works to meet the failure of the theory which is overlooking the true nature of human interaction.

In reality, the neo-classical theory fails and the interaction of economic agents is uncertain. North (1990) therefore brings in the institutions as the aspect that mitigates the uncertainty and bridges the interactions to improve economic performance. Corruption nonetheless is a big part of this institutional framework since it involves the demand side and the supply side and occurs when proper working mandate of an institution is violated.

Empirically, the institutional effects on corruption and development emerged as a topic of interest overtime. Institutions play an important role in allocation of resources which further help economic development. However, distortion of proper institutional working by corrupt players and rent seekers has a negative effect on the performance of economy. De Vaal and Ebben (2011) studied the effects institutions have on the corruption-growth nexus. They used a two-layer approach where the first one involved the traditional corruption and growth axis while the second layer included institutional framework. De Vaal and Ebben (2011) show concern of the

lack of empirical and theoretical nuance of the importance of institutions in corruption-growth studies. Consequently they illustrate that the effect of corruption on the economy cannot be complete without taking into account the institutional environment.

However, De Vaal and Ebben (2011) put a caveat on blanket conclusion of the institutional environment's effects. There is ambiguity in the institution's effects. In their model, they point analyze through a threshold whereby if an institutional attribute is below or above it, then corruption will affect that attribute either positively or negatively thereby either improving or depressing economic performance. De Vaal and Ebben (2011) also point to the importance of the initial conditions of a country. If the initial conditions are that corruption facilitates growth, then that is how the situation will be unless something radical and exogenous happens to the institutional variables.

Ubi and Udah (2014) studied the effects institutional quality and corruption has on the economy of Nigeria. Using OLS regression and Contract Intensive Money (CIM) as a proxy for institutional quality, they found out that there exist a link between corruption, institutional quality and economic performance in Nigeria and it is the antithesis of economic progress. Ubi and Udah (2014) conceptualized their analysis on endogenous Neo-Classical growth model with technical progress. The institutional quality was represented by the technical progress component of the model and CIM used as the proxy. CIM is used as a measure of property rights and property rights is a measure of trust and an institutional variable as previously used in the study of De Vaal and Ebben (2011). Empirically, Ubi and Udah (2014) hold that a one percent increase on the level of corruption decreases the level of gross domestic product (GDP) (proxy for economic growth) by 0.54347 percent.

Aidt (2009), in *Corruption, Institution and Economic development* looks at the conflicting hypotheses of corruption. With data of 60 to 80 countries ranging from 1970 to 2000, Aidt (2009) analyzed the effects corruption has on GDP per capita and also the institutional set up proxy by rule of law, extent of democracy and absence of political freedom among other institutional variables. Notably in Aidt analysis is the use of genuine GDP per capita concept to analyze the true position of human welfare. This was prompted by the notion that GDP per capita is not a true measure of sustainable improvements in human welfare. Aidt's results were

elaborate and critically analyzed as they seemed to either concur or deviate from established nuances of the ‘sanders’ and ‘greasers’.

In one such a case Aidt (2009) infers that corruption in small isolated instances may seem beneficial, but he calls for a broader acceptance of the fact that corruption is detrimental to economic development. As postulated by Baldacci et al (2004) corruption might be beneficial to an individual but on a large societal scale, it gives opposite effects. Aidt regresses corruption on genuine wealth per capita (genuine GDP per capita), geography, education (enrollment into primary education), political and legal institutions. Using data from WBES index and TI perception index and both OLS estimator and Instrumental Variable (IV) estimator, a negative relationship between corruption and growth in genuine wealth per capita is inferred.

The quantitative analysis of corruption in institutional framework creates an interesting debate in corruption studies world. Expanding the horizon and empirically interrogating corruption consequences has led to greater understanding of the problems it causes. From the analysts that support it to those that vehemently oppose it as a negative ingredient in the development world, there is no doubt work is cut out for its study. However, most analysis reviewed above and those not reviewed have empirically looked at a cross-section of countries.

As it has been largely claimed, the difference in corruption consequences from the cross section of the countries is partly due to the unique composition of these countries and their institutional environments. Whether corruption is efficiency-enhancing or not depends on the workings of the institutional environment in the country. Therefore it is to this end that this paper attempts to study how institutional arrangement in Kenya as a single country analysis affects corruption and level of development. This is prompted by both the need to create a quantitative analysis of the state of corruption in Kenya and its relationship with the institutions quality.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Theoretical Framework

Growth theories have been formulated to explain the variables that play a part in the economic advancement of a country. From the classical growth model commonly referred to Harrod-Domar model, where capital was stated to be the main element in the production function of an economy. The classical model was termed rigid for only pressing much emphasis on capital as the biggest component of growth. To remedy the rigidity factor, the neoclassical growth model also known as the Solow-Swan model was fronted. Technology and labor were the improvements in the neoclassical model. The model had positive and diminishing marginal returns to inputs and essentiality assumption whereby all inputs (capital and labor) were to be present for production to take place.

The undoing of the neoclassical model was that technology was exogenously determined. Therefore to the neoclassical growth economists, the Inada conditions were held. Adenike (2013) faults the model for lacking the capability of explaining the differences in growth of countries with similar technologies. Also, the unsatisfactory nature of the neoclassical growth model to explain long run growth, led to economists coming up with the endogenous growth model. This model was pioneered by Arrow (1962), stating that technological progress was an endogenous factor in the growth model.

Arrow's (1962) model was augmented further by scholars like Romer (1986), Aghion and Howitt (1992) and Rebelo (1991) by including a wider definition of capital to mean human capital instead of it having the traditional technological progress. Knowledge creation was paramount in providing improvements to human capital as suggested by Barro (1991). Knowledge is non-rival which meant that there is no diminishing marginal return to inputs only increasing returns caused by the positive externalities from knowledge spillovers.

Rebelo (1991) analyses the difference exhibited between different country's growth trajectories which ultimately causes labor migration using the AK model of growth. This affirms that the endogenous growth model when augmented can be an important tool to study the policy variables factors that affect growth in a country. This study follows Adenike (2013) assertion

that the endogenous model especially the Barro (1990) augmented model can be used to analyze policy variables effects including corruption and institutions.

This study uses the Cobb-Douglas production function as its original endogenous function of the form,

$$Y = AK^\alpha L^{1-\alpha} \quad (1)$$

Where Y = total output, A = Total factor productivity (TFP) or Technological progress, K = Capital employed, L = Labor employed and α and $1 - \alpha$ = the share of capital and labor employed respectively.

Institutions play a very vital role in the economic performance of a country as evidenced by North (1990). Therefore in this model, we assume to capture the policy variables under the TFP which is A . Corruption and institutional variables will therefore be represented by A since they are causes of policy implications. This is consistent with Ubi and Udah's (2014) depiction of corruption and institutional quality in the endogenous growth model in studying Nigeria. Ubi and Udah further state that the level of technological progress is affected by corruption and institutional variables through their policy implication hence A is a function of corruption and Contract Intensive Money (CIM) as a proxy for institutional variables.

$$A = f(Cor, CIM) \quad (2)$$

Where Cor = Corruption and CIM = Contract Intensive Money.

Therefore combining equation 1 and 2, we find that,

$$Y = f(Cor, CIM, K, L) \quad (3)$$

3.1 Empirical Model Specification

A proxy for total output Y will be used. Real GDP is a signal for the economic growth of a country but this study aims to lay focus on the economic development which mainly focuses on the standard of living of individuals in a country. The arbitrary measure though controversial for this status is the real GDP per capita. This is the real GDP of Kenya divided by the population of the country.

Aidt (2009) used real GDP per capita to denote economic development in his analysis hence this study shall borrow from Aidt's treatment of real GDP per capita (GDPpc) as a variable in analyzing economic development. Real GDPpc will be the dependent variable in the regression analysis. The independent variables will comprise of the corruption perception index (CPI) to represent the measure of corruption, CIM as a proxy for institutional quality, Gross Fixed Capital Formation (GFCF) to represent capital stock as a component of total output, the labor component of the model will be represented by the labor force (LF) of Kenya and a dummy variable that will denote two different regimes within the duration of the analysis. Corruption level is said to be regime specific hence the dummy denoting Moi and Kibaki's regimes separately will provide more inference.

CIM is very crucial as a representative for institutional quality. CIM is easily accessed and an objective measure of how institutions enforce contracts and the property rights security. This is consistent with Clague et al. (1999) study where they found CIM to be significant in affecting growth and investment. CIM is calculated by Broad money supply subtract currency in circulation divided by Broad money supply. CIM measure is important since it measures how governments protect private property.

The empirical model will take the form,

$$GDPpc = \alpha_{0t} + \alpha_{1t}Cor + \alpha_{2t}CIM + \alpha_{3t}LF + \alpha_{4t}GFCF + D_t(REG) + \varepsilon_t \quad (4)$$

Whereby, $GDPpc = real\ per\ capita\ output\ at\ time\ t$

$CPI = corruption\ perception\ index, measure\ of\ corruption$

$CIM = contract\ intensive\ money\ (proxy\ for\ institution\ variables)$

$LF = Labor\ force\ of\ kenya\ (proxy\ for\ labor)$

GFCF = Gross Fixed Capital Formation for Kenya period t (proxy for Capital stock)

$D_t(REG)$ = Dummy variable for different Regimes at time t.

ε_t = stochastic disturbance at time t

$\alpha_{0t}, \alpha_{1t}, \alpha_{2t}, \alpha_{3t}$ = these represent coefficients of respective estimates at time t

Note that, $\alpha_{0t} > 0, \alpha_{1t} > 0, \alpha_{2t} > 0, \alpha_{3t} > 0$ and $\alpha_{4t} > 0$

The hypothesis for the study to be tested is:

H_0 = corruption through institutions has negative impact on economic development

H_1

= corruption through institutions has no negative impact on economic development

The econometric model above will be hectic for data analysis therefore, normalization of the equation will be done through taking natural logarithms of both the dependent and independent variables. The logarithmic equation to be estimated will be as follows.

$$\ln GDPpc = \alpha_{0t} + \alpha_{1t} \ln CPI + \alpha_{2t} \ln CIM + \alpha_{3t} \ln LF + \alpha_{4t} \ln GFCF + D_t(REG) + \varepsilon_t \quad (5)$$

3.2 Estimation Methods

The study will use descriptive research design with secondary time series data. Pretesting procedures to check the characteristics of the time series variables will be undertaken. The smoothing will involve testing for stationarity using augmented Dickey-Fuller test (ADF) for unit root testing. Effective employment of ADF will help check the problem of autocorrelation in the error term of the variables. After the stationarity test, a granger causality test will be carried out to ascertain the causal relationship of corruption and economic development.

Further, it will be prudent to carry out co-integration procedures if the series is non-stationary. Carrying out a co-integration test tends to address the short run and long run relationship between the dependent and the independent variables. In the event of disequilibrium in the behavior of the time series variables. Co-integration helps avoid the problem of “spurious regression”. Finally, traditional regression analysis using OLS estimators and statistical

software will be conducted on the dependent and independent variables to get the results of the relationship and the coefficients of the variables.

3.3 Data and explanation of variables

The study will use annual time series data from the period 1995 to 2012 of the variables. 1995 was chosen due to availability of corruption data. CPI by TI was first published in 1995. The nature of the study warrants the use of secondary information as acquired from different sources. To this effect, there will be little to no cost incurred in collection and collating of information for analysis.

The CPI index as the most commonly used measure for corruption will be acquired from the transparency international's annual CPI reports. GDP per capita, Gross Fixed Capital formation and CIM data are available in the yearly released Kenya statistical abstract by Kenya National Bureau of Statistics (KNBS). The labor force data will be obtained from the World Bank's data bank. The regime dummy will be between president Moi regime which was in existence in 1995 and ended in 2002 and President Kibaki's regime from 2003 to 2012.

The following table 1 provides the explanation of variables and expected signs of the coefficients.

Table 1: Explanation of Variable		
Variable	Definition	Expected sign
GDPpc	The value of all products produced in a country divided by the population. Real GDPpc estimates the average income of people of a country	
CPI	Corruption perception index is a measure of perceived corruption by transparency international. It ranges from 0 to 10, with 0 index being the most corrupt and 10 is very clean.	positive
LF	Labor force participation rate is a representative that population is also growing. A growing population results in a reduction in real GDPpc.	negative
GFCF	Gross fixed capital formation is investment by governments in fixed capital. This improves production hence an increase in GDP.	positive
CIM	Contract Intensive money is a measure of property rights and security of contracts in a country. Contract enforcement and property rights are an important institutional aspect in development.	Positive
REG	Corruption is said to be regime specific. Therefore during the period of the study, two regimes were covered hence the need to make inference on each of them.	Positive/Negative

CHAPTER 4

DATA ANALYSIS, FINDINGS AND DISCUSSION

4.0 INTRODUCTION

This chapter will focus on the analysis of data, findings and the discussion of the findings. Data for analysis was obtained from the Central Bank of Kenya, Transparency International and the World Bank database.

4.1 DESCRIPTIVE STATISTICS

The summary statistics of the variables used in analysis is as shown in table 1 below. The mean for GDPpc over the period of the study is Kenya Shillings 33,359.81. On the other hand Kenya has been ranking dismally over the years in the corruption ranking as evidenced by the mean of the CPI of 2.15. Labour force for the country has been at a mean of 13 million people while for the 18 observations for GFCF, a mean of Kenya shillings 286 billion was recorded. The institutional variable maintained a mean 0.8697449 over the period of the study.

Table 2: Summary Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
GDPpc	18	33359.81	2020.885	31077.81	37289.33
CPI	16	2.123125	0.2043761	1.9	2.7
LF	18	13000000	1816912	10500000	16400000
GFCF	18	286000000000	184000000000	99500000000	701000000000
CIM	17	0.869745	0.0153655	0.8410945	0.893973

Source: STATA computation

4.2 CORRELATION TEST

The test analyses the static relationship between the variables before regression is conducted. In this case, table 2 shows the correlation matrix of GDPpc, CPI, LF, GFCF and CIM. The highest correlation is between the labor force and the gross fixed capital formation at 98 per cent. The diagonal indicate a value of 1. CPI is seen to correlate with the institutional variable CIM at 58.98 per cent. GFCF, LF and CIM highly correlate to the GDPpc.

Table 3: Correlation Matrix

	GDPpc	CPI	LF	GFCF	CIM
GDPpc	1.0000				
CPI	0.5515	1.0000			
LF	0.8999	0.3766	1.0000		
GFCF	0.9410	0.5024	0.9800	1.0000	
CIM	0.8943	0.5898	0.7891	0.8363	1.0000

Source: STATA computation

4.3 UNIT ROOT TEST

Time series data testing procedures need to be carried out to ascertain the characteristics of the time series dataset. The first test conducted for this dataset is the unit root testing. Using the Augmented dickey fuller (ADF) test for stationarity the researcher found that all the variables were non-stationary or contained unit roots. The results are as shown below in table 3. The null hypothesis tested is presence of unit roots in the variables. The alternative hypothesis was that the variables had no unit roots or they were stationary. The test was conducted on each variable individually and inference made as in table 3.

Table 4: ADF test results.

Variable	ADF Statistic	1% critical value	5% critical value	10% critical value	Inference
Log GDPpc	1.233	-4.38	-3.6	-3.24	Non-Stationary
Log CPI	-2.95	-4.38	-3.6	-3.24	Non-Stationary
Log LF	1.283	-4.38	-3.6	-3.24	Non-Stationary
Log GFCF	-1.193	-4.38	-3.6	-3.24	Non-Stationary
Log CIM	-1.73	-4.38	-3.6	-3.24	Non-Stationary

Source: STATA computation

4.4 MODEL ESTIMATION AND DISCUSSION OF RESULTS

After the pretesting procedures were conducted and found that the variables were non-stationary, a linear regression followed. Log GDPpc was regressed as the dependent variable on log CPI, log LF, log GFCF, log CIM and the regime dummy with President Moi's regime being the benchmark taking the value of 1 and President Kibaki's taking 0. The results are as shown below in table 4.

Table 5: OLS regression results

Dependent Variable: lnGDPpc			
Variable	Coefficient	Std. Error	Prob.
Constant	15.69	4.343	0.005
lnCPI	0.04	0.07	0.614
lnLF	-0.65	0.399	0.137
lnGFCF	0.21	0.086	0.036
lnCIM	1.31	0.502	0.026
REG	0.01	0.017	0.715
R ²	0.9445	Adj. R ²	0.9168
F-Statistic	34.05	Prob>F	0.0000
Observations	16		
Note: p-value at 0.05 level of significance			

Source: STATA computation

The coefficient equation after the regression analysis is as follows.

$$\begin{aligned} \ln gdp_{pc} = & 15.68539 + 0.0363969 \ln cpi - 0.645436 \ln lf + 0.2079534 \ln gfcf \\ & + 1.306123 \ln cim + 0.006543 reg \end{aligned}$$

First of all the regression table provides the F-test. The null hypothesis of the F-test is that all coefficients equal to zero. In this case, we reject the null hypothesis since F (5, 10) is 34.05. In the analysis, Moi's regime was set as the constant hence the onset of Kibaki's regime from 2003, had a positive increase to the GDPpc by approximately 0.01 units. The CPI has a positive sign which is consistent with apriori expectations. A unit increase in the CPI index will lead to an increase in the GDPpc by approximately 0.04 all other variables being constant. This is consistent with the theoretical expectation in that countries with improved CPI index and better ranks tend to have good standards of living and experience economic development. CPI coefficient is not statistically significantly different from zero at 5 per cent level of significance since its p-value is 0.614 which is more than 0.05 level of significance.

The labor force (LF) coefficient with a p-value of 0.137 is also not significant at 0.05 level of significance. However, labor force (LF) has an inverse relationship with GDPpc as expected. Increasing LF by one unit will result in approximately 0.65 decrease in GDPpc holding other factors constant. This explanation is in line with the expected sign. On the other hand, gross fixed capital formation, has a positive relationship with GDPpc as expected. A unit increase in capital investment, leads to a 0.21 unit increase in GDPpc all other variables held constant. GFCF is a robust variable at 0.05 level of significance since its p-value of 0.036 is less than 0.05.

The measure of institutional quality, CIM is also a significant variable which means it is significantly different from zero. A unit increase in the quality of institutions measure, corresponds to a 1.31 unit improvement in GDPpc keeping all the other variables constant. This conforms to theoretical explanations that improved institutions will result in improvements in the level of human welfare. The percentage of variance explained in the model (R-squared) is 94.5 per cent. This means that 94.5 per cent of variations in the model are explained by the independent variables. The Adjusted R-squared is approximately 91.7 per cent, which measures the inclusion of extraneous predicting variables in the model.

The model is deemed to be good since it has a low residual sum of squares as evidenced by the analysis of variance table (ANOVA).

4.5 POST-ESTIMATION AND HYPOTHESIS TESTING

After the regression analysis, the following post-estimation hypothesis testing was conducted to highlight and ascertain the significance of the variables in the study. Hypothesis test for the significance of the variables in the model was conducted. With the null hypothesis being all coefficients of the variables are jointly equal to zero. Table 6 shows the result obtained after the test for the parameters was conducted.

Table 6: Test hypothesis

Parameter Test hypothesis	
F-Statistic	Prob > F
24.09	0.0000
Note: p-value at 0.05 level of significance	

Source: STATA computation

The F-test p-value is 0.0000 which is less than 0.05 level of significance hence we can reject the null hypothesis and conclude that at least the variables are significant in the model and are not jointly equal to zero.

Secondly, the test for heteroscedasticity was conducted to find out whether there is homogeneity of variance of the residuals. A Breusch-Pagan/Cook-Weisberg test was applied with the null hypothesis being that there is constant variance of the residuals (homoscedasticity). According to the results in table 7 below, we do not reject the null hypothesis hence the residuals have constant variance. The p-value of 0.5456 is larger than the 0.05 level of significance hence we infer that there is homoscedasticity thus we do not reject the null.

Table 7: Breusch-Pagan/Cook-Weisberg test

Breusch-Pagan/Cook-Weisberg test for heteroscedasticity	
Chi²	Prob> Chi²
0.37	0.5456
Note: p-value at 0.05 level of significance	

Source: STATA Computation

The above tests ascertain the model's significance and the importance of the variables.

CHAPTER 5

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 INTRODUCTION

This chapter, will focus on the summary of the study and the analysis inferences, conclusion statements and recommendations both for policy considerations and societal knowledge.

5.1 SUMMARY

From the regression analysis and data obtained for this study, the significance of the listed independent variables in affecting the dependent variable is evident. The study set out to explore the effect corruption and institutional quality have on the economic development of Kenya. The importance of the institutional quality proxy is seen in table 2. Institutions are an essential ingredient for economic development. With an approximately 59 per cent correlation with corruption perception index, this shows how the two affect each other. Economic development is greatly affected by the level of institutions measured by contract intensive money at 89 per cent. Corruption also affects economic development with a 56 per cent magnitude according to the correlation matrix.

Furthermore, the regression analysis went on to cement the significance of these variables in influencing GDP per capita which is the proxy for economic development. Improving the corruption perception index insinuates a drop in corruption levels in a country. With this reduction, the welfare of the people is expected to improve subsequently. This is backed by the papers reviewed in chapter two which state the importance of fighting corruption. Institutions too, play an immense role in the welfare of the people as North (1990) emphasized. The regression results indicate a 1.31 unit increase in economic development as the institutional quality, security of contracts and property rights improve by 1 unit. This is a significant value and a major ingredient for development professional to consider in their endeavors.

The study has met the objective of showing the magnitude and direction that corruption and institutional quality affect economic development. Both the variables have a positive effect but differing magnitude. Therefore, to improve on the welfare of individuals, the discourse should include strengthening relevant institutions as this is one way of fighting graft and has a greater impact in affecting the welfare of the population.

5.2 CONCLUSION

Taking into consideration the results of the analysis in chapter 4, emphasis should be directed to creation of strong structures of governance and strengthening of institutions to guarantee property rights, security of contracts and checks and balances on the illegal accumulation of taxpayers' money through corruption. The analysis has shed light on the importance of institutions to the extent that it exceeds improving corruption perception index through traditional fight against corruption methods in its significance to GDP per capita.

In Kenya, much energy is directed towards fighting corruption which will probably improve the country's ranking in the transparency international's list but low magnitude effect in economic development. The study shows that more emphasis should be on enhancing the quality of institutions as a unitary increase in the quality of institutions increases GDP per capita by 1.31 units which is a very significant margin. This should inform efforts to strengthen the Ethics and Anti-Corruption Commission, the Auditor General's office, the director of public prosecution office and other relevant institutions.

5.3 POLICY RECOMMENDATIONS

In a country as Kenya, there are departments that are charged with coming up with the government's policies in different sectors. In enhancing economic development, among other factors, corruption and institutions have been momentous. Anti-corruption strategies have been abundant but there is less impact from them. Could it be a problem of misdiagnosis? This analysis has shown that working on institutions creates a more favorable environment for economic development. Therefore, it is needed for policy experts to shift their focus towards fixing the non-performing institutions too as this study states it will have a profound impact on the economic welfare rather than focusing on corruption alone.

Policy formulation towards anti-corruption measures should not entirely focus on rewards and punishment for those that have been found culpable. This strategy has proven futile over the years and poor execution rate has led to frustrations and giving up leaving the perpetrators to have a field day. Independently strengthening institutions and giving them autonomy from interference from the political class, is a strategy worth pursuing as it will cut down corruption and also improve economic conditions of individuals.

In policy formulation, professionals should work towards coming up with policies that improve institutional orientation and protect property rights and security of contracts entered into.

With the onset of new administrative structures, further research should be conducted to understand how corruption has mutated to the devolved units. This poses as a new frontier for research in the Kenyan case as it has been evidenced by the auditor general's reports that the newly formed counties are a hotbed of corruption. So goes the saying that corruption has been devolved.

REFERENCES

- Adenika, T., E. (2013). An econometric analysis of the impact of Corruption on economic growth in Nigeria. *Journal of business management and economics*, 4 (3). March 2013.
- Aghion, P. and Howitt, P. (1992). A Model of Growth through Creative Destruction. *Econometrica*, 60. (2), 323-51
- Aidt, T. (2003). Economic Analysis of Corruption: A Survey. *Economic Journal*, 113: 632-652.
- Aidt, T. (2009). Corruption, Institutions, and Economic growth. *Oxford Review of Economic Policy*, 25, 2, 271-291.
- Arrow, K. (1962). Economic Welfare and the Allocation of Resources for Invention. *NBER Chapters*. National Bureau of Economic Research, Inc
- Baldacci, E., Hillman, A.L., and Kojo, N. (2004). Growth, governance, and Fiscal-Policy transmission channels in low-income countries. *European Journal of Political Economy*, 20, 517-549.
- Bardhan, P., K. (1996). The Nature of Institutional Impediments to Economic Development. *Working Paper. Dept. of Economics*, U. of California at Berkeley, Mar. 1996.
- Barro, R., J. (1990). Government Spending in a Simple Model of Endogenous Growth. *Journal of Political Economy*, 98, 5, 2, 103–125.
- Barro, R. J. (1991). Economic Growth in a Cross-Section of Countries. *Quarterly Journal of Economics*. 106, 2:407–443, May 1991.
- Blackburn, K., Bose, N., and Haque, M. E. (2006). The incidence and persistence of corruption in economic development. *Journal of Economic Dynamics and Control*, 30, 12, 2447-2467. doi:10.1016/j.jedc.2005.07.007
- Buchanan, J. M. and Tullock, G. (1962). *The Calculus of Consent*. Ann Arbor: University of Michigan Press.
- Clague, C., Keefer, P., Knack, S., and Olson, M., (1999). Contract Intensive Money. *Journal of Economic Growth*, 4, 2, 185-212
- Collier, M. (2002). Explaining corruption: An institutional choice approach. *Crime, Law & Social Change*. 38: 1–32.
- Cooksey, B., Mullei, A., and Mwabu, G., (2002). Forms and causes of corruption in Mullei, A. (Eds) *The Link Between corruption and Poverty: Lessons from Kenya case studies*. Nairobi: *The African Centre for Economic Growth/ The United States Agency for International Development*, Directorate of Preventive services. Nairobi.

- De Vaal, A. and Ebben, W. (2011), Institutions and the Relation between Corruption and Economic Growth. *Review of Development Economics*, 15: 108–123
- Elliott, K. A. (1997). Corruption and the Global Economy. *Institute for International Economics*. Washington DC.
- Ethics and Anti-Corruption Commission Act. No. 22 of 2011.
- Fisman, R. and Svensson, J. (2007). Are Corruption and Taxation Really Harmful to Growth? Firm Level Evidence. *Journal of Development Economics*, 83, 63–75
- Gambetta, Diego (1988). Mafia: The Price of Dis-trust, in Trust making and breaking cooperative relations. *Ed.: Diego Gambetta*. Oxford: Blackwell, 1988, pp. 158-75.
- Heuvel, van den G., (2005). The Parliamentary Enquiry on Fraud in the Dutch Construction Industry, Collusion as Concept between Corruption and State-Corporate Crime. *Crime, Law and Social Change*. 44 (2), 133-151.
- Huntington, S., P. (1968). Political Order in Changing Societies. New Haven: Yale Univ. Press,
- Jain A. K. (2001). Corruption: A review. *Journal of Economic Surveys*, 15(1), pp. 71-121.
- Kaufmann, D. and Wei, S., J. (1999). Does “Grease Money” Speed up the Wheels of Commerce? *In NBER Working Paper*, No. 7093, Washington, DC
- Klitgaard, Robert E. (1988). Controlling Corruption. Berkeley: University of California Press.
- Krueger, A. (1974). The Political Economy of the Rent Seeking Society. *American Economic Review*. 64: 291-303.
- Lansner, T. (2012). Freedom House’s Countries at crossroads – Kenya country profile. <http://www.freedomhouse.org/report/countriescrossroads/countries-crossroads-2012>
- Leff, N. (1964). Economic development through bureaucratic corruption. *American Behavioral Scientist*, 8(3), 8-14. Reprinted in Williams et al. (2000) vol. 1 chapter 2
- Lucas, R. (1988). On the Mechanics of Economic Development. *Journal of Monetary Economics*. 3-42.
- Lui, F., T. (1985). An equilibrium queuing model of bribery. *Journal of Political Economy*, 93, pp. 760-81.
- Mauro, P. (1995). Corruption and Growth. *Quarterly Journal of Economics*. 110: 681-712.
- Mauro, P. (1997). The Effects of Corruption on Growth, Investment and Government Expenditure: A Cross-Country Analysis. K. A. Elliott, ed., *Corruption and the Global Economy*. Institute for International Economics. Washington DC.

North, D. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.

Osoba, S. (1996). Corruption in Nigeria: Historical Perspectives. *Review of African Political Economy*, 23.

Ostrom, E., (1998). A behavioral approach to rational choice theory of collective action. *American Political Science Review*, 92, 1–22.

Public Procurement and Asset Disposal Act. No. 33 of 2015.

Rebelo, S. (1991). Long run Policy Analysis and Long run Growth. *Journal of Political Economy*. 99(3): 500-521.

Romer, P. (1986). Increasing Returns and Long-run Growth. *Journal of Political Economy*. 94(2): 1002-1037.

Rose-Ackerman, S. (1978). *Corruption: A Study in Political Economy*. Academic Press. New York.

Rose-Ackerman, S. (1975). The Economics of Corruption. *Journal of Public Economics*. IV.

Shleifer, A. and Vishny, R., W. (1993). *Corruption*. *Quarterly Journal of Economics*. Vol. 108, pp. 599-618. Reprinted in Williams et al. (2000) vol. 1, chapter 13 and in Shleifer and Vishny (1998) chapter 5.

Solow, R. M. (1956): A Contribution to the Theory of Economic Growth. *Quarterly Journal of Economics*, 70, 65-94.

Stevenson, M. (2003). UN Countries Reveal Costs of Corruption. *Global Policy Forum* (<http://www.globalpolicy.org>).

Svensson, J. (2005). Eight Questions about Corruption. *Journal of Economic Perspectives*, 19, 3, 19-42.

The Independent (2007), Report reveals scale of corruption in Kenya, 1 September 2007, <http://www.independent.co.uk/news/world/africa/reportreveals-scale-of-corruption-in-kenya-401113.html>

The Public Officer Ethics Act. No. 4 of 2003.

Tullock, G. (1967). The Welfare Costs of Tariffs, Monopolies and Theft. *Economic Inquiry*, 5: 224–232

Ubi, P. and Udu, E., B. (2014). Corruption, Institutional quality and Economic Performance in Emerging Economy: Lessons from Nigeria. *British Journal of Economics, Management and Trade*, 4 (11). 1708-1722

Wrong, M. (2009). *It's Our Turn to Eat: A Story of a Kenyan Whistle Blower*. London: Fourth Estate.

Zey, M. (1992). Criticisms of rational choice models. In M. Zey (Ed.), *Decision Making: Alternatives to Rational Choice Models*. Newbury Park, USA: Sage Publications, 9-31.

<http://africanarguments.org/2016/01/11/kenya-has-become-a-bandit-economy-says-chief-justice-willy-mutunga/>

APPENDIX 1: DATA TABLE

YEAR	GDPpc	CPI	LF	GFCF	CIM	REG
1995	32,225.11		10513901	99,496,600,000.00		1.00
1996	32,646.80	2.21	10781978	110,142,000,000.00	0.868976	1.00
1997	31,943.45		11033334	118,535,000,000.00	0.872453	1.00
1998	32,151.78	2.50	11278596	133,366,000,000.00	0.866074	1.00
1999	32,055.15	2.00	11531445	141,403,000,000.00	0.862823	1.00
2000	31,416.12	2.10	11797233	161,714,000,000.00	0.857767	1.00
2001	31,749.82	2.00	12038058	185,186,000,000.00	0.845872	1.00
2002	31,077.81	1.90	12293429	178,466,000,000.00	0.841095	1.00
2003	31,135.78	1.90	12574323	179,254,000,000.00	0.861195	0.00
2004	31,851.75	2.10	12851380	207,196,000,000.00	0.857152	0.00
2005	32,836.56	2.10	13139098	264,728,000,000.00	0.868117	0.00
2006	33,992.25	2.20	13550233	309,592,000,000.00	0.872451	0.00
2007	35,411.06	2.10	13991044	355,090,000,000.00	0.871921	0.00
2008	35,005.09	2.10	14441823	409,597,000,000.00	0.87379	0.00
2009	35,013.09	2.20	14906964	465,111,000,000.00	0.891608	0.00
2010	36,049.87	2.10	15391124	518,504,000,000.00	0.892383	0.00
2011	36,625.82	2.24	15902458	608,982,000,000.00	0.888014	0.00
2012	37,289.33	2.70	16436192	701,398,000,000.00	0.893973	0.00