# THE IMPACT OF FOREIGN AID ON INSTITUTIONAL QUALITY IN EAST AFRICA

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# A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF ARTS IN ECONOMIC POLICY OF THE UNIVERSITY OF NAIROBI.

**DECEMBER 2017** 

## DECLARATION

I declare that this paper is my original work and has not been submitted for the award of a degree in any other university or institution.

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SIGNATURE: ..... DATE.....

This paper is submitted for the award of the degree of Master of Arts in Economic policy Management with my approval as a university supervisor.

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## DEDICATION

To my beloved parents, brother and sisters, for their unequivocal support during my studies.

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The views expressed in this paper are my own and do not represent the views of any of the named person(s) and/or Institution(s). I solely bear the responsibility for any errors and/or omissions.

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## LIST OF ABBREVIATIONS

- DAC- Development Assistance Committee
- ODA- Official Development Assistance
- OECD- Organization for Economic Cooperation and Development
- OLS- Ordinary Least squares
- SSA- Sub Saharan Africa
- UN United Nations
- WDI-World Bank Development indicators.
- 2SLS- Two Stage least squares.

### ABSTRACT

There have been divergent views on the impact of foreign aid on institutional quality dimensions in East Africa. While some views are of the opinion that aid has negative impact on institutional quality, others holds the view that they aid positively affect institutional quality. In order to ascertain which view holds for East African countries, this study analysis the impact of foreign aid on institutional quality in East African countries. The study utilizes panel data of 5 East African countries for the period between 1996 and 2016.Using fixed effect estimation technique, the study presents robust results which reveals that indeed foreign aid affects institutional quality negatively confirming the perilous effect of foreign aid on institutional quality.

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#### **1.0 CHAPTER ONE: INTRODUCTION**

Poverty reduction has always been an area of major concern in especially in developing countries. At least 1.5 billion people in the world lives in less than 1.25dollar a day World Bank (2011). 45 per cent of these comes from Sub-Saharan Africa (Alkire & Foster, 2011). These countries are still lagging behind in achieving the millennium development target on eradication of extreme poverty (Caulderwood, 2015; Asongu, S. A; Kodila-Tedika, 2015). While south East Asia and Latin American states continues to experience decreasing levels of inequality, African countries continues to show increased levels of inequality (Nwachukwu & Asongu , 2015).

Although poverty eradication requires a number of policies, foreign aid both multilateral and bilateral forms a major element in eradicating poverty in African and other developing countries (Nwachukwu & Asongu , 2015). According Okada & Samreth (2012) foreign aid has not worked because of poor institutions. ODA may have an impact on the quality of institutions especially corruption in recipient countries (Asongu ,2014). Donors and international organizations often argue that their foreign aid policies are meant to improve government institutions of the recipient countries (Acht, Mahmoud, & Thiele, 2014). The World Bank has in the recent times openly discussed the issue of enhancing good governance in aid recipient countries and reduction of corruption. However, more often, financial assistance do not reach the intended people in the societies as much of it is wasted due to inefficiencies (Acemoglu & Robison, 2014)

The problems facing Africa in general and East Africa's development in particular is governance crises, poor government institutions, lack of accountability, weak rule of law, lack of property

rights, weak courts and contract enforcement, high levels of corruption, violence and hostilities Okada & Samreth (2012).Nevertheless, most countries with poor governance records continues to receive high levels of ODA which forms a big percentage of their national budget (Acemoglu & Robison, 2014). (Andrews, 2009) Argues that in order to end poverty in Africa, then the west needs to promote good institutions.

(Anaele, 2014), cites various reasons why there is poor governance in sub-Saharan African; colonial masters did nothing to strengthen institutions that could help in supporting development in the recent times. Furthermore, economic crises, huge and unsustainable debts and political unrests are some of the causes of poor institutions in sub-Saharan Africa. It's therefore hard to decipher the possible impact of the above problems with the possible impact of foreign aid.

In September 2015, word leaders adopted the sustainable development goals (SDGs) in order to tackle issues to do with hunger, poverty and climate change UN (2016). These seventeen goals as stipulated in the SDGs came in after the expiry period of the millennium development goals which mostly focused on developing countries. During the era of MDGs, we have seen an increase in official development assistance (ODA) flow in developing countries in order to help eradicate poverty. Moreover, in order to achieve the 17 goals of SDGS, the international community needs to redefine and adopt new visions for foreign aid. ODA will play a pivotal role as an additional financing especially to countries which have least capacity to attract private and foreign direct investments. However, during the last decade or so, foreign aid has observed a lot of criticism. This is due to the fact that ODA has not achieved its intended purpose. According to (Andrews, 2009) foreign aid can only achieve the intended purpose of growth only in sound economic policies.

The debate on the effect of ODA on the institutions quality has received mixed findings. According to (Djankov, Montalvo, & Reynal-Querol, 2008), foreign aid negatively and directly affects the quality of institutions in the ODA recipient countries. On the other hand, (Jones & Tarp, 2015) observes that ODA actually decrease corruption in the recipient countries. However, Asongu (2013) in his study of the impact of foreign aid on institutional quality in Sub Saharan Africa finds that foreign aid mitigates the quality of institutions in recipient countries. (Asongu & Mohamed, 2013), in their study on the channels of foreign aid and corruption finds that ODA channeled through the government's consumption encourages corruption. However, ODA through the private investment reduces corruption. In yet another study by (Moss, Pettersson, & Van de Walle, 2008) aid undermines governance. They argue that governments which depends more on ODA tends to be less accountable to their citizens and have no incentives to bring up good institutions.

Since there are conflicting literature of the impact of foreign aid on institutional quality and the fact that there exist very few studies on this in East Africa, this study is therefore motivated to investigate that impact of foreign aid on institutional quality in East Africa. Empirical studies as such political science does not reach a census either (Ahmed 2012, Wright 2009, de Mesquita &Smith, 2013). This study takes advantage of the more extensive data available over years on foreign aid and institutional qualities to try and establish the impact of foreign aid on institutional quality in East Africa.

This study therefore contributes to the literature as follows; Firstly, in addition to the normal eight institutional qualities that previous studies have incorporated being; rule of law, government effectiveness, control of corruption, regulatory quality, voice and accountability, political stability, democracy and corruption; this study intends to add political rights and civil

liberties as dimensions of institutional qualities. Secondly, this study will employ more recent data unlike other previous studies. The data used in this study will be time series data ranging from 1996- to 2016. The last contribution of this study is addition of existing literature on the subject; the specific case of East African economy.

#### 1.1 Stylized facts on ODA and corruption perception index

According to (OECD 2013 and development assistance committee (DAC) 2012); Foreign Aid in this study refers to official development Assistance (ODA). ODA is the concessional flow of official financing to the less developed countries. This could be inform of grants or loans but with at least 25 percent in grant component. It is normally given to improve on the economic welfare and development of the recipient developing countries. ODA can be bilateral where aid flows from donor to recipient governments directly or multilateral aid channeled through intermediary lending institutions such as the World Bank. However, for the purpose of this study, aid will exclude debt relief, technical assistance and any other form of aid.

DAC has classified aid flows in three groups. Official development assistance (ODA) which consist of aid provided by donors to low and middle income countries. Official assistance (OA) consist of aid provided by donor governments to richer countries with a per capita income of above \$ 9,000 and to countries that belonged to Soviet unions. Private voluntary assistance which consists of grants from non- government.



Figure 1 : ODA per Capita Flow in East African countries -1960-2015 in (current US dollar)

Source: World Bank (2015)

#### **1.2 Institutional quality**

(Bruinshoofd, 2016) defines Institutional quality as quality of contract enforcement, good governance, control of corruption, free access to information, political rights, civil liberties, government effectiveness and protection of citizenry and shareholders. For any meaningful growth and development in any given country, Institutional quality is key. Various studies have been carried to determine the causes of slow economic growth in less developed countries especially in the Sub-Saharan Africa. Moreover, Special interest has been given on the impact of ODA conditional to institutional quality.

Transparency International corruption perception index (2015), there was no single country in the world that was corruption free. However, countries in the East African region performed dismally. Kenya, the largest economy of East Africa was ranked number 139 out of 169 with a score of 25%. This position dropped further to 145 with a score of 26% in the subsequent year 2016. Uganda was ranked number 139 in the year 2015 with a score of 25%. Burundi too was not performing any better as it was ranked in position 150 with a score of 21%. However, Rwanda and Tanzania performed better than their East African counterpart with positions 44 and 117 respectively. Their respective scores were 44% for Rwanda and 30% for Tanzania.

Figure 2 : Accountability and corruption in the public sector: (1=low to 6=High)



Source: Word bank (2016)

The five East African countries have had their own share on poor institutional qualities. Although Kenya has made major strides in as far us democracy and political rights is concerned; corruption is one of the major derailment of growth in the East African economic giant. When president Kibaki's NARC government came into power, Kenyans were an optimistic lot. However this administration did not live to its promises Kataa (2016). There was rampant corruption in the government institutions which lead to embezzlement of funds and blatant wastage of resources. In the year 2007, ethnicity, lack of political rights and democracy almost destroyed Kenya during the post- election violence. The opposition then didn't have confidence with the judiciary and instead of going to courts to seek legal redress, they opted for mass actions which brought about many deaths and internally displaced persons (IDPs). The inauguration of the new constitution in Kenya in the year 2010 was meant to strengthen institutions. Although Kenyans have tried to create strong institutions, corruption remains one of the major disaster in the country.

According to Kimenyi & Kibe (2014), Rwanda encountered genocide in 1994 the worst seen in Rwanda's history due to ethnicity and political instability. This greatly affected the economic performance of the East African smallest country. However, Rwanda has continuously improved its institutions in the recent times and this can be seen in the corruption perception index (corruption perception index, 2015). A study done by (Sophia & Khan, 2010) shows that Tanzania has experienced various reforms such as political stability, transparency and accountability. This has greatly improved the flow of foreign aid in Tanzania thereby boosting her economic performance as compared to other East African counterparts.

Although Burundi continuously received increase foreign aid as shown in figure 1 above, it remains the poorest country in East Africa. The GDP growth in this country has been dismal. This could be attributed to eruption of fights with one other and lack of democracy and transparency in the country. It is imperative to note that president Nkurunziza has brought a lot of these instability in this country as a result of clinging onto power. From figure 2 above, Uganda was rated very poorly in terms of accountability transparency corruption perception and dictatorship especially between 2012 and 2015. This has resulted to poor performance economically.



Figure 3: Civil Liberties, Political Rights and Freedom Score: (1 = most free and 7 = least free)

#### Source: Word bank (2016)

Figure 3 above shows that over the years between 1970 and 2016, Kenya being the largest economy in East Africa had partial freedom with the best years between 2003 and 2007 during the NARC government. Similarly, Tanzania in the recent years, has improved tremendously with the best score being 3 depicting more freedom. Burundi performance score in most of the years has been wanting depicting lack of freedom. The best score for Uganda has been a score of 4 indicating partial freedom in the years between 2003 and 2008.Rwanda's performance has been erratic with the worst performance of a score 7 being 1995 indicating lack of freedom on political rights and civil liberties.

#### **1.3 Statement of the Problem**

East African states continues to receive increased ODA as per figure 1 above. This ODA is supposed to help the countries to strengthen their institutional qualities. However, according to (Okada & Samreth 2012, Asongu 2012) there still exists weak institutions in these countries due to weak rule of law, lack of accountability, lack of enforcement of the rule of law, dictatorship and lack of political rights, political instabilities and weak civil societies.

Even though some studies have been done interrogating the impact of foreign aid on institutional quality, very few studies have been done for East Africa. Previous studies have analysed the impact of foreign aid on institutional quality using 8 dimensions of institutions but failed to include political rights and civil liberties in their study. The studies had inconsistent and very diverse views. While some studies found positive impact, others found negative impact of foreign aid on institutional quality. (Okada & Samreth 2012, Asongu 2012) found out that high levels of foreign aid erodes the quality of governance as measured by corruption, rule of law and bureaucratic quality. According to (Moss et al, 2008) large and sustained volumes of aid have negative impacts on the quality of public institutions especially in the developing countries. However, other studies discovered a positive relationship between aid and institutional quality, for example; (Jones & Tarp, 2015) Observed that aid has a positive impact on the institutions in the recipient country. Since the literature on the impact of aid to institutional quality is diverse and inconsistent, this study will seek to examine the impact of foreign aid on 10 dimensions of institution quality in East Africa.

#### **1.4 Research questions**

This study was guided by the following research questions;

- a) What is the impact of foreign aid on institutional quality in East Africa?
- b) Does institutional quality attracts foreign aid in East African countries?

#### **1.5** Objective of the study

The general objective of this study is to determine impact of financial assistance (ODA) on institutional quality in East African countries.

The specific objectives are:

- a) To determine whether foreign aid affects institutional quality in East African countries.
- b) To offer policy recommendations based on the findings of this study.

#### **1.6 Significance of the study**

This study will be significant to policy maker's in as far as foreign aid and institutional quality are concerned. Very significant policies could arise from the results of this study. For example, if ODA negatively impacts on the institutions quality in East African countries, policies which tend to reduce the amount of ODA could be proposed. On the other hand, policies promoting foreign aid could be proposed if foreign aid was found to be affecting institutional quality positively In addition this study will be very important to scholars as it will add value to existing body of knowledge and literature on the effect of financial assistance on institutional quality specifically among the East African countries using 10 dimensions of institutions by adding civil liberties and political rights. Furthermore, this study will assist scholars in identifying areas of future research.

#### **1.7** Organization of the study

This proposal is organized as follows; Chapter one which comprises of the Background, problem statement, research questions, objectives, and the significance of the study. The rest of this proposal is organized as follows; chapter two; Literature review which comprises of theoretical and empirical literature, Chapter three presents; introduction, research methodology which will discuss the conceptual framework of this study, estimation technique and data types and sources.

#### 2.0 CHAPTER TWO: LITERATURE REVIEW

This Chapter reviews the existing body of literature, both theoretical and empirical. It starts with theoretical literature and then empirical literature.

#### **2.1 Theoretical literature**

Theoretical literature in this study will review the theories of foreign aid and theories of institutions and finally the link the two theories.

#### 2.1.0 Foreign aid Theories

The theoretical review follows the work of (Subhayu & Katarina, 2013) in order to explain the theories behind foreign aid. A review of literature reviews that there are various motives behind foreign aid. Accordiing to (Dudley & Montmarquette, 1976), donors are motivated to give foreign aid because of the following motives; Firstly; donors expect to give gratitude from the recepient countries. This could be given in form of support to donors interests in the recipient countries and more specifically in the arena of intenational politics.Secondly, the recipient countries may in the process trade more with the donor countries thus enhancing donors economic intersts and lastly, donors may have a genuine care that the citizens of th recipient countries wik have a good stard of living.

Accoring to (Bandyopadhyay, Sandler, & Younas, 2011), in their paper argued that donors may be motivated to give foreign aid in order to counter terrorism in developing nations. They developed a model in which aid is given on condition that is used to help fight terrorism in recipient countries especially the developing nations. Such aid helps in reduction in global rate of terroism. However, if the recipient countries feels that they donors are using them to fight their battles of terrorism, it can lead to discontent. (Azam & Thelen, 2012) in their analysis presented an analysis in which terrorism in a nation differs from the number because they argues that terrorism may in fact be imported. In such cases, unconditional aid may help improve the living condition of the citizens of recipient countries.

(Gaytan-Fregoso & Lahiri, 2000) yet in another analysis presents the effect of foreign aid on illegal imigration .This analysis assists in making policies on how illegal immigration can be contained.In their analysis, foreign aid has to effects; firstly, aid narrows the income gap between the hosts countries and the recipient countries dissuading migration. Secondly, aid reduces the recipient country's marginal utility of income hence its perceived utility cost of migration. This has the effect of encouraging immigration.They argues that if the volume of aid is large, then this could have the effect of reducing immigration.

Moreover, Lahiri and Raimondos-Møller (2000) argues that while poverty levels of recipient countries is an important motives behind foreign aid,political economics factors may also influence aid allocation. Such factors could include ethininic lobbying in the donor countries. They argue that while aid allocation is higher due to such lobbying, this could lead to corruction in the donor nations. According to Lahiri and Raimondos-Møller (2000), corruption is higher when the donor nation enjoys higher marginal utility from political contributions visa-viz national welfare.

#### 2.1.1 Theories of Institutional quality

This study applies different theories of one of the institutional quality dimension which is corruption. First and foremost, the study reviews the public choice theory or the rational choice theory. In this case, a rational corrupt individual tries to maximize his or her utility. This individual decides to be corrupt when the expected benefit from corrupt deals outweighs the expected disadvantages. According to (Rose-Ackerman, 1978), individuals choose to be corrupt if the benefit accrued from corruption are way more that their disadvantages. (Klitgaard, 1988) states that if consider the befits of corruption less the likelihood of being caught multiplied by the befit if caught and find that the benefits are still greater, then a rational individual will choose to be corrupt. Some of the factors to be considered when calculating the cost of corruption is trust. In this case, if a government cannot be trusted to handle private property transfers, then corruption can became more appealing (Gambetta, 1993). In this theory, the actions of corrupt individual are influenced by conscious, deliberate and rational weighing of the expected benefit visa Vis the expected cost if caught in the act. This theory however, has a relative close focus it looks and concentrate on an individual corrupt agent who calculates the advantages and disadvantages of being corrupt. In doing so therefore, it ignores the larger social context.

The second theory applied in this study is the bad apple theory (Gambetta, 1993). In. In this theory just like the rational choice theory, looks at an individual to determine the causes of corruption. This theory states that corruption emanates from people with faulty characteristics (bad apples). These faulty characteristics would ordinarily graduates from being faulty to being corrupt. According to this theory therefore, the root cause of corruption in a society is the defective human character and attraction to criminal activities. This therefore means that morality is assumed to control individual behavior. Therefore, people are always guided by their moral values and wrong moral values such as greed causes corruption.

Lastly, this study reviews at the organization culture theories in order to explain corruption. This unlike the other two theories above theory focuses on the organization in which the agents works. The major assumption in this theory is that a certain group culture leads to a certain mental state which ultimately results to corrupt behavior. This can be seen for example in failure

of a government machinery which leads to certain government officials acting corruptly. According to (Punch, 2000), the police departments worldwide are corrupt. He states that looking at these departments around the world reveals that it is not about an individual seeking personal gain but rather a group behavior rooted in the established practices within the police structures and organizations. He therefore concludes that in order to tackle corruption within the police, it is absolutely important to look at the group dynamics. According to this theory, the culture of being corrupt if not checked properly can be contagious. This means that any person who come into contact with such organizations runs the risks of being corrupt. In such instances, not becoming corrupt in those organization set up amounts to betraying the group. In order to curb corruption, this theory advocates for influence on the culture of the organizations by for example changing the organization leadership.

#### 2.2 Empirical literature

The impact of foreign aid on institutional quality has gained special interest to economic researchers in the recent past. However, there no consensus on the impact of ODA on the quality of institutions in East African countries.

Some research found positive impact whereas others found negative impact. For instance; (Jones & Tarp, 2015) analyzed the impact of foreign aid on political institutions in Sub-Saharan African, South East Asia, and Latin America and European countries. Specifically, the study sought to know the relationship between foreign aid inflow and political institutions and whether that relationship varied depending on the type of foreign assistance. Their study revealed that there was a small positive net effect of foreign aid on political institutions. Pooled OLS, fixed effect, random effect and system GMM were applied on panel data from 104 countries of the world.

Moroever, Asongu (2013) sought to study the impact of ODA on institutional quality in Sub Saharan Africa. The study analyzed whether institutional peril of foreign aid depends on institutional quality. The study further sought to answer the question of the threshold of foreign aid which is effective in improving institutional quality. The study revealed that official development assistance significantly mitigates the quality of the institutions in the recipient countries. Moreover, the English common speaking countries in Sub Saharan Africa have higher levels of institutional quality than other countries. The study employed panel data of 53 African countries for the period from 1996 to 2010.

Quartile regression, OLS and QR estimates were applied in the study as the method of estimations. However, while coming up with conclusion and policy recommendations, the study did not take care of unobserved country heterogeneity.

While studying the channels of foreign aid to corruption Asongu & Mohamed (2013) sought to find out the effect of ODA on corruption in sub-Saharan Africa. The study revealed that official development assistance given to government for its consumption significantly deteriorates the fight of corruption in the recipient countries. However, aid channeled through the private sector decreases corruption in the recipient countries. 2SLS instrumental variable (IV) estimation technique and panel data was used in this study for a period between 1996 and 2010.

Another study Dutta & Claudia (2016) sought to find out whether foreign aid can buy press freedom in Asian and sub Saharan African countries. Their study revealed that foreign aid significantly increases the freedom of the press but on the other hand, it insignificantly relates to press freedom in autocracies. The study further recommends caution on donors as most aid recipient's countries are not democratic and aid results to relatively marginal increase in press freedom. The study employed panel data of 106 countries for the period between 1994 and 2010. Moreover, their study employed instrumental variable (IV) technique method of estimation.

An examination of taxation, political accountability and foreign aid was carried out by Asongu (2014). The study applied panel data of panel data the years from 1996 -2010. Moreover, dynamic GMM panel estimation technique was used to establish whether lack of ODA and reliance on taxes collected from the citizens of that country enhances good gorvenance. The results of the study proves reliance on taxation rather than ODA helped to improve institutional quality in Afria. On the other hand, presence of ODA in Africa encourages corruption thus deteriorating the quality of institutions thereof.

In yet another study Nwachukwu & Asongu (2014) looked at foreign aid and gorvenance in Africa. Their study found out that ODA deteriorates economics and instituional gorvenance but had no effect on politicl gorvenance. The study applied panel data of 53 African countries for the period between 1996 and 2010. This study applied endogeneity robust 2SLS estimation technique in its estimation.

(Acht et al , 2014) attempted to investigate whether corrupt gorvernments receives less foreign aid and how foreign aid is delivered via non - governmental organizations. The study specifically sought to examine whether the quality of governance in aid receiving countries matter when a donor chooses aid implementing partners. The study focused on both the state actors and non state actors such as the non gorvenmental organizations. Their study revealed that more corrupt countries receives higher amounts of foreign aid. However, weakly governed states receive less bilateral foreign aid as a share of total aid. The study applied panel data and pseudo maximum likelihood (PPML) method of estimation.

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Furthermore, a study done by (Zohid & Hristos ,2015) on financial assistance and transition economies. The research specifically examined the impact of ODA on democracy and good governance in those economies. Moreover, the study examined whether multilateral and bilateral aid flows in the recipient countries had differentiated effects. The study revealed that foreign aid increases democracy in recipient countries. Moreover, they did not find any significant effect of foreign aid on the overall quality of governance and it did not have any linear effect on democracy for those countries.

In addition, (Qayyum ,2013), tried to examine the impact of foreign aid on governance of the recipient countries. The study applied panel data for Asian developing countries for the period between 1984 and 2010. While applying 2 least square (2SLS) method of estimation, the study found out that foreign aid erodes institutional quality in Asian aid recipient countries. Moreover, countries with conflicts are significantly weak in the quality of governance.

(Anwar, 2014), sought to investigate the political determinants of aid effectiveness in Asian countries. While employing panel data for Asian countries from 1990-2011, the study used Random effect GLS technique of estimation. The study found out that variables such as corruption, internal conflict, population, government stability and openness have significant negative effect on ODA. However, the study found out that corruption plus other variables have significant positive effect on foreign aid as a percentage of national income.

Similarly, (Efobi ,2015) carried out a study on politicians' attributes and the quality of institutions in African. The study specifically focused on corruption experienced in the African government. The study tried to find out the linkage between social demographic features of politicians in Africa and the levels of corruption. Moreover, the study sought to investigate the extent to which attainment of education influences the rate of corruption in Africa. In the study,

panel data of 39 African countries and OLS with fixed effects as a method of estimation were employed. The study found out that the attributes of the politicians mattered in explaining the level of corruption in African countries.

(Kathavate, 2013) attempted to study effects of volatility of foreign aid on economic growth. The study specifically wanted to establish whether quality of the institutions plays a role in economic growth. Moreover, the study sought to find out whether higher quality institutions offset the negative effect of aid volatility on economic growth. The study employed times series cross sectional data of 77 countries. Furthermore, various estimation techniques were borrowed in this study which were; OLS, Fixed effect, random effect and GMM. This study found out that the relationship between economic growth, and foreign aid volatility is significantly negative and dependent on the quality of the institutions.

In order to link ODA and institutional quality, this study will try to answer some of the questions asked in previous studies. For example, the work of Okada & Samreth (2012) and Asongu (2012) on effect of foreign aid on corruption have had a substantial influence in both policy formulation and academic cycles. This study is ideally an extension of their study. From ODA – institutional quality literature, the debates have revolved around; one- do donors give more financial assistance to poorly managed states with good institutions? Secondly, does ODA results to improved institutional quality or does it affect institutions negatively? Finally, how do donors assist in transition from informal institutions to formal institutions vide foreign aid? Once the study establishes that donors give more ODA to countries which have got improved institutional quality, policy makers could be induced to make policies which could help in improving institutions in their countries. However, according to (Alesina & Dollar, 2000; Alesina & Weder (2002), there is no evidence that donors allocate more ODA to democracies and less corrupt

states. This study will try to find out if the less corrupt countries and the more democratic countries of East Africa are allocated more foreign aid by donors. Furthermore, the present study will try to shed more light on the last two questions raised by their study. By using a different estimation technique and by changing the geographical coverage of their study this study will provide answers to their last two questions: does financial assistance results to better institutions or does it affect institutions negatively? And the third question, how do donors assist in transition from informal institutions to formal institutions vide foreign aid?

Finally, this current study add to the existing literature by incorporating all the dimensions of institutional quality unlike previous studies. In order to be exhaustive, this study will incorporate ten institutional quality dimensions including, civil liberties and political rights.

#### **2.3 Overview of literature**

The review of literature definitely shows that the aid institutional quality nexus is very import and thus requires more attention. Nonetheless, the studies done have had conflicting and inconsistent findings. Some studies found a positive effect of foreign aid on institutional quality while others confirmed the perilous effect of foreign aid on institutional quality. Since the findings on the studies done on this topic are not clear, this study will examine the impact of ODA on institutional quality specifically in East African countries.

#### **3.0 CHAPTER THREE: RESEARCH METHODOLOGY**

This Chapter covers the conceptual framework, the estimation technique, robustness check, data variables and sources.

#### **3.1** Conceptual framework

The conceptual framework seeks to investigate the impact and the relations between ODA and institutional quality. According to (Nwachukwu & Asongu, 2014) the dependent variables to be considered in this study are; rule of law, government effectiveness, control of corruption, regulatory quality, voice and accountability, corruption, democracy and political stability, political rights and civil liberties. This study will control for openness of trade, population growth, and income level. The study applies three control variables in order to allow for the degrees of freedom necessary for identification of restrictions test in the second stage of regression. Previous studies established that growth in population increases financial assistance. Moreover, in consistent with the literature, openness to trade increases foreign aid. Per capita income has been seen to have casual effect on foreign aid.. The diagram below shows the relationship between population growths, public investment and trade openness and ODA and its effects on institutional quality.





Source: Author (2017)

The relationship between foreign aid and institutional quality dimensions is shown using the equations below.

INSTQLTY= f(RL, GEF, C, D, CC, RQ, VC, PS, PR, CL, PG, TO, FDI, IL) 1

Where *ODA* is foreign aid, *INSTQLTY* is institutional quality, RL is rule of law, GEF is government effectiveness, C is corruption, D is democracy CC is corruption control, RQ is

regulation quality, VC is voice and accountability, PG is population growth, TO is trade openness, FDI is foreign direct investment, PS is political stability, PR is political rights and CL is civil rights.

#### **3.2** The Estimation Technique

According to (Addison, Mavrotas, & McGillivray, 2005) while foreign aid has an effect on the institutional quality and the development of the recipient countries; the reverse effect cannot be ruled out as institutional quality could also affect foreign aid in recipient countries. Moreover, the literature on the effect of institutional quality on ODA is inconsistent and thus requires to be examined. Some research shows that government with poor institutional quality is important for foreign aid allocation in the recipient countries. The second stream of literature shows why corruptible government receives increased financial assistance from donors De la et al (2012). From the above literature, it is evident that foreign aid can affect institutional quality and the reverse is true thus raising the issue of endogeneity. In order to resolve the above concern of endogeneity; the study employs Hausman- test and the following estimation technique. Two equation will be estimated in this study as follows;

#### Regression:

$$INSTQLTY_{it} = \delta_0 + \delta_1 (ODA_{it}) + \beta_1 X_{it} + \mu_{it}$$
<sup>2</sup>

Where: ODA is official development assistance, i denotes a country dimension, t denotes time dimension, X represent the set of control variables. The error terms are denoted by V and  $\mu$  in the two equations while *INSTQLTY* denotes institutional quality.

#### **3.3 Robustness check**

For robustness check, this study will employ total foreign aid, financial assistance delivered through international institutions (Multilateral aid) and aid from DAC. Moreover, this estimation will be carried out with interchanging the different measures of institutional quality and instrumental variables. In addition, to enhance further robustness, this study will use Hausman test to address the issue of random and fixed effects.

#### **3.4 Diagnostic Tests**

The baseline preliminary test done in this study is OLS. This is followed by fixed effect and random effect in order to carry out the Hausman tests. This test assist in choosing the appropriate model to be used in this study. Finally, a post estimation is conducted to check for robustness of the model of estimation. In this study, the following post estimation were done;

- i) The *Modified Wald Test* –This test was conducted in order to check on heteroscedasticity in fixed effect estimation model. The null hypothesis in this case is presence of constant variance or homoscedasticity. A rejection on the null hypothesis indicate the presence of heteroscedasticity.
- ii) The *Wooldridge Test* –This post estimation was conducted to check for the presence of auto autocorrelation .In this case the null hypothesis is that there is no first-order autocorrelation. If we reject the null hypothesis, it means presence of autocorrelation.
- iii) The Breusch Pagan Lagrange Multiplier Test –In order to check on the presence of cross-sectional dependency. The null hypothesis in this study is that residuals across countries are not correlated. By rejecting the null hypothesis, then it means presence of cross-sectional dependence.

Presence of heteroscedasticity, autocorrelation, cross-sectional and temporal dependence, necessitated the use of the Driscoll and Kraay standard errors.

#### **3.5 Data variables and sources**

The study will employ panel data for four East African countries from the World Bank from the year 1996 to 2016, Transparency International and La Porta et al (1997). The adopted institutional quality dimensions include; rule of law, government effectiveness, control of corruption, regulatory quality, voice and accountability, corruption, democracy and political stability, political rights and civil liberties (IMF, 2005) and (Kaufmann, Kraay, & Mastruzzi, 2010). The variables have been adopted in this study as they resonates with the recent African institutional literature Asongu (2012).ODA is the independent variable in this study and comprises of total foreign aid from multilateral and DAC donors. In addition, colonial master, income levels and religion are dummies used as instrumental variables in order to control for unobserved heterogeneity Asongu (2012a), La Porta et al (1997). In order help in identification, this study will apply; openness of trade, population growth, public investment and foreign investment as control variables. According to (Asongu, 2014), population growth increases allocation of ODA in the recipient countries. Furthermore, the notion that more trade increases ODA is consistent with the existing literature Asongu (2013). Finaly, public investment also positively affects foreign aid.

Table 1 below shows the variables used in this study with their sources, definations and how they will be measured.

Variables	Signs	Variable definition/Measure	Source(s)
Rule of law	RL	Rule of law (estimate) which shows the perception that agents have in	WDI
		regard to the rule of law.	
Regulatory quality	RQ	This is an estimate showing the ability of a government to formulate sound policies and regulations.	WDI
Control of	CC	Control of corruption (estimate). This	WDI
corruption		shows the extent to which power is used for private gains.	
Democracy	D	Level of institutionalized democracy (estimate)	WDI
Political stability	PS	Politicalstability-(nonviolence)(estimate)measuredbyperceptionthat a government can beoverthrownordestabilizedunconstitutionalmeans.	WDI
Voice and accountability	VA	This is an estimate which shows the freedom of expression of citizens especially in their ability to choose their leaders.	WDI

Table 1 : Variable, sources, definition and measures

Corruption	C	Corruption perception index	Transparency
		measured by perception people in	International
		power use it for their own personal	
		gain	
Government	GEF	Government effectiveness (estimate)	WDI
effectiveness		which measures the quality of public	
		services and freedom from political	
		interferences.	
Political rights	PR	Political rights(Estimate)	Freedom house
Civil liberties	CL	Civil liberties (estimate)	Freedom house
ODA-official	ODA	Total development assistance	WDI
development		received from all channels measured	
assistance one		as a % of GDP	
ODA-Official	MODA	Development assistance from	WDI
development		multilateral donors measured as a	
assistance two		percentage of GDP	
ODA-Official	DODA	Development assistance from DAC	World bank
development		countries measured as % of Gross	(WDI)
assistance three		domestic product (GDP)	
Level of openness to	ТО	This comprises of Imports and	World bank
trade		Exports of goods and services	(WDI)
		measured in (% of GDP)	

Foreign direct	FDI	This is the total investment by the	World bank
investment		government measured as a percentage of GDP	(WDI)
Foreign investment	FI	This is the total investment by	World bank
		foreigners in a country and its	(WDI)
		measured as a percentage of GDP	
Income level	IL	Per capital income	World bank
			(WDI)
Population Growth	PG	This is the annual rate of population	World bank
rate		growth	(WDI)

Source: World Bank Development indicators, DAC and Freedom house

#### **4.0 CHAPTER FOUR: DATA ANALYSIS AND EMPIRICAL RESULTS**

#### 4.1 Introduction

This chapter presents the results of the empirical analysis and the estimation thereof of the model. The chapter begins by presenting the descriptive statistics and the correlation matrix of variables of the institutional quality dimensions. Moreover, pooled OLS, fixed effect and random effect estimation techniques are applied. In order to choose between fixed effect and random effect, this study applied the Hausman test. Finally, in order to avoid the inconsistency caused by the correlation of the exogenous variables with the error term, this study made use of the 2SLS estimation technique.

#### **4.2 Descriptive statistics**

Descriptive statistics were used in order to guide on the model estimation. These statistics highlighted on the possible problems that this study could encounter. In order to put more weight on the statistics results, a correlation matrix was done as show below. The correlation matrix sought to explain the linear relationship between the dependent variables and all the explanatory variables. Moreover, this correlation matrix guided this study in determining which estimation method to use and which variables to drop in the estimation. The results of the correlation matrix showed that institutional quality dimensions were highly correlated thus prompting running of regressions with each institutional quality dimension at a time.

Variable	Observation	Mean	Std. Dev.	Min	Max
Voice and accountability	105	-0.78	0.45	-1.58	-0.13
Political stability	105	-1.08	0.63	-2.52	0.09
Government effectiveness	105	-0.66	0.40	-1.66	0.11
Regulation control	105	-0.50	0.45	-1.64	0.25
control of corruption	105	-0.73	0.47	-1.45	0.76
Rule of raw	105	-0.72	0.40	-1.53	0.07
Civil liberties	105	4.57	1.05	3.00	7.00
Corruption	105	11.18	15.08	1.80	54.00
Democracy	105	1.23	4.41	-4.00	8.00
Political rights	105	5.10	1.24	3.00	7.00
ODA DAC	105	8.21	4.14	1.96	20.67
ODA Multilateral	105	6.77	5.09	0.41	20.97
Net ODA	105	15.00	9.05	2.41	40.50
Population growth	105	3.01	0.92	1.17	7.92
GDP Per capita	105	470.77	298.83	112.85	1455.36
Trade openness	105	42.81	9.75	20.96	64.48

## Table 2: Descriptive Statistics

Source: World development indicators

### **Table 3: Correlation Matrix**

	VA	PS	GE	RQ	CC	RL	CL	С	D	PR	ODA	PG	IL	ТО	FI
VA	1.00														
PS	0.45	1.00													
GE	0.340	0.75	1												
RQ	0.48	0.62	0.85	1											
CC	-0.28	0.51	0.53	0.24	1										
RL	0.47	0.81	0.78	0.73	0.48	1									
CL	-0.85	-0.41	-0.35	-0.46	0.16	-0.43	1								
С	0.04	0.33	0.24	0.29	0.29	0.41	0.14	1							
D	0.39	-0.19	-0.25	-0.15	-0.49	-0.36	-0.21	-0.19	1						
PR	-0.83	-0.31	-0.17	-0.27	0.15	-0.31	0.82	0.10	-0.41	1					
ODA	-0.47	-0.25	-0.39	-0.50	0.05	-0.29	0.36	0.01	-0.11	0.24	1				
PG	-0.04	-0.14	0.01	-0.05	-0.14	-0.16	0.03	-0.06	-0.23	0.11	0.15	1			
IL	0.61	0.43	0.50	0.51	0.11	0.42	-0.43	0.16	0.23	-0.41	-0.46	-0.08	1		
ТО	0.67	0.48	0.42	0.49	0.10	0.33	-0.49	0.07	0.40	-0.48	-0.30	-0.03	0.56	1	
FI	0.66	0.60	0.47	0.52	0.20	0.75	-0.43	0.20	-0.42	-0.24	-0.16	0.05	0.26	0.12	1

Source: World development indicators

#### **Correlation Matrix**

From the above correlation matrix, it is evident that variables especially institutional quality indicators are correlated with each other. The highest positive correlation is 0.85 which is the one between government effectiveness (GE) and regulatory control (RQ). However, the lowest positive correlation is 0.01 between foreign aid (ODA) and corruption (C). The correlation of 0.85 is high and as a result of these, estimation in this study will be done by exchanging the variables one at a time. On the other hand, other variables are negatively correlated with the highest negative being -0.85 between civil liberties (CL) and voice and accountability (VA). The lowest negative was -0.03 between trade openness and population growth.

#### **4.3 Empirical Results analysis**

As a preliminary and a baseline, OLS estimation was carried out and the results presented as shown below in table 4. Furthermore, fixed effect and random effect models were estimated. Hausman test was used to choose between fixed and random effect. In this study, the null hypothesis of the Hausman test was that the difference in coefficient are not systematic while the alternative hypothesis was that they are systematic. If we fail to reject the null hypothesis, then random effect is the appropriate model. However, in this study as presented in Appendix table A1, we rejected the null hypothesis meaning fixed effect is the appropriate model. The probability> chi2=0.0000. In order to carry out the Hausman test, this study applied a calculated institutional quality index. In addition, this study included institutional quality dimension variables one by one in its estimation to avoid inconsistency due to high correlations. The results of fixed effect are presented in table 5 below.

This study carried out a post estimation test for autocorrelation, Heteroscedasticity and crosssectional dependency respectively. The results are presented in the appendix section of this study in tables A2, A3 and A4 respectively. The post estimation results therefore revealed that the fixed effect results in table 5 below are affected by autocorrelation heteroscedasticity and cross-sectional dependence problems. This was because the null hypothesis of Modified Wald Test, the Wooldridge Test, and the Breusch-Pagan Lagrange Multiplier Test were rejected at the 10% and 1% level of significance. For us to correct the above named problems, this study used Hoechle (2007) recommendations that fixed effect be re-estimated with Driscoll and Kraay standard errors which are robust to, autocorrelation heteroscedasticity and general forms of cross-sectional and temporal dependence. The result of this estimation are presented in table 6 below. In order to answer my research question on the issues of causality; that is institutional quality affecting foreign aid, an estimation was done on this. The results of the causal relationship is therefore presented in table 7 below.

For robustness check, this study took into consideration the different channels of aid disbursements that is donations from DAC countries as well as aid from multilateral donors. In addition, a further robust check was conducted in consideration of business cycle fluctuations. In order to observe how institutions were affected when foreign aid is considered over a long period of time, this study averaged data into 4 year periods and this data was used to carry out an estimation as presented in table 9 below.

	Independent their natural lo population	variables are ogs apart from growth rate								
	Corruption	Political Stability	Control of Corruption	Government Effectiveness	Regulatory Quality	Rule of Law	Voice and Accountability	Civil Liberties	Political Rights	Democracy
ODA	4.434	0.162*	0.269***	-0.0339	-0.167***	0.0817	-0.156**	0.283	0.128	-1.778***
	(2.601)	(0.0737)	(0.0708)	(0.0455)	(0.0473)	(0.0447)	(0.0556)	(0.150)	(0.195)	(0.595)
Population growth rate	-2.175	-0.158***	-0.106*	-0.0212	-0.0414	-0.116***	-0.0106	0.0505	0.133	-0.570
growin rate	(1.616)	(0.0458)	(0.0439)	(0.0283)	(0.0294)	(0.0278)	(0.0345)	(0.0932)	(0.121)	(0.370)
Income Level	<b>5.010</b> (3.781)	<b>0.275</b> <sup>*</sup> (0.107)	<b>0.370</b> *** (0.103)	<b>0.202</b> ** (0.0662)	<b>0.115</b> (0.0687)	<b>0.157</b> <sup>*</sup> (0.0650)	<b>0.118</b> (0.0808)	<b>-0.0542</b> (0.218)	<b>-0.113</b> (0.284)	<b>-0.743</b> (0.865)
Trade openness	-4.049	0.618*	-0.610**	0.0599	0.257	0.0754	0.840****	-1.471**	-2.254***	9.759***
	(8.402)	(0.238)	(0.229)	(0.147)	(0.153)	(0.144)	(0.180)	(0.484)	(0.631)	(1.923)
FDI	1.346	0.115***	0.0195	0.0830***	0.111***	0.104***	0.0377*	-0.160***	-0.0377	-0.779***
	(0.743)	(0.0211)	(0.0202)	(0.0130)	(0.0135)	(0.0128)	(0.0159)	(0.0428)	(0.0558)	(0.170)
Constant	<b>-7.612</b> (30.71)	<b>-4.912</b> *** (0.870)	<b>-1.010</b> (0.835)	<b>-1.905</b> *** (0.537)	<b>-1.563</b> ** (0.558)	<b>-1.757</b> ** (0.528)	<b>-4.186</b> *** (0.656)	<b>9.484</b> **** (1.770)	<b>13.46</b> *** (2.305)	<b>-24.96</b> *** (7.027)
Observations	102	102	102	102	102	102	102	102	102	102
Adjusted $R^2$	0.065	0.529	0.217	0.539	0.639	0.587	0.525	0.358	0.227	0.430

Table 4: OLS and Institutional quality as dependent variables-

Standard errors in parentheses \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.01

	Democracy	Political Rights	Civil Liberties	Voice and Accountabili ty	Rule of Law	Regulatory Quality	Government Effectivenes s	Control of Corruption	Political Stability	Corruption index
ODA	<b>1.290</b> <sup>*</sup> (0.605)	-0.834** (0.314)	-0.748 <sup>**</sup> (0.235)	<b>0.221</b> *** (0.0569)	<b>-0.0400</b> (0.0667)	<b>0.0683</b> (0.0771)	<b>0.0745</b> (0.0676)	-0.175 <sup>*</sup> (0.0881)	-0.227 <sup>*</sup> (0.0989)	<b>-1.895</b> (5.499)
Population growth rate	0.0380	0.0761	0.0639	0.00510	-0.141***	-0.0995***	-0.0760***	-0.139***	-0.164***	-2.196
growin rate	(0.187)	(0.0973)	(0.0726)	(0.0176)	(0.0206)	(0.0239)	(0.0209)	(0.0273)	(0.0306)	(1.702)
Income Level	<b>-0.412</b> (0.441)	<b>-0.264</b> (0.229)	<b>-0.124</b> (0.171)	<b>0.220</b> *** (0.0415)	<b>0.155</b> ** (0.0486)	<b>0.0815</b> (0.0562)	<b>0.0689</b> (0.0493)	<b>0.186</b> ** (0.0642)	<b>0.182</b> * (0.0721)	<b>3.934</b> (4.009)
Trade openness	<b>2.062</b> (1.076)	<b>-1.078</b> (0.559)	<b>-0.564</b> (0.417)	<b>0.389</b> *** (0.101)	<b>0.462</b> *** (0.119)	<b>0.296</b> * (0.137)	<b>0.267</b> * (0.120)	<b>0.179</b> (0.157)	<b>1.321</b> *** (0.176)	<b>4.535</b> (9.781)
FDI	<b>0.0276</b> (0.109)	<b>0.0758</b> (0.0567)	<b>-0.0117</b> (0.0423)	<b>-0.0118</b> (0.0103)	<b>0.0356</b> ** (0.0120)	<b>0.0586</b> **** (0.0139)	<b>0.0442</b> *** (0.0122)	<b>0.000222</b> (0.0159)	<b>0.0455</b> <sup>*</sup> (0.0178)	<b>1.238</b> (0.992)
Constant	<b>-7.413</b> <sup>*</sup> (3.607)	<b>12.57</b> *** (1.875)	<b>9.074</b> *** (1.399)	<b>-4.108</b> *** (0.340)	<b>-2.827</b> *** (0.398)	<b>-1.934</b> **** (0.460)	- <b>1.997</b> *** (0.404)	<b>-1.658</b> ** (0.526)	<b>-6.011</b> **** (0.590)	<b>-17.47</b> (32.80)
Observations Adjusted R <sup>2</sup>	102 0.061	102 0.125	102 0.147	102 0.551	102 0.552	102 0.398	102 0.356	102 0.302	102 0.609	102 -0.013

Table 5: Fixed Effect and Institutional quality as dependent variables

Standard errors in parentheses \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.01

	Democracy	Political Stability	Control of Corruption	Government Effectiveness	Regulatory Quality	Rule of Law	Voice and Accountabili ty	Civil Liberties	Political Rights	Corruption index
OD	1.290	-0.227 <sup>*</sup>	-0.175 <sup>**</sup>	0.0745	0.0683	-0.0400	0.221 <sup>***</sup>	-0.748 <sup>***</sup>	-0.834 <sup>**</sup>	-1.895
	(0.704)	(0.0818)	(0.0538)	(0.0641)	(0.0879)	(0.0601)	(0.0412)	(0.0981)	(0.223)	(3.601)
Population growth rate	0.0380	-0.164***	-0.139**	-0.0760**	-0.0995***	-0.141***	0.00510	0.0639	0.0761	-2.196
growthrate	(0.0933)	(0.0225)	(0.0438)	(0.0258)	(0.0258)	(0.0262)	(0.0133)	(0.0548)	(0.0460)	(1.318)
Income level	-0.412	0.182 <sup>*</sup>	0.186 <sup>***</sup>	0.0689	0.0815	0.155 <sup>**</sup>	0.220 <sup>**</sup>	-0.124	-0.264	3.934
	(0.398)	(0.0661)	(0.0403)	(0.0471)	(0.0460)	(0.0523)	(0.0618)	(0.390)	(0.334)	(8.442)
Trade openness	2.062 <sup>*</sup>	1.321 <sup>***</sup>	0.179	0.267 <sup>***</sup>	0.296	0.462 <sup>***</sup>	0.389 <sup>**</sup>	-0.564	-1.078	4.535
	(0.793)	(0.0762)	(0.115)	(0.0680)	(0.142)	(0.114)	(0.126)	(0.481)	(0.733)	(10.34)
FDI	0.0276	0.0455 <sup>*</sup>	0.000222	0.0442 <sup>***</sup>	0.0586 <sup>***</sup>	0.0356 <sup>***</sup>	-0.0118	-0.0117	0.0758	1.238
	(0.176)	(0.0191)	(0.00787)	(0.00752)	(0.0139)	(0.00730)	(0.0111)	(0.0276)	(0.0730)	(0.675)
Constant	-7.413 <sup>*</sup>	-6.011 <sup>****</sup>	-1.658 <sup>***</sup>	-1.997 <sup>***</sup>	-1.934 <sup>***</sup>	-2.827 <sup>***</sup>	-4.108 <sup>***</sup>	9.074 <sup>***</sup>	12.57 <sup>***</sup>	-17.47
	(3.044)	(0.378)	(0.404)	(0.308)	(0.312)	(0.383)	(0.306)	(1.226)	(1.320)	(59.75)
Observations Adjusted $R^2$	102	102	102	102	102	102	102	102	102	102

Table 6: Fixed Effect with Driscoll -Kraay standard errors and Institutional quality as dependent variables

Standard errors in parentheses \* p < 0.05, \*\*\* p < 0.01, \*\*\*\* p < 0.00

#### **4.4 Results Discussion**

The preliminary baseline OLS regression as presented in table 4 above indicates that foreign aid has affects various dimensions of institutions differently. For example, foreign assistance was found to be statistically significant on political stability, control of corruption, regulatory quality, voice and accountability and democracy. Even though OLS estimation produced results which are plausible, Hausman test revealed that there was presence of fixed effect in the data thus rendering OLS estimation inappropriate estimation technique. This therefore guided in the use of fixed effect estimation as presented in table 5 above.

Fixed effect results presented above differs from OLS results. For example, while political rights and civil liberties were not significantly affected by foreign aid in OLS estimation, fixed effects reveals that these two variables are actually negatively and significantly affected by foreign aid. However, as noted during post estimation, fixed effect was faced with problems of autocorrelation heteroscedasticity and cross-sectional dependence. Therefore, in order to address these problems, the fixed-effects model is re-estimated using the Driscoll-Kraay standard errors and the results are presented in table 6.

Based on the summary of results as presented in table 6, this study can conclude foreign majorly deteriorates institutional quality safe for voice and accountability which is positive and significant. These positive and significant incidence of voice and accountability could be attributed to the strict accounting standards requirement by donors to recipient countries. These results are consistent with Asongu (2012a), Okada & Samreth (2012) and Asongu (2013), Moss et al (2008), Busse & Gröning (2009) and Djankov et al. (2008). Moreover, the two additions of institutional quality being political rights and civil liberties were also found to be negative and

statically significant. A 1% increase in foreign aid reduces civil liberties and political rights by 0.75% and 0.83% respectively. This negative incidence could be attributed to the conditionalities which comes with foreign aid. Most of the donors have vested interest thus making the citizenry of the recipient countries loose political rights and civil liberties. Some of the donations are meant to achieve certain political outcomes.

Political stability and control of corruption are both negative and statistically significant at 5% and 1% level of confidence respectively. This means that 1% increase in foreign aid significantly reduces political stability and control of corruption by 0.22% and 0.17% respectively. This is consistent with (Asongu 2013) and Okada & Samreth (2012).Government effectiveness, democracy and regulatory quality were positive and non-significant in this study. The fact that democracy was found not to be significant was consistent with Knack (2004). Corruption however was negative and although statistically insignificant, the findings were consistent with the aid-corruption nexus as per Taveres (2003).

Control variables used in the study exhibited significant results with the expected positive signs with the various institutional quality indicators. Income level for example is positive and statically significant with political stability, control of corruption rule of law and voice and accountability at 5%, 1%, and 10% levels of confidence respectively. In addition, trade openness was positive and statistically significant while estimated against democracy, political stability, and government effectiveness, the rule of law and voice and accountability at 5%, 1%, and 10% levels of confidence respectively. Finally, foreign direct investment was found to be majorly positive and statistically significant with political stability, government effectiveness, regulatory control and the rule of law at 5% and 1% respectively. These findings on the control variables

are consistent with studies done by Asongu &Nwachukwu (2014), Asongu (2014) and Okada & Samreth (2012).

#### 4.5 Foreign aid and institutional quality causal relationship

The summary results of this estimation is presented in table 10 below. From the results, it is evident that institutional quality majorly affects foreign aid negatively. For instance; a 1% increase in political stability and control of corruption reduces foreign aid by 0.24%, 1% increase in civil liberties reduces aid by 0.13% while a 1% increase in political rights reduces foreign aid by 0.09%. However, the results shows that 1% increase in democracy increases significantly foreign aid by 0.04% and 1% significantly increase in voice and accountability increases foreign aid by 0.64%. Although corruption does not significantly affect foreign aid, a 1% increase in corruption reduces foreign aid by 0.000680%. These results are consistent with the theory that dependence on foreign aid decreases with the strength of institutions in recipient countries Okada & Samreth (2012), Asongu (2014)

#### **4.6 Robustness Test**

Considering the results of in table 7, a robustness check was carried out. This check involved carrying out estimation using foreign aid from DAC and multilateral donors. The results of the two are presented in table 7 and 8 below respectively. Moreover, the robustness check also involved averaging data into 4 year periods in order to cater for business cycles. The results of this is presented in table 9 below.

The summary results of robustness check reveal that multilateral aid and aid from DAC countries majorly behaves in a similar way with that of total foreign aid safe for their magnitude. However, political stability was negative and non-significant when considered with multilateral aid while it was negative and significant when considered with donations from DAC countries. A 1% increase in aid from DAC countries statistically influences a decrease in political stability by

0.32%. Moorver, 1% increase in multilateral aid reduces control of corruption by 0.07%, reduces civil liberties by 0.44% and reduces political rights by 0.46% respectively. On the other hand the same trend can be seen for aid fro, DAC .1% increase in aid from DAC reduces political rights by 0.32%, reduces control of corruption by 0.77%, civil liberties by 0.88% and reduces political rights by 0.46% respectively. Voice and accountability was in both cases positive and significant at 1% level of confidence in both cases. The results of the control variables were consistent with the expectations both in signs and significance level safe for their magnitude. The estimation with 4years period's data however had interesting results with democracy being positive and statistically significant at 10% level of confidence. This is consistent with the finding by Jones & Tarp, (2015). Although the number of significant variables reduced, the directions remained the variables. in of the same most

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Democracy	Corruption	Political	Control of	Government	Regulatory	Rule of Law	Voice and	Civil	Political
		index	Stability	Corruption	Effectivenes	Quality		Accountabili	Liberties	Rights
					S			ty		
ODA from multilateral donors	0.417	-1.319	-0.0968	-0.0722*	0.0577	0.0541	-0.0365	0.122***	-0.436****	-0.457*
	(0.404)	(2.185)	(0.0620)	(0.0319)	(0.0332)	(0.0556)	(0.0386)	(0.0252)	(0.0960)	(0.183)
Population growth rate	0.102	-2.242	-0.174***	-0.146**	-0.0746**	-0.0983**	-0.141***	0.0125	0.0402	0.0476
8	(0.0731)	(1.390)	(0.0249)	(0.0456)	(0.0259)	(0.0266)	(0.0262)	(0.0136)	(0.0594)	(0.0522)
Income level	-0.453 (0.413)	3.977 (8.458)	0.188 <sup>*</sup> (0.0716)	0.191 <sup>***</sup> (0.0420)	0.0673 (0.0483)	0.0801 (0.0463)	0.156 <sup>**</sup> (0.0522)	0.214 <sup>**</sup> (0.0645)	-0.105 (0.386)	-0.242 (0.339)
Trade openness	2.501****	4.481	1.263***	0.132	0.264***	$0.292^*$	0.468***	0.421**	-0.656	-1.205
	(0.637)	(9.877)	(0.0930)	(0.134)	(0.0649)	(0.133)	(0.112)	(0.133)	(0.441)	(0.729)
FDI	0.0587 (0.165)	1.241 (0.652)	0.0416 (0.0200)	-0.00295 (0.00854)	0.0437 <sup>***</sup> (0.00800)	0.0581 <sup>***</sup> (0.0139)	0.0362 <sup>***</sup> (0.00741)	-0.00998 (0.0107)	-0.0165 (0.0286)	0.0685 (0.0720)
Constant	-6.435 (3.226)	-20.04 (62.47)	-6.221 <sup>***</sup> (0.468)	-1.816 <sup>***</sup> (0.423)	-1.886 <sup>***</sup> (0.328)	-1.831 <sup>***</sup> (0.375)	-2.895 <sup>***</sup> (0.411)	-3.858 <sup>***</sup> (0.332)	8.196 <sup>***</sup> (1.467)	11.64 <sup>***</sup> (1.266)
Observations Adjusted <i>R</i> <sup>2</sup>	102	102	102	102	102	102	102	102	102	102

Table 7: Fixed Effect with Driscoll -Kraay standard errors and multilateral aid

Standard errors in parentheses \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Democracy	Corruption	Political	Control of	Government	Regulatory	Rule of Law	Voice and	Civil	Political
		index	Stability	Corruption	Effectivenes	Quality		Accountabili	Liberties	Rights
					S			ty		
ODA from DAC	1.823	-1.976	-0.323***	-0.229**	0.0522	0.0319	-0.0219	0.244***	-0.765***	-0.882**
	(1.042)	(4.081)	(0.0836)	(0.0619)	(0.0797)	(0.0971)	(0.0650)	(0.0455)	(0.130)	(0.245)
Population growth rate	0.00124	-2.192	-0.158***	-0.135***	-0.0744***	-0.0969***	-0.142***	0.00360	0.0646	0.0788
8	(0.102)	(1.275)	(0.0202)	(0.0427)	(0.0252)	(0.0247)	(0.0262)	(0.0136)	(0.0522)	(0.0412)
Income level	-0.401	3.941	$0.180^{*}$	$0.185^{***}$	0.0677	0.0799	$0.156^{**}$	$0.220^{**}$	-0.121	-0.261
	(0.383)	(8.447)	(0.0643)	(0.0397)	(0.0463)	(0.0445)	(0.0515)	(0.0620)	(0.394)	(0.337)
Trade openness	$2.022^{*}$	4.276	1.329***	0.176	0.289***	0.323*	0.447***	0.413**	-0.673	-1.187
	(0.934)	(10.05)	(0.0826)	(0.108)	(0.0702)	(0.130)	(0.106)	(0.125)	(0.482)	(0.705)
FDI	0.0358	1.206	$0.0441^{*}$	-0.00142	$0.0462^{***}$	$0.0609^{***}$	0.0343***	-0.00852	-0.0247	0.0622
	(0.173)	(0.672)	(0.0191)	(0.00774)	(0.00698)	(0.0136)	(0.00707)	(0.0109)	(0.0264)	(0.0734)
Constant	-7.564*	-17.43	-5.984***	-1.643***	-1.992***	-1.926***	-2.831***	-4.116***	9.088***	12.59***
	(3.044)	(59.67)	(0.383)	(0.404)	(0.303)	(0.289)	(0.389)	(0.290)	(1.211)	(1.259)
Observations Adjusted R <sup>2</sup>	102	102	102	102	102	102	102	102	102	102

Table 8: Fixed Effect with Driscoll -Kraay standard errors and foreign aid from DAC

Standard errors in parentheses \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

	Democracy	Corruption index	Political Stability	Control of Corruption	Government Effectivenes s	Regulatory Quality	Rule of Law	Voice and Accountabili ty	Civil Liberties	Political Rights
ODA	$2.778^{**}$	0.539	-0.175	-0.194	0.313	0.343	0.129	$0.240^{*}$	-1.141	-1.011
	(0.709)	(13.66)	(0.253)	(0.311)	(0.199)	(0.244)	(0.189)	(0.104)	(0.573)	(0.784)
Population growth rate	-0.150	-2.319	-0.179*	-0.174	-0.122	-0.145	-0.182**	-0.0295	0.200	0.283
growin rate	(0.206)	(3.978)	(0.0738)	(0.0907)	(0.0579)	(0.0710)	(0.0550)	(0.0303)	(0.167)	(0.228)
Income level	-0.755	-0.483	0.0164	0.296	-0.0543	-0.0536	0.0470	0.283**	-0.520	-0.769
	(0.537)	(10.35)	(0.192)	(0.236)	(0.151)	(0.185)	(0.143)	(0.0790)	(0.435)	(0.594)
Trade openness	1.878	6.187	1.796**	-0.0189	0.448	0.414	0.630	$0.428^{*}$	-0.0878	-0.756
T T	(1.257)	(24.23)	(0.450)	(0.552)	(0.353)	(0.432)	(0.335)	(0.185)	(1.017)	(1.390)
FDI	0.138 (0.188)	1.594 (3.617)	0.0372 (0.0671)	-0.0558 (0.0825)	0.0585 (0.0527)	0.0795 (0.0645)	0.0343 (0.0500)	-0.0665 <sup>*</sup> (0.0276)	0.181 (0.152)	0.422 (0.208)
Constant	-7.793*	-4.135	-6.906***	-1.416	-2.437*	-2.165	-3.139**	-4.577***	10.25**	14.19**
	(3.425)	(66.01)	(1.225)	(1.505)	(0.961)	(1.178)	(0.912)	(0.503)	(2.771)	(3.787)
Observations	20	20	20	20	20	20	20	20	20	20
Adjusted R <sup>2</sup>	0.542	-0.692	0.662	-0.057	0.270	0.203	0.524	0.790	0.113	0.111

Table 9: Fixed Effect with Driscoll -Kraay standard errors; 4 years average

Standard errors in parentheses \* p < 0.05, \*\* p < 0.01, \*\*\*\* p < 0.001

# 5.0 CHAPTER FIVE: SUMMARY, CONCLUSIONS AND POLICY RECOMMENDATIONS

#### **5.1 Introduction**

This chapter gives a brief summary, conclusion, policy outcome and recommendations. Moreover, it also outlines the limitations of the study and also highlights areas of further research.

#### **5.2 Summary of the study**

This study examined the impact of foreign aid on Institutional quality in East Africa. In addition, the study sought to know whether institutional quality affects foreign aid. The study revealed that foreign aid indeed has a negative impact on institutional quality in East Africa Asongu (2012a), Okada & Samreth (2012) and Asongu (2013), Moss et al (2008), Busse & Gröning (2009) and Djankov et al. (2008). Moreover, the study found out that institutional quality on the other hand had a negative impact on foreign aid Okada & Samreth (2012) and Asongu (2014), Nwachukwu & Asongu (2015). While some of the institutional quality dimensions were found to be significant, others were insignificant. Political stability, Control of corruption, Civil liberties as well as political rights were found to be negative and significantly related to foreign aid. On the other hand, voice and accountability was found to be positive and significantly related to foreign aid. Although variables like corruption was not statistically significant, it had a negative relationship with foreign aid.

In order to test for robustness, estimation was done using foreign aid from DAC and multilateral aid. These results were consistent with the main results findings of the negative relationship between foreign aid and institutional quality. Moreover, data was averaged into 4 years period. The results of this estimation was also consistent with the main findings

#### **5.2 Conclusion**

Fixed effect estimation technique used in the study found out that foreign aid has a negative impact on institutional quality in East Africa. On the other hand, the study revealed that institutional quality has a similar negative impact on foreign aid. These results were consistent with studies done by Okada & Samreth (2012), Asongu (2012a) and (2012b). This study found that civil liberties and political rights were negative and significant in explaining foreign aid in East African countries.

#### **5.3 Policy Recommendations**

The negative effect of foreign aid on institutional quality is a wakeup call to East African governments to come up with measures and policies which reduces foreign aid. The finding that increase in institutional quality reduces foreign aid East Africa is another eye opener that should guide policy makers in the countries to come up with policies which increases institutional qualities and stop reliance on foreign aid. Specifically, these countries should ensure that they have policies in place which enhances increased sources and collection of revenue in order to fund government expenditure thereby reducing foreign aid reliance.

#### **5.4 Limitations of the Study**

The major limitation of this study was lack data for some countries in certain years. More specifically, institutional quality data was only available for some years in some countries. This means that obtaining data for all the five countries and all the years was cumbersome.

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Moreover, a static panel model, the fixed-effects model, was used in this study. As much as it helps in addressing the problems of endogeneity, it is still insufficient. This problem could perhaps have been addressed better by the use Generalized Method of Moments (GMM) which is more dynamics to better addresses the problem of endogeneity. However, GMM estimation technique is appropriate when the number of panels units (N) is greater than the time period (T).However, in this study (T) is greater than (N) thus the choice of fixed effect model of estimation.

#### 5.5 Areas for Further Research

Foreign aid and institutional quality nexus has attracted a lot of attention in the recent years. Further research could be carried out on the same topic but include the ease of doing business as one of the dimensions of institutional quality. It would be interesting to see how foreign aid affect the ease of doing business in East African countries.

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## 7.0 APPENDIX 7.1 Appendix 1: Post-estimation tests

#### **Table A1: Hausman Test**

Coefficients							
	(b)	(B)	(b-B)	Standard Error			
	Fixed	Random	Difference				
ODA	.1361404	2631361	.3992766	.1134809			
Trade openness	.480837	.1915155	.2893216	-			
Foreign direct	.1362768	.229342	0930652	-			
investment							
Income level	.1037379	.3047604	2010225	-			
Population	1683692	0284406	1399286	-			
growth rate							
<ul> <li>b = consistent under Ho and Ha; obtained from xtreg</li> <li>B = inconsistent under Ha; efficient under Ho; obtained from xtreg</li> <li>Test: Ho: difference in coefficients not systematic</li> </ul>							
Chi2(9) = 1112.34 Prob> $chi2 = 0.0000$							

#### Table A2: Wooldridge Test for Autocorrelation in Panel Data

Ho = no first-order autocorrelation

F(1, 4) = 4.868Prob > F = 0.0920

# Table A3: Modified Wald Test for GroupWise Heteroscedasticity in Fixed Effect Regression Model

Ho  $=\sigma_{i}^{2} = \sigma^{2}$  for all i chi2 (5) = 134.77 Prob > chi2 = 0.0000

 Table A4:
 Breusch-Pagan Lagrange Multiplier Test of Independence

	e1	e2	e3	e4	e5
e1	1.0000				
e2	0.4363	1.0000			
e3	0.4135	-0.0690	1.000		
e4	0.2007	-0.2691	0.2904	1.0000	
e5	0.0765	-0.3823	0.3865	0.5312	1.0000

Breusch-Pagan LM test of independence: chi2(10) = -24.081, Prob = 0.0074