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ENHANCING INTRA-AFRICA TRADE IN THE SUB SAHARAN AFRICAN REGION

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Abstract

Several trade theories put some premium on the development of international trade between countries with comparative advantages in industries where productive resources are in abundance and in intensive use as suggested in the popular Hecksher-Ohlin theory but very few studies have investigated the relevance of intra country trade in respective trade blocs as a development tool for less developed and developing countries. In the light of the aforementioned, the study evaluate intra-Africa trade in the sub Saharan African region. The study considered a cursory study of the internal socio-economic and political dynamics of Sub Saharan African countries excluding South Africa, considering that South Africa singlehandedly accounts for more than 33% of the intra African trade in the Sub-Sahara African region, time series data on trade flows spanning between 1995 and 2011 were considered, the data were sourced from the United Nations Conference on Trade and Development (UNCTAD, 2012) and on the basis of this a comparative analysis of the revealed comparative advantages of the country groupings that makes up the Sub Saharan African region is carried out to ascertain the current position of intra country trade in the regional trade blocs in the Sub Saharan African region. The findings revealed that there is need for African countries to look inwards with the long term goal of mutually providing the needed impetus to drive growth and development via intra-African trade. Such catalyst for efficient intra-African trade such as security of lives and property, development of relevant 'take off' infrastructure and social capital, provision of deep financial systems and efficient regulatory frameworks, sound internal macroeconomic policies and the reduction in such social milieu as corruption, vice and underground economic activities should be pursued with the long term goal of encouraging intra-country trade within a given trade bloc. This study concludes that Africa cannot survive in isolation vis-a-vis the rest of the world. It therefore recommends that driving regional trade in Africa should be complementary to improving trade relations with the rest of the world particularly, those regions that seems to be at advantage trading position with African countries.

Keywords: Development, Economic Growth, Intra-Africa Trade, Intra Regional Trade, Sub-Saharan Africa

1.0 Introduction

African, which covers approximately 30 million square kilometers, is the second-largest continent in the world and approximately three times the size of United States. Africa as a continent is critical to the survival of the world economy because most of

the natural resources currently traded in several stock exchanges in the world have their origin and the larger proportion of their deposits is traceable to Africa regional belt. It is however a paradox to realize that the same continent is one of the poorest region in the whole world. While several trade theories put some premium on the development of international trade between countries with comparative advantages in industries where productive resources are in abundance and in intensive use as suggested in the popular Hecksher-Ohlin theory but very few studies have investigated the relevance of intra regional trade in respective trade blocs as a development tool for less developed and developing countries.

Most trade blocs around the world have reap the dividends of economic integration in form of increased volume of intra regional trade among member of the trade blocs except most regional blocs on the continent. A key feature of Africa's trade, which has had some adverse implications for its impact on economic growth and development, is its high external orientation and relatively low level of intra? regional trade. intra? African trade stands at around 10 per cent compared to 60 %, 40 %, 30 per cent intraregional trade that has been achieved by Europe, North America and ASEAN respectively African Union (2012). From the foregoing, it would not be totally out of place to hypothesize that Africans trading with themselves in much less magnitude than they do with non-African countries and given the present realities where some of regions of the world are facing different challenges ranging from debts, to financial crisis, security and social cohesion, a threatens to the growth prospects of African countries dependent on export proceeds looms particularly in the situation where intra-African trade is not developed to the point of acting as an effective buffer to shock outside the borders of Africa.

In the light of the aforementioned, this paper seeks to evaluate the current comparative advantages of Sub Saharan African countries with the aim of determining the industries where intra-African trade is not only feasible but growth enhancing. The African Union highlights the fact that only around 10-12% of African trade is between African countries, while around 40% of North American trade and 63% of Western European trade is intra-regional Woolfrey. If South African trade is isolated in the regional trade data, the remaining countries in the SSA category will only account for a single digit intra-regional trade; this is a concern to all stakeholders in Africa.

2.0 Literature Review

2.1 Review of Theory and Empirics

There are several theoretical and empirical studies done on inter-regional trade flows among countries particularly in the developed countries, these studies draws primarily from received doctrine of trade theories starting from the absolute advantage theory of Smith, the Comparative advantage of Marshall, the Heckscher-Ohlin theory, the

Tinbergen Trade Gravity model and a host of other trade theories in modern literature. We begin the theoretical construct of trade flows between two or more countries from the popular trade gravity model due to Tinbergen (1962) and empirically tested by various scholars.

A recent research compares various specifications of the gravity model of trade as nested versions of the general specification and found that theoretical restrictions used to explain general gravity model are not statistically viable. The work conclude that unless heterogeneity is accounted for appropriately, gravity model may fail to estimate accurately the effect of integration in the volume of trade of countries of concern, Cheng et al (2005).

In a recent study done on intra-EU trade flows used trade gravity model estimation in Nitsch (2000) tradition to estimate the intra-EU gravity model controlling for countries that share border and language within the Euro zone. The study employs panel data for ten importing and fourteen exporting European Union countries spanning 2000-2008 with a total sample of 1260 observations. The data was primarily sourced from Eurostat and NACE industrial classification. The estimating techniques involve panel regression with some robust tests. The result shows that, in the case of EU countries, gravity model explains the pattern of intra-EU trade among the sampled countries, Suleyman (2010).

In a similar work on the gravity model and the united states trade examines the determinants of bilateral trade between United states and her North American Free trade area (NAFTA), European Union (EU) and the ASEAN countries between 1995-2008 using panel data for the analysis. The method of analysis is basically econometrics and the paper suggest that the US free trade flows follows the tradition of linear hypothesis while the bilateral trade is primarily influenced by factor endowment theory of Heckscher-Ohlin as explained by Samuelson model. The result also confirms that distance though significant in US trade patterns but carries a negative influence on trade patterns i.e. trade increase if transport and associated costs decreases and that a common border promotes trade, Nuno Carlos (2010).

Another study on gravity asserts that 'the gravity model was until recently an intellectual orphan, unconnected to the rich family of economic theory'. The implication of this is that earlier perception of gravity model since Tinbergen (1962) remains empirically unfruitful. In fact, recent confrontation of the model with data by Anderson and Wincoop 2004, Bergstrand and Egger 2011 gives support to the usage of the model in empirical analysis which shed more light on the impacts played by distance in trade flows between countries, James Anderson (2011).

2.2 Conceptual Clarification of the term "Intra Regional Trade"

Intra-regional trade is trade within a specific region augmented by Regional Trade Agreement (RTA). A study examine Regional trade agreements in Africa assessing it past performance and suggesting the way forward, the study posit that Regional Trade Agreements in Africa has been ineffective in promoting trade and foreign direct investment due to high external trade barriers and low resource complementarity between members countries which limit not only intra-regional trade but also extra regional trade with the rest of the world. The study however suggest that African

countries need to Liberalize trade and streamline existing regional trade agreements with a heavy investment in physical infrastructure in order to stimulate trade within the region, Yongzheng Yang (2005).

2.3 Rationale for the Observed Poor Intra-African Trade in the SSA Region

A recent work identify infrastructure deficits, cultural barriers as well as Institutional barriers as bane to intra-regional trade in Africa, Olumide et al (2002). The infrastructural gap existing within African countries is so high when we compare the continent with it peer in other parts of the world. Cultural barriers within the region also limit the extent of trade within the continent animosity exist across countries in Africa on issues that relate with ownership of boundary lands and other resources. A good example is the case of Bakassi Peninsula which was the bone of contention between Nigeria and Cameroun rested at the World court in Hague in favour of Cameroun for which many Nigerians are not satisfied, although the official position of Nigerian government upholds the verdict of the court.

Institutions in Africa that are in charge of facilitating trade needs reform. In spite of many conventions on trade in which SSA countries are signatory to, individual country's institutions, government ministries, departments and agencies erect artificial barriers to trade through tariff and non- tariff measures. These artificial barriers to trade impend trade between most African countries particularly those in SSA category. A work done on the platform of African Development Bank (AFDB) posits that 'cross-border infrastructure such as transport, energy and telecommunications are essential to move goods, services, people and information between countries. Such linkages expand market access; reduce economic distance; and facilitate trade, investment and labor mobility.

However, Africa's poor transport and communications infrastructure and unreliable power raise trade costs and undermine competitiveness and the continent's ability to integrate regionally as well as globally 'Vinaye Ancharaz(2011). In most SSA countries the road networks are bad coupled with epileptic supply of electricity and frequent outage of the same make goods originating from SSA countries to be more expensive than similar goods produced in countries with stable electricity supply. The level of Information Communication Technology (ICT) is equally low in SSA counties in spite of the recent feat in telecommunication sub-sector, internet penetration in most SSA countries is so low when compared with several other region in the world, this obviously affect the quantum of trade that take place within the continent.

Another major impediments to the growth of Intra regional trade in Africa as identified is the supply side constraints, 'many African countries lack production facilities for a diversified manufacturing base and depend on exports of primary products due to low investments in manufacturing, as investors do not seethem as profitable enough locations'VinayeAncharaz (2011). The manufacturing sectors of SSA countries are so weak and non-competitive, they depend on mainly on importation of

heavy steel machines and raw materials which are not locally available, this make their finished manufactured products to become costlier than the world average and therefore, they record low patronage among themselves.

2.4 Comparative Advantage Measurements

The determination of trade between countries was first rationalized by the Smith rule of absolute comparative advantage and countries were hence advised to specialize in the production (and consequent exportation) of goods that they could produce with least absolute costs compared to a trading partner while it imports commodities that it produced with comparative more absolute costs than the trading partner and while gains from trade can be harnessed by adhering to this rule, it still could not explain the possibility of harnessing gains from international trade when a country could produce a set of commodities at least absolute costs compared to its trading partner.

This possibility led to the adoption of a rule that substituted opportunity costs for absolute costs as it factors into consideration the resource endowments of the countries in questions and how this should translate to the commodity of specialization thus the Ricardian, Ricardo (1817). comparative cost advantage rule was design for this purpose and this was later improved upon using neo-classical instruments of the indifference preference curve and the production possibility curve and with these neoclassical economists, Mill (1848). considered the comparative advantage rule given that the reallocation of resources to facilitate specialization and trade do not generate costs and later by Heckscher (1949) and Ohlin (1933), and in their formulation they suggest that countries with relatively more abundant resources should specialize in the production (and consequent exportation) of commodities that use such resources relatively more abundantly in production while it imports all other commodities and the same rule applies to the trading partner.

This rule provided a theoretically plausible rule for measuring comparative advantages and providing the basis for trade between any set of countries but the empirics were quite difficult as noted by Benedictis and Tamberi(2001) "relative autarkic prices are unobservable variables, and this unobservability hampers the identification of true or shadow comparative advantages. To overcome this obstacle, it has become customary practice in the empirical trade literature to analyze specialization patters of countries using Revealed Comparative Advantage (RCA) measures." The Revealed Comparative Advantage measure was introduced by Balassa(1965) based on the observation of trade patterns between trading countries -- much in the spirit of the revealed preference ordering of P. A Samuelson(1983) -- and as noted by Utkulu and Seymen (2004) this method of measuring comparative advantages is the commonly accepted measure employed in trade analysis and this is evident in the studies of: Benedictis and Tamberi (2001); Richardson and Zhang(1999); Utkulu and Seymen(2004); Batra and Khan(2005); Serin and Civan(2008); Widodo(2010); Mzumara et al(2012) to mention but a few.

Methodology

This study adopts a modified version of the RCA in measuring comparative advantages among SSA countries, over time the Balassa (1965) measure of revealed comparative advantage has undergone changes and some of the newer indices which

are derivatives of the Balassa index shall be employed in this study and these are the Revealed Symmetric Comparative Advantage (RSCA) index of Dalum et al(1998) and Laursen (1998), was invented to provide for the departure from symmetry of the Balassa index in distribution and Relative trade advantage measure was invented by Vollrath (1991) Besides observing the conformity in the conclusion arrived at via the three measures we shall base our analysis on the Revealed Symmetric Comparative Advantage (RSCA) index and this is due to the existence of an upper bound in the criterion for the determination of the existence of comparative advantage. The formula for the computation of these indices, their authors and their criterion for determining the existence of comparative advantages and disadvantages are shown below:

Table 2.1 Revealed Comparative Index Measurements*

Index name	Index formula	Criterion for existence of Comparative advantage	Criterion for existence of Comparative disadvantage	Supporting literature
Balassa Index	$BI_{ijt} = \left(\frac{X_{ijt}}{X_{jt}} \right) / \left(\frac{X_{ijt}}{X_{jt}} \right)$ where X_{jt} $= \sum_{i=1}^n X_{ijt} \text{ and } X_{jt}$ $= \sum_{i=1}^n X_{ijt}$	$BI_{it} > 1$	$0 < BI_{it} < 1$	Balassa (1965); Richardson and Zhang (2001); Edwards and Schoer (2002); Widgren (2004); Bhattacharyya (2011)
Revealed Symmetric Comparative Advantage	$RSCA_{ijt} = \frac{BI_{it} - 1}{BI_{it} + 1}$	$-1 < RSCA_{it} < 0$	$0 < RSCA_{it} < 1$	Dalum et al (1998); Laursen (1998); Laursen and Drejer (1997) and Brasili et al (2000)
-	$VI_{ijt} = \ln \left\{ \left(\frac{X_{ijt}}{X_{jt}} \right) / \left(\frac{X_{ijt}}{X_{jt}} \right) \right\}$	$VI_{it} > 0$	$VI_{ijt} < 0$	Vollrath (1991); Utkulu and Seymen (2004)

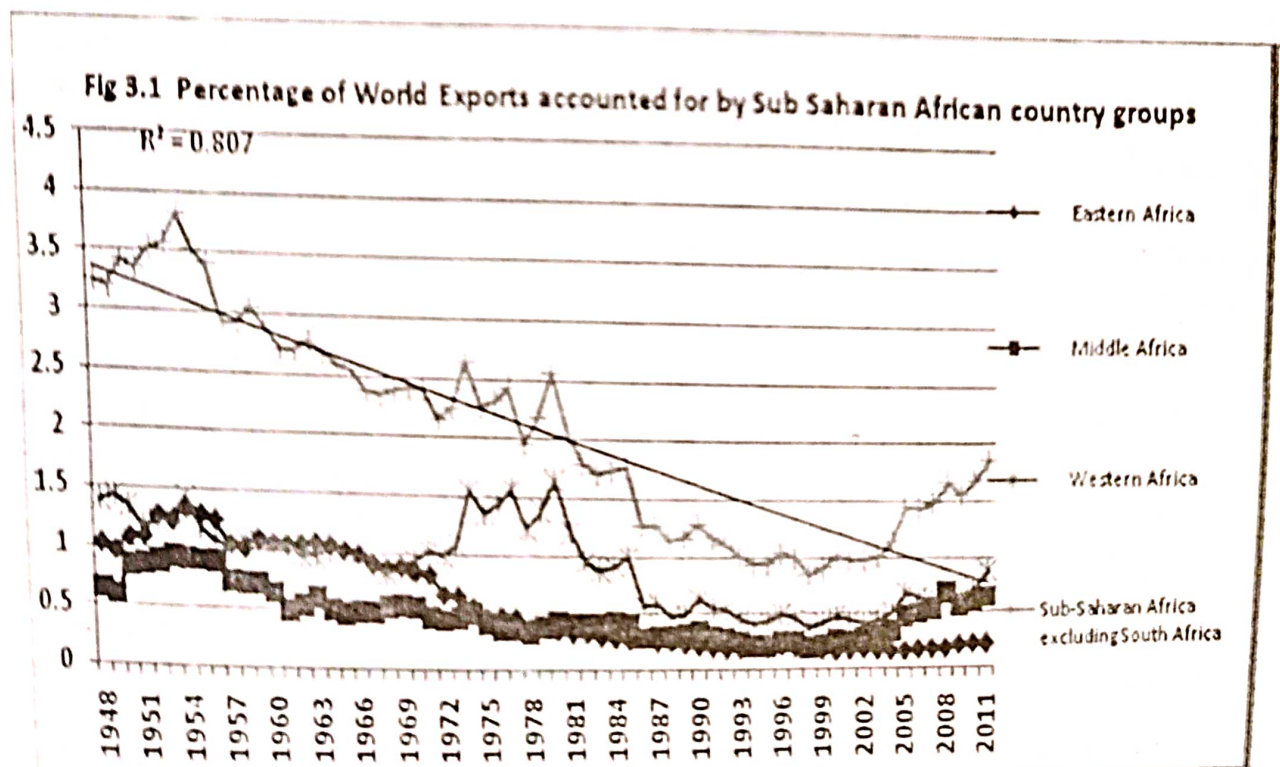
*A review of other measures of comparative advantage can be found in Utkulu and Seymen (2004) and Widodo (2010)

These measures shall form the basis for the computation of the revealed comparative advantages of the selected Sub Saharan African countries. Due to the paucity of data we adopt country aggregates and these are the West Africa, East Africa and Middle (or Central) Africa and for each country grouping we avail the SITC revision 4 classification of export goods provided by the United Nations Conference on Trade and Development database (UNCTAD) between 2000 and 2011. With the available data we compute the above indices using the entire Sub-Saharan countries (excluding South Africa) and the world as a whole as a reference groups to facilitate a comparative analysis of the revealed comparative advantages that accrues to the three country groupings with a view to substantiating trade within African countries.

3.0 Empirical Findings

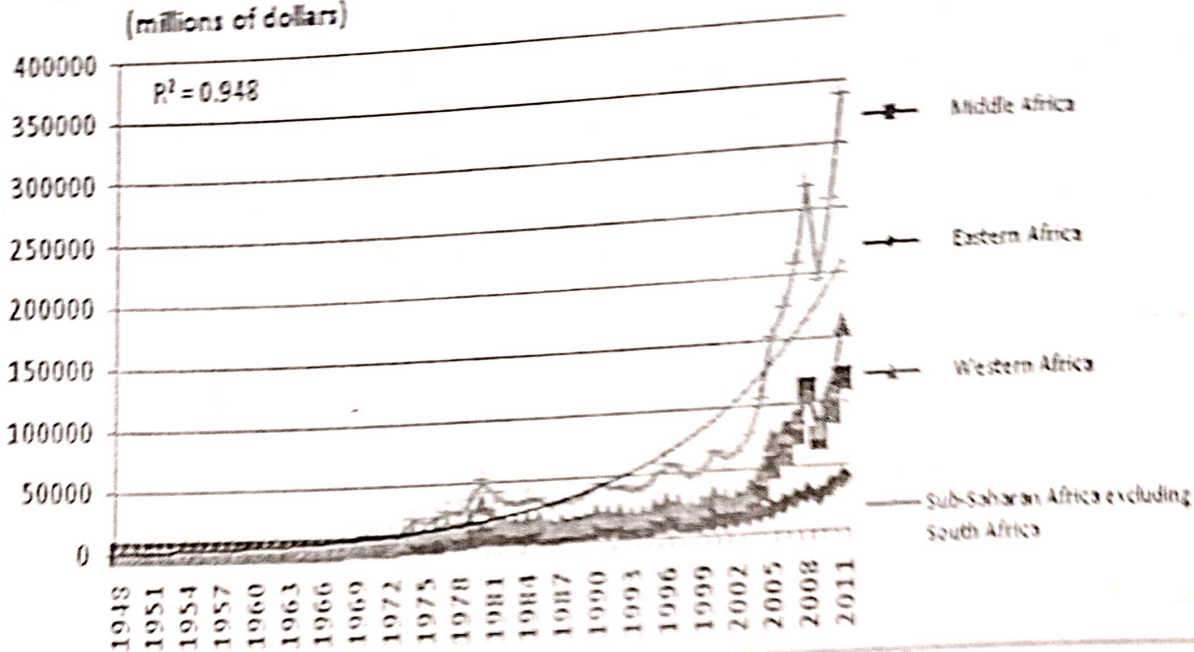
3.1 Export Patterns in Eastern Africa, Western Africa, Middle (or Central) Africa

All countries in the Sub Saharan African sub region are relatively open economies and by definition earn income from the exportation of goods and services produced domestically. In a over a sixty year period we find that West Africa has been ahead of the other country groups in the Sub Saharan African region particularly since the early 1970's while middle (or central) Africa also picked up in the about the same period. However on the whole it is clear that the percentage of the world exports accounted for these Sub Saharan African country groups decline trend-wise over time. This is an indication that Sub Saharan African exports has failed to compete favorably with the export volumes of other nations of the world. (UNCTAD)



Source: Constructed by the Authors from UNCTAD data (2012)

Fig 3.2 Values of Merchandise Trade Exports in Sub Saharan Africa
(millions of dollars)



Source: Constructed by the Authors from UNCTAD data (2012)

In addition this may also suggest the impact of the many socio-political instability of the region and how it may have engendered a decline in the composition of world exports accounted for by Sub Saharan Exports. However on the home front, when we screen out the effects of exports of other countries we find out that Sub Saharan African exports has been on the rise exponentially – as witnessed from the fitted trend curve which is an exponential function and explains about 94% of the variations in the time series – with West African and Middle African exports appearing to dwarf the exports of East Africa but nevertheless East African exports also had a positive trend. These findings suggests that in comparison with the world, export volumes dwindle and this shows the relative weakness of the Sub Saharan African sub region in meeting up global competition but despite this export volumes are on the increase with West Africa and East Africa leading the pack.

However these aggregate values of exports will be of little use in measuring the comparative advantage differences that may result when Sub Saharan African countries trade compared with themselves or the world as a whole. This lead us to the computation of the revealed comparative advantage indices and the determination of the commodities within which Sub-Saharan African countries have comparative advantage when trading with themselves as against trading with the world.

3.2 Computation and Interpretation of the Indices of Comparative Advantage

On computing the three indices – that is the Balassa index, Revealed Symmetric Comparative Advantage (RSCA) and Vollrath's index – for West Africa, East Africa and Middle (or Central) Africa groups we find a high level of agreement amongst all the computed indices and further we notice that when the reference group of countries is the world; West, East and Middle African countries had higher comparative advantages for the exportation of a large spectrum of commodities than when the

reference country group was the Sub Saharan African region. However there are some commodities where the RSCA index suggests a higher comparative advantage given that the reference country group is the Sub Saharan African region and these are shown in the tables 3.1 – table 3.3 along with their corresponding RSCA indices for the years 2000-2011.

Beginning with West Africa, the RSCA index reveals some sectors where revealed comparative advantage, given that trade takes place between Sub Saharan countries, has been consistent since 2000 while some other sectors are inconsistent – recording comparative disadvantages as denoted by 0* and recording comparative advantages where the reference country group is the world as a whole and denoted by values between 0 and 1 marked with the * sign. In West Africa the relatively consistent sectors for intra-regional trade are: the Tobacco industry, Paper and Paper Board industry, Cotton fabrics industry, Footwear industry and Miscellaneous manufactured articles. Within these sectors the West African sub region has exhibited strong comparative advantages if they are to trade with other regions in the Sub Saharan African region (as against trading with the world, where comparative advantages are depleted). West African countries also need to develop the production of iron ore and concentrates as it recorded comparative advantages with respect to the Sub Saharan African region and the same goes for the iron/steel bars and their derivatives industry as well as the office stationery industry where comparative advantages with respect to the Sub Saharan region are recorded albeit inconsistently.

Year	[057] Fruits and nuts (excluding oil nuts), fresh or dried	[122] Tobacco,	[573] Polymers of vinyl chloride or halogenated olefins	[281] Iron ore and concentrates
2000	0.08479	0.79596	0.16151	0.39954
2001	0*	0.77537	0.23340	0.40633
2002	0*	0.75345	0.27282	0.40206
2003	0*	0.74341	0.34663	0*
2004	0*	0.65995	0.31802	0*
2005	0.07986	0.61409	0*	0*
2006	0.09026	0.70178	0*	0.45930
2007	0.08035	0.60955	0*	0.46948
2008	0.12224*	0.63522	0*	0*
2009	0.08514	0.61390	0.33817	0*

2010	0.08084	0.57366	0*	0*	
2011	0.14949*	0.58861	0*	0*	
Year	[642] Paper & paperboard, cut to shape or size, articles	[652] Cotton fabrics, woven	[676] Iron & steel bars, rods, angles, shapes & sections	[685] Lead	[281] Iron ore and concentrates
2000	0.57826	0.46201	0*	0*	0.39954
2001	0.56733	0.44392	0*	0*	0.40633
2002	0.67316	0.52387	0*	0*	0.40206
2003	0.62309	0.65871	0.62228	0*	0*
2004	0.67381	0.61729	0.71562	0*	0*
2005	0.63317	0.59368	0*	0*	0*
2006	0.63169	0.67703	0.70380	0.70938	0.45930
2007	0.47471	0.62524	0*	0.60152	0.46948
2008	0.53059	0.77126*	0.60562	0.64616	0*
2009	0.52946	0.56972	0.57472	0.60447	0*
2010	0*	0.56230	0*	0.68340*	0*
2011	0.51272	0.58807	0.60937	0.77916*	0*

Year	[692] Metal containers for storage or transport	[851] Footwear	[893] Articles, n.e.s., of plastics	[895] Office & stationery supplies, n.e.s.	[899] Miscellaneous manufactured articles, n.e.s.
2000	0.65854	0.71301	0.74188	0.63384	0.59133
2001	0*	0.67837	0.72563	0.47179	0.61991
2002	0.63162	0.66835	0.66820	0.48619	0.49065
2003	0*	0.71517	0.68348	0*	0.53666

2004	0*	0.21145	0.46965	0*	0*
2005	0*	0*	0.38276	0*	0*
2006	0*	0.43174	0.47516	0*	0*
2007	0*	0.49512	0.46575	0.39328	0.35527
2008	0.59876	0.60292	0.56863*	0.50312	0.50423
2009	0.65356	0.50411	0.69883*	0*	0.39924
2010	0.58135	0.60120*	0.62950*	0.42328	0.26330
2011	0.60287	0.53131	0.63052*	0*	0.44019

Source: All tables are constructed by the author from the United Nations Conference on Trade and Development database

Notes: * occurring after a positive real value indicates cases where comparative advantages are reaped when the world economy is the reference

0* indicates the absence of comparative advantage either when the reference group is the Sub Saharan African region or the world economy

Colored sections indicate the presence of comparative advantages in at least nine years of trading in the 2000-2012 period

Table 3.2 RS CA INDEX COMPARATIVE ANALYSIS FOR CENTRAL AFRICA

Year	[811] Prefabricated buildings	[874] Measuring, analysing & controlling apparatus, n.e.s.	[881] Photographic apparatus & equipment, n.e.s.	[896] Works of art, collectors' pieces & antiques	[899] Miscellaneous manufactured articles, n.e.s.
2000	0.50198	0.79477	0*	0.84790	0.12446
2001	0.73314	0.83562	0*	0.92196	0.30561
2002	0.57694	0.88559	0*	0.86434*	0.40364
2003	0.83457	0.82374	0.87238	0.90388	0.48737
2004	0.66494	0.90052	0*	0.93708	0.44874
2005	0.85819	0.85273	0.91888	0.88200	0.27440

2006	0.66657	0.83432	0.90302	0.91720	0.28341
2007	0.62916*	0.87204	0.79061	0.80784*	0*
2008	0.69759	0.64921	0.77937	0.79662	0*
2009	0.56664*	0.86068	0.84922	0.85515*	0.31138
2010	0.75848*	0.61469	0.79198	0.85074	0*
2011	0.88240*	0.79149	0.78934	0.79340	0*

Year	[057] Fruits and nuts (excluding oil nuts), fresh or dried	[579] Waste, parings and scrap, of plastics	[747] Appliances for pipes, boiler shells, tanks, vats, etc.	[749] Non - electric parts & accessor. of machinery, n.e.s.	[775] Household type equipment, electrical or not, n.e.s.
2000	0.53076	0*	0*	0.35889	0*
2001	0.63880	0*	0.33508	0.64165	0.01660*
2002	0.56385	0*	0.72003	0.59064	0.07648*
2003	0.60281	0*	0.59121	0.72734	0.23790
2004	0.61559	0*	0.65150	0.54397	0.30574
2005	0.54039	0*	0.66715	0.55490	0.19736
2006	0.52003	0*	0.64442	0.04611*	0.02133
2007	0.52890	0.43320	0*	0*	0.31069*
2008	0.53881*	0.48592	0.57170	0*	0.40982*
2009	0.47531	0.34706	0.45829	0*	0.48258*
2010	0.39992	0*	0*	0.16411	0.43945
2011	0.38711*	0.24862*	0.42705	0.43193	0.47188

Source: All tables are constructed by the authors from the United Nations Conference on Trade and Development database

Notes: * occurring after a positive real value indicates cases where comparative advantages are reaped when the world economy is the reference. 0* indicates the absence of comparative advantage either when the reference group is the Sub Saharan African region or the world economy. Colored sections indicate the presence of comparative advantages in at least nine years of trading in the 2000-2012 period

Table 3.3 RSCA INDEX COMPARATIVE ANALYSIS FOR EASTERN AFRICA

Year	[652] Cotton fabrics, woven	[671] Pig iron & spiegeleisen, sponge iron, powder & granu	[721] Agricultural machinery (excluding tractors) & parts	[728] Other machinery for particular industries, n.e.s.	[778] Electrical machinery & apparatus, n.e.s.
2000	0.37092	0.805698*	0.57295*	0.00643*	0.00369*
2001	0.24646	0.66061*	0.38855*	0.17937*	0.04079*
2002	0.16199	0.74429*	0.60026	0.25923	0.25869
2003	0.01397	0.60463*	0.60239	0.33146	0.37402
2004	0*	0.45933*	0.68698	0.15901	0.43097
2005	0*	0.45887*	0.19644	0.10186	0.28989
2006	0*	0.44939	0.36156	0.05522	0.15340
2007	0*	0.37989	0.25499	0*	0*
2008	0*	0.30517	0.01227*	0*	0*
2009	0*	0.29855	0.28518*	0*	0*
2010	0*	0.30633	0.51452	0*	0*
2011	0*	0.28064	0.41750	0*	0*
YEAR	[046] Meal and flour of wheat and flour of meslin	[054] Vegetables	[211] Hides and skins (except furskins), raw	[222] Oil seeds and oleaginous fruits (excluding flour)	[742] Pumps for liquids
2000	0.25145	0*	0.56182	0*	0.37805
2001	0.19623	0*	0.59459	0*	0.32816
2002	0.12008	0.03676*	0.49801	0*	0.07320*
2003	0.30692	0.04355*	0.53884	0*	0.37005
2004	0.21162*	0.33792	0.57061	0*	0.46940
2005	0.19059	0.31982	0.56528	0.24297*	0.25489
2006	0.24221*	0.33203	0.56066	0.22138*	0*
2007	0.33950*	0.35008	0.55906	0.34130	0*
2008	0.33654	0.34302	0.59356	0.37462	0*
2009	0.27834	0.42359	0.48451	0.33847	0.05239*
2010	0.37161*	0.40280	0.49236	0.24460	0.13659*
2011	0.34238	0.35935	0.51147	0.26625	0.06660

YEAR	[334] Petroleum oils or bituminous minerals > 70 % oil	[351] Electric current	[431] Animal or veg. oils & fats, processed, n.e.s.; mixt.	[651] Textile yarn	[745] Other non -electr. machinery, tools & mechan. appar.
2000	0.79928	0.97526	0.66293	0.44686	0.38109
2001	0.80149	0.94874	0.58439	0.37488	0.26670*
2002	0.80361	0.95366	0.47586	0.24560	0.40092
2003	0.82220	0.95943	0.40746	0.30879	0.38599
2004	0.82369	0.95686	0.40770	0*	0.34303
2005	0.85286	0.97196	0.47394	0*	0.29930
2006	0.72677	0.96843	0.40841	0*	0.22436
2007	0.81992	0.98282	0.47719*	0*	0*
2008	0.85368	0.98751	0.44014*	0*	0*
2009	0.83607	0.97025	0.53650*	0*	0*
2010	0.67871	0.97991	0.52694*	0*	0.17821*
2011	0.80290	0.97979	0.43111*	0*	0.04812*

YEAR	[269] Worn clothing and other worn textile articles	[278] Other crude minerals	[289] Ores & concentrates of precious metals; waste, scrap	[325] Coke & semi cokes of coal, lign., peat; retort carbon	[721] Agricultural machinery (excluding tractors) & parts
2000	0.53311	0.52262	0*	0.98067	0.57295*
2001	0.27271	0.48986	0.64838	0.97754	0.38855*
2002	0.47826	0.45108	0.47034*	0.96264	0.60026
2003	0.08243*	0.47103	0.62895	0.96966	0.60239
2004	0.44175	0.29609	0.61342	0.97339	0.68698
2005	0.04775	0.37847	0.60984	0.98189	0.19644
2006	0.21809	0.32859	0.57772	0.98023	0.36156
2007	0.46795*	0.36807	0.59332	0.98765	0.25499
2008	0*	0.04948*	0.61772	0.98938	0.01227*
2009	0.04776	0.28332	0.56078	0.98198	0.28518*
2010	0*	0*	0.58492	0.98396	0.51452
2011	0*	0*	0.61042*	0.98464	0.41750

YEAR	[771] Electric power machinery, and parts thereof
2000	0.41374
2001	0.23494*
2002	0.37765
2003	0.36777
2004	0.51791*
2005	0.21703
2006	0.14964
2007	0.19259*
2008	0.33678*
2009	0.39247
2010	0.29212
2011	0.36713

Source: All tables are constructed by the author from the United Nations Conference on Trade and Development database

Notes: * occurring after a positive real value indicates cases where comparative advantages are reaped when the world economy is the reference
0* indicates the absence of comparative advantage either when the reference group is the Sub Saharan African region or the world economy
Colored sections indicate the presence of comparative advantages in at least nine years of trading in the 2000-2012 period

However interestingly, in many industries where the West African sub region is found to have inconsistent comparative advantages, the Central African sub region records consistent comparative advantages. Central African countries have higher comparative advantage in the exportation of fruits and nuts particularly when Sub Saharan Africa is the reference country in the measurement. This implies that trade links between Central African countries and West African countries may engender gains that would spur the development of the fruits and nuts industry. In the opposite direction, West Africa could also harness the comparative advantages that exist in the tobacco industry which is in short supply in Central Africa.

Other trade links also exist between the three sub regions and these are highlighted in the tables showing the computation of the revealed symmetric comparative advantage (RSCA) index and they are indicated by the cells colored in brown. These sectors are vital sectors where intra-African trade can take place and great gains can be harnessed from trade (gains that may outweigh those that would result if trade took place with countries outside the Sub Saharan African region).

The tables above also confirm the results that were inferred from the export graphs presented in the earlier section. The Central African set of countries appear to have fewer industries with comparative advantages with respect to the Sub Saharan African region and this is obvious from the tables above which reveal that it has comparative advantages in sectors of measuring instruments, fruits and nuts and appliances. This may explain the relatively low contribution of the Central African set of countries to the overall contribution of the Sub Saharan Africa group of countries.

Regional arrangements need to take these findings into consideration, if export led growth and development is to be a veritable tool. Regional economic arrangements need to realize that despite the fact that the powerful outside-Africa market may provide the needed proceeds for their exports, their comparative advantages in some other commodities which would be poorly price in the these powerful outside-Africa markets (considering that most of these commodities are mainly from the extractive industry and are notoriously plagued with low elasticity of demand which does not make the commodities competitive) but within Africa they could attract great foreign exchange as the markets within Africa – considering that most African countries are not sophisticated enough to like those of the developed world to render these commodities uncompetitive – with similar technologies and similar preferences and tastes engendered by the peculiarities of African countries would make these commodities competitive and by so doing the mutual exploitation of these revealed comparative advantages would result in Sub Saharan African growth.

4.0 Conclusion and Recommendations

The issue of poverty and underdevelopment that currently pervade the SSA is aided in some manner by external orientation of trade in most SSA countries as the positive spillovers of intra-African trade that should have been generated and exploited in the SSA region are internalized by non-African trading partners which are more often than not the advanced economies of the U.S, Europe and emerging giant China.

It is a known fact that the level of technology, technical progress and industrial characteristics of most SSA countries are quite similar and poor, this notwithstanding, there are still some classes of goods and services that the continent can conveniently exchange within and increase value chain without necessarily externalizing such trade benefits. Africa countries must work hard in improving the volume of trade among themselves in order to create trade within the region and reduce inefficiencies associated with trading individually with the rest of the world. There is need for strong institutional arrangement that will act as the power-horse for African countries that are always at disadvantage in trade negotiations and rounds that are always in favour of most advanced nations of the world. Most African countries are import dependent on other continents even in goods that they can produce efficiently as a result of high taste for imported commodities. There is need to reduce imports and encourage exports as global economy is currently under persistent distortions. If imports fall relative to exports, each of these SSA countries will be insulated from global shocks arising from over reliance on developed and emerging economies for their subsistence.

Similarly, in an effort to boost intra-regional trade between SSA countries, it is important to recognize the fact that Africa cannot survive in isolation *vis-a-vis* the rest of the world. Driving regional trade in Africa should be complementary to improving trade relations with the rest of the world particularly, those regions that seems to be at advantage trading position with African countries. African Union should become a strong institution to provide common front on behalf of her members in harmonization of trade policies of member states and act as a central negotiating authority on commodity prices.

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