

**THE EFFECT OF FISCAL DECENTRALIZATION ON ECONOMIC GROWTH
IN KENYA**

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DECLARATION

I declare that this research project is my original work and has not been presented to any other institution for academic award.

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This research project has been submitted with my approval as the university supervisor.

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DEDICATION

I wish to dedicate this project to husband Marco Mutua and my daughter Alexia Nzisa and my loving parents John Muasya and Jane Muasya for investing in my education.

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I wish to acknowledge my supervisor for guidance throughout the process of coming up with the project without forgetting all staff at the school of Economics. My gratitude also goes to my family and friends for their endless support that have seen me through my studies. I also thank the Almighty God for giving me chance to pursue this course.

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
LIST OF TABLES	vii
LIST OF FIGURES	viii
LIST OF ABBREVIATIONS	ix
ABSTRACT	x
CHAPTER ONE: INTRODUCTION	1
1.1 Background of the Study	1
1.1.1 Devolution in Kenya.....	2
1.1.2 Overview of Economic Growth in Kenya	6
1.2 Statement of the Problem.....	7
1.3 Research Questions.....	8
1.4 Research Objectives.....	8
1.5 Importance of the Study.....	9
1.6 The Scope of the Study.....	9
1.7 The Organization of the Study.....	9
CHAPTER TWO: LITERATURE REVIEW	11
2.1 Introduction.....	11
2.2 Theoretical Literature Review	11
2.2.1 Theories of Devolution	12
2.3 Empirical Literature Review.....	15
2.4 Overview of Literature.....	19
CHAPTER THREE: METHODOLOGY	21
3.1 Introduction.....	21
3.2 Conceptual framework.....	21
3.3 Theoretical framework.....	22
3.4 Empirical model.....	24
3.5 Definition of variables and measurement	25
3.6 Pre-estimation	25

3.6.1 Cross-sectional dependency.....	25
3.6.2 Multicollinearity	25
3.7 Data, data types and sources	26
3.8 Estimation procedure	26
CHAPTER FOUR: RESULTS AND DISCUSSION.....	27
4.1 Introduction.....	27
4.2 Descriptive statistics	27
4.3 Correlation analysis	27
4.4 Empirical result.....	28
4.4.1 Pre-estimation test.....	28
4.4.2 Econometric results.....	29
4.5 Post Estimation Test	30
CHAPTER FIVE: CONCLUSIONS AND POLICY IMPLICATIONS	31
5.1 Introduction.....	31
5.2 Summary of Findings.....	31
5.3 Conclusions.....	31
5.4 Policy implications	32
5.5 Areas for Future Research	32
REFERENCES.....	33

LIST OF TABLES

Table 1: Descriptive statistics.....	27
Table 2: Correlation matrix	28
Table 3: Hausman test	28
Table 4: Regression output.....	29
Table 5: Post estimation test.....	30

LIST OF FIGURES

Figure 1: Trend in GDP growth rate for Kenya.....	6
Figure 2: Conceptual framework	21

LIST OF ABBREVIATIONS

AEO	African Economic Outlook
CDF	Constituency Development Fund
CKRC	Constitution of Kenya Review Commission
CRA	Commission on Revenue Allocation
ERS	Economic Recovery Strategy
GDP	Gross Domestic Product
GOK	Government of Kenya
MDGs	Millennium Development Goals
MTPs	Medium Term Plans
SMEs	Small and Medium Enterprises
SSA	Sub-Saharan Africa

ABSTRACT

This study is anchored towards examining the effect of fiscal decentralization on economic growth in Kenya between the years 2013 to 2018. The main motivation towards conducting this study is the fact that the effect of fiscal decentralization on economic growth is still inconclusive. Most studies that have been conducted on fiscal decentralization have produced mixed results with some showing that positive effect and others a negative effect on economic growth.

The study relied on secondary data which basically involved reading various pieces of literature on the subject matter. Panel data was used with study period ranging from 2013 to 2017 for the 47 counties. Through the research findings, the study concludes revenue share negatively impact economic growth. However, country grants plays significant and positive role on economic growth for Kenya.

Based on the study findings the study recommends that there is need for county resource mobilizations through appealing to both non-governmental organizations and international organizations for development funds in form of grants. These funds should be channeled towards development projects that spur economic growth.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Fiscal decentralization involves local government having control of fiscal operations at the local level. Many countries in both the developed and developing economies are embracing decentralization to improve governance in public service and to ensure efficient resource allocations (Musgrave, 1959; Oates, 1972). This is based on the notion that local or county governments are closer to the people and are best positioned to understand people's preferences.

According to Musgrave (1959) decentralization increases the productive capacity of a nation through increased efficiency, enhanced accountability, reduced corruption, decreased bureaucracies, and minimized cases of conflicts between government officials and civil servants. Through increased monitoring of budgets, the cases of losses of public funds are reduced. Furthermore, the close contact between local leaders and the people stimulates social cohesion and this goes a long way in reducing cases of thefts and corruption at the local levels. With devolution, the public is able to participate in the formulation of government policies. This helps the government in reducing the information asymmetry barrier through the formulation of pertinent policies that are people-centered.

For devolution to work, a few frameworks have been found necessary. A good constitution suffices in laying down the legal framework that candidly stipulates the role of each of the established government systems. The laid rules may include fiscal rules, service delivery and channels through which any arising conflicts may be resolved through (Azfar et al., 2004; Shah, 2006)). A strong political framework is key to help the management of elections of leaders. The political system

must ensure that democracy prevails in elections to maximize the delivery of services to the citizenry hence improving their welfare (Lijphart, 2012). A good fiscal system is important in stipulating how taxes will be collected and distributed across the established levels of government (Afar et al., 1999). An open and transparent information sharing system also ensures that the public is in the loop on what the governments are doing. Equally, a good devolved system embraces public participation to allow citizens to participate in service delivery. Public participation is enhanced through participation in general elections and satisfaction surveys, getting involved in public hearings, legal recourses, taking part in demonstrations, and through complaints channeled through Ombudsman. Indeed, a good devolved system must be legitimate, endowed with resources to be decentralized and a decentralization authority (Donahue, 1997).

Through decentralization, economies have been found to grow out of poverty and developments evenly distributed. Increased efficiency in the production of goods and services, reduced wastage of public funds through corruption and embezzlement, fair distribution of resources, and proper public participation improves the public sector and leads to economic growth (Oates, 1972). What can Kenya borrow from such models? The subsequent sections try to provide an answer to this question.

1.1.1 Devolution in Kenya

Since 1963 when Kenya gained independence, the central government lacked sufficient efficiency in delivering services to Kenyans across the country. This saw many areas remain marginalized and undeveloped (Stiftung, 2012). Furthermore, Kenya experienced many societal conflicts, rent-seeking behaviors, economic stagnation, heightened corruption, poor use of public resources, and consistent political upheavals after general elections (Gathu, 2015). According to Kimenyi and Meagher (2004), these problems were linked to the quality and nature of governance in Kenya.

This is because governance in Kenya had serious ramifications on the provision of public goods and resources sidelining some regions (Gathu, 2015). To change the governance system called for an overhaul of the constitution and reforming the economic system to ensure that development was fair and square and that every citizen accessed public services (Kimenyi, 2006).

The road to having Kenya recover economically and ensure equal development began immediately after independence with Majimboism¹ in 1963 that did not last for long. Thereafter President Jomo Kenyatta amended the constitution shortly after 1964 getting rid of the regional governments (Majimbos) and putting in centrally controlled provincial administration and the local governments. The government then came up with sessional paper number 10 (1965) where the government saw the need to revitalize economic growth.

Later the government established a string of decentralization funds to ensure growth across the local provincial administration areas. Some of the decentralization funds included: “District Development Program (1966), the Special Rural Development Program (1969/1970), District Development Planning (1971), the District Focus for Rural Development (1983-1984), and the Rural Trade and Production Centre (1988- 1989). These funds later collapsed as a result of poor government funding (IEA, 2010). Other funds that came thereafter included Secondary Schools Education Bursary Fund (1993), Road maintenance levy Fund (1993), HIV/AIDS Fund (1997), Rural Electrification Programme (1998), Local Authority Transfer Fund (1999), Poverty Eradication Funds (1999), Water Service Trust Fund (2002), Constituency Development Fund (CDF) (2003), Free Primary Education Fund (2003), Youth Enterprise Development Fund (2006) and the Women Enterprise Development Fund (2007). Most of the funds are still in existence while

¹ This was the first ever idea of devolution of power in Kenya that advocated for country to be divided into small regions (Majimbos) to effect even development.

some were abolished by the 2010 constitution. All in all, the majority of these funds have deeply supported fiscal decentralization in Kenya” (Menon et al., 2008).

Following the collapse of so many local authorities created under Local Government Act Cap 265 in the 1990s, Kenya needed a paradigm shift in governance and management of public resources. This shift came during the reign of President Mwai Kibaki. In 2002, Kibaki declared that he was focused on bringing constitution reforms and anti-corruption drive to rekindle the then dwindling Kenyan economy. With his new government regime in 2003, the demand for change was real with the adoption of the “Economic Recovery Strategy (ERS) for Wealth and Employment Creation” policy that ran until the year 2007. ERS focused on job creation, improving governance quality, building an efficient public sector, improving the business environment, decreasing the costs of doing business and reforming government investment policies (Government of Kenya, 2003).

The report by the Constitution of Kenya Review Commission (CKRC) in 2004 escalated the need for reforms. The report highlighted that Kenyans felt left out by their government and were not part and parcel of planning by their government. This promoted serious constitutional discussions by the Bomas Conference² and later the Wako-Draft³ of mid-2005. The 2007 post-election violence revived the dialogue on the need for a new constitution and a new draft was produced in 2009. The referendum was held on 4th of August 2010 and Kenyans were allowed to vote Yes or No for the new reviewed draft.

On the 27th of August 2010, Kenya marked a historical event with the promulgation of the new constitution. This marked the end of a strong centralized government that had been in existence

² The Conference was held in March 2004 and produced the first draft of the constitution that advocated for devolution of power and more so, reducing presidential powers by creating a prime ministerial position. The government rejected the draft.

³ The Wako draft proposed two tiers government system; national and district levels. This draft was deemed sufficient and was subjected to a referendum in November 2005 where Kenyans rejected it.

since Kenya gained independence. The new constitution brought in two levels of governments; central and 47 county governments. The new devolved governments came into operation after the 2013 general elections. The 47 new governments are now unique governments, with an increased mandate to make independent decisions, control and manage their budgets and deciding on how to deliver public services.

In the past, Kenya's economic growth was boosted by the activities of the main cities including Nairobi, Mombasa, Nakuru, Eldoret, and Kisumu. These cities accounted for over 70 percent of Kenya's Gross Domestic Product (GDP). This led to hefty marginalization as the government only focused resources in those five cities. The new devolved system in Kenya has brought tremendous changes in service delivery and distribution of national resources. With 47 county governments now in place, development has been devolved and so have our government's resources.

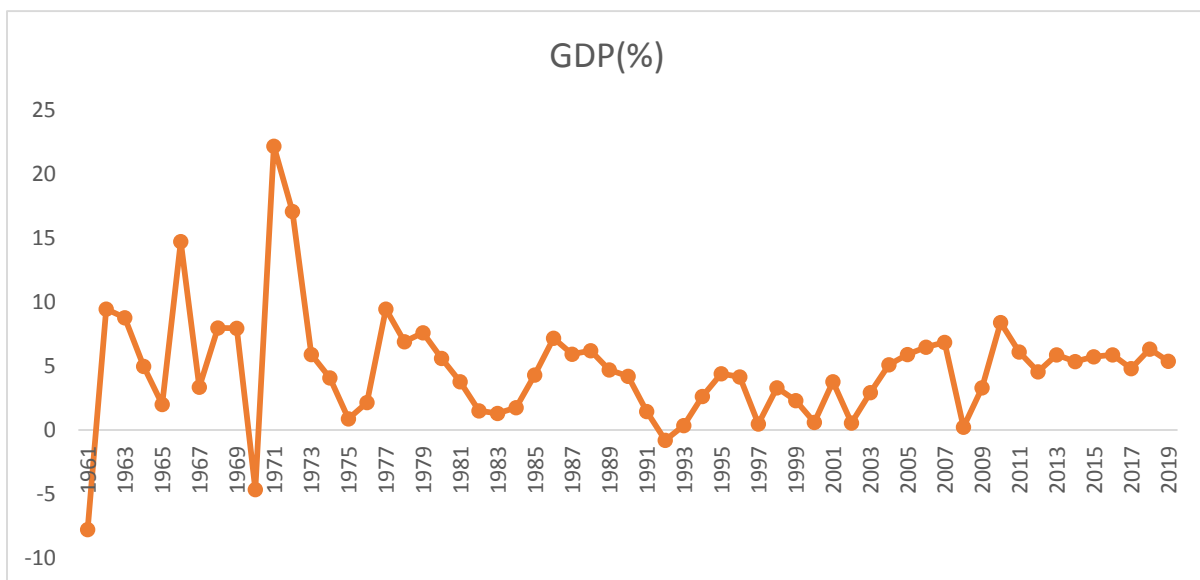
Devolution was considered the key to unlocking Kenya's economic potential. One of the biggest gains from the new 2010 constitution was the formation of the Commission on Revenue Allocation (CRA) which was mandated to ensure that all the 47 counties share resources equitably (Constitution of Kenya, 2010). CRA's role which is the equitable sharing of the national bread is key in determining development across the country. The biggest debate remains how devolution has changed Kenya's economy since its inception in 2010 and the start of its operation in 2013. All in all, fiscal decentralization took resources and development to the local levels and it was a big gain for counties that had been marginalized politically. Although some functions have not been devolved, there are gains to this 2010 decentralization.

1.1.2 Overview of Economic Growth in Kenya

Kenya's ushering in of the new constitution in 2010 also ushered in various political, structural and economic reforms that have been key in maintaining economic growth. The new devolved system has strengthened investments at the county levels, strengthened accountability and transparency in the use of public funds, and increased efficiency in public service delivery (World Bank, 2019).

Since the implementation of the economic recovery strategies in 2003, Kenya has made big steps in stabilizing her growth. Since then, GDP has been on the rise. For instance, in the year 2000, Kenya's GDP was USD 14.14 billion. As of 2010, GDP was now at USD 40 billion and at the end of 2018, GDP was at USD 89.21. Between 2010 and 2018, GDP in Kenya increased by 123.025 percent showing indicating a great promise in the country's quest for growth. The consistent growth in GDP is shown in the figure below.

Figure 1: Trend in GDP growth rate for Kenya



Source: World Bank (2019)

The above diagram shows good positive growth. The growth in GDP in Kenya is attributed to stable macroeconomic variables like interest and inflation rates, rebound in tourism sector and especially after Kenya recovered from the 2008 and 2013 political instabilities as result of general elections that were highly contested, strong influx of remittances, government's implementation of key infrastructural development as enshrined in the Vision 2030 and the Medium Term Plans (MTPs), growth in the private sector credit, and prudent management of government expenditure.

According to African Economic Outlook (AEO) (2019), Real GDP for Kenya grew at an estimated rate of 5.9% in 2018, rising from 4.9% in 2017. This growth was supported by good weather, calmer political environment, improved business certainty, and strong private consumption especially with a growing middle-class in Kenya. The key sectors that greatly contributed to this growth are services (52.5%), agriculture (23.7%), and industry (23.8%). With the attainment of some of the Millennium Development Goals (MDGs) targets on eradicating poverty, reducing child mortality, near universal primary school enrolment and reduced gender gaps, Kenya remains a leading country in growth in Sub-Saharan Africa (SSA) (World Bank, 2019).

1.2 Statement of the Problem

The effect of fiscal decentralization on economic growth is still inconclusive. Study conducted in Spain indicated that fiscal decentralization bears a negative impact on economic growth (Carrion-i-Silvestre et al., 2008). Major reason behind the mixed results is because fiscal decentralization is measured in different ways (Robert, 2000). However, studies by Oates (1993), Yilmaz (1999) and Limi (2005) found positive association between fiscal decentralization and economic growth.

Fiscal decentralization existed in Kenya way before the promulgation of the new constitution in 2010. With the new constitution, decentralization was given a new voice. Decentralization in Kenya focused on devolving fiscal, administrative and political powers. Many of the studies conducted have focused on looking at the impact of devolution on economic development (Gathu, 2015), others have focused on the opportunities that come with a devolved system (Ahmed et al., 2018), while others focused solely on the expected results (Ntara, 2013). Moreover, most of the past studies were conducted when devolution in Kenya was very young and assessing impact in Kenya produced dismal results. This study specifically aims at establishing the impact of fiscal decentralization on the economic growth and performance in Kenya for the period 2013-2018. The study aims at determining the impact of fiscal decentralization also from a lens of productivity at both county and national levels, with the goal of having representative results that will give a clear picture of how devolution has performed for the period of study.

1.3 Research Questions

The study intends to provide answers to the following questions:

- i. What is the impact of fiscal decentralization on economic growth in Kenya?
- ii. What policy recommendations can be drawn from findings?

1.4 Research Objectives

The main objective of this study is to investigate the effect of fiscal decentralization on economic growth in Kenya.

Specifically, the study will seek to:

- i. Determine the impact of fiscal decentralization on economic growth in Kenya

- ii. Draw policy recommendations based on the findings.

1.5 Importance of the Study

This study will provide valuable insights to policymakers at both the national and county government levels as it will shed more light on the impact fiscal decentralization has had in Kenya since the promulgation of the new Constitution. The study will be useful to commissions, like CRA, that have been formed to oversee the implementation of devolution in Kenya. Further, the study will enable the commissions to be able to assess the key areas that need reinforcement as far as fiscal decentralization is concerned. Lastly, the current study contributes to the existing knowledge base on fiscal decentralization and its impact on economic growth and performance. The study will be a key reference point for the Ministry of Devolution and Planning as it will highlight the key merits and demerits of devolution so far. This will help the Ministry in strengthening weak areas and sustaining what is being done right.

1.6 The Scope of the Study

The study mainly focuses on investigating the impact of devolution on economic growth and performance in Kenya for the period 2013-2018. The study will narrow the scope to fiscal decentralization and looking at how the revenue is shared and how well the sampled counties have used the revenue allocated to them to steer economic performance. The study will also look at the impact of devolution at the national level. To assess the impact, the study will assess the economic growth and performance of Kenya before and after fiscal decentralization. The study proposes to assess such impact quantitatively using secondary data.

1.7 The Organization of the Study

The second chapter will review both the theoretical and empirical literature focusing on impact of devolution on economic growth and performance for the period 2013-2018. The chapter will also provide an overview of the reviewed literature by indicating existing gaps, loopholes and inconsistencies in the literature that this study aims to fill. Chapter 3 will present a conceptual framework, empirical model specification, data type, sources and measurements and diagnostic tests to be carried out for the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents literature on the impact of devolution on economic performance. The theoretic literature section reviews what theory says about devolution, paying keen attention to theoretical foundations of decentralization. The empirical literature section looks at past studies on devolution and its impact on economic performance across the globe, Africa and Kenya and looking at lessons that Kenya could learn in order to get the best out of a devolved system. The chapter concludes with an overview of literature from which the study derives research gaps and works towards trying to address the gaps using the Kenyan case.

2.2 Theoretical Literature Review

Devolution is now an accepted *revolution* and many countries have embraced it to change the way they serve their respective general public (Boadway & Shah, 2009). All the countries that are embracing devolution are doing so in the hope of enhancing the efficiency and performance of their public sectors. Through devolution, the policy-making process is brought closer to the people through allowing their participation in putting forward what they really want. This has helped the central and local governments to plan, distribute resources and offer programs based on real-needs and hence guaranteeing efficiency in the use of public revenue (Oates, 2003).

Devolution is now an accepted phenomenon in both developed and developing economies as countries work hard to shape their fiscal structures to be more in tune with high demands for quality public service (Bird & Vaillancourt, 2008). This way many countries especially in developing nations will not be a victim of ineffective and inefficient governance and hence ensuring

macroeconomic stability and consequently realizing increased economic growths. The fact that devolution is being embraced by many countries means that there is a lot to be investigated on its efficacy and applicability in it being a tool through which to steer the economic performance of countries. Many developing countries have thus resulted in devolution as a solution to eliminating inefficiencies in government operations in social welfare delivery through equitable resource sharing.

According to Tiebout (1956), if sub-national governments were allowed to have their tax-systems specific to their jurisdiction, and people were given the freedom to move, then this would generate inter-jurisdictional competition that is healthy to drive economic efficiency and growth in such economic units.

2.2.1 Theories of Devolution

“The classical theory of fiscal federalism does not explicitly consider the relationship between fiscal decentralization and economic growth. However, studies in this field became particularly relevant after the beginning of large-scale decentralization reforms in (former) socialist states in the late 1980s — early 1990s (Russia and former republics of the Soviet Union, Eastern Europe, and China). The advocates of these reforms needed a theoretically and empirically justified relationship between the degree of decentralization and economic growth, the most easily measured quantitative indicator of economic development. In their search for such a justification, economists have analyzed and adapted various economic growth models, using them to find a potential link between decentralization and growth and applying various econometric techniques to confirm this link empirically”.

“Researchers have modified popular economic growth models (Solow model, Barro's endogenous growth model, and Diamond's overlapping generation model) to incorporate a potential relationship between fiscal decentralization and economic growth (Brueckner, 2006, Davoodi and Zou, 1998, Thiessen, 2003). The most common analytical framework that links expenditure decentralization to growth is a model developed by Davoodi and Zou (1998), which is a modified version of Barro's model (Barro, 1990). A Cobb-Douglas production function has two inputs, namely private capital and public spending, by three levels of government, federal, state and local. Public expenditures are financed through taxes on output. Maximizing the utility function of a representative agent with respect to a dynamic budget constraint provides the following solution: output growth rate depends, inter alia, on the shares of different levels of government in total public expenditure. From the model, it is also possible to calculate growth-maximizing shares of public spending. Davoodi and Zou (1998) conclude that if public expenditure is excessively centralized, decentralization can be conducive to economic growth”.

The augmented Solow model (Mankiw et al., 1992) also provides the basis for econometric analysis of the relationship between decentralization and growth (Thiessen, 2003, Lin and Liu, 2000). In addition to standard determinants of economic growth that are derived from the Solow model (initial output value, physical and human capital accumulation, and labor force growth), in the empirical specification, Thiessen (2003) uses additional decentralization measures and other conditioning factors as independent variables.

“Brueckner (2006) uses Diamond's model to show the advantages of decentralization theoretically. A hypothetical Diamond-Brueckner world at time t consists of two overlapping generations, the young and the old (each agent lives for two periods, being young in the first and old in the second). Young individuals can invest part of their time in education because it raises their future income

and can work the remainder of the time. In addition, a young generation can save a share of their income and invest it in physical capital. Old individuals devote all of their time to work. A consumption bundle of each generation consists of two goods: private and public. The old generation, whose disposable income is higher (because their level of human capital is higher, and they do not spend their time on schooling), can consume more, thus having higher demand for the public good. Brueckner then compares two systems: decentralized (federalism) and centralized (unitary). Under federalism, it is assumed that a perfect Tiebout-sorting mechanism allows individuals to sort themselves in two demand-homogeneous jurisdictions with different levels of the public good provision (higher for old than for young). Under the unitary system, a common level of the public good is provided for all individuals. According to the proposition presented by the author, the time spent on education and levels of physical capital is higher in the federalist equilibrium than in any unitary equilibrium. Economic growth, determined by the human capital growth rate, is, hence, higher under federalism. This model, which is excessively abstract and cannot be implemented empirically, provides insights on how federalism (in the form of decentralized public good provision) may positively influence growth”.

“Summing up the previous research on the theoretical relationship between fiscal decentralization and economic growth, Baskaran et al. (2014) identify four potential channels of this relationship: heterogeneity of preferences, market preservation, structural change, and political innovation. Heterogeneity of preferences is presented in the abovementioned Diamond-Brueckner model (Brueckner, 2006). Market preservation means that fiscal decentralization increases the horizontal fiscal competition, which restricts the negative incentives of subnational authorities, improves the conditions for market development, and ultimately accelerates economic growth. Structural change is related to potential positive effects of decentralization during

structural crises (e.g., when there is a permanent negative demand shock encountered by a particular industry). Structural change is easier to implement under decentralization because in the centralized system, risk-averse officials may have a higher interest in providing excessive financial aid to inefficient industries, which precludes structural reforms (Besley and Coate, 2003). Political innovation means that fiscal decentralization creates conditions for using regions as laboratories for economic experiments (Oates, 1999). If a policy innovation is successful in one region, it may be further disseminated among other regions, which creates new opportunities for economic growth”. Thus, a theoretical relationship between fiscal decentralization and economic growth appears to be established and justified.

“The results of numerous studies on the relationship between fiscal decentralization and economic growth, both from a cross-country and regional perspective, are very contradictory. Some researchers find a positive relationship (Akai and Sakata, 2002, Buser, 2011, Iimi, 2005, Thiessen, 2003), whereas others show that decentralization and growth are either negatively correlated (Baskaran and Feld, 2013, Davoodi and Zou, 1998, Rodriguez-Pose and Ezcurra, 2011) or not correlated at all (Asatryan and Feld, 2013; Thornton, 2007). In contemporary studies, researchers refer to the multidimensional nature of decentralization and find that expenditure decentralization has a negative effect on growth, whereas revenue decentralization is positively related to the long-run growth prospects (in cases when expenditures are more decentralized than revenues). In other words, the convergence hypothesis is confirmed: achieving a balance between revenue and expenditure at regional and local levels is positively related to economic growth (Cantarero et al., 2009; Gemmel et al., 2013, Rodriguez-Pose and Kroijer, 2009) and creates positive incentives for subnational authorities to preserve market institutions” (Jin et al., 2005).

2.3 Empirical Literature Review

With many countries all over the world embracing decentralization in a bid to escalate public sector performance, the number of scholars researching on the impact of devolution in economic growth and performances have also grown. This has been the case in both developing and developed economies that have aspirations for better welfare for the people. Empirical research shows mixed findings on the impact of devolution on economic growth and performances. This in turn has evoked economic debates on whether fiscal decentralization is the main driver to growth of the economy, performance, and also development.

Focusing on the expected returns to devolution for Kenya, Ntara (2013) highlighted the anticipated impact of devolution. The author highlighted that the Kenyan people expected that the counties would focus on policies and development programs that would be beneficial to them. This was in agreement with Kilonzo (2013) who posited that devolution was key in helping counties mobilize savings that would be reinvested in the counties to improve the welfare of the people. The author noted that although devolution promised a lot, it would not meet the desired economic performance for Kenya. The biggest fear was corruption that has marred many development initiatives in Kenya (Kenya National Commission of Human Rights, 2012; Omari et. al., 2013).

“In Europe, Cincera, et. al. (2018) carried out an empirical analysis to determine the impact of fiscal decentralization on government spending on specific key areas and government size. The study took per capita expenditure in constant prices by all levels of government on a specific function of government or on total expenditure as the dependent variable. The independent variables included a measure of fiscal decentralization and vertical imbalances. Their model was estimated through Seemingly Unrelated Regression (SUR) on six dependent variables namely (i) total government spending, (ii) education, (iii) health, (iv) infrastructure, (v) social welfare and

(vi) others. They found that decentralization was key in controlling government expenditure and budgets. However, they concluded that decentralization of education and health was not significant because they both benefit voters at national and sub-county government levels. All in all, expenditures on infrastructure and social welfare had a significant effect on people's welfare".

In China, Jin and Zou (2005) investigated the nexus between fiscal decentralization and economic growth over two crucial periods in China; the first period was 1979-1993 when China was going through fiscal contract system and the second period was 1994–1999 when China was under the new tax assignment system. The study used panel data for 30 provinces for the two periods. Fiscal decentralization was measured using provincial budgetary expenditure as a portion of the entire budget and extra-budgetary as a portion of entire extra-budgetary expenditure allocation. The study also added two tax variables (central and provincial tax rates) to bring out the distortions as a result of having both national and sub-national governments. The study used a control variable to control for provincial investment, growth in the labor force, level of openness, and inflation. The study found that fiscal decentralization did not only promote provincial growth, but also the overall growth of China's GDP. The study, however, was quick to note that having a central tax system was better as it helps in the distribution to sub-governments rather than each devolved system having its own tax system. The findings of this study were contrary to other studies (Steinfeld, 1999; Yang, 1997; Young, 2000; Zhang & Zou, 1998) who all found that fiscal decentralization was detrimental to economic growth, in respective studies.

In their study, Khaunya et. al. (2015) sought to find out if the devolved system of governance was a good start for democratic decentralization in Kenya. Through a diagnostic approach by using desktop research and expert opinion, the researchers did a comparative analysis using lessons from developed and devolved political systems in Africa and around the globe. Through a descriptive

analysis, the researchers were able to bring out the strides and challenges of devolution and making recommendations on how best Kenya can reap maximum benefits from devolution. Their study found that the county governments in Kenya had done very well by taking a multi-stakeholder approach in decision-making and by so doing, this increased the adoption and acceptance of development initiatives and reducing wastage of resources through rejection of such initiatives. They also cited that devolution had created employment across counties reducing disparities of employment that existed before devolution. The findings also indicated that the political system in Kenya was more equitable with checks and balances, and major government functions like healthcare, public works, provision of clean water and sanitation and licensing had been devolved bringing services closer to the people. They cited a few challenges to devolution and they include lack of political goodwill from the central government, shortages of funding, partial devolution of some key functions like education, a bloated workforce with lots duplication of efforts and deteriorating public confidence as a result of many corruption cases on embezzlement of public funds. The study proposed clarity of functions and sound use public resources as the main drivers that will ensure that devolution translates to development.

While establishing the impact of devolved funds on the growth of Kenyan economy between 1993 and 2012, Njenga (2014) used Ordinary Least Square Method to establish the impact of fiscal decentralization. The study used government spending, trade openness and inflation as explanatory variables while the proxy for fiscal decentralization was the devolved fund (capital and recurrent finances). The regression results indicated that both capital and recurrent finance contributed negatively to economic growth. The overall results indicated that between 1993 and 2012, the use of devolved funds contributed negatively towards Kenya's economic growth.

The study by Simiyu, Mweru and Omete (2015) using descriptive survey design established that constituency development fund is critical to the improvement of the social-economic aspects of the lives of the locals in Kimili in the dispensation of devolution. The study further noted that the devolved CDF funds had led to increased job opportunities in the area through the projects funded in the respective county through the CDF. The study involved primary data collection from a sample size of ninety eight respondents.

According to Mwangi (2014) on their study of the effect of devolution on Small and Medium Enterprises (SMEs) performance in Kenya. The study findings indicated that fees and levies, affect the performance of SMEs in Kenya to a moderate extent at the county governments. The study adopted a descriptive survey research design and carried out a multivariate regression model. The study used a stratified random sampling method to select 10% of the respondents accounting sampling frame accounting for 102 respondents.

Ndung'u (2014) sought to investigate the impact of devolution on economic development potentialities in Kenya. Using a comparative case analysis using secondary data from books, research papers, journals, official government and NGO's reports and gazette articles and qualitative method to analyze data, the review noted that devolution can be accompanied by the potential benefits to the citizens since it takes services to the citizens in the rural areas. He notes that devolution has potential to increase level of potential benefits. Kenyans should reap on the benefits associated with devolution.

2.4 Overview of Literature

The review of the literature, both empirical and theoretical, suggests that devolution is important because it leads to economic development through ensuring balanced growth and service access

to government services (Oates, 1999; Prud' homme, 2005; Ragnar Nurkse ,1907–1959; Ntara, 2013; Cincera, et. al. ,2018). In Kenya there exists a few if any empirical study on the effect of devolution on economic growth. Devolution is meant to bring services near to the people in the rural areas from the literature.

Extant studies reviewed focused on the impact of devolution on development of the economy, others on the opportunities that come with a devolved system, others on expected impact (Ahmed et al., 2018; Gathu, 2015; Ntara, 2013). This was the period when devolution had just being rolled out and this would mean the time period was not sufficient enough to assess the impact of devolution in Kenya.

Almost ten years after devolution was initiated, there is a need to understand the impact of devolution on economic growth in Kenya since the implementation of devolution with the inception of the new constitution. This calls for an empirical investigation to fill this gap. Therefore, this study seeks to find out the impact of devolution on economic growth in Kenya to fill this gap.

CHAPTER THREE
METHODOLOGY

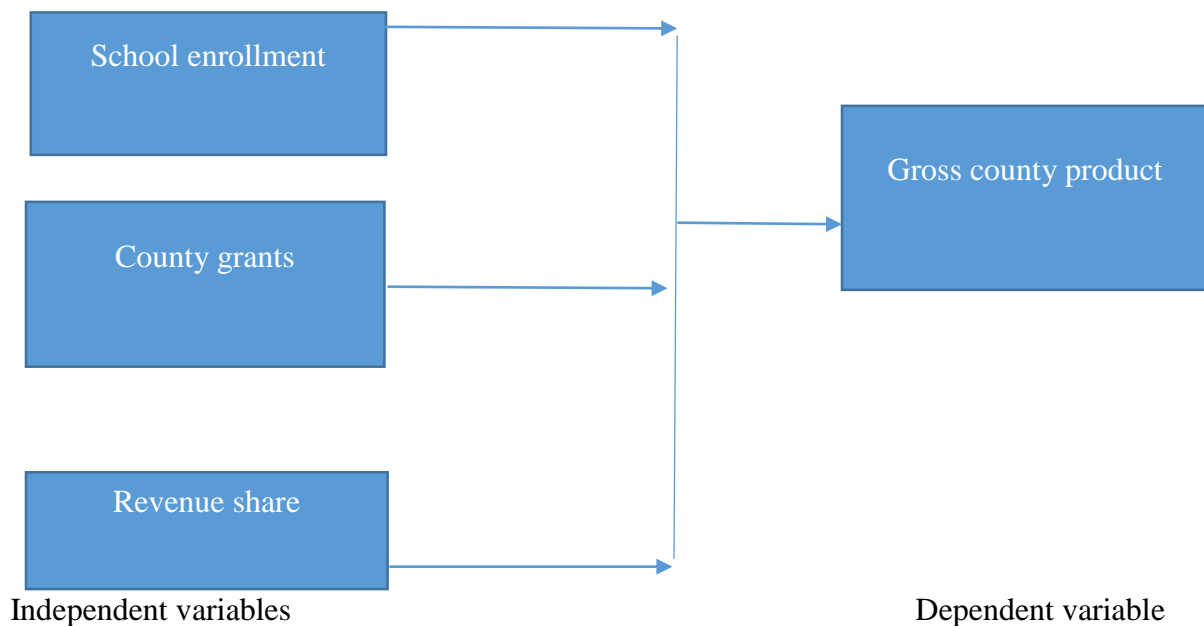
3.1 Introduction

This section covers the theoretical framework, the empirical model to be used, the definition of variables table and the last section presents the data, data types and sources.

3.2 Conceptual framework

Figure 1 presents the conceptual framework that relates the dependent variable and independent variables.

Figure 2: Conceptual framework



Source: Researcher (2020)

The economy literature suggests that human capital or average years of schooling of labor force, enhances total factor productivity (TFP). According to Romer (1990 a,b) and Aghion & Howitt, (1998) human capital affects TFP growth by enhancing the adoption and implementation of

modern technology developed exogenously and/or by promoting the domestic production of technological innovations (Wei & Hao, 2011). It is presumed that a well-educated manpower is best at creating, implementing and adopting advanced technology, hence facilitating growth (Benhabib, Spiegel, 1994). Grants advanced to the government of the recipient country can fund government spending and compensate for the limited government tax base hence enhancing economic growth (Gomanee, Girma and Morrissey, 2005). Revenue from the government has an impact on the growth of the economy through facilitating various services and completing government projects (Illyas & Siddiqi, 2010). In essence, taxes from incomes, property, profits or consumption boosts the economy (Johansson, 2008; Barrios & Schaechter, 2008).

3.3 Theoretical framework

The analysis in this study adopts a simplified version of endogenous growth model by Barro (1990). The model is based on the assumption that the government purchases a certain percentage of private-sector output with the aim of providing certain free public services such as infrastructure. The aggregate production function is specified as follows:

$$Y = AK^{\delta}G^{\vartheta} \dots \dots \dots 1$$

Where, Y is the output, A is the technology, K is the private capital and G is the government purchases. The model assumes constant returns to scale and all the variables are defined in per capita terms. Additionally, $0 < \delta < 1$, $0 < \vartheta < 1$, $A > 0$, and $\delta + \vartheta = 1$.

Davoodi and Zou (1998) posit that fiscal decentralization can be introduced into the model only through disaggregating government purchases into shares supplied by the National government, state and local authorities. To avoid the loss of generality, this study will only consider national

and county government levels (Kim, 2013; Iimi, 2005). The disaggregated model is specified as follows:

$$Y = AK^\delta N^\alpha C^\mu \dots\dots\dots 2$$

Where, N denotes per capita purchases by the national government, and C are purchases done by the county government. $0 < \alpha < 1$, $0 < \mu < 1$, and $\alpha + \mu = \vartheta$. From this equation, the degree of decentralization can then be defined as the county government spending relative to total public spending. Consequently, total government spending (G), between the county and the national government is expressed as:

$$N = \varphi_N G; C = \varphi_C G; \varphi_N + \varphi_C = 1 \dots\dots\dots 3$$

Where, φ_N and φ_C are shares of national and county government respectively.

To consider the revenue side, the government defines a flat income tax rate (t), hence maintaining a balanced budget constraint ($G=tY$). According to Ramsey (1928), Cass (1965), and Koopmans (1965), the model is closed with standard preferences for household, where C gives per capita private consumption. The underlining dynamic budget constraint can then be represented as follows:

$$\frac{dk}{dt} = \dot{K} = (1 - \tau)y - c = (1 - \tau)K^\delta N^\alpha C^\mu - G \dots\dots\dots 4$$

For a given level of G and φ_i , the per capita output steady state is expressed as:

$$\frac{dy/dt}{y} = \frac{\dot{y}}{y} = \frac{1}{\sigma} \left[(1 - \tau)\tau \frac{1 - \delta}{\delta} A\delta(1 - \varphi_i)^{\frac{\alpha}{\delta}} \varphi_i^{\frac{\mu}{\delta}} - \sigma \right] \dots\dots\dots 5$$

The empirical long-term association between decentralization and economic growth may be gauged equation 5 above. It can be seen that an increase in decentralization has a positive effect of economic growth on condition that county government spending is higher than that of the national government, that is,:

$$\frac{dy/y}{d\varphi_c} > 0 \text{ for } \varphi_c < \frac{\mu}{\alpha + \mu} \dots\dots\dots 6$$

Consequently, for any particular level of total government spending, a reallocation of public spending between national and county government leads to higher economic growth on condition that the current allocation differs from the one resulting from a growth-maximizing expenditure problem, represented as:

$$\varphi_N^* = \frac{\alpha}{\alpha + \mu} \text{ and } \varphi_C^* = \frac{\mu}{\alpha + \mu} \dots\dots\dots 7$$

3.4 Empirical model

Transiting from the theoretical model above, we now link it to a statistical econometric model. We begin by assuming a linear relationship of the following form:

$$y_{it} = \beta'_{it}x_{it} + \mu_{it} \dots\dots\dots 8$$

Where $x_{it} = [d_{it} \ k_{it}]^T$, d_{it} denotes the fiscal decentralization indicator for region $i=1, 2, \dots, N$ and period $t=1, 2, \dots, N$, β_i represents a vector of region specific slope (technology) and μ_{it} is closely related to total factor productivity growth.

$$y_{it} = \beta_0 + \beta_1 SSE_{it} + \beta_2 CG_{it} + \beta_3 RS_{it} + \mu_{it} \dots\dots\dots 9$$

Equation (9) denotes the empirical model for estimation.

3.5 Definition of variables and measurement

Variable	Notation	Description	Expected Sign	Source
GCP per Capita(y)	Y	“This is the Gross County Product divided by each county population”.		KNBS
Secondary school enrollment	SSE	“Number of students registered in high school for each county”.	±VE	KNBS
County grants	CG	“Is a no-strings financial award given by the state or local government to fund some type of beneficial projects”	±VE	KNBS
Revenue Share	RS	“This is given by the total revenue of the region I divided by total national revenue plus the total revenue of region”.	±VE	KNBS

3.6 Pre-estimation

3.6.1 Cross-sectional dependency

Cross-sectional dependence has to do with the impact of shocks in one region on to another one. To determine the existence of cross-sectional dependency, there is need to carry out a Pesaran’s (2004) cross-sectional dependence (cd) test.

3.6.2 Multicollinearity

“Multicollinearity refers to the successive inclusion of additional variables that lift the collinearity of the full set of explanatory variables to a ‘harmful’ level (Lauridsen and Mur, 2006). In other words, multicollinearity exists when two or more of the predictors in a regression model are moderately or highly correlated. Estimations under multicollinearity can lead to biases in the conclusions drawn - the results. Due to this, a multicollinearity test will be done. There are different methods used to study the problems of multicollinearity, such as variance inflation factor, factor analysis regression and principal component regression. In this study, the variance inflation factor (VIF) will be used. A variance inflation factor is used to measure the inflation of variances for their parameters and values greater than 10 indicate the presence of strong multicollinearity” (Lin,

2008). In the case where multicollinearity is detected, the highly collinear variables will be dropped from the model.

3.7 Data, data types and sources

The study will use a panel data set for period 2013-2018. Specifically, the data for the following variables will be obtained: county government expenditure, county government revenues, national government total expenditure, national government total revenues, and GDP growth data. The other variables will be calculated using the given data.

3.8 Estimation procedure

Our models includes 47 counties from 2013 to 2018. We will estimate the models using fixed (FE) effects or random effects (RE) methods. Hausman test will be used to select between FE or RE model.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter covers both descriptive and inferential statistics on the effect of fiscal decentralization on economic growth in Kenya.

4.2 Descriptive statistics

Table 1 provides descriptive statistics of the variables used in the empirical model. The average Gross County Product (GCP) per capita from 2013 to 2017 was KShs 115,672 with a standard deviation of KShs 57,710. On the average, secondary school enrollment across the forty seven counties was 105,048 students. The mean revenue share for the forty seven counties between 2013 and 2017 was approximately KShs 5.7 billion. County grant averaged approximately KShs 2.87 million between 2013 and 2017. All the variables have positive skewness indicating their distributions are skewed to the right with longer right tails relative to their left tails.

Table 1: Descriptive statistics

Variable	N	mean	min	max	sd	skewness	kurtosis
GCP per capita (Ksh)	235	115672	34112	350321	57710	1.611	5.79
Secondary Enrollment	235	105048	4038	2.76E+06	354688	6.63	45.81
Revenue Share (Ksh.)	235	5.70E+09	1.51E+09	1.63E+10	2.38E+09	1.19	5.051
County Grants (000)	235	2878	27.42	15402	3186	1.118	3.605

Source: Researcher (2020)

4.3 Correlation analysis

The correlation matrix (Table 2) indicates existence of low negative correlations between economic growth and high school enrollment. County grant has low and positive association with economic growth. However, county revenue share has negative and weak association with economic growth.

Table 2: Correlation matrix

	Growth	Ln(school-enrollment)	Ln(revenue-share)	Ln(County-grants)
Growth	1.0000			
Ln(school-enrollment)	0.0129	1.0000		
Ln(revenue-share)	-0.1826	0.1988	1.0000	
Ln(County-grants)	0.2903	0.0410	-0.1471	1.0000

Source: Researcher (2020)

4.4 Empirical result

4.4.1 Pre-estimation test

Table 3 shows the Hausman test results. Hausman test was conducted to determine whether to run fixed effect model or random effect model. Hausman test statistics indicates that p-value (p-value=0.1581) is greater than 5% hence we adopt the random effect model.

Table 3: Hausman test

```
. hausman fixed ., sigmamore
```

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fixed	(B) random		
LNSCHOOL	-1.14853	-1.161184	.0126545	.0193224
LNREVENUE	-12.2047	-9.706084	-2.498616	1.152625
LNGRANTS	10.26839	8.453828	1.814557	.8410663

b = consistent under Ho and Ha; obtained from xtreg
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

```
chi2(3) = (b-B)'[(V_b-V_B)^(-1)](b-B)
          =          5.20
Prob>chi2 =          0.1581
```

Source: Researcher (2020)

4.4.2 Econometric results

Table 4 provides econometric result for the empirical model.

Table 4: Regression output

VARIABLES	(1) GDP growth
Ln(school-enrollment)	-1.161 (1.240)
Ln(revenue-share)	-9.706** (4.603)
Ln(county-grants)	8.454*** (2.469)
Constant	165.1* (92.88)
Observations	235
Number of Years	5
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1	

Source: Researcher (2020)

The econometrics result shows that the coefficient of secondary school enrollment is negative but non-significant. This implies that an increase in secondary school enrollment at the county does not translate to economic growth. The coefficient for revenue share is negative but statistically significant at 5% level. This illustrates that 1% increase county revenue share results to 9.706% decrease in economic growth. The finding reinforces similar result by Pasichnyi et al. (2019) who found that revenue decentralization negatively impacts economic growth. Evidence of the revenue decentralization's negative effects could be related to the fact that bigger proportion of county expenditure goes towards unproductive expenditure i.e. recurrent expenditure on county employees.

The coefficient for county grants is positive and significant at 1% level implying county grants significantly contributes to economic growth. For example, 1% increase in county grant is associated with 8.454% increase in economic growth. Similar result was arrived at by Mah and Yoon (2020) who found statistically significant relationship between grants and economic growth. Grants always tied to specific development agenda and this could explain their growth enhancing impacts.

The results of the post estimation diagnostics test are shown in table 5 below.

4.5 Post Estimation Test

Table 5: Post estimation test

Test	test-statistic	P-value
Normality	1.037	0.1512
Model Specification	1.321	0.4456
Heteroscedasticity	0.4561	0.571
Serial Correlation	0.495	0.493

Source: Researcher (2020)

Post estimation tests results in table 5 indicates that the error terms of the model have no serial correlation, are free of heteroscedasticity and are normally distributed as we failed to reject the null hypothesis of these tests respectively

CHAPTER FIVE

CONCLUSIONS AND POLICY IMPLICATIONS

5.1 Introduction

This chapter summarises the current study and gives policy recommendations based on the findings.

5.2 Summary of Findings

The objective of the study was to determine the effect of fiscal decentralization on economic growth in Kenya. County revenue share and county grants were considered as indicators for fiscal decentralization while gross county product per capita growth was used as proxy for economic growth. Panel data was used with study period ranging from 2013 to 2017 for the 47 counties. Random effect model was adopted after applying Hausman test. The average Gross County Product (GCP) per capita from 2013 to 2017 was KShs 115,672 while secondary school enrollment across the forty seven counties was 105,048 students. The mean revenue share for the forty seven counties was approximately KShs 5.7 billion while county grant averaged approximately KShs 2.87 million.

County revenue share had a negative and significant effect on economic growth while grants has a positive and significant effect.

5.3 Conclusions

The study aimed at investigating the effect of fiscal decentralization on economic growth in Kenya. Through the research findings, the study concludes revenue share negatively impact economic growth. However, country grants plays significant and positive role on economic growth for Kenya.

5.4 Policy implications

The study showed strong evidence of negative and significant relationship between revenue share and economic growth in Kenya. County governments should observe fiscal disciplines by reducing wastage of county resources. County government should allocate funds for county development projects. Productive expenditure that involves road constructions, capacity building and health infrastructures should will enhance both economic development and growth. Corruption should be eliminated by prosecuting corrupt officials and also putting in place mechanisms that reduce corrupt practices at the county governments.

Evidence from the study shows strong positive and significant relationship between county grants and economic growth. There is need for county resource mobilizations through appealing to both non-governmental organizations and international organizations for development funds in form of grants. These funds should be channeled towards development projects that spur economic growth.

5.5 Areas for Future Research

In line with literature review, few studies have been done to examine the effect of fiscal decentralization on economic growth for the case of Kenya. Further studies should be conducted to examine how institutional qualities at the county level has impacted on fiscal decentralization. Researchers should also conduct future studies on the success and failures of fiscal decentralization.

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