



**ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS & ECONOMICS
DEPARTMENT OF MANAGEMENT**

**A COMPARATIVE STUDY OF TRADE PERFORMANCE BETWEEN
INTERGOVERNMENTAL AUTHORITY ON DEVELOPMENT AND
OTHER AFRICAN UNION RECOGNIZED ECONOMIC COMMUNITIES**

**BY
ALEM SHUMIYE**

**MAY 2014
ADDIS ABABA**

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BY

ALEM SHUMIYE

**A Research Project Submitted to College of Business and Economics,
Department of Management of Addis Ababa University
in Partial Fulfilment of the Requirements
for Degree of Executive Masters of Business Administration**

May 2014

Addis Ababa

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BY

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DECLARATION

I, the undersigned, declare that this research project is my original work, has not been presented for a degree in any other university and that all sources of material used for the research project have been duly acknowledged.

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ENDORSEMENT

This research project has been submitted to Addis Ababa University, College of Business and Economics, Department of Management for examination with my approval as a university advisor.

Advisor

Addis Ababa University

Date & signature

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Acknowledgement

First and foremost, I would like to extend my sincere gratitude to my university advisor, Dr. Getie Andualem, for his timely and constructive feedback throughout this study.

My special thanks go to my wife W/ro Meseret Teshome, my kids Fitsum Alem, Yeabisira Alem and Yishak Tilahun for their patience and continued support and encouragement given me throughout the completion of the Executive MBA program. My thanks also go to my classmate and best friend, W/ro. Murida Kemal, for sharing inspirational thoughts and encouragement during the Executive MBA program. I also thank Ato Tilahun Debebe of ITECH Ethiopia for his commendable contribution.

At last, I am grateful for the information and support that I got from various experts at the Ministry of Foreign Affairs, African Union Commission, Economic Commission for Africa and Ministry of Trade.

Thank you all!!

Acronyms

AEC	African Economic Commission
AMU	Arab Maghreb Union (AMU),
CEN-SAD	Community of Sahel-Saharan States
CES	Constant Elasticity of Substitution
CGE	Computable General Equilibrium
COMESA	Common Market for Eastern and Southern Africa
EAC	East African Community
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
FTA	Free Trade Area
GDP	Gross Domestic Product
GNP	Gross national Product
IGAD	Intergovernmental Authority on Development
IGADD	Intergovernmental Authority for Drought and Development
LPI	Logistics Performance Index
MIP	Minimum Integration Plan
NEPAD	New Partnership for African Development
OAU	Organization of the African Unity
OECD	Organization for Economic Cooperation and Development
OLS	Ordinary least Squares
PTA	Preferential Trade Agreement
RCA	Revealed Comparative Advantage
RECs	Regional Economic Communities
SADC	Southern African Development Community

UNCOMTRADE	United Nations Commodity Trade
UNCTAD	United Nations Conference for Trade and Development
UNCTADstat	United Nations Conference for Trade and Development Statistics
USA	United States of America
USD	United States Dollars
VIF	Variance Inflation Factor

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Abstract

IGADD was established in 1986 and transformed into IGAD in 1996 with expanded mandate to include economic cooperation and integration agenda and to achieve plans set in Abuja Treaty (1991). Considering the eight regional economic communities that are officially recognized by the African Union, the objective of this study was to compare trade performance between IGAD and other African Union recognized economic communities. The study relied on secondary sources of data and employed judgmental sampling techniques. Analyses were made both at regional and country levels. Findings from descriptive analysis of aggregate and disaggregate level panel data covering 1996-2012 indicated that intra-bloc and extra-bloc trade performance of IGAD region was low compared to other African Union recognized economic communities. In addition, there existed no significant sectoral variation of exports between IGAD and other African Union recognized economic blocs. The casual analysis done using gravity model revealed that IGAD did not contribute to the creation of trade in the sense of Viner (1950). IGAD failed to meet its trade related objectives set both in the Agreement Establishing IGAD (1996) and the plans set in Abuja Treaty (1991). Internal reliability of gravity model variables was within acceptable limit. Overlapping membership, under developed trade logistics, fear of customs revenue loss, lack of political commitment and leadership, lack of trust among the member states were the major factors constraining integration process. The study suggests that real political will and leadership, being strategically selective and sequencing, improving trade logistics, strengthening implementation capacity of IGAD secretariat, encouraging and promoting the involvement of private sectors, and people-to-peoples interaction will help realize economic integration plans.

Key words: *IGAD, economic integration, RECs, trade creation, Gravity model, Abuja Treaty*

CHAPTER I. INTRODUCTION

1.1. Chapter overview

In this chapter, background of the study, statement of the problem, basic research questions, objectives, significance, scope and organization of the study will be presented.

1.2. Background of the study

Economic integration in Africa has a long history. Since the formation of the Organization of the African Unity in 1963, regional integration has been the priority of the continent. This was further strengthened by the transformation of the Organization of African Unity (OAU) into the African Union in 2002. However, the establishment of meaningful trade blocs has been slow. Significant political turmoil in several African nations has persistently limited realization of notable progress. In several African countries, deep suspicion of free trade existed. All such slow progresses in regional integration implies that African economic communities have failed to live up to their full potential in terms of achieving significant economies of scale, increased competitiveness, industrial modernization and upgrading, higher domestic and foreign investment, and greater intraregional trade (African Union Commission, 2012). African countries have not fully exercised their bargaining power to reap all the benefits of trading and engaging in a globalized world. This can be largely attributed to existing barriers (both tariff and nontariff) to the free movement of goods and services across countries.

Statistics showed that the African countries, as an economic bloc, occupy a very low position in the global economic classification. Although, Africa is home to 14% of the global population; it accounts for less than 3% of the global GDP and receives only 3% of foreign direct investment (African Union Commission, 2012). As regards to global goods trade, Africa accounts for only 1.8 % of imports and 3.6% of exports and these rates are even lower in the services sector: 1.7% and 1.8% of imports and exports, respectively (African Union Commission, 2012). Beyond the relatively unfavorable general positioning, the situation is quite mixed if the countries are considered on individual basis. Similarly, intra-African trade stands at around 12 per cent compared to 60 per cent, 40 per cent, 30 per cent intra-regional trade that has been achieved by

Europe, North America and Association of South East Asian Nations, respectively (African Union Commission, 2012).

1.3. Statement of the problem

Emphasis on regional economic integration in Africa dates back in 1963 following the formation of the then Organization of African Unity (OAU) which is transformed into the African Union in 2002. Since then, regional economic co-operation and integration are given special impetus and high priority to promote long-term collective self-sustaining and integrated socioeconomic development in Africa. Various policies were adopted to back regional economic integration initiatives in Africa. The first major plan for Africa's development – the Lagos Plan of Action and the Final Act of Lagos was adopted in 1980 and set out a vision of an integrated African market by the year 2000, though it failed. Further impetus was given by the Abuja Treaty which was approved in 1994 with a plan to form the African Economic Community (AEC) by 2028. As “pillars” of the AEC, the African Union officially recognized eight economic blocs (Economic Commission for Africa, 2012) namely Arab Maghreb Union (AMU), Community of Sahel-Saharan States (CEN-SAD), Common Market for Eastern and Southern Africa (COMESA), East African Community (EAC), Economic Community of Central African States (ECCAS), Economic Community of West African States (ECOWAS), Southern African Development Community (SADC) and Inter-Governmental Authority on Development (IGAD).

Despite huge interest and signing of treaties and protocols within RECs to reduce and eliminate numerous tariff and non-tariff barriers, the progress made by African economic blocs towards achieving economic integration appeared to be diverse (UNCTAD, 2011). For example, ECOWAS, ECCAS and SADC achieved free trade area; COMESA formed its customs union and EAC bloc formed common market while AMU, CENSAD and IGAD are in the process of realizing the free trade area (African Union Commission, 2013). According to the African Development Bank (2012), in 2009 intra-African trade accounted for about 11 percent of the continent's total trade compared to 22% intraregional trade achieved in Latin America and 50% in Asia (African Development Bank, 2012). Export concentration indices of Africa were 0.411 while that of developing America and Asia was 0.139 and 0.121 (UNCTAD, 2012) implying that Africa was relatively a very concentrated market. There are cases where products and services

could have been sourced competitively from other African countries but were procured from outside the continent (Africa Union Commission, 2013).

The relatively poor trade performances of Africa, and especially its very low extra- and intra-trade as compared to that of other regions of the world, may partly be explained by such obstacles limiting spillovers associated to exchanges within the continent. In addition, the inability of most African countries to secure access to larger markets, inherent high trade costs among neighbors, lack of an effective framework for regional cooperation and resource pooling worth mentioning. In this context, opening African economies within themselves is expected to generate great benefits to Africa. Hence, African countries do not trade much with each other means that they have been unable to fully harness the synergies and complementarities of their economies and take full advantage of the economies of scale and other benefits (such as income and employment generation) than greater market integration would have provided.

The situation with member states of IGAD (Djibouti, Ethiopia, Kenya, Somalia, Sudan, and Uganda) is quite similar that they face common problems like poor economic performance and political instability that limit the full implementation of objectives set in the IGAD Charter (1996) and plans set in the Abuja Treaty (1991). This situation impacts on the ability of IGAD member states to trade internally within the region and across other regions. Overlapping memberships in other regional economic communities may have caused complications and inconsistencies due to conflicting obligation and divided loyalty. For example, all IGAD member states are also members of COMESA bloc. IGAD member states such as Kenya and Uganda are members in COMESA and EAC blocs. The fact that the economies of IGAD member nations is too small on their own to negotiate with powerful trading blocs has also led to increased interest towards regional economic integration. What this wave of deepening economic integration efforts implies to trade flows is still an area of further research, especially in IGAD region.

Given legal and policy frameworks set for economic integration, research concerning thorough analysis of level of trade performance of IGAD against other African Union recognized economic communities, objectives set in IGAD Charter (1996) and plans set in Abuja Treaty (1991) is in its infancy and needs further and continued study. More studies are needed to have in

depth assessment of level of trade performance of IGAD and examine its major challenges constraining regional economic integration process. A variety of studies (Alemayehu and Haile, 2002; Jayasinghe and Sarker, 2004; Edris, 2013) have assessed trade creation and trade diversion effects of regional trade agreements based on the static framework of Customs Union Theory of Viner (1950) and applying quantitative Gravity model. Findings from these studies revealed contradictory results regarding the effect of regional economic bloc on trade performance of member countries. Some studies suggested that regional economic bloc had trade enhancing effect while others argued it is not. But, these studies neither get into the depth of examining level of trade performance (at aggregate and disaggregate level) of IGAD region nor compare IGAD with other African Union recognized economic blocs and analyze factors constraining IGAD's trade performance using more recent and extended time period data. These studies focused one to three RECs and employed either descriptive or quantitative (Gravity model) analytical approaches. Unlike earlier studies, this study, however, considered eight RECs and applied a combination of descriptive statistics (trade indicators), econometric model (Gravity model) and in depth interview with relevant experts to assess the level of trade performance of IGAD and key challenges working against trade performance in the IGAD region.

In the context of globalization, effective regional integration is needed if IGAD is to benefit from the process of economic integration. In spite of the revitalized and expanded mandate of IGAD in 1996 to include regional economic cooperation and integration as one of its priorities, the effectiveness of economic integration in IGAD region, compared to other African Union recognized RECs, is an empirical issue. Specifically an in depth examination on to what extent IGAD is able to perform extra-bloc and intra-bloc trade compared to other African Union recognized RECs; how far IGAD is able to achieve its economic integration objectives set in IGAD Charter (1996) and integration plans envisaged in the Abuja Treaty (1991) as well as major factors constraining its trade performance do warrant further examination. This void motivates the study. Accordingly, the purpose of this study is to compare the level of trade (extra-bloc and intra-bloc) performance of IGAD compared to other African Union recognized RECs; examine the gross trade creation effect of IGAD; assess the extent in which IGAD meets its underlying economic integration objectives set in IGAD Charter (1996) and plans set forth in the Abuja Treaty (1996) and major challenges constraining trade performance in IGAD region.

1.4. Basic research questions

In line with the problem statement, this study was expected to answer the following research questions.

- (1) What is the level of intra-group and extra-group trade performance of IGAD region between 1996-2012 vis-à-vis other African Union recognized economic blocs?
- (2) To what extent does the level of trade in the IGAD region vary from one sector to another in comparison with other African Union recognized economic blocs?
- (3) What is the status of gross trade creation effects of regional economic integration resulting from the formation of IGAD?
- (4) To what extent did IGAD achieve the underlying economic cooperation and integration objectives upon which it was established and the plans set in Abuja Treaty (1996)?
- (5) What are the major factors constraining trade performance of IGAD region?

1.5. Objectives of the study

1.5.1. General objective

The general objective of the study is to assess the level of trade performance in IGAD region and compare and contrast it with other African Union recognized economic communities, assess gross trade creation effects of IGAD and the extent by which it achieved its economic integration objectives set in IGAD Charter (1996) and plans of Abuja Treaty (1991) as well as the major factors constraining trade performance in the IGAD region.

1.5.2. Specific objectives

The specific objectives of this study are to:

- (1) assess the level of intra-group and extra-group trade performance of IGAD region between 1996-2012 vis-à-vis other African Union recognized economic communities,

- (2) assess the level of sectoral variation of intra-trade in the IGAD region as compared to other African Union recognized economic communities,
- (3) examine the gross trade creation effects of regional economic integration resulting from the formation of IGAD,
- (4) assess the extent by which IGAD achieved the underlying economic cooperation and integration objectives upon which it was established and the plans set in Abuja Treaty (1996),
- (5) assess the major factors constraining trade performance of IGAD region.

1.6. Significance of the study

The study attempted to address trade aspects of regional economic integration resulting from the formation of IGAD region and compares and contrasts with other African Union recognized economic blocks. Conducting a study of this sort will be important for the following major reasons:

- the study may provide IGAD officials with an independent assessment of the role that IGAD played so far with regard to facilitating intra-trade and extra-trade, major challenges that IGAD faced and some suggestions proposed to overcome them and ultimately contribute towards the revisiting of some of their policies that might help for successful economic integration scheme;
- the findings of this study may also be used as a source of information for those who are interested in conducting research on trade effects of regional integration scheme in the IGAD region and other economic integration schemes initiated in Africa and elsewhere;
- it is also hoped that such a study will contribute to fill the gap of knowledge on the subject under discussion.

1.7. Scope of the study

This study focused on trade aspects of regional integration resulted from formation of IGAD and compared and contrasted with other African Union recognized economic communities that were formally recognized by the African Union. Although there were fourteen Regional Economic Communities (RECs) in Africa with varying degrees of integration, this study focused on eight of them that were officially recognized by the African Union Commission as “pillars” of the

African Economic Community (Economic Commission for Africa, 2012). These were: Arab Maghreb Union (AMU), Community of Sahel-Saharan States (CEN-SAD), Common Market for Eastern and Southern Africa (COMESA), East African Community (EAC), Economic Community of Central African States (ECCAS), Economic Community of West African States (ECOWAS), Southern African Development Community (SADC) and Inter-Governmental Authority on Development (IGAD). The study did not take into the six regional economic communities that are not formally recognized by the African Union. These were: Central African Economic and Monetary Community, Economic Community of the Greater Lakes Countries, Indian Ocean Commission, Mano River Union, Southern African Customs Union and West African Economic and Monetary Union. The gravity model analysis was made based on static framework focusing on trade creation effects of regional economic integration resulting from the formation of IGAD. The study did not look at trade diversion and welfare effects of IGAD.

In order to compare and contrast trade performance of IGAD with other African economic communities, this study used both aggregate and disaggregated panel data covering the period 1996-2012. The study assessed the gross trade creation effects of IGAD employing econometric analysis (Gravity model) using aggregate level cross-section data for 2012. Although there are competing models such as Computable General Equilibrium (CGE) model and descriptive statistics, augmented Gravity model was selected to undertake econometric analysis due to its relative advantages over others as described in the subsequent chapters of the study. Lack of availability of disaggregated data on specific tradable commodity limited industry level econometric analysis. In addition, it is observed that econometric analysis which is based on aggregate data mask commodity – level heterogeneity, which may also bias the estimate.

As to the data source, the study largely relied on secondary or documentary sources gathered from well managed and controlled websites of government and United Nations agencies as well as various publications related to the study. Interview administered questionnaire was used for content validation.

1.8. Organization of research report

The study is divided into five chapters. Chapter one deals with introductory part that involves background, statement of the problem, objectives, significance and scope of the study. The second chapter will deal with the review of literature on the topic and pay attention to review of regional integration theories and theoretical foundation of gravity model including empirical studies and brief overview of African economic blocs. Chapter three will be devoted to deal with research design and methodology. Chapter four will be devoted to cover the results and discussion part of this study. Finally, chapter five will present conclusion and recommendation.

CHAPTER 2: REVIEW OF LITERATURE

2.1. Introduction

This chapter covers definition of terms, overview of African economic blocs, theoretical and empirical reviews, review of policy and legal frameworks for African economic integration, theoretical and conceptual framework of the study will be presented.

2.2. Definition of terms

(a). Conceptual definition

- **Regional economic integration:** is agreement among countries in a geographic region to reduce and ultimately remove tariff and non-tariff barriers to free trade flows of goods, services, and factors of production between each other (Hill, 2009).
- **Tariff barriers to trade:** are taxes that government imposes on commodities, one of the methods that governments used to control economic activity. There are two identified reasons why would government impose tariffs to imported goods. Firstly, they are an important source of income for the government. Secondly, tariffs can protect the local industries that face competition from imported goods by imposing tariffs on imported goods are customs duties on merchandise imports (<http://www.oecd.org/> accessed on April 3, 2014).
- **Non-tariff barriers:** refers to all barriers to trade that are not tariffs. Examples of these include countervailing and anti-dumping duties; "voluntary" export restraints, subsidies which sustain in operation loss making enterprises, technical barriers to trade, and obstacles to the establishment and provision of services (<http://www.oecd.org/> accessed on April 3, 2014).

(b). Operational definitions

- **Trade creation effects of regional economic bloc** – it occurs when some domestic production in a nation that is a member of the customs union is replaced by lower-cost imports from another member nation (assuming that all economic resources are fully employed before and after formation of the customs union); It increases the

welfare of member nations because it leads to greater specialization in production based on comparative advantage.

- **Homothetic preference:** the term “homothetic” is formally only used in connection with preferences; it means that consumers with different incomes but facing the same prices will demand goods in the same proportions.
- **Trade:** is defined the sum of exports and imports of trading partners.
- **Traditional gravity model:** considers GDP of importing and exporting countries as well as distance between them as influencing variables of bilateral trade. It is synonymous with basic gravity model, traditional gravity model or standard gravity model.
- **Augmented gravity model:** “augmented” means additional conditioning variables, apart from the traditional gravity model variable, GDP and distance variables that may affect trade (e.g. common language, common border, etc.) have been included. It is synonymously used as extended gravity model.

2.3. Regional economic blocs as an antecedent for the establishment of AEC

The African Union formally recognized the following eight Regional Economic Communities (RECs) as ‘pillars’ of the African Economic Community (AEC). Basic indicators of these RECs are summarized under Table 1.

Table 1 Basic indicators of African Union recognized economic communities

Regional blocs	Total population (million)	Land area (million km2)	GDP (US\$ billion)	Number of member states
AMU	91.73	5.8	457.90	5
CEN-SAD	567.42	14.9	1,074.20	28
COMESA	458.66	11.2	667.22	19
EAC	148.61	1.7	95.04	5
ECCAS	141.21	6.5	222.98	10
ECOWAS	318.50	5.0	396.89	15
IGAD	219.50	4.8	220.98	6
SADC	285.63	9.6	645.96	15

Source: World Development Indicators (2013)

The eight RECs which are officially recognized by the African Union and their member states are described below.

- **Arab Magherb Union (AMU)** was established in February 1989 with the Treaty of Marrakech. AMU consists of Algeria, Libya, Mauritania, Morocco, and Tunisia.
- **Community of Sahel-Saharan States (CEN-SAD)** was established in February 1998 at the Tripoli Summit. It consists of Benin, Burkina Faso, Cape Verde; Central African Republic, Comoros, Côte d'Ivoire, Chad, Djibouti, Egypt, Eritrea, Gambia, Ghana, Guinea-Bissau, Guinea, Kenya, Liberia, Libya, Mali, Mauritania, Morocco, Niger, Nigeria, São Tomé & Príncipe, Senegal, Sierra Leone, Somalia, Sudan, Togo and Tunisia.
- **Common Market for Eastern and Southern Africa (COMESA)**- was established in 1984 to replace the former Preferential Trade Agreement (PTA) for Eastern and Southern Africa which existed since 1981. The PTA Treaty envisaged its transformation into a Common Market and in conformity with this, the treaty establishing COMESA was ratified. COMESA consists of Burundi; Comoros; Democratic Republics of Congo; Djibouti; Egypt; Eritrea; Ethiopia; Kenya; Libya; Madagascar; Malawi; Mauritius; Rwanda; Seychelles; Sudan; Swaziland; Uganda; Zambia; Zimbabwe.
- **East African Community (EAC)** – was established in 1967, disbanded in 1977 and officially revived in 2000 with the Treaty of the East African Community. EAC consists of Burundi, Kenya, Rwanda, Tanzania, and Uganda.
- **Economic Community of Central African States (ECCAS)** - was established in October 1983 by members of the Customs and Economic Union of Central Africa, by the Treaty of Libreville. ECCAS began functioning in 1985, but was inactive for several years because of financial difficulties and conflict in the Great Lakes region. ECCAS consists of Angola; Burundi; Cameroon; Central African Republic; Chad; Democratic Republic of Congo; Equatorial Guinea; Gabon; Republic of Congo; São Tomé and Príncipe.
- **Economic Community of West African States (ECOWAS)** - was established on 28 May 1975, with the Treaty of Lagos to promote economic integration and to achieve 'collective self-sufficiency' for the member states by means of economic and monetary union creating a single large trading bloc. ECOWAS consists of Benin, Burkina Faso,

Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo.

- **Southern African Development Community (SADC)** -was established on 17 August 1992, with the adoption of the Windhoek declaration and treaty establishing SADC. SADC consists of Angola; Botswana; Democratic Republic of Congo; Lesotho; Madagascar; Malawi; Mauritius; Mozambique; Namibia; Seychelles; South Africa; Swaziland; Tanzania; Zambia and Zimbabwe.
- **Inter-Governmental Authority on Development (IGAD)**- according to Agreement Establishing IGAD (1996), the Intergovernmental Authority on Development (IGAD) superseded the Intergovernmental Authority on Drought and Development (IGADD) established in 1986 by the then drought afflicted six Eastern African countries of Djibouti, Ethiopia, Kenya, Somalia, Sudan and Uganda. In 1993 Eritrea became the seventh member of the Authority and latter suspended in 2007. South Sudan became a member of IGAD in 2011. Although IGADD was originally conceived to coordinate the efforts of member states to combat drought and desertification, it became increasingly apparent that the Authority provided a regular forum where leaders of the Eastern African countries were able to tackle other political and socioeconomic issues in a regional context. Realizing this, the Heads of State and Government of Djibouti, Eritrea, Ethiopia, Kenya, Sudan and Uganda, at an extra- ordinary Summit on 18 April 1995, resolved to expand the mandate of IGADD and made a declaration to revitalize IGADD and expand cooperation among member states. The revitalized IGADD was renamed the Intergovernmental Authority on Development (IGAD, 1996). The revitalization and expansion of the Authority's mandate therefore meant broadening up its work significantly to include such areas as regional infrastructure development, strategizing policies to enhance food security regimes and plans for the region, environmental management and protection, and conflict prevention, management, and resolution.

The vision and mission of IGAD

Vision: the vision of IGAD is to be the premier regional organization for achieving peace, prosperity and regional integration in the IGAD region (<http://www.uneca.org> accessed on November 21, 2013).

Mission: the mission of IGAD is to assist and complement the efforts of the Member States to achieve, through increased cooperation:

- Food Security and environmental protection
- Promotion and maintenance of peace and security and humanitarian affairs, and,
- Economic cooperation and integration.

The signing of the protocol on the relationship between the African Union and regional economic communities in January 2008 reaffirmed the role of IGAD as a recognized regional community. During the Summit held in Addis Ababa in January 2012, the IGAD Heads of State and Government endorsed its Minimum Integration Plan (MIP). The inspiration of the IGAD MIP is premised on the objectives of the IGAD policy and strategy which originate from the three IGAD priority areas which are: economic cooperation and integration, food security and environment protection, and peace and security. Under the MIP, the focus areas are to: (i). accelerate the implementation of a Free Trade Area in the region. (ii). assist the Member States to ensure that the people of the region have access to sufficient and nutritious food at all times while protecting the natural resource base and the environment. (iii). promote peace and stability in the region and address humanitarian needs of the people.

Institutional structure of IGAD

The IGAD Secretariat is head quartered in Djibouti. Article 8 of Agreement Establishing IGAD describes structure and operation consisting of: (a) An Assembly of Heads of State and Government (b) A Council of Ministers (c) A Committee of Ambassadors, and (d) A Secretariat. The Assembly of Heads of State and Government is the supreme organ of the Authority. The Council of Ministers consists of the Ministers of Foreign Affairs and one other focal Minister who shall be designated by each Member State. The Committee of Ambassadors shall comprise Member States' Ambassadors or Plenipotentiaries accredited to the country of the Headquarters of the Organization. The map of IGAD member nations is attached as Appendix A.

2.4. Theoretical and empirical review

2.4.1. Theoretical review

Theories such as functionalism, neo-functionalism and transnationalism are rooted in political since orientation while progressive stages and customs theory are rooted in economic orientations.

(a). Functionalism: the main principle of functionalism is that people can be discouraged away from loyalty to the nation-state by the experience of fruitful international cooperation. According to Anadi (2005), economic and social problems produce their own respective (framework of) solutions; international cooperation is legitimized by the usefulness and efficiency of concrete, issue-specific (technical) cooperation and its outcomes. It takes a view of conflict as originating from the social and economic circumstances of the people and once the people are materially provided with what they want, there will be peace and in this sense, functionalism has all tribute for the political role the specialized agencies would be playing in containing violence. According to functionalists, a peaceful international society is more likely to emerge through doing things together in workshop and market place rather than by signing pacts in chancelleries. It holds high the products of cooperation rather than the sacrifices which may have to be made to reconcile conflicting interests and sovereignty should be transferred to the new authority which performs functional tasks. The functionalist tends to separate economic and social from the political and gave too much emphasis on technocratic logic to the disadvantage of the importance of politics (Anadi, 2005). But, social, political and economic issues are functionally related and none can function effectively in isolation to the other (Anadi, 2005). Attempts to undermine sovereignty through functional cooperation are unlikely to succeed in IGAD region.

Functionalist does not seek to deal with the problems that stand in the way of cooperation directly, but takes it for granted that they will be reduced with the passage of time and with the rewards of economic logic materializing. Functionalists failed to analyze the total environment within which the functional arrangements would remove the need for political structures. Political and ideological differences can stand in the way of progress of functional arrangements. The assumption that welfare needs of all the people all over the world are one and the same is

not true. Different regions have different welfare needs. In addition, the perception of each group of its specific problems is a function of its national culture and political priorities rather than anything else. Functionalists' argument that international economic and social cooperation is a prerequisite to the ultimate solution of political conflicts and the elimination of war seems to have been welcomed as a rationale for regional cooperation although they failed to take account of the political context of international activity

(b). Neo-functionalism: arose as a disposition of the problems of functionalism by adapting it to the study of regional integration with particular reference to Europe. Neo-functionalism contend that the context in which integration takes place is economic, social and technical and to a lesser extend political but assumes that joint activities in the non-political areas would gradually permeate the political (Anadi, 2005). This theory assumes an indirect penetration of the political by way of the economic means (Anadi, 2005). But, wide differences in social, political and economic orientations of IGAD member states and wide differences in their levels of economic development will be difficult to do so. Unlike functionalism, neo-functionalism is an approach limited only to regional integration. Neo-functionalists agree with the functionalists that integration is an incremental process where the performance of social and technical tasks by international organization will erode the sovereignty of individual states. However, neo-functionalist discounted the role of the dramatic political actors.

(c). Transactionalism is based on the assumption that integration is a function of the level of communication between states (Anadi, 2005). It holds the view that cooperation could indeed be enhanced and empirically quantified in terms of the frequency of transactions between states (Anadi, 2005). It aimed at the creation of "security communities" where war is no longer a legitimate means of conflict resolution. Unlike the neo-functionalists who have a desire for institutions and the end product of integration, transactionalist locates communication as the key to the creation of "security communities". The level of interdependence between states within a region will be interpreted as the measurement of the level of integration. The theory claims that the potential for integration is guaranteed in regions with mutual high international transaction, which would be actualized if states are responsive to one another, where responsiveness is defined as "the probability of getting an adequate response within an acceptable limit of time

(Deutsch, 1964). But, the communications approach does not tell us about the content of messages transacted. If there is enhanced communication, it automatically implies that there is increased potential for community building which is not true. With transactionalist, it appears that all transactions seem to be having the same value. In addition, more than the actual content of those messages one may say that it is the perception of the communication that matters. For the neo-functionalists, it is the perception of present and future benefits that matters for regional integration. While transactionalist flows may reflect regional integration, it cannot be used to explain what causes integration, and also the growth and decline of further integration. The success of application of this theory in IGAD is elusive because transactions are higher with countries outside of the IGAD region than between member states.

(d). Progressive stages of regional integration theory

Although regional economic communities differ in the composition of their members and structures, all share common objectives of reducing trade and non-tariff barriers among themselves. According to Hill (2009), several levels of economic integration are possible in theory. From least integrated to most integrated, they are Preferential Trade Agreement (PTA), Free Trade Area (FTA), a Customs Union, a Common Market, an Economic Union, and, finally, a full Political Union.

- Preferential Trading Areas (PTA): is a trading bloc that gives preferential access to certain products from certain countries. This is usually achieved by reducing, but not eliminating tariffs (Hill, 2009).
- Free Trade Areas (FTA): an area in which all barriers to the trade of goods and services among member countries are removed (Hill, 2009).
- Customs Union: a group of countries committed to eliminating trade barriers and adopting a common external trade policy (Hill, 2009).
- Common Markets: a group of countries committed to eliminating trade barriers, adopting a common external trade policy, and allowing factors of production to move freely between members (Hill, 2009)
- Economic & Monetary Union: is a common market with a common currency (Hill, 2009).

- Political Union: a central political apparatus coordinating the economic, social, and foreign policy of its member states (Hill, 2009).

Regional economic integration can be manifested and implemented across the continent on several of these platforms. Literature on features of regional integration suggested six types of arrangement as summarized under Table 2.

Table 2 Types of arrangement and features of regional integration

Types of arrangement	Free trade among members	Common commercial policy	Free factor mobility	Common monetary and fiscal policies	One government
Preferential Trade Area	No	No	No	No	No
Free Trade Area	Yes	No	No	No	No
Customs Union	Yes	Yes	No	No	No
Common Market	Yes	Yes	Yes	No	No
Economic Union	Yes	Yes	Yes	Yes	No
Political Union	Yes	Yes	Yes	Yes	Yes

Source: Economic Commission for Africa (2012)

But, the success of such sort of staged or linear progressive approach is impractical in IGAD region which has diverse social, political and economic structures. In comparison with features indicated under Table 2, IGAD has achieved none of the stages mentioned above.

(e). Customs union theory

The framework of customs union theory of integration is laid out by Viner (1950) who classified the potential benefits and challenges of regional economic integration into static and dynamic effects. Viner's theory is developed as a branch of neoclassical welfare economics relying on the principle of comparative advantage and the achievement of higher level welfare through freeing trade (Balassa, 1961). His theory became and still is the foundation of the theory of economic integration.

Economic benefits of integration – static and dynamic effects

The removal of trade tariffs produces an immediate drop in consumer prices, which will benefit consumers and stimulate demand. These are referred to as the static effects. There will be increased competition among suppliers as barriers come down. Increased demand and an open internal market also create opportunities for economies of large-scale production and increased efficiency, while larger markets encourage more investment and stimulate economic growth. These are referred to as the dynamic effects of integration.

Static effects: trade creation and trade diversion

The phenomenon of regional integration has posed serious analytical challenges for trade theorists mainly because regional integration schemes conceptually combine elements of both free trade (within the union) and protectionism (against non-members) (Economic Commission for Africa, 2012). While the trade liberalization aspect of regional integration is consistent with the neoclassical perception of a welfare-enhancing trade policy regime, the discriminatory aspect of the arrangement is potentially detrimental to attaining both regional and global welfare (Economic Commission for Africa, 2012).

According to Viner (1950), static effects of integration result from one-time reallocation of economic factors of production and natural resources and entail negative and positive impacts on welfare. The model provides a tool for analyzing the welfare effects of regional economic integration by introducing the concepts of trade creation and trade diversion. The extent to which the changes in welfare occur depends greatly on the predominance of either one of these effects.

Trade is said to have been created when countries give up on the production of goods and services that they produce less efficiently in exchange for the same goods and services produced more efficiently by a partner country. Robson (1994), cited by Economic Commission for Africa (2012), stated that trade is more likely to be created when the economic area of integration and the number of member countries is large; tariffs and non-tariff barriers have been reduced or eliminated as a result of the regional economic integration; and the economies of the integrated

countries are competitive, having comparable levels of development and a complementary resource base.

The trade diversion effect, in contrast, is seen as a cost to the region and the world at large. Trade is said to have been diverted when the shift in consumption is more in favor of higher-cost products and services from the region than lower-cost products and services produced by countries outside the region (Economic Commission for Africa, 2012). Thus, trade diversion could produce an uncompetitive environment, inefficiency and loss of consumer surplus. Although it is generally accepted as a theoretical fact that trade creation and trade diversion are potential outcomes of preferential trading systems and that they tend to move economic welfare in opposite directions (Viner, 1950), the net effect of the two phenomena is an empirical issue (Economic Commission for Africa, 2012).

Dynamic effects

Dynamic gains from regional economic integration are attained over the long run. They are more than one-off enhancement of welfare through spillover effects. These effects often result from economies of scale (due to an enlarged market), efficiency gains (due to the competitive environment and transfer of technology), and removal of contingent protection and trade barriers.

Meade (1955) stated that there is no general, one-size-fit-all, conclusion on the benefits of forming economic integration schemes, and that it all depends on the specific circumstances of the case at hand. The drawback, however, of the dynamic approach in comparison to the static approach of estimating the welfare effects of economic integration is that no reliable method exists to quantify dynamic effects, unlike static effects (Meade, 1955). Much of theoretical literatures belong to the static effects of trade integration, especially in the framework of customs union. Hence, this study inclines to the static, resource allocation, effects of Viner (1950) model of integration

In general, the reviewed regional integration theories showed that they were based on their differed and discretely isolated orientation (political or economic). Common observation in all

theories was absence of basic initial condition for successful application and/or adaptation to social, political and economic situation in IGAD. Regional integration is a complex phenomenon which arises from the diversities in the political and economic environment of different states. And so, its operational dynamics can not subscribe to one precise theoretical formulations. Besides, most theoretical frameworks which appear to have originated from regional integration processes in more developed economies, become complicated by the seeming intractable problems associated with their implementation in less developed economies like IGAD.

Measures of trade effects of regional economic integration

Several methodological approaches or models have been used in analyzing the trade effects of regional economic integration ranging from simple descriptive and statistical approaches to complex simulation approach of Comparative General Equilibrium (CGE), with econometric approach (gravity model) in between. These measures have been applied in different types of data (cross-section, time-series, panel) either at aggregate or disaggregate level.

(a). Computable General Equilibrium (CGE)

This model specifies the structure and behavior of agents (firms, consumers and government) giving details on their economic effects of the regional blocs as well as showing the potential gains between regional trade agreement members in trade liberalization. It is best served with studies that employ analysis done before trade between two countries takes place (Mengesha, 2009). The caveats of CGE studies is that the results generated are highly sensitive to the assumptions made, the parameters to be measured and the data used in the model in terms of their interpretations (Mengesha, 2009). According to Krueger (1999), CGE models do not allow for analysis of the specific designated markets in regional blocs. Simulation studies using CGE have been prospective rather than retrospective (Krueger, 1999). McKittrick (1998) indicated that policy formation is often outdated and baseline scenarios are unrealistic and based on older data. According to Alemayehu (2002), CGE models rely on the assumption that there is perfect competition and constant elasticity of substitution and a system of market clearing mechanism that are not realistic.

(b). Descriptive approach

It is an analytical tool typical used to analyze trade performances of a country or a region. It helps to addresses questions such as (i) how much does a region trade? and (ii) what and with whom does it trade? The descriptive approach avoids the problems of developing complex data sets which are required in CGE model. Rather, trade flows are taken as given and various indicators are used to measure the regional concentration, composition and direction of trade. The method is simple and less data intensive making it particularly suitable for evaluating the effects of trade regionalization on a world scale and for wider class of commodities (Mengesha, 2009). The descriptive method relies on static framework and the results are dependent in the level of aggregation. Jayasinghe and Sarker (2004) concluded that the descriptive approach cannot measure the effects of trade creation and trade diversion appropriately because it can create welfare problems to Regional Trade Agreements.

(c). Gravity model and its theoretical foundations

Gravity models begin with Isaac Newton's *law of universal gravitation* in physics which states that the gravitational force F_{ij} is proportional to the product of the two masses M_i and M_j and inversely proportional to the square of the distance d_{ij} that keeps the two masses apart from each other. The gravitational constant G is an empirically determined value. That is,

$$F_{ij} = G \frac{M_i M_j}{d_{ij}^2} \dots \dots \dots (2.1)$$

Gravity models utilize the gravitational force concept as an analogy to explain the volume of trade, capital flows and migration among the countries of the world. In addition, Gravity model has been used to discern the effects of regional economic agreements on bilateral trade. Tinbergen (1962) and Poyhonen (1963) pioneered the application of gravity equations in empirical specifications of bilateral trade flows in which the volume of trade between two countries is proportional to the product of an index of their economic size comprising of supply and demand factors (GDP or GNP and population), and the factor of proportionality depends on measures of trade resistance (geographical distance, as a proxy of transport costs and home bias) and trade preference factors (preferential trade agreements, common language, common borders) between them. Analogous to equation (2.1), we can formulate in such a way that bilateral trade

between two countries is directly related to their economic size and inversely related to the distance between them. The multiplicative form of the model is as follows:

$$TRADE_{ij} = A \frac{(GDP_{exp} GDP_{imp})^{\beta_1}}{Distance_{ij}^{\beta_2}} \dots \dots \dots (2.2)$$

where $TRADE_{ij}$ = bilateral trade between exporter country i and importer country j in US Dollars; GDP_{exp} is Gross Domestic Product (GDP) of exporter country in US Dollars; GDP_{imp} is GDP of importer; $Distance_{ij}$ is distance between exporter i and importer j countries. We take logarithm of equation (2) to linearize the relationships as follows:

$$\ln[TRADE_{ij}] = \ln[A] + \beta_1 \ln[GDP_i GDP_j] - \beta_2 \ln[Distance_{ij}] + \varepsilon_{ij} \dots \dots \dots (2.3)$$

Where β_1 and β_2 are coefficients to be estimated; $\ln[A]$ is constant; ε_{ij} represents the error term and captures any other factors that may affect bilateral trade flows. Equation (2.3) predicts that bilateral trade flow is a positive function of both GDP of exporter and GDP of importer and negatively related to distance (which is time invariant) between the economic centers.

Using a trade share expenditure system, Anderson (1979) made the first formal attempt to derive a sound theoretical foundation of gravity equation which postulates identical Cobb-Douglas or Constant Elasticity of Substitution (CES) preference functions for all countries as well as weakly separable utility functions between *traded* and *non-traded* goods. According to Anderson (1979), products are differentiated by their place of origin, also called the “Armington assumption” (Armington, 1969). Armington supposes that two goods of the same kind but originating from different countries are imperfect substitutes in demand. In the context of gravity modeling, this is feasible since the place of production is crucial with respect to the trade costs implied.

Heckscher-Ohlin model is based on the assumption of perfect competition, homogeneous products, homothetic preferences and differences in factor endowments. Heckscher-Ohlin model explains trade as a result of relative differences in factor endowments between countries. Countries trade with each other due to their unequal labor and capital endowments allowing for a

differing productivity in the manufacturing of a good. Models of the Heckscher-Ohlin type focus on explaining trade between industries - that is inter-industry trade - and is often constrained by constant returns to scale (Krugman and Obstfeld, 2006).

Bergstrand (1989) develops a microeconomic foundation to the gravity model. This model is based on the assumption of monopolistic competition, differentiated products and increasing returns to scale. Here, the product differentiation is among producing firms. The empirical success of the gravity model is considered to be supportive of the monopolistic competition explanation of intra-industry trade. In this regard, Bergstrand (1989) demonstrated the empirical robustness of the model and explored the theoretical determination of bilateral trade in which gravity equations are associated with simple monopolistic competition models. Helpman (1987) use a differentiated product framework with increasing returns to scale to justify the gravity model. According to Linneman (1966), the justification for the gravity equation can be analyzed in the light of a partial equilibrium model of export supply and import demand. Based on some simplifying assumptions the gravity equation turns out, as Linneman argues, to be a reduced form of this model. Ricardian trade theory builds on the assumption that trade is beneficial due to comparative advantage. A country that is less productive in absolute terms can nevertheless have a comparative advantage in the production of a good. Eaton and Kortum (2002) developed a Ricardian model of bilateral trade which was based on differences of production technologies.

Anderson van Wincoop (2003) derived an operational gravity model based on the manipulation of the Constant Elasticity of Substitution (CES) expenditure system that can be easily estimated and that helps to solve the so-called "*border puzzle*". In spite of tremendous work on this model there exists a criticism that theoretical foundation of gravity model is still very weak. Subsequently, however, connections have been made to key elements of trade theory. The standard assumption of the Heckscher-Ohlin model that prices of traded goods are the same in each country has proved to be faulty due to the presence of what is termed as "*border effects*". Trade economists had tried to formulate the theoretical explanations of Gravity model based on different foundations (Anderson, 1979; Bergstrand, 1989; Helpman, 1987; Eaton and Kortum, 2002; Kruegman and Obstfeld, 2006), among others. According to Paas (2005), trade theories just explain why countries trade in different products but do not explain why some countries'

trade links are stronger than others and why the level of trade between countries tends to increase or decrease over time. This is the limitation of trade theories in explaining the size of trade flows. Therefore, while traditional trade theories cannot explain the extent of trade, the gravity model is successful in this regard. Gravity model allows more factors to be taken into account to explain the extent of trade as an aspect of international trade flows (Paas, 2005). Assessment due to its log-linear structure, the coefficients of the gravity model are in terms of elasticities or ratios of percentage changes. These “unitless” measures are comparable across countries and goods and give us direct measures of the responsiveness of trade flows to the trade potential variables of equations. From the above review, we can observe that the theoretical foundations of Gravity model cannot be attributed to one trade theory. Rather a multiple approaches exist each with different underlying assumptions. Sarah (2012) indicated that it is not one precise trade models that accounts for theoretical derivation, but the assumptions, plausibility and consideration of multiple factors that give credibility to gravity model. In view of the above, the study follows static framework of Viner’s model.

The limitation of trade theories can be seen from two demand and supply perspectives. From supply side, trade theories provide logical explanations about why nation’s trade with one another, but such theories are limited by their underlying assumptions. Most of the world’s trade rules are based on a traditional model that assumes that trade is bilateral, trade involves products originating primarily in the exporting country, the exporting country has a comparative advantage, and competition primarily focuses on the importing country’s market. However, today’s realities are quite different: first trade is a multilateral process; second, trade is often based on products assembled from components that are produced in various countries; thirdly, it is not easy to determine a country’s comparative advantage, as evidenced by the countries that often export and import the same product, and finally, competition usually extends beyond the importing country to include the exporting country and third countries. The other limitation of classical trade theories is that the factors of production are assumed to remain constant for each country because of the assumed immobility of such resources between countries. As to the level of quality of production factor, the quality of each factor should not be assumed to be homogeneous worldwide.

From demand side, tastes should not be assumed to be the same among various countries. A country may have a scarcity of certain products and yet its citizens may have no desire for those products. Frequently, least developed nations' products may not be of sufficient quality to satisfy the tastes of industrial nations. In some situations, the quality of the product may be too high and highly costly. Perhaps the most serious shortcoming of classical trade theories is that they ignore the marketing aspect of trade. These theories are primarily concerned with commodities rather than with manufactured goods or value-added products. It is assumed that all suppliers have identical products with similar physical attributes and quality. This habit of assuming product homogeneity is not likely to be made among those familiar with marketing. A further shortcoming of classical trade theories is that the trade patterns as described in the theories are in reality frequently affected by trade restrictions. The direction of the flow of trade is no longer determined by a country's natural comparative advantage.

2.4.2. Empirical reviews

There have been a number of empirical studies (Feenstra *et al*, 2001; Rose, 2005; Carrer, 2006; Jayasinghe and Sarker, 2004; Mengesha, 2009; Alemayehu and Haile, 2002; Anderson van Wincoop, 2003; Edris, 2013) on the application of gravity model for analyzing trade flows and explaining the effects of related trade agreements. Feenstra *et al* (2001) undertook evaluation of alternative theories of trade using cross sectional data set of 110 countries on 1970, 1975, 1980, 1985 and 1990. Ordinary Least Squares (OLS) estimation technique was applied using trade proxied by total exports as dependent variable. Their results suggested that GDPs, distance, common border, common language, existence of FTA and remoteness affected bilateral trade.

Rose (2005) investigated the effect of multilateral trade agreements on international trade flows for 175 countries over a period of 50 years. Rose (2005) used a standard gravity equation which enabled to incorporate a World Trade Organization dummy, indicating of whether both or only one country was holding membership. Additionally, Rose (2005) included a variable that reflected the existence of a Generalized System of Preferences. To control for as many possible other effects, distance, market sizes, culture, colonial linkages, geographical features and country fixed effects were included in the gravity model. Distance was negatively related to trade while market size had a positive effect on trade; countries being member of a regional trade agreement

also tended to trade more with each other; the coefficients of speaking the same language and sharing the same border were also positive as was the linkage to colonial heritage; trade flows were negatively related to non-coastal countries as well as to relatively large countries in terms of geographic size (Rose, 2005). Surprisingly, Rose (2005) found that membership in the World Trade Organization of both countries or only one country did not have a significant positive effect. Carrer (2006) focused on the effects of regional trade agreements specifying variables into trade creation and trade diversion effects using cross-sectional and panel data in which both yielded different results. In both data sets, a gravity equation was used. Estimation showed that a panel specification achieved more reliable coefficient estimates. Regional trade agreements were found to have a trade enhancing characteristic (Carrer, 2006).

Jayasinghe and Sarker (2004) analyzed trade creation and trade diversion effects of the North American Free Trade Agreement taking six selected agri-food products from 1985-2000. They employed an extended Gravity model using pooled cross-sectional time-series regression and generalized least squares methods. Their finding suggested that the share of intra-regional trade was growing within North American Free Trade Agreement and it displaced trade with the rest of the world. The findings of Jayasinghe and Sarker (2004) matched with Mengesha (2009) and contradicted with that of Alemayehu and Haile (2002). Mengesha (2009) analyzed trade creation and diversion effects of the SADC. He employed disaggregated data from 2000 to 2007 and an augmented gravity model using panel data and random effect estimator methods. The results showed that the intra-SADC trade grew in fuel and minerals, and heavy manufacturing sectors while it displayed a declining trend in agricultural and light manufacturing sectors. His result implied that SADC displaced trade with the rest of the world in both fuel and minerals, and heavy manufacturing sectors. The study indicated that SADC served to boost trade significantly among its members rather than with the rest of the world. Alemayehu and Haile (2002) tested the determinants of trade flows using the experience of COMESA as a case study. The major conclusions that emerged from their study were regional groupings had insignificant effect on the flow of bilateral trade. Their review of the issues indicated that the performance of regional blocs was mainly constrained by problems of variation in initial condition, compensation issues, real political commitment, overlapping membership, policy harmonization and poor private sector participation.

Using descriptive statistics (trade indicators) and augmented gravity model approach, Edris (2013) analyzed regional integration and trade in Africa. He studied the main factors behind the low level of intra-regional trade and the role of RECs in promoting intra-regional trade by taking four RECs in Africa (COMESA, ECOWAS, IGAD and SADC). He applied the intuitive and theoretical gravity model of Anderson van Wincoop (2003) in panel data framework. Accordingly, the traditional gravity model variables (GDP, population, distance, border, language, and colonial links) and bilateral real exchange rate, difference in preference among trading partners were found to be important factors for bilateral trade flows (Edris, 2013). But, the impact of the RECs on bilateral trade was mixed; SADC and ECOWAS have created trade in Vinerian sense; COMESA had implausibly negative coefficient suggesting that it did not expand trade among the member states whereas IGAD had an insignificant positive coefficient implying that it did not contribute to the expansion of intra-regional trade (Edris, 2013). Findings on trade effects of regional economic communities were mixed. In some studies, regional economic groupings had trade enhancing characteristics while in other instances integration schemes did not produce effects of trade creation and trade diversion.

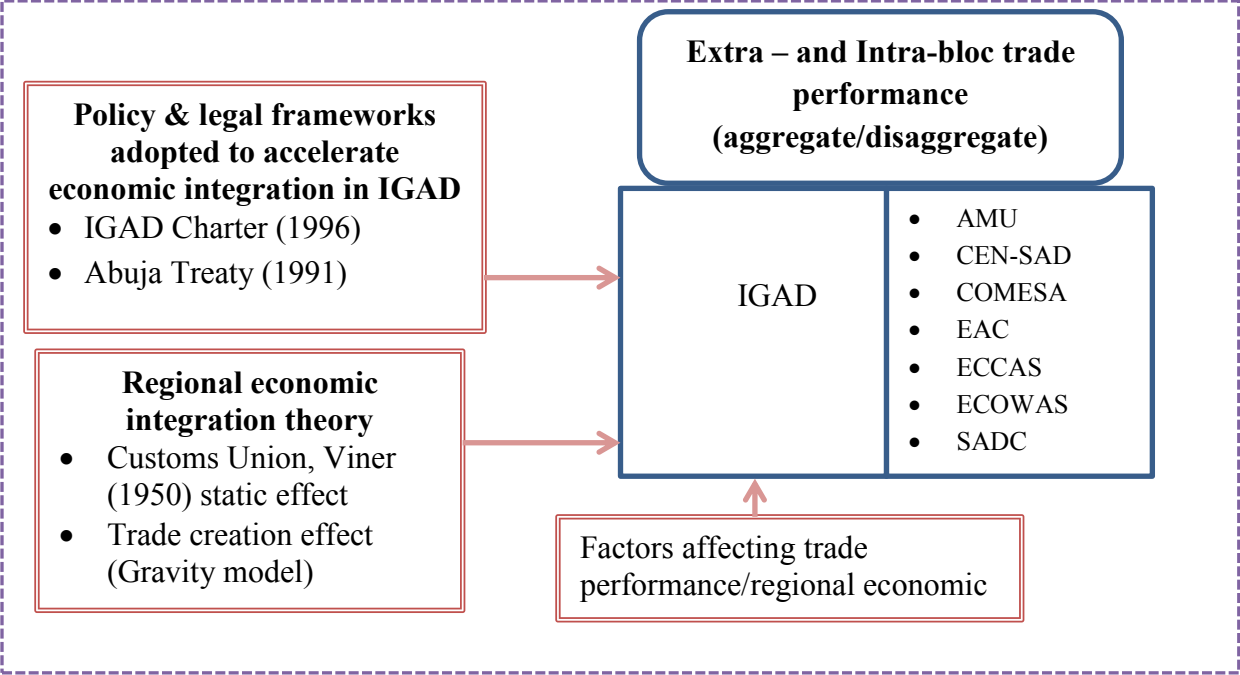
2.5. Policy and legal framework for African economic integration: a review

The genesis of integration process in Africa started under the auspices of the then Organization of African Unity (OAU) in the aftermath of independence. Since then, numerous policies have been set in motion and legal framework devised to accelerate the process. The Monrovia Strategy (1979) adopted measures for establishment of a new international order to ensure the economic, social and cultural integration in Africa. The Lagos Plan of Action and the Final Act of Lagos (1980) was meant to implement the Monrovia Strategy. The Treaty Establishing the African Economic Community (AEC), commonly known as the Abuja Treaty (1991) was adopted on June 3, 1991 and entered into force on 12 May 1994 with the primary aim of promoting the integration of African economies. The Sirte Declaration (1999) was enacted to accelerate the process of implementing the Abuja Treaty, strengthening and consolidating the Regional Economic Communities as the pillars for achieving the objectives of the African Economic Community and prepare a Constitutive Act of the African Union. Lusaka Convention (2001) espoused the New Partnership for Africa's Development (NEPAD) with a view to emphasizing the concept of partnership within and among countries, particularly between public

and private sectors, as well as with the international community. Designated as the technical body of the African Union, the core mandate of the NEPAD Agency is to facilitate and coordinate the implementation of regional and continental priority programs and projects and to push for partnerships, resource mobilization and research and knowledge management (<http://www.nepad.org/npc> accessed on April 2, 2014). Accra Declaration (2007) was adopted to accelerate the economic and political integration of the African continent, including the formation of a Union Government for Africa with the ultimate objective of creating the United States of Africa.

2.6. Theoretical and conceptual framework

Figure 1 Theoretical and conceptual framework



Source: author’s construction

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

In this chapter, research design, population, sample, sampling techniques, source and instrument of data collection, data collection procedure and methods of data analysis will be presented. In addition, the Gravity model and definition of explanatory variables will be presented. Although Gravity model was fitted using robust regression, model diagnostics tests will be covered in this chapter.

3.2. Research design

The type of research design followed in this study was partly descriptive and also casual research. It is partly descriptive because it describes and interprets findings from secondary data. It is partly casual or explanatory because it tries to determine cause and effect relationships between dependent and independent variables. The study employed mixed research methods i.e. both quantitative and qualitative.

3.3. Study population, sample and sampling techniques

3.3.1. Population of the study

The study population was eight African Union recognized economic blocs (IGAD, AMU, CEN-SAD, COMESA, ECCAS, EAC, ECOWAS and SADC); IGAD trading partner countries, government institutions such as Ministry of Foreign Affairs, Ministry of Trade, Revenue and Customs Authority, IGAD secretariat, African Union, and United Nation Economic Commission for Africa. Of the seven member states of IGAD region, Eritrea, South Sudan and Somalia were not included in the study due to lack of availability of adequate bilateral trade data; Eritrea has been suspended from IGAD membership in 2007 while South Sudan joined IGAD in 2011. Accordingly, five out of seven IGAD member states (Djibouti, Ethiopia, Kenya, Sudan and Uganda) were considered.

3.3.2. Level of analysis

This study was analyzed at regional economic community and country levels.

3.3.3. Sampling technique

Judgmental or purposive sampling was employed to meet the objectives of the study. The theoretical and practical reasons for using judgmental or purposive sampling in this study were: non-probability sampling represents a sampling technique that can be used in research that follows mixed methods like this one. Practical explanations were because the population to be studied was difficult to reach, lack of availability of required trade data, procedures used to select units for inclusion in a sample were much easier, quicker and cheaper when compared with probability sampling.

3.3.4. Sample size

Determination of sample size was done cognizant of partly descriptive and partly casual nature of the research design. In order to address the descriptive part of research questions i.e., comparison of intra-block and extra-bloc trade performance of IGAD vis-à-vis other African Union recognized economic units, panel data (aggregate and disaggregate) of 17 years (1996-2012) were used.

In order to address the causal part of this study i.e. to examine gross trade creation/expansion effects resulting from the formation of IGAD, partner countries were selected on the basis of volume of trade and availability of required data. According to IGAD Affairs Directorate at the Ethiopian Ministry of Foreign Affairs, in 2012, IGAD region traded with 47 key partner countries of the world with the total bilateral trade of US\$ 43.2 billion. The bilateral trade value between IGAD and these partners range from minimum of US\$ 723,015 to maximum of US\$ 8.47 billion, while the average bilateral trade was US\$ 1.72 billion. Using the minimum and maximum trade value, the 47 trading partners were stratified into four groups as shown below.

Table 3. Selection of IGAD's partner countries by trade value (2012)

Minimum value of trade (in billion US\$)	Maximum value of trade (in billion US\$)	Total number of trading partner countries	Number of selected trading partners	Share of representation of selected trading partner countries (%)
0.000723015	2.12	14	7	50.00
2.13	4.24	9	3	33.33
4.25	6.36	11	6	54.55
6.37	8.48	13	4	30.77
		47	20	42.55

Source: author's construction

Accordingly, based on stratified trade value, 20 partner countries were selected as major trading partners of IGAD nations. Stratifying IGAD's partner countries based on their trade value and select them proportionally from each of the stratum was done to increase representativeness of trading partners in the sample. The combined total trade value of 20 selected partner countries of IGAD in 2012 was US\$ 39.7 billion or around 92% of the total trade transacted between IGAD and its 47 partner countries. As to the geographical composition of 20 countries Asian countries constitute 30% share; EU countries take 35%, 15% from Middle East, 5% from USA and 15% from the rest of Africa. In total, including 5 IGAD members, 25 countries were selected for analyzing trade creation effects of IGAD using Gravity model. These include: five IGAD nations (Djibouti, Ethiopia, Kenya, Sudan and Uganda); seven countries from European Union (Austria, France, Germany, Italy, Netherlands, Russia and United Kingdom); six from Asia (China, India, Indonesia, Japan, Malaysia and Pakistan); three countries from Middle East (Qatar, Saudi Arabia and United Arab Emirates); three from the rest of Africa (Egypt, Nigeria and South Africa); and USA. The units of observation for causal research part (Gravity model) are pair of countries; so with n countries there are $n * (n-1)$ observations i.e., with 25 countries, $25*(24-1) = 600$ observations were used as final sample size for augmented Gravity model.

3.4. Source of data and instruments of data collection

Considering the constraints of getting primary data on international trade, the study relied on secondary sources of data. For descriptive part of the study, aggregate and disaggregated panel data for the period covering 1996-2012 were used to compare and contrast level of trade

performance of IGAD vis-à-vis other African Union recognized economic blocs. The year 1996 had important implication in this study as it was the time that IGAD revitalized its mandate from conflict resolution, drought and food security intervention to expanded role of economic cooperation among member nations.

For the explanatory research part of the study, aggregate cross-section data for 25 countries and year 2012 was considered in order to apply Gravity model and examine gross trade creation effects of IGAD. Classical Gravity models generally used cross-section data to examine trade effects and trade relationships for a particular time period, for example one year. Although panel data have certain advantages (e.g. panels can capture the relevant relationships among variables over time, and panels can monitor unobservable trading-partner-pairs' individual effects), classical gravity model generally used cross-section data to estimate trade effects of regional economic blocs and trade relationships for a particular time period, for example one year. There are vast empirical literatures on the Gravity model using cross-section data (Sohan, 2005; Freenstra *et al*, 2001; Augier *et al*, 2005; Musila, 2005; Rahman, 2009). Hence, for econometric analysis of trade effects of IGAD, we followed the classical tradition of estimation of Gravity model with aggregate cross-section data for the year 2012.

The variables used for estimation of Gravity model were taken from reliable and well managed secondary sources of World Bank and United Nations database. Data on distance, common border and common language were taken from the data base of CEPII –Research Expertise on the World Economy (<http://www.cepii.fr>). Bilateral trade, GDP and per capita GDP data were collected from United Nations Commodity Trade (UNCOMTRADE) database (<http://www.uncomtrade.org>) and United Nations Conference on Trade and Development (UNCTAD) (<http://unctadstat.unctad.org/>). Direction of trade data was taken from the World Development Indicators (WDI-CD ROM) of the World Bank, Direction of Trade Statistics (DOTS) of International Monetary Fund (2012), and the Central Intelligence Agency's website called the World Fact Book (2012).

The data collection instruments employed in this study were largely document review. A sequential form of data collection approach was used. First quantitative data was collected and

analyzed from secondary sources. This made it possible to have a clear identification of the need to validate and triangulate findings from quantitative analysis, which in-turn propelled the collection of opinions of experts. Having developed structure questionnaire and got feedback from research project advisor, interview administered questionnaire was used to capture the views of experts relevant to the study. The focus of the interviews, among other things, hinged on level of economic integration progress and performance of IGAD in achieving integration plans, economic, political and strategic issues hindering the IGAD integration process. Accordingly, twelve experts were consulted consisting of (1) the Ministry of Trade, (2) the Ethiopian Revenue and Customs Authority, (3) the Ministry of Foreign Affairs –IGAD Affairs Directorate, (4) Infrastructure and Trade Division of United Nations Economic Commission for Africa, and (5) the African Union. In addition, the same structured questionnaire was e-mailed to relevant experts at the headquarters of IGAD in Djibouti. The outcomes of interview held with the above mentioned experts were first analyzed and then used for content validation. To this effect, triangulation of findings from quantitative analysis was made with that of expert opinion to validate findings from respective research questions of the study as well as to review as to what extent did IGAD’s underlying economic integration objectives upon which it has been established and plans set in Abuja Treaty (1991) was achieved.

3.5 Methods of data analysis

The study applied descriptive and econometric approaches of data analysis as presented below. The descriptive (average, percentage, trade indices, charts and graphs) and econometric analysis was made using statistical software called STATA 10. The parameter estimation of Gravity model was made using Ordinary Least Square (OLS) technique with robust regression.

3.5.1. Descriptive statistics

Percentages, averages, graphs and charts were used to compare and contrast the level of intra-trade and extra-trade performance of IGAD vis-à-vis other African Union recognized economic communities. In addition, trade indices of regional interdependence were used. One-to-one and ranking method was applied to compare trade performance between IGAD and other RECs.

Indicators of regional trade interdependence: a trade indicator is an index or ratio to describe and assess the state of trade flows and trade patterns of a particular economy (Mikic and Gilbert, 2007). The World Bank and the Organization for Economic Cooperation and Development (OECD), among others, have been promoting the use of trade indicators (indices) to help policy makers, advisors and analysts identify border and behind-the-border constraints to trade integration. Following Lapadre and Proietti (2009), six main indicators were generally used in this study: (i) Intraregional Trade Share, (ii) Trade Openness Index, (iii) Export Concentration Index, (iv) Revealed Comparative Advantage Index, (v) Trade Facilitation Index (Ease of Doing Business Index) and (vi) trade Logistics Performance Index (LPI) were used. These indices can be used for a single country or a group of countries to measure the regional direction of trade.

(i). Intra-regional Trade Share: is intra-regional trade as a percentage share of the region's total trade (regional total imports plus regional total exports):

$$\text{Intra-region Trade Share} = ITS_{i,t} = \frac{IT_{i,t}}{T_{i,t}}$$

where $IT_{i,t}$ denotes region i 's intra-regional trade in year t ; $T_{i,t}$ denotes region i 's total trade in year t (i 's total imports plus total exports). $0 \leq ITS \leq 1$. This indicator shows the level of trade within the region compared to the overall trade of all regional members (Plummer *et al*, 2004). The value ranges from 0 to 1. This indicator reflects how important it is the intra-regional trade of a particular regional arrangement in its overall trade. The higher the bloc's share of world trade, the higher the intra-regional share tends to be. Extra-region Trade Share is computed one minus ITS.

(ii). Trade Openness Index is measured by total trade of an economy expressed as a percentage of nominal GDP in dollars. A higher value indicates a more open economy.

(iii). Export Concentration Index reflects the degree of export concentration within a country. The sectoral export concentration index is defined as the square root of the sum of the squared shares of exports of each industry in total exports for the region under study. It takes a value between 0 and 1, with 1 indicating that only a single product is exported. Higher values indicate that exports are concentrated in fewer sectors. On the contrary, values closer to 0 reflect

a more equal distribution of market shares among exporters. Despite its use, this type of concentration indicator tends to be quite vulnerable to cyclical fluctuations in relative-prices, in a way that commodity price rises make commodity exporters look more concentrated.

(iv). Revealed Comparative Advantage was introduced by Balassa (1965) and used to discover the products in which a country has a comparative advantage or help assess a country's export potential. The Revealed Comparative Advantage of country *i* for product *j* is often measured by the product's share in the country's export in relation to its share in world trade:

$$\text{Revealed Comparative Advantage: } RCA_{ij} = \frac{(x_{ij}/X_{it})}{(x_{wt}/X_{wt})}$$

where x_{ij} and x_{wt} are the values of country *i*'s export of product *j* and world exports of product *j* and where X_{it} and X_{wt} refer to the country's total exports and world total exports. A value of less than unity implies that the country has a revealed comparative disadvantage in the product. Similarly, if the index exceeds unity, the country is said to have a revealed comparative advantage in the product. The larger the difference between countries' RCA indices, the more suitable they are as regional economic bloc members.

(v). Trade Facilitation Index (Ease of Doing Business Index): is an index created by the World Bank. Economies are ranked on their ease of doing business, from 1 – 185 (with 1=most business-friendly regulations or best). A high ranking means that the regulatory environment is conducive to business operation. Higher rankings indicate better, usually simpler, regulations for businesses and stronger protections of property rights.

(vi). Trade Logistics Performance Index (LPI): is an overall score (scale with 1=low and 5=high) of the weighted average of the country scores on the six key dimensions: (1) Efficiency of the clearance process (i.e., speed, simplicity and predictability of formalities) by border control agencies, including customs; (2) Quality of trade and transport related infrastructure (e.g., ports, railroads, roads, information technology); (3) Ease of arranging competitively priced shipments; (4) Competence and quality of logistics services (e.g., transport operators, customs brokers); (5) Ability to track and trace consignments; (6) Timeliness of shipments in reaching destination within the scheduled or expected delivery time. The index ranges from 1 to 5, with a higher score representing better performance.

Given the importance of trade indicators in revealing trade interdependence, they cannot determine the cause of a particular state or trend in trade flows.

3.5.2. Gravity model and definition of variables

This empirical test is designed to address the research question of trade creation effects of IGAD. To this effect, an extended Gravity model of bilateral trade was used taking total volume of bilateral trade (import plus export) as dependent variable and explanatory variables consisting of demand and supply factors (GDP, per capita GDP difference, etc.), trade resistance factors (geography as proxy of transport costs and home bias) and trade preference factors (preferential trade agreements, common language, common border, etc.). The dependent and explanatory variables used to analyze trade creation effects of IGAD were selected on the basis of past literature and relevance to this study.

Dependent variable: total bilateral trade (TRADE) value in US dollars was considered to measure total trade between trading countries. The measure of bilateral trade between countries i and j in period t, T_{ij} , is defined as follows:

$$T_{ij} = \ln(X_{ij} + X_{ji}) = TRADE$$

where X_{ij} denotes total exports from country i to country j and exports from country j to country i in 2012. The dependent variable in the gravity model is bilateral trade between the pairs of countries. Analogous to Newton's law of gravitation, the augmented gravity model of trade in this study is in multiplicative forms given as follows:

$$TRADE_{ij} = \alpha(GDP_{expimp})^{\beta_1}(pGDPdiff)^{\beta_2}(DIST)^{\beta_3}(ComLang)^{\beta_4}(ComBorder)^{\beta_5}(IGADt)^{\beta_6}U_{ij} \dots (3.1)$$

Taking natural logarithm of the variables in equation (3.1) gives, log-transformed gravity model described below.

$$\ln TRADE_{ij} = \ln \alpha + \beta_1 \ln GDP_{expimp} + \beta_2 \ln pGDPdiff + \beta_3 \ln DIST + \beta_4 ComLang + \beta_5 ComBorder + \beta_6 IGADt + e_{ij} \dots (3.2)$$

where $TRADE_{ij}$ is total bilateral trade between exporter i and importer j countries; $\ln[\alpha] = \beta_0$ is constant term; GDP_{expimp} is product of GDP of import and export countries; $pGDPdiff$ is the absolute value of per capita GDP difference between exporter and import countries; $DIST$ is distance between export and importer countries; $ComLang$ is common official language of a pair of trading countries; $ComBorder$ is common border shared between exporter and importer countries; $IGADt$ is dummy variable for IGAD's intra-bloc, $e_{ij} = \ln[U_{ij}]$ is the error term while $\ln[]$ is natural logarithm operator. Error term e_{ij} is assumed to be normally distributed with zero mean and constant variance for all observations. The error term is assumed to be pair-wise uncorrelated. If all these assumptions hold, then Ordinary Least Squares (OLS) estimates are consistent, unbiased and efficient within the class of linear models.

Equation (3.2) includes explanatory variables that determine bilateral trade. The description of explanatory variables included in the augmented Gravity model is described below.

Rationale and definition of explanatory variables: as indicated in the above equation (3.2), six explanatory variables were selected based on review of empirical studies and their relevance to the study.

- 1) **Gross Domestic Product (GDP)** - it is a measure of economic scale or mass of partners, i.e., importers and exporters in USD. Empirical results from gravity models have shown that measures of economic scale are important determinants of bilateral trade. We follow much of the empirical studies by including the log of the product of the two countries' levels of GDP as a scale variable in the group of explanatory variables. Growth in economic capacity of both exporter and importer countries boost trade flows. The expected sign is positive.
- 2) **Per Capita GDP Difference (pGDPdiff)** - it is the absolute value of the difference in GDP per capita income between importer and exporter measured in USD. It is included to explore whether Hecksher-Ohlin theory or Linder hypothesis dominates the bilateral trade. The Hecksher-Ohlin hypothesis predicts that countries with dissimilar levels of per capita income will trade more than countries with similar levels. Linder hypothesis predicts that countries with similar levels of per capita income will trade more with each other, as they will have similar preferences for differentiated products. Thus, expected sign of this coefficient is

indeterminate i.e. it could be positive or negative. If Linder hypothesis holds, the coefficient will be negative; if Hecksher-Ohlin theory holds, the coefficient will turn positive.

- 3) **Distance (DIST)** - the distance between the centers of capital cities of pair of trading countries measured in kilometers. The greater is the distance between two countries, the higher are the costs associated with transporting goods, thereby reducing the gains from trade and reducing trade itself.
- 4) **Common Official Language (ComLang)** - measures of 'cultural distance' have also been considered as determinants of international trade. The most commonly used measure of 'cultural distance' is an indicator of common language, which takes the value 1 if the country pair shares the same language and zero otherwise. This variable is expected to have a positive coefficient as it reflects a common past and a lower transaction cost related to the language. This dummy variable helps to answer whether it makes a difference if countries use the same official language or not.
- 5) **Common Border (ComBorder)**: a dummy variable which takes value of 1 if a pair of countries shares common land border and 0 otherwise. Its coefficient is expected to be positive; sharing a common border or adjacency is a source of more increased trade between countries because of the effect of trans-border trade, among other things.
- 6) **Regional Dummy (IGADt)**- is the main interest variable of this study. Countries enter into regional economic bloc with the objective of increasing trade. Nations, with a reduction in certain 'friction to trade' (e.g. lowering of tariff barriers) would trade more each other (i.e., trade creation) than where 'friction to trade' were more prevalent (the presence of tariff barriers, etc.) i.e. trade diversion. The introduction of regional dummy variable helps to estimate the trade creation effect of IGAD bloc and answer whether it makes a difference if countries belong to the same regional bloc or not. Following empirical studies of Mulisa (2005), Mengesha (2009), Edris (2013), Jayasinghe and Sarker (2004), Carrer (2006), a dummy variable $IGADt_{ij}$ was included to capture intra-bloc as follows:

$IGADt_{ij}$ is a dummy variable that captures the total intra-regional trade bias. It assumes a value of 1 if both trading partners belong to IGAD and 0 otherwise. A positive and significant coefficient indicates trade creation.

The Gravity model was specified in natural logarithm (ln) form. Hence, the coefficient show elasticity estimates with respect to various continuous explanatory variables specified in log form. The effect of dummy variables was computed using this formal: $(e^{\beta_i} - 1) * 100\%$, where β_i is the estimated coefficient.

3.6 Gravity model diagnostic tests

Cross-section data for the year 2012 was used to estimate the Gravity model. Hence, the occurrence of heteroscedasticity, multicollinearity and autocorrelation is possible. The Stata **regress** command includes a **robust** option for estimating the standard errors using the Huber-White sandwich estimators. Chen *et al* (2003) suggested that such robust standard errors can deal with a collection of minor concerns about failure to meet assumptions, such as minor problems about normality, heteroscedasticity, or some observations that exhibit large residuals, leverage or influence. For such minor problems, the robust option may effectively deal with these concerns (Chen *et al*, 2003). With the **robust** option, the point estimates of the coefficients are exactly the same as in ordinary OLS, but the standard errors take into account issues concerning heterogeneity and lack of normality.

Following (Chen *et al*, 2003), the STATA command called '**regress** dependent variable and list of six independent variables followed by commands of **robust** and **cluster (variable)** was used to run OLS estimation of the augmented gravity model. Errors are likely to be correlated by country pair in the Gravity model context, so it was important to allow for clustering by country pair. To do this, it was necessary to specify a clustering variable that separately identifies each country pair independently on the direction of trade. An example is distance, which is unique to each country pair but is identical for both directions of trade. A common option specification is therefore **cluster (distance)**. The command **cluster (variable)** allowed for correlation of the error terms within groups defined by **variable**.

3.6.1. Reverse causality

In estimating the Gravity model to assess the effect of regional economic bloc on bilateral trade, we may have reverse causality between total trade and Regional Trade Agreement (RTA)

variables if countries that trade intensively are most likely to form RTAs (Baier and Bergstrand, 2007). The African RTAs were, however, formed at a moment in time when intra-regional trade was still at a very low level. In addition, membership of RTAs is by and large determined by geographical factors rather than trade (Straathof *et al*, 2008). Therefore, the reverse causality was assumed as highly unlikely in this study.

3.6.2. Checking multicollinearity

When there is a perfect linear relationship among the predictors, the estimates for a regression model cannot be uniquely computed. The primary concern is that as the degree of multicollinearity increases, the regression model estimates of the coefficients become unstable and the standard errors for the coefficients can get wildly inflated. High multicollinearity increases variances of OLS estimator and lowers the significance levels of estimates. This can increase the chance of type II error. Tools such as correlation matrix of explanatory variables, variance inflation factor (VIF) and tolerance are commonly used to check degree of multicollinearity among explanatory variables. VIF stands for *variance inflation factor*; as a rule of thumb, a variable whose VIF values are greater than 10 may merit further investigation. Tolerance, defined as $1/VIF$, is used by many researchers to check on the degree of collinearity. A tolerance value lower than 0.1 is comparable to a VIF of 10; it means that the variable could be considered as a linear combination of other independent variables. On the other hand, Gujarati (1995) and Judge *et al.* (1988) suggested correlation of 0.8 between explanatory variables to be the critical threshold for indicating serious problem of multicollinearity. The study followed both VIF and 0.8 critical threshold suggested by Gujarati (1995) and Judge *et al.* (1988) to check the seriousness of multicollinearity.

3.6.3. Reliability and validity

The study attempted to measure the internal consistency of cross-section data used for augmented Gravity model. In this regard, Cronbach alpha coefficient, which is based on the average correlation among items, was computed using STATA 10 software. Although, there is no generally agreed cutoff, the higher the alpha is, the more reliable the test is. A reliability coefficient alpha is excellent if alpha is larger than 0.75; acceptable if alpha is between 0.40 and

0.74 and poor if alpha is less than 0.4 (Nunally, 1978; Sreiner and Norman, 2008). Expert opinions and literature search were first analyzed and then used to establish content validity. Triangulation of quantitative and qualitative analysis was made to ensure the consistency of findings corresponding to each research questions.

3.6.4. Ethical issues

While undertaking interview administered questionnaire, the consent of respondents were obtained and the objectives, methods used and the demands of the study were informed. Respondents provided their response voluntarily and reassured that the privacy of their response was maintained. The integrity of data collection, analysis and reporting of results were maintained.

CHAPTER 4. RESULTS AND DISCUSSION

4.1. Introduction

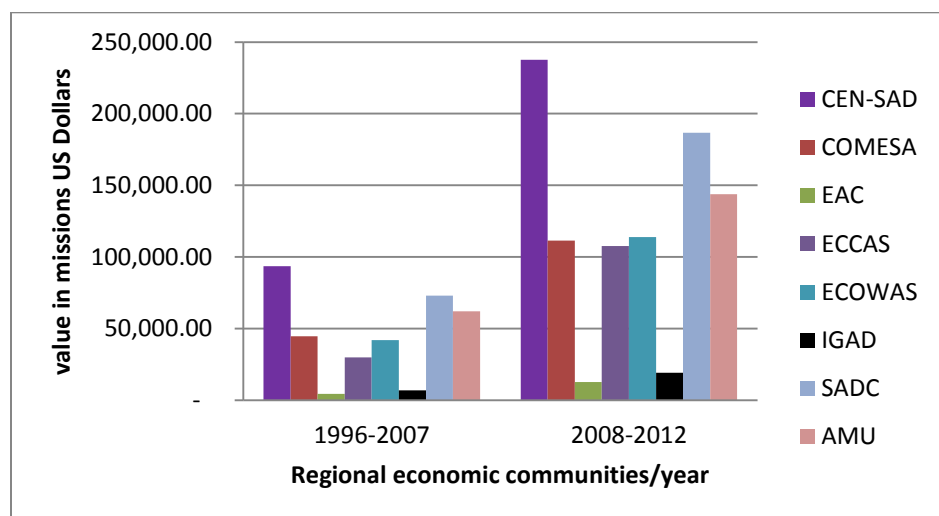
This chapter deals with results of quantitative and qualitative analysis and triangulation of results corresponding to respective research questions.

4.2. Quantitative and qualitative results

[1]. Level of extra-group and intra-group trade performance of IGAD region between 1996- 2012 vis-à-vis other African Union recognized economic communities

As it is inferred from Figure 2, the global trade performance of regional economic communities show mixed results. The average global export of goods from CEN-SAD was the highest during 1996-2012 followed by SADC region. COMESA and ECOWAS had more or less similar export performance. On the other hand, the global share of exports from IGAD region was similar with that of AMU during 1996-2007, with slight increase during 2008-2012. Like other regional economic blocs, IGAD's export to the world slightly increased during 2008-2012 as compared to 1996-2007. Yet, IGAD's share of global export remained to be one of the least compared to CEN-SAD, COMESA, ECCAS, ECOWAS, SADC and AMU regions.

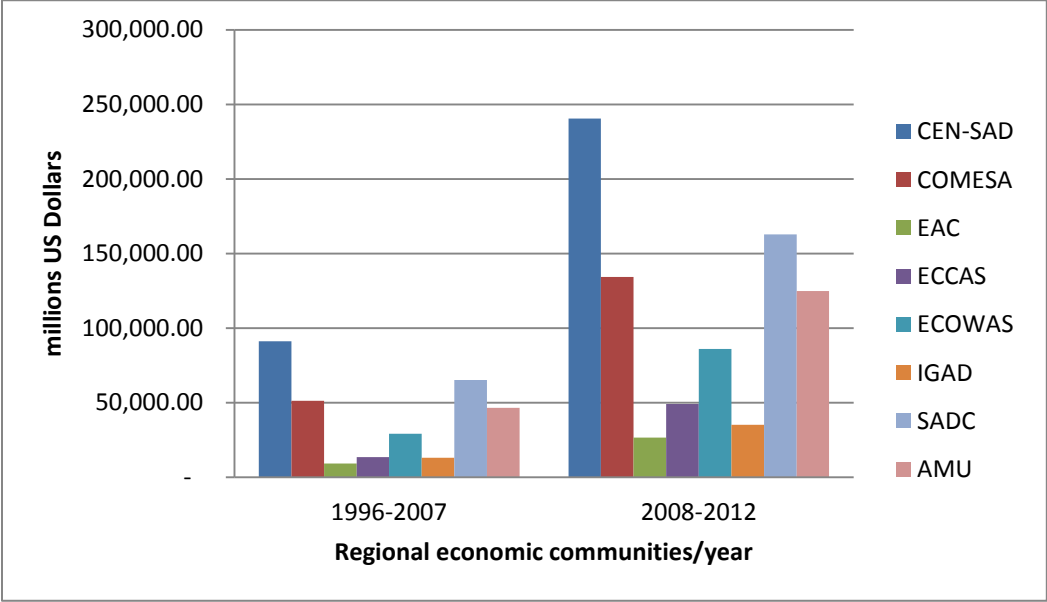
Figure 2. Average global trade in goods export (1996) in USD



Source: author's computation using data from UNCTADstat, UNCTAD

Similarly, from Figure 3, we can observe that IGAD’s share of global import was the least as compared to CEN-SAD, COMESA, ECCAS, ECOWAS, SADC and AMU during 1996-2012. CEN-SAD and SADC were not only top exporters but also top two importers during 1996-2012.

Figure 3. Average global trade in goods-imports (1996-2012) in USD



Source: author’s computation using data from UNCTADstat, UNCTAD

In general, although there is a slight improvement in trade performance of IGAD from 1996-2007 to 2008-2012, its global export and import share remained the least as compared to CEN-SAD, COMESA, EAC, ECCAS, ECOWA, and SADC.

Intra-bloc and extra-bloc trade performance of IGAD compared to other AU recognized RECs

Table 4 shows the ranks of Africa’s regional economic communities in intra-community trade, based on percentages shares of intra-group exports and imports during 1996–2012. Accordingly, SADC ranks first and accounted for the largest shares of exports; around 36% of intra-group exports and 42% of intra-group imports. Partly, this reflects that the export oriented countries of SADC which are strong in the exports of diamonds; countries such as South Africa, Botswana, Lesotho and Namibia constitute the dominant share of their exports to the European Union. In

contrast, IGAD's share of intra-group exports and imports was the least; it was seventh in rank (out of eight AU-recognized regional blocs) consisting around 3% each of intra-group exports and imports in 1996-2012.

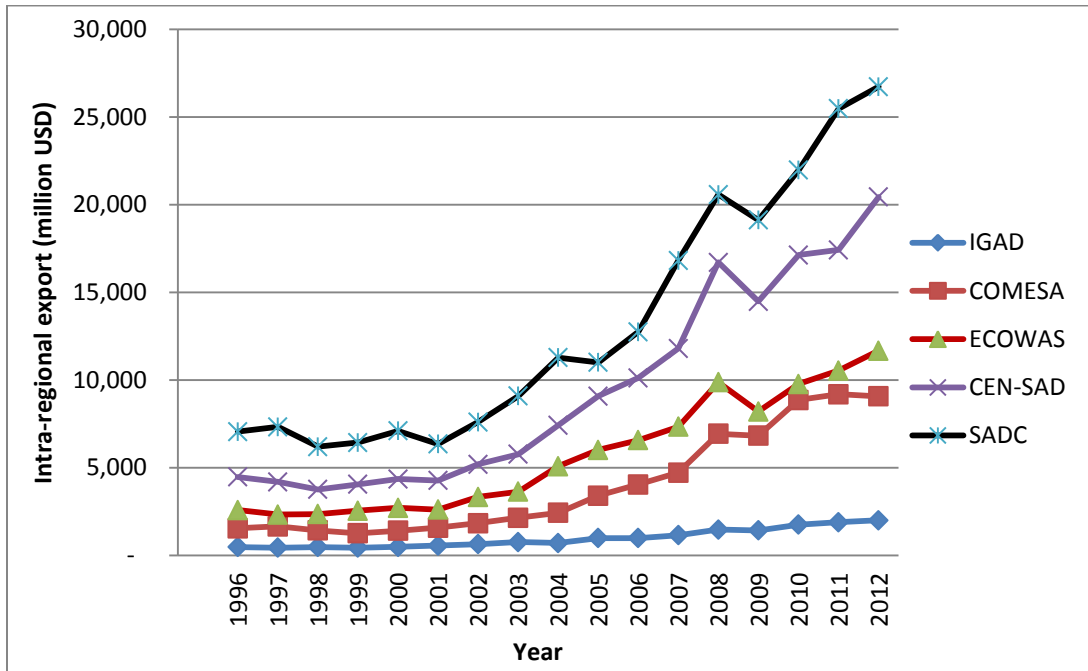
Table 4. Shares and rankings of RECs in intra-bloc exports and imports, 1996-2012 (%)

Regional economic community	Intra-group exports		Intra-group imports	
	Shares (%)	Rank	Shares (%)	Rank
SADC	35.92	1	41.64	1
CEN-SAD	25.22	2	21.98	2
ECOWAS	15.43	3	12.77	3
COMESA	10.26	4	10.32	4
AMU	5.95	5	5.54	5
EAC	3.25	6	3.53	6
IGAD	2.68	7	2.81	7
ECCAS	1.31	8	1.43	8

Source: author's computation using data from UNCTADstat, UNCTAD

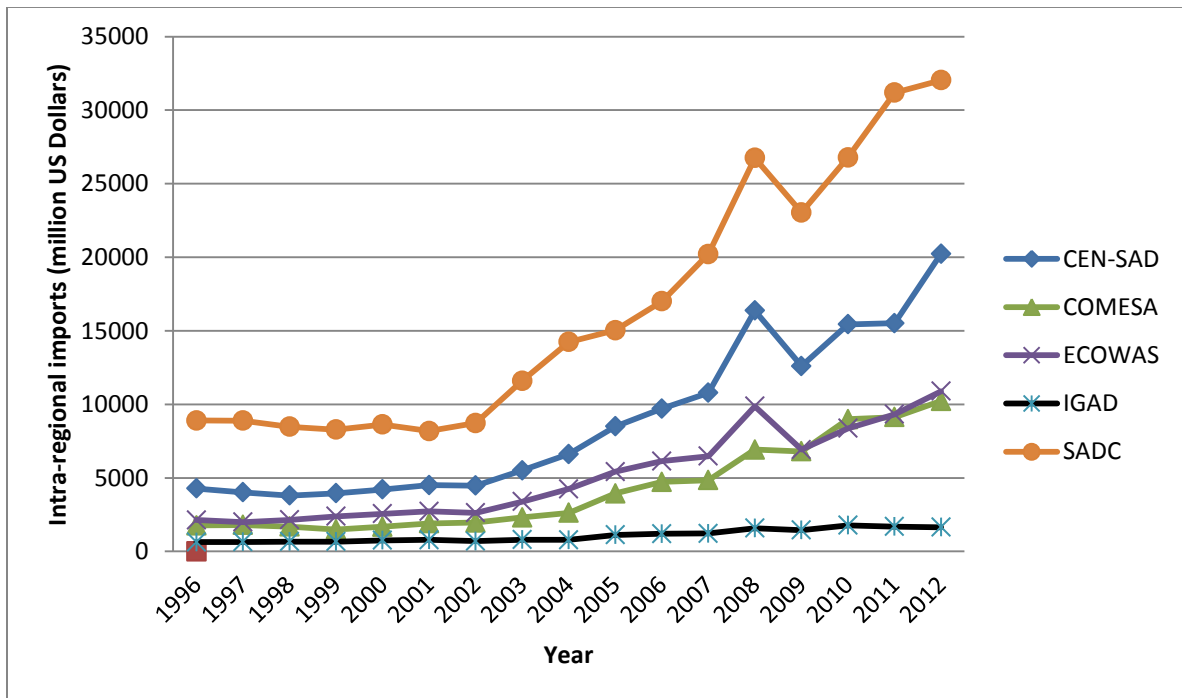
From Table 4, we can observe that except ECCAS, IGAD's trade performance in intra-group exports and imports was the least as compared to other blocs. This finding is shown better under Figure 4 and Figure 5, in which IGAD's intra-export and intra-import performance has been the least throughout the period 1996-2012. In general, analysis of intra-regional trade performance shows that IGAD's efforts in economic integration, particularly trade integration, have lagged behind those of other AU-recognized economic blocs.

Figure 4. Intra-regional exports of selected RECs (1996-2012)



Source: author's computation using data from UNCTADstat, UNCTAD

Figure 5. Intra-regional imports of selected RECs (1996-2012)



Source: author's computation using data from UNCTADstat, UNCTAD

- **Goods and services trade openness index**

Table 5 shows that IGAD’s total trade as a percentage of GDP was the least as compared to other regional blocs during 1996-2012 implying that IGAD’s economy was not open as compared to other blocs.

Table 5. Total trade in goods and services as percentage of GDP (1996-2012)

YEAR	Average (1996-2000)	Average (2001-2005)	2006	2007	2008	2009	2010	2011	2012
CEN-SAD	55.01	63.65	71.22	74.29	78.26	65.57	67.95	68.75	67.92
COMESA	47.83	58.81	70.11	73.73	75.62	61.73	64.88	59.26	62.03
EAC	53.66	45.86	54.95	56.35	62.02	55.82	62.23	71.11	66.48
ECCAS	80.24	91.76	97.71	106.23	112.43	97.38	100.35	100.51	98.31
ECOWAS	67.18	68.56	67.94	69.51	73.40	66.49	68.42	76.94	70.35
IGAD	48.53	42.05	44.95	44.52	47.89	43.38	47.87	50.51	43.37
SADC	58.19	65.91	72.46	78.39	88.57	71.27	70.22	74.26	74.48

Source: compiled from UNCTADstat, UNCTAD

- **Ease of doing business index of IGAD member nations**

Table 6 shows ease of doing business index of IGAD nations out of 185 countries considered by the World Bank in 2013. Accordingly, doing business in IGAD region appeared to be difficult. From within IGAD nations, the index was relatively better in Uganda followed by Kenya and Ethiopia. Djibouti was the least in terms of ease of doing business. We can infer from Table 6 that IGAD member nations were in the bottom list of ranking that ranges from the rank of 120 to 171 out of 185 countries. The indices showed how difficult it was for a local entrepreneur in IGAD region to open and run a small to medium-size business when complying with relevant regulations. In general, we can observe that the major difficulties that businesses in IGAD region came across were lengthy customs procedures; inefficient and costly transit systems; difficulties of starting a business, trading across borders, enforcing contracts and lengthy customs procedures.

Table 6. Trade facilitation (ease of doing business index, out of 185 countries)

Country	Ease of doing business (rank)	Trading across borders (rank)	Documents to export (number)	Time to export (days)	Cost to export (US\$ per container)	Documents to import (number)	Time to import (days)	Cost to import (US\$ per container)
Djibouti	171	41	5	18	836	5	18	911
Ethiopia	127	161	7	42	2,160	9	44	2,660
Kenya	121	148	8	26	2,255	7	26	2,350
Sudan	143	153	7	32	2,050	7	46	2,900
Uganda	120	159	7	33	3,050	9	33	3,215

Source: Compiled from the World Bank (2013)

- **Logistics performance index of IGAD nations**

Table 7 shows the quality of trade and transport related infrastructure measured by Logistic Performance Index in the IGAD region. The higher the score the better is the trade logistics. From Table 7, we can observe that trade logistics in IGAD region was underdeveloped and much remains to be done.

Table 7. Logistics performance index

Country	LPI Score (2004-2008)	LPI Rank (2012)	LPI Score (2012)
Kenya	2.59	122	2.43
Ethiopia	2.41	141	2.24
Sudan	2.21	148	2.10
Djibouti	2.39	154	1.80
Uganda	2.82	-	-

Source: compiled from <http://data.worldbank.org/> as of March 2014

[2]. Sectoral variation of intra-group export in IGAD region

Table 8 below shows sectoral level variation of intra-trade in the IGAD region in comparison with other AU-recognized regional economic blocs. AMU's intra-group export was higher in fuels (8.95%) followed by manufactured goods (6.56%). Intra-group export of CEN-SAD was

the highest in fuel sector (34.54%) followed by food items (28.12%). Beverage and tobacco accounts 19.14% of COMESA’s intra-group export while food items account for 17.02%. Beverage and tobacco was IGAD’s top intra-group export followed by food; it represents around 5.15% of beverage and tobacco and 5.10% of food products in the intra-group export during 1996-2012. IGAD’s intra-group export was the least on chemicals, fuels, machinery and transport equipment as well as manufactured goods; it represents 2.2% of chemicals, 1.56% of fuels, 1.51% of machinery and transport equipment and 2.49% of manufactured goods. SADC’s intra-group export was highest on machinery and transport equipment and beverage and tobacco; it consists of 61% of machinery and transport equipment and 42% of beverage and tobacco.

Table 8. Intra-group export by product, average 1996-2012, percentage

Regional economic bloc	Beverage & tobacco	Chemicals	Food, basic	Fuels	Machinery & transport equipment	Manufactured goods
AMU	1.15	6.05	5.05	8.95	3.86	6.56
CEN-SAD	15.78	24.40	28.12	34.54	13.79	22.44
COMESA	19.14	12.72	17.02	3.79	6.90	16.04
EAC	3.70	4.25	4.43	1.78	2.31	4.94
ECOWAS	10.54	11.72	11.48	28.51	6.71	9.03
IGAD	5.12	2.20	5.10	1.56	1.51	2.49
SADC	42.38	37.99	27.81	19.60	60.78	37.40

Source: author’s computation using data from UNCTADstat, UNCTAD

From Table 8, the structure and composition of trade in most regional economic blocs of Africa concentrates on export of primary commodities (food, fuels, beverage and tobacco) implying no significant sectoral variation exist between IGAD and other AU-recognized blocs.

- **Intra-regional Trade Share Index**

Table 9 shows that intra-regional trade share was the highest for SADC; it accounted for 13.83% followed by 12.23% of ECOWAS. SADC, ECOWAS, EAC, COMESA and CEN-SAD have higher share of world trade as compared to IGAD implying they have higher degree of

dependency on regional trade. In contrast, IGAD's share of world trade was lower (i.e. 6.56%) implying lower degree of dependency on intra-regional trade as compared to the rest blocs.

Table 9: Intra-regional trade share index (2000-2010)

Year	CEN-SAD	COMESA	EAC	ECOWAS	IGAD	SADC
2000	6.82	5.63	11.77	11.12	7.88	14.17
2001	6.78	6.07	10.14	11.19	6.47	14.24
2002	7.36	7.38	13.64	12.15	7.90	16.05
2003	7.10	7.96	14.80	10.48	7.75	15.57
2004	8.16	6.91	13.32	24.65	6.33	14.70
2005	8.97	7.84	13.45	23.66	6.33	13.29
2006	6.89	9.26	10.36	9.66	5.49	12.04
2007	6.30	6.88	10.23	8.69	6.00	13.18
2008	7.17	6.04	10.05	11.05	4.67	13.92
2009	5.76	6.32	11.00	7.52	5.12	12.85
2010	4.41	6.00	11.00	4.32	8.21	12.15
Average	6.88	6.94	11.80	12.23	6.56	13.83

Source: author's computation based on UNCOMTRADE data

Export concentration index: IGAD versus other AU-recognized economic blocs

As Table 10 shows, IGAD region as a whole had relatively higher concentration index as compared to EAC and SADC but lesser concentration compared to ECOWAS.

Table 10: Export concentration index for some selected regional blocs

Regional blocs	2005	2006	2007	2008	2009	2010	2011	2012	Average 2005-2012
EAC	0.16	0.14	0.13	0.13	0.14	0.14	0.14	0.13	0.14
ECOWAS	0.65	0.67	0.66	0.64	0.58	0.58	0.61	0.62	0.63
IGAD	0.29	0.30	0.34	0.48	0.40	0.35	0.34	0.18	0.34
SADC	0.24	0.26	0.29	0.34	0.28	0.27	0.30	0.33	0.29

Source: compiled from UNCTADstat, UNCTAD

- **Export concentration index of individual IGAD member nations**

Table 11 shows that nearly all members of IGAD nations had a higher export concentration, implying that IGAD countries were reliant on narrow range of products for their exports. Sudan stood first in rank due to its fuel dominated exports followed by Ethiopia, Djibouti, Uganda and Kenya. In addition to high concentration of IGAD’s exports on few primary commodities, there was similarity in export items. IGAD region did not achieve significant levels of diversification which could have enabled them to mitigate the effects of negative trade shocks.

Table 11: Export concentration index for IGAD nations

RECs/year	2005	2006	2007	2008	2009	2010	2011	Average 2005-2011	Rank
Sudan	0.61	0.61	0.63	0.87	0.78	0.72	0.77	0.71	1
Ethiopia	0.38	0.42	0.35	0.38	0.33	0.35	0.36	0.37	2
Djibouti	0.15	0.19	0.43	0.42	0.41	0.34	0.24	0.31	3
Uganda	0.26	0.25	0.20	0.22	0.21	0.19	0.21	0.22	4
Kenya	0.21	0.19	0.18	0.19	0.21	0.2	0.19	0.20	5

Source: author’s calculation using data compiled from UNCTADstat, UNCTAD

- **Trade composition and pattern in IGAD Region**

As it is shown under Table 12, the economy of IGAD region is characterized by concentration on few primary commodities. During 2000-2012, fuels, food items, agricultural raw materials, ores, metals, pearls, precious stones and non-monetary gold, altogether constituted the last share of exports taking an average 85% of IGAD’s merchandise exports.

Table 12: The structure of merchandise exports of IGAD region, 2000-2012

S.N	Products	Percentage of total exports					
		2000	2005	2010	2011	2012	Average (2000-2012)
1	Primary commodities						
1.1	Fuels	31.72	44.20	34.85	37.04	8.65	37.84
1.2	All food items	43.05	28.99	26.40	32.36	42.44	32.13
1.3	Agricultural raw materials	9.25	8.90	18.08	6.46	8.94	9.35
1.4	Ores, metals, pearls, precious stones & non-monetary gold	3.78	3.81	8.69	9.32	16.65	6.17
	Sub-total (1)	87.79	85.90	88.02	85.18	76.68	85.48
2	Manufactured goods (cement, sugar, etc.)	7.22	8.55	6.80	8.72	12.78	8.51
3	Machinery & transport equipment	2.29	2.24	2.66	3.10	5.15	2.83
4	Chemical products	2.43	2.74	2.37	2.94	4.73	2.67
5	Others	0.27	0.58	0.15	0.05	0.65	0.51

Source: author's calculation using data from UNCTADstat, UNCTAD

- **Revealed comparative advantage index**

Comparative advantage is revealed if its index of a particular industry or product is greater than unity. As it is observed from Table 13, IGAD member nations had similar comparative advantage on food items and similar comparative disadvantages on manufactured goods, chemical products, machinery and transport equipment. In contrast, Kenya, Uganda and Djibouti had better comparative advantage on ores, metals, precious stones and non-monetary gold. On the other hand, Sudan had better comparative advantage in the export of fuels while Uganda had better export prospects in the export of beverages and tobacco as compared to others.

Table 13: Revealed comparative advantages of IGAD states

Country	Product						
	Food, basic	Beverages & tobacco	Ores, metals, precious stones, non-monetary gold	Fuels	Manufactured goods	Chemical products	Machinery & transport equipment
Djibouti	1.78	0.14	15.53	0.82	0.49	0.45	0.66
Ethiopia	8.29	0.46	0.44	0.10	0.09	0.08	0.08
Kenya	1.85	6.39	1.57	0.61	0.69	0.81	0.15
Sudan	5.05	0.10	0.59	7.05	0.09	0.26	0.12
Uganda	3.15	12.29	2.45	0.20	0.45	0.36	0.27

Source: Economic Commission for Africa (2013)

[3]. Status of gross trade creation effects of regional economic integration resulting from the formation of IGAD (econometric result)

Table 14: Ordinary Least Square (OLS) with robust regression

Dependent variable: lnTRADE

Explanatory variables	Coeff.	Robust Std. Error	t	P > t	[95% Conf. Interval]	
lnGDPexp_imp	0.9182686	0.0366877	25.03	0.000	0.8460231	0.9905141
lnDIST	-0.4520585	0.0946886	-4.77	0.000	-0.6385194	-0.265598
lnpGDPdiff	-0.064722	0.0825569	-0.78	0.434	-0.2272931	0.0978491
ComLang	0.3370469	0.2258268	1.49	0.137	-0.1076512	0.781745
ComBorder	0.8573443	0.3500284	2.45	0.015	0.1680678	1.546621
IGADt	0.8789715	0.7580226	1.16	0.247	-0.6137275	2.371671
Constant	-24.16192	2.510165	-9.63	0.000	-29.10494	-19.2189
Number of observations:		600	F(6, 258):		202.05	
Prob. > F:		0.0000	Adjusted R-squared:		0.7007	
R-squared:		0.7037	Root MSE:		1.6441	
Cronbach alpha:		0.5538				

*significant at 1% level; ** significant at 5% level

Source: author's computation using data from www.cepii.org, www.uncomtrade.org, unctadstat.unctad.org

R-squared and adjusted R-squared values are 0.7037 and 0.7007, respectively which indicate that overall performance of the gravity model is good. The coefficient of determination (R-squared) suggests that around seventy percent variation in the dependent variable ($\ln\text{TRADE}$) is being explained by the explanatory variables. The computed F-value, $F[6, 258]$, is 202.05 which is statistically significant at 1% level implying that the overall goodness of fit of the Gravity model is good.

- **Results of individual factors affecting bilateral trade**

Estimation of gravity model gave all signs of coefficients as expected by the economic theory. Results of the gravity model revealed that product of GDP of exporter and importer ($\ln\text{GDP}_{\text{expimp}}$) has positive and significant impact on bilateral trade as expected. Its coefficient is 0.9182686 and significant at one percent level of significance. This implies that growth in economic capacity boosts trade flows both in the importer and exporter countries. Its coefficient can be interpreted as keeping all other variables constant, a 1 percent point increase in product of the GDPs of exporter and importer will on average lead to increase the bilateral trade volume by 0.92 percent.

The variable distance ($\ln\text{DIST}$), which is a proxy for transport cost, shows a negative sign as expected. Its coefficient is -0.4520585 and significant at one percent level of significance. This suggests that distance has significant effect on bilateral trade. Its coefficient can be interpreted as keeping all other variables constant, a 1 percent point increase in transportation and information cost will decrease bilateral trade by 0.45 percent.

The coefficient of per capita GDP differential ($\ln\text{pGDPdiff}$) is negative. This result supports the Linder hypothesis suggesting that income similarity is the driver of trade instead of income differences, i.e. similar countries trade more than dissimilar ones. The coefficient of $\ln\text{pGDPdiff}$ is -0.064722 and statistically insignificant at five percent level of significance. Accordingly, we conclude that per capita GDP difference has insignificant effect on bilateral trade. Its coefficient can be interpreted as keeping all other variables constant, a 1 percent point increase in per capita income differential between exporter and importer countries results in 0.06 percent decrease in

bilateral trade. The coefficients of common border (ComBorder) is positive and statistically significant at 5% level implying that sharing common border will have significant effect on bilateral trade. Sharing common official language (ComLang) is positive but statistically insignificant suggesting that sharing common official language is not a significant factor that affects bilateral trade.

- **Result of regional dummy variable (one of the main interests of the study):**

The main interest variable, intra-bloc trade (IGADt) dummy variable, has insignificant positive coefficient. We conclude that IGAD did not contribute to the creation of trade in the sense of Viner (1950). Put it differently, IGAD member countries do trade less with each other over and above the levels predicted by the explanatory variables for the given sample year of this study. This finding is in agreement with earlier studies done by Alemayehu and Haile (2002) and Edris (2013). In spite of the integration stages set for African economic communities in the Abuja Treaty, lack of noticeable progress in the process of trade liberalization and market integration in IGAD may have contributed to its insignificant intra-trade performance. In addition, past programs of IGAD may have focused on resolving intra-state and inter-state conflicts rather than deepening regional economic integration projects.

Table 15 shows correlation matrix of explanatory variables used in the Gravity model. Using, critical thresholds of 0.8 suggested by Gujarati (1995) and Judge, *et al.* (1988), multicollinearity is not a serious problem.

Table 15: Correlation matrix of explanatory variables

Variables	lnGDPexp_imp	lnDIST	lnpGDPdiff	ComLang	ComBorder	IGADt
lnGDPexp_imp	1.0000					
lnDIST	0.1731	1.0000				
lnpGDPdiff	0.2528	0.2570	1.0000			
ComLang	-0.2067	-0.2457	-0.0885	1.0000		
ComBorder	-0.0497	-0.5980	-0.2445	0.2597	1.0000	
IGADt	-0.4636	-0.2737	-0.4174	0.0746	0.3505	1.0000

Source: author's computation using data from www.cepii.org, www.uncomtrade.org, unctadstat.unctad.org

The computed Cronbach alpha value is 0.5538. Following (Nunnally, 1978; Streiner and Norman, 2008), this result implies the internal reliability of the cross-section data used for Gravity model is within acceptable level.

[4]. Status of economic integration process in IGAD region against its objectives set in IGAD Charter (1996) and Abuja Treaty (1991)

- **Status of economic integration process in IGAD against its Charter (1996)**

Article 7 of the Agreement Establishing IGAD (1996) stipulates trade related objectives. Response obtained from experts consulted on the assessment on IGAD's progress against its Charter (1996) revealed that IGAD could not achieve its trade related objectives. On the other hand, IGAD is moving slowly in cooperation of infrastructure development in power grids, roads, energy, etc. among its members. Peace and stability in the region could not sustain due to conflicts in scarce resource completion. IGAD's objective to promote and realize the objectives of the FTA under the Common Market for Eastern and Southern Africa (COMESA) is far from success. The status of other AU-recognized RECs, with respect to reducing tariff barriers, showed that EAC launched its Common Market in 2010 and implemented tariff structures of 0% on raw materials, 10% on intermediate goods and 25% on finished goods. COMESA launched its Customs Union in 2009. But, IGAD countries are lagging behind from easing customs procedures, trade development and elimination of trade barriers.

- **Status of economic integration process in IGAD against the Abuja Treaty (1991)**

Article 6 (1) and 6(2) of the Abuja Treaty "*Modalities for the Establishment of the Community*" indicates that the African Economic Community shall be established gradually in six (6) stages of variable duration over a transitional period not exceeding thirty-four (34) years and each stage had a specific goal or set of goals to accomplish at regional economic community as well as continent levels (Abuja Treaty, 1991). The stages and corresponding goals are summarized in Table 16 below.

Table 16. Establishment of the African Economic Community – six stages

Stage	Goal	Time frame
1	Strengthening regional economic communities and establishing them where they don't exist	1994-1999 (5 years)
2	Coordination and harmonization of activities (freezing tariffs, non-tariff barriers, customs duties and internal taxes at their May 1994 levels)	1999-2007 (8 years)
3	<ul style="list-style-type: none"> • Regional Free Trade Area • Regional Customs Union 	2008-2012 (5 years) 2013-2017 (5 years)
4	Continental Customs Union, the free movement of people, with rights of residence and establishment among the regional economic communities.	2017-2019 (2 years)
5	Continental-wide African Common Market	2019 -2023 (4 years)
6	Complete economic, political, social and cultural integration	2023-2028 (5 years)

Source: adapted from African Union Commission (2012)

An assessment of how much IGAD has succeeded thus far in relation to the integration process set in Abuja Treaty (1991) showed that IGAD has just completed only Stage I (strengthening of its institution). As regards to trade-led integration, IGAD's plan to create a free trade area by 2012 failed; its goals set for the first and second stages should already have been accomplished and it should be found by now half way through Stage 3, "consolidating free trade zones and customs unions, through progressive elimination of tariffs, non-tariff barriers, and other restrictions to trade, and adopting common external tariffs." If we compare the timetable for integration of the RECs with that of the Abuja Treaty, it is seen that except IGAD and CEN-SAD, the other communities are in distinct advance in relation to the date envisaged by the Treaty for the creation of a customs union in every REC by the year 2017. Interview held with experts suggested that IGAD acknowledged that its integration efforts lag being those of other African Union recognized economic blocs and developed a Minimum Integration Plan (MIP) in 2010. The new MIP was meant to reposition IGAD as development institution and accordingly refocus its regional integration agenda. Yet, there is no notable progress with regard to

implementing the MIP. Experts suggest that IGAD made some diplomatic (if not economic) gains in the region.

[5]. Key challenges constraining trade performance and realization of economic integration plans in IGAD Region

Documentary reviews and in depth discussions held with experts suggested that there were a number of challenges that affect against the attempt to effective economic integration in the IGAD. The key challenges of economic integration in IGAD region, among others, were:

- Fear of revenue losses and protection of local infant industry;
- Multiple membership to other integration regional economic communities;
- Lack of political will of Member States and weakness of infrastructure;
- Lack of full engagement of private sector and the public;
- Lack of coordination and harmonization of policies and regulations at the regional level, non-implementation issues; inadequate human and financial resources;
- Pervasive political and military conflicts triggered by the competition over resources;
- Lack of complementarities and similar comparative advantage hamper progress;
- Lack of proper monitoring and evaluation mechanism that tracks economic integration programs.

4.3. Triangulation of results

Triangulation of findings was made at respective research questions and results from various approaches were found to be consistent. The general findings from quantitative and qualitative analysis indicated that intra-bloc and extra-bloc trade performance of IGAD countries were insignificant as compared to other African Union recognized economic blocs. In addition, results from causal research confirmed that IGAD did not contribute to the creation of trade in the sense of Viner (1950). The qualitative analysis confirmed that IGAD could not achieve its trade related objectives set both in its Charter 1996 and plans envisaged in the Abuja Treaty (1991).

CHAPTER 5. CONCLUSION & RECOMMENDATION

5.1. Introduction

In this chapter, conclusion and recommendations of the study will be presented.

5.2. Conclusion

The main conclusions drawn from this study are the following:

- Although a slight improvement in trade performance is observed from 1996-2007 to 2008-2012, intra-bloc and extra-bloc trade performance of IGAD region was generally low as compared to many of other African Union recognized economic communities. Ease of Doing Business Index for IGAD members states was in the bottom list of ranking that ranges from the rank of 120 to 171 out of 185 countries suggesting lengthy customs procedures; inefficient and costly transit systems; difficulties of starting a business, lack of trading across borders, difficulty of enforcing contracts and lengthy customs procedures. Logistics Performance Index suggested that trade logistics in IGAD region was underdeveloped and much remains to be done. IGAD's share of world trade was lower implying higher degree of dependency on extra-regional trade as compared to the intra-bloc trade.
- Like most RECs in Africa, the structure and composition of trade in IGAD was concentrated on narrow range of primary products (food, fuels, beverage and tobacco) for their exports, with similar comparative advantage implying no significant sectoral variation exist between IGAD and other African Union recognized economic communities. High concentration exports on few primary commodities suggested that IGAD region did not achieve significant levels of diversification which could have enabled them to mitigate the effects of negative trade shocks.
- Results from casual research done using econometric analysis suggested that IGAD did not contribute to the creation of trade in the region in the sense of Viner (1950).
- As compared to other blocs, IGAD is still in the stage of establishing institutions and preparing to harmonize policies among member nations. Meeting its trade related objectives set both in the Agreement Establishing IGAD (1996) and the Abuja Treaty (1991) is far from success.

- A host of factors attribute to low extra- and intra-bloc trade performance as well as slow economic integration process in IGAD region. These factors, according to interviewed experts, include multiple membership arrangement, difficulty in doing business, under developed trade logistics, fear of customs revenue loss and protection domestic industries, lack of political commitment on the part of the participating governments, mistrust, suspicion and lack of confidence among the member states were the major ones, among other things.

5.3. Recommendation

In line with the conclusion, the study recommends the following:

- In order to improve extra-bloc and intra-bloc trade performance in the IGAD region, the elimination of trade barriers is certainly important. But, it will not have the desired effect if it is not complemented with policy measures to boost supply capacities. If this is not done there is a risk that domestic firms will continue to be unable to take advantage of the market access opportunities created by regional integration, leaving ample space for foreign firms to capture most of the benefits from the process, with dire consequences for domestic enterprise and industrial development. In this regard, it is vital to encourage and promote the involvement of private sectors to participate in the planning and implementation of infrastructures (road, railways, energy distribution channels, etc.) so as to strengthen the economic integration process. While enacting policies to lift tariff and non-tariff barriers to intra-IGAD trade is important, policymakers must also foster entrepreneurship and address supply side constraints inhibiting the ability of the private sector to produce and export.
- Intra-bloc and extra-bloc trade shares by product category at the level of IGAD shows the bloc is very concentrated market with similar comparative advantages among member nations. Given the region's potential, there is room for IGAD enterprises to position themselves increasingly as suppliers of goods in diversified product categories in Africa, as long as the right policies are put in place to foster competitiveness among IGAD firms, accompanied by productive capacity policies, such as national and regional industrial policies that can promote both inter-industry and intra-industry trade in the long run. The nature of the goods produced and exported by IGAD enterprises matters for growth and

the expansion of intra-bloc trade, both from a demand and a supply perspective. On the demand side, manufacturing products have high income elasticity of demand, indicating that they create more room for export market expansion relative to primary commodities. On the supply side, manufacturing is also of strategic importance because its growth is not constrained by land, as is the case for agriculture, and so in economies with rapid population growth and increasing pressure on land, diversification into manufacturing will be necessary to boost and sustain regional trade.

- Integration is best realized in a climate of trust and confidence among nations and their populations. One mechanism to stimulate an atmosphere of stimulating integration initiatives is capitalizing on commonalities and promoting equality in diversity. It is vital to enhance mechanisms of preventing conflicts and promote a culture of tolerance and dialogue.
- Strengthen policy convergence initiatives within IGAD and the coordination between other RECs and member countries. E.g. strengthen the already started merger initiatives between EAC and IGAD will help establish a bigger economic coalition which will address multiple membership issues and speed up the integration process.
- Given various policy and legal framework to back regional economic integration, real political will and leadership with clear and shared objectives is vital, not just institutions matter. In the development discourse in IGAD, regional integration appears to be more as a technical development challenge of how to integrate roads, power grids, trading areas. A related issue is that regional integration doesn't happen just because institutions say so. Hence, efforts must be made to strengthen capacity of IGAD secretariat both in human as well as financial resources.
- Sequencing is very important; start small and grow (at right pace). IGAD needs to be strategically selective and sequence: there are ongoing infrastructural projects within IGAD that are very crucial prerequisites for effective economic integration in the region. Therefore, continued support for and intensification of concerted efforts towards the development of such projects (power grid, road corridors, rail ways, etc.) are required. In doing so, IGAD nations will need to use the strong economic rationale to create broad public understanding and political desire for regional integration.

- Adapt lessons from other similar African economic blocs. For example COMESA-EAC-SADC adopted one program to eliminate non-tariff barriers with eventual plan to merge into one REC. This helped to address the problem of multiple country membership. The web based non-tariff barrier mechanism intended to enhance transparency and easy follow-up of reported and identified non-tariff barriers.

5.4. Limitation of the study

Getting primary data on international trade and time constraints were real challenges of the study. Mostly aggregate data were used which could mask commodity – level heterogeneity and bias the estimate.

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APPENDIX

Appendix A: Map of IGAD Member Nations



Source: IGAD Secretariat

Appendix B: Questionnaire

Addis Ababa University
College of Business and Economics
Executive MBA Program

My name is Alem Shumiye. I am a postgraduate student of Executive MBA program at the Department of Management, College of Business and Economics at the Addis Ababa University. I am conducting a research project with theme of comparing and contrasting trade effects between IGAD and other similar African economic communities. This research is required to fulfill the partial requirements for the Executive MBA degree. This questionnaire is designed to validate findings from quantitative analysis. I would like to assure you that this research is only for academic purpose. No other person will have access to the data collected. In any sort of report I might publish, I will not include any information that will make it possible to identify any respondent.

Interview-administered questions:

- 1) How far has IGAD succeeded in achieving trade related objectives stipulated in its charter, ‘Agreement Establishing IGAD (1996)’?
- 2) My findings from quantitative analysis suggested that IGAD did not contribute to the expansion/creation of trade and the level (both aggregate and disaggregated) of trade performance of IGAD region between 1996-2012 vis-à-vis other similar African economic communities was low. So, what would you think of this finding and your comment please?
- 3) IGAD has launched Minimum Integration Plan (MIP) so as to speed up its economic integration process and achieve milestones set in Abuja Treaty. In your assessment, where does IGAD stand in relation to its progress toward meeting the Abuja Treaty (1991)?
- 4) What are the key internal and external challenges that affect IGAD’s plan for the realization of its economic integration scheme?

Appendix C: OLS Robust Regression Results