

Diversification and performance of Ethiopian export: Based on Extensive and Intensive margin measures¹

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Abstract

Export is the main determinant of economic growth as well as achieving sustainable development in developing countries like Ethiopia. Countries with good export performance can achieve economic growth by importing capital goods. To identify whether Ethiopia's export was well diversified or not both in market destination and product diversification in this study Gini Hirschman Index was used. The result shows Ethiopia's export had increasing when we compare export as a percentage of GDP before and after regime change of 1992. But still it is not good due to its volatility both international price and export volume over time and even decreasing for the year 2011/12, 2012/13 and 2013/14. The Gini Hirschman Index result shows that there was export destination countries diversification and still it shows improvement. There was moderate concentration on commodity export between 2005/06 and 2007/08 but no concentration between the interval 2008/09 and 2013/14. But service export was undiversified most of it was concentrated to transportation service export. Even if export destination countries diversified it was undiversified on the continent level due to our export is still concentrated to Europe and Asia even if there is development on export to Africa.

Key Words: Ethiopian export performance, Diversification, Gini Hirschman Index

1. INTRODUCTION

1.1. Background of the study

Growth of an economy is directly related to exports because if it increases at a faster pace as compared to imports, nothing can stop an economy from being a developed one. On the other hand, the instability in exports can adversely affects the process of economic development since if the export is stable investors invest on export sectors which increase total economic development if the export sector is unstable investors are not willing to invest of those sectors. Lower exports mean low foreign exchange availability and lower foreign exchange availability in turn means a small purchasing capacity of a nation in the international market to import capital goods which leads to decline the growth of a country.

Export also plays a great role for the stability and income distribution of a country by increasing employment both directly from the exporting sector and indirectly to those sectors which produce inputs to the exporting sector. The export sectors pay more than 18 percent as compared to other sectors, in addition to this; it increases and improves productivity by increasing competition and technology transfer as stated by Riker David (2010).

Even though Ethiopia tries to diversify its export products and increasing its export volume still it is impossible to minimize the current account balance deficit. Therefore, perceiving the Ethiopia's export performance is important since the development of export performance is crucial in supporting to import those machineries and capital goods in order to increase the productivity of a country. Therefore this paper studies the performance of Ethiopia's export which increases the foreign exchange availability.

The main objective of this paper was to study the performance of Ethiopia's export sector. While the specific objectives are: To perceive export incentives given by the government, to identify the diversification of Ethiopia's export destinations and export products, to observe the developments Ethiopia's export sector.

¹ The views expressed in this document are those of the authors and do not necessarily reflect the views of the Organization.

Export performance is the relative success or failure of the efforts of a country to sell domestically-produced goods and services in other countries. Export diversification (extensive margin) is the changing of a country's export structure (by diversifying either vertically or horizontally) and growth rate of export (intensive margin) measures the improvement of export

2. LITERATURE

2.1. INCENTIVES PROVIDED BY GOVERNMENT TO ENCOURAGE EXPORT

There are various structural adjustments that have done by government on Ethiopia's export sector to encourage exporters. The following are some of the structural adjustments that have been done.

Devaluation of national currency increases competitiveness of exporters by exporting commodities abroad and earning foreign exchange which has high value as compared to domestic currency. Therefore government depreciates the exchange rate by five percent rate annually to encourage export sector by increasing competitiveness of exporters in the international market. The Ethiopia's exchange rate devaluation of year 2010 is one of the policy measure done by the government to encourage export sector and increase competitiveness of exporters in the international market.

Abolishing of all export taxes (except coffee) and subsidies the government encourages exporters by providing more incentives and subsidies which leads them to be more profitable and competent in the international market. Exporting goods and services are a source of foreign exchange for those private and government sectors to facilitate more growth. The Ethiopia's government provides the following duty incentive schemes were established by Proclamation 39/2001: Duty Draw-Back Scheme, Voucher Scheme and Bonded Manufacturing Warehouse Scheme. The above incentives were revised again by proclamation no. 768/2012 on export trade duty incentive schemes.

2.2. Empirical literature

Export is variously defined as the change in the composition of a country's existing export product mix or export destination (Salomon Samen, 2010; Ali, Alwang and Siegel, 1991). Many developing countries follow export led growth strategy; export diversification is conceived as the progression from traditional to non-traditional exports. By providing a broader base of exports diversification which enables to lower instability in export earnings and enhance growth through improved technological capabilities via broad scientific and technical training as well as learning by doing, facilitation of forward and backward linkages. Developing countries have been struggling with the challenge of expanding and diversifying their export baskets for a long time. When export is concentrated in a few primary commodities, there can be serious economic and political risks by reducing foreign exchange earning which are relevant to those developing which leads scarcity of machineries. Due to that unemployment increases and the country may become politically unstable therefore export diversification aims at mitigating these economic and political risks.

Hossain M. and Chowdhury A. (2012) studied on the pattern and determinants of export diversification in Bangladesh. To measure export diversification three indexes were used Hirschman index, Ogive index and entropy coefficient. The Analyses, robust evidence has been found across the specifications and Indicators that the export basket of Bangladesh has continued to remain relatively undiversified. They reveals in their study that the export growth and overall economic growth are highly correlated and a robust restructuring in trade policy is needed for gaining momentum in diversification of export in Bangladesh. The analyses show that exports at the intensive margin account for the most important share of overall trade growth. At the extensive margin, geographic diversification is more important than product diversification, especially for developing countries because geographic diversification increases export growth by 18 percent but product diversification only increases by one percent Evenett and Venables (2002).

Erkan B. (2014) studied on turkey's product and market diversification using different concentration ratio measures Gini Hirschman index was the one which are mostly used to measure market (geographical destination) and product diversification. The difference from other Authors is that Birol multiplied the Gini Hirschman index by 100 to change it in to percentage and compares the diversification of product and market within the interval between zero and one hundred but others (like Michael L. Wyzan (1999), James Love (2005)) do not multiplied by one hundred rather compare its diversification between the specified interval above. The

value approach to zero refers low concentration (diversified) and approach to one hundred refers to high concentration (undiversified). Finally using Gini Hirschman index Erkan found that there was a successful market diversification and no product diversification.

Michael L. Wyzan (1999) studied on Macedonian and Slovenian Trade after the Break-up of Former Yugoslavia: Focus on the European Union using Gini Hirschman show that Macedonian trade was more concentrated on both the export and import sides than Slovenian trade. Both countries have more concentrated exports than the Czech Republic (perhaps due to their smaller size), while Slovenia's trade concentration was similar to Slovakia's. Macedonia's concentration was high by any standard and has risen substantially during the 1990s. Slovenia (along with the two Czechoslovak successor states) falls between Germany and Greece in export concentration. On the import side, the tendency for seemingly less developed countries to exhibit greater concentration is present but much weaker.

James Love (2005) studied on the concentration and export instability using Gini Hirschman index. James Love uses Gini Hirschman index to measure export concentration for 52 developing countries. The final finding shows that countries with high concentration are unstable and those low concentrations are more stable with this result James argue that there is a relationship between concentration and instability of export earnings.

3. METHODOLOGY

There are various ways to measure export performance. Among those measures export diversification (extensive margin) and export sales growth rate measures the common measures. The most commonly used measure of export diversification is the Concentration Ratio (Product or geographic concentration) was used. Several measures have been developed to estimate concentration ratios (Attaran, M and Zwick, M, 1987; ECA, 2006). These include: the Hirschman index, Gini Hirschman index, the Ogive index, the entropy index, the Herfindahl index and the Aggregate Specialization Index. These measures are conceptually quite similar, and their approaches, which compare actual distributions to a hypothetical uniform distribution, have been proven to provide quite comparable ranking.

The Gini Hirschman Index (GHI) method is a type of concentration ratio method which is the most widely used to measure export diversification (concentration). It is the index that would result if a country's export receipts were divided evenly among different commodities or different destinations. Its formula written as follows:

$$GHI = \sqrt{\sum_{i=1}^N \left(\frac{x_i}{X}\right)^2}$$

Where x_i is the export value of a specific commodity i , X the country's total export and N represents the number of commodities exported. A higher GHI indicates greater concentration of exports on a few commodities. The values of the concentration ratio (GHI) $0 \leq GHI < 1$ determines how export of a country is diversified. An index value greater than 0.5 represents extreme concentration, value between 0.4 and 0.5 represents moderate concentration and the value less than 0.4 represents that the export is less concentrated (diversified). When export diversification in the case of destination the only difference is that the export value of a specific commodity represents a specific export destination country and N represents the number of export destination countries but X represents the same that is the total export earning value. In addition to Gini Hirschman index in this research trend analysis, measure of central tendency (Average), percentiles and charts were used.

There are various ways to measure export performance on intensive margin among those measures the most two common measures ratio of aggregated export sales to total sales and export sales growth which is calculated from the growth rate of export over the time period included Luis Filipe L. (2000). In this paper the export sales growth was used to examine the export performance of Ethiopia

4. RESULT AND ANALYSIS

4.1. Development of Ethiopia's export

There are factors that determine the export performance of a country. These factors are level of development of the economy, policies, strategies pursued, export structure resource endowments and others.

Ethiopia's total export proceeds during FY2012/13 amounted to USD 3.1 billion, down by 2.5 percent vis-à-vis the previous fiscal year. This export performance is attributed largely to the decreased earnings from export owing to the fall in global commodity prices and/decreased volume of exports. Total export proceeds during 2013/14 amounted to USD 3.3 billion showing a 5.6 percent moderate growth vis-à-vis the previous fiscal year. This export growth was achieved through increased earnings from owing to higher global commodity prices and/or increased in volume of exports (NBE annual report 2012/13, 2013/14). In order to see Ethiopia's export development total export (total good export + total service export) as a percentage of total income was discussed.

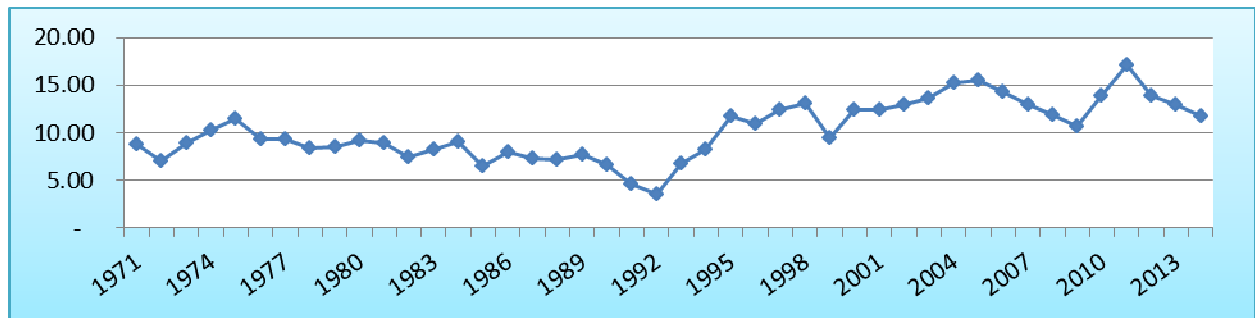


Figure 2 Ethiopia's export developments as a percentage of GDPM (tx/GDPM)

The above figure 1 shows that the ratio of export to gross domestic product at market price was lowest at year 1992 which indicates regime change. In addition to 1992 Ethiopia's export development total export as ratio of gross domestic product at market price shows minimum value at year 2000 and year 2009. This was due to Ethiopia and Eritrean war and financial crisis which affects export from supply side and demand side respectively. That is at the time of war between Ethiopia and Eritrea there was no confidence on exporters to export more and increase foreign earning due to their expectation that they think they may lose their export earnings due to bedlam. While on the other hand at the time of world financial crisis world demand declines for export of goods abroad since their income is not certain at the time. To generalize Ethiopia's export development over its income which expressed as a ratio of export to gross domestic product was taken but the result shows that Ethiopia's export of goods and services does not have well done rather it shows volatility over the time horizon included. The researcher also understands that Ethiopia's export (tx) to gross domestic product at market price (GDPM) shows declining for recent years for year 2012, 2013 and 2014. This result is not in line with Ethiopia's government plan which follows export lead growth strategy by increasing export as ratio of GDPM.

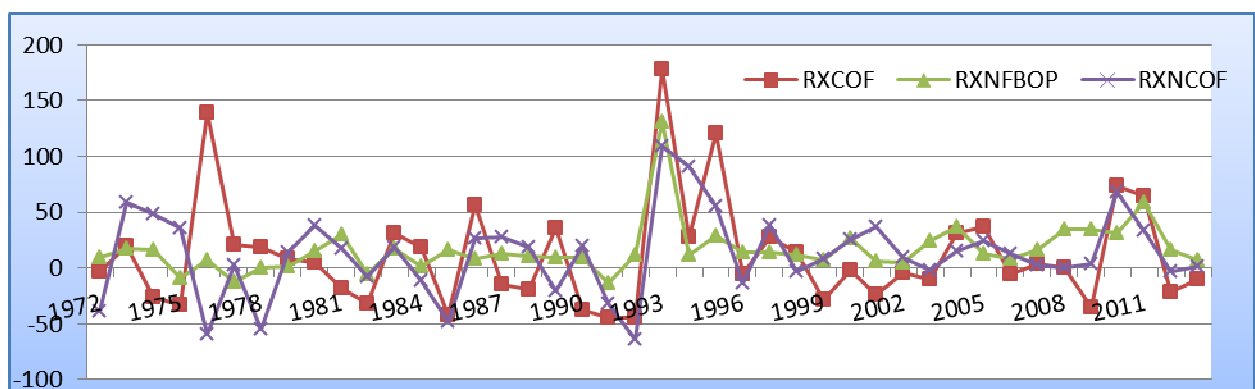


Figure 3 Ethiopia's export growth rates in percent for major groups

The above figure shows that the growth rate of export for real export of coffee (RXCOF), real export of non factor service (RXNFBOP) and real export of non coffee (RXNCOF) was volatile which shows on some years it were negative and on the other years it were positive. This instability of export has impacts on economic development. From figure two we conclude the performance of Ethiopian export is not good due to its volatility.

4.2. Comparison of Ethiopia's export performance with growth and transformation plan (GTP)

When we compare the performance of Ethiopia's export of goods with its GTP target from table 1 below it shows poor performance. That is the target value from export of goods is not achieved which is very far from the targeted value. When we see one by one for major selected commodities: coffee export was achieved 122 percent which is greater by 22 percent than the targeted value for year 2010/11. But for the consecutive years it is beneath than the target value which accounts 92, 63, and 27 percent respectively. The result of achievement for the three years shows declines as compared to the targeted value. For oilseeds also there is a gap between the targets of volume export as well value earned. The value earned from export was 73,85,62 and 73 percent for year 2010/11 to the next three consecutive years respectively achieved as compared to the GTP target.

For pulses also there is a gap between the targeted of volume export as well value earned. The value earned from export was 73, 57, 57 and 42 percent for 2010/11 and the three consecutive years respectively achieved as compared to the GTP target.

Table 1 Comparison of GTP target and achievement of value earning from export

Year	2010/11			2011/12		
	Target	achieved	%achieved	Target	achieved	%achieved
Coffee	692	845	122	906	836	92
Oilseeds	450	328	73	565	478	85
Pulses	190	139	73	279	160	57
live animals and meat	189	212	112	287	285	99
flowers	214	177	83	269	197	73
vegetable and fruits	63	32	51	123	45	37
Spices	20	35	175	22	36	164
sugar export				41	0	0
leather and leather product industry	191	105	55	296	118	40
Textile	100	62	62	200	85	43
gold, tantalum	146	497	340	158	664	420
Year	2012/13			2013/14		
	Target	achieved	%achieved	Target	achieved	%achieved
Coffee	1187	746	63	1555	418	27
Oilseeds	710	439	62	892	654	73
Pulses	410	233	57	601	251	42
live animals and meat	435	240	55	660	261	40
flowers	338	186	55	425	200	47
vegetable and fruits	244	44	18	480	48	10
Spices	25	30	120	27	29	107
sugar export	116	0	0	245	0	0
leather and leather product industry	352	136	39	417	154	37
Textile	450	97	22	700	110	16
gold, tantalum	165	666	404	202	664	329

To be more elite the researcher perceives whether it is a price effect or the decline volume of export. The table 2 below shows that the volume of coffee export was declines from year to year as compared to the GTP target. The achievement of volume of coffee export on year 2010/11 was 77.9 percent which was below than the target value but the value earned was 122 percent which is a great achievement due to increasing the world coffee price but not because of its good performance. The volume of coffee export for the next consecutive years also declines to 59.7 percent, 54.5 percent and 40.5 percent respectively from its target value which shows a great deviation as compared to the target volume of coffee export.

The volume of oilseeds export shows an achievement 85, 86.5, 55.1 and 51.7 percent for 2010/11 and the consecutive years respectively achieved as compared to the GTP target. This implies the value and volume effects are the case for not achieving the GTP target of earning from oilseed export. On Ethiopia's export of oilseeds the value achievement was high as compared to the volume achievement.

For pulses also there is a gap between the targeted of volume export as well value earned. The volume of pulses export shows an achievement of 99.6 percent, 52.8 percent, 60.3 percent and 43.4 percent for 2010/11 and the three consecutive years respectively as compared to the GTP target. When the researcher compares the value and volume of achievement on Ethiopia's export of pulses the value achievement was low for year 2010/11 even if it achieved almost 100 percent of the targeted volume which was due to the decline of world pulse price. While for the other years the decline in volume also the reason. The reason for all this deviation between the actual and GTP target volume is due to the over stretched plan of government target on the volume export

Table 2 Comparison of GTP target and achievement of volume of export

Volume export in metric ton	Commodity	2010/11			2011/12		
		Target	achieved	%achieved	Target	achieved	%achieved
	Coffee	221115.0	172217.2	77.9	283907.0	169408.1	59.7
	Oilseeds	299198.0	254186.5	85.0	426111.0	367436.2	86.2
	Pulses	225446.0	224482.3	99.6	428218.0	226157.6	52.8
	Year	2012/13			2013/14		
		Target	achieved	%achieved	Target	achieved	%achieved
	Coffee	364531.0	198737.3	54.5	468052.0	189669.3	40.5
	Oilseeds	508516.0	280159.4	55.1	606857.0	313526.6	51.7
	Pulses	590168.0	356079.4	60.3	813368.0	353022.2	43.4

4.3. Measuring Ethiopia's goods export diversification

Export diversification is defined as a change in the composition of countries existing export product either vertically or horizontally or the existing export destination markets. Horizontal export diversification implies that increasing new products of export. That is exporting additional new primary or secondary products on the existing products. While vertical export diversification implies improving exports from primary (poor country commodities) to secondary and tertiary (rich country goods) by adding additional value by further processing to finished or semi finished goods.

4.3.1. Diversification of Ethiopia's exports by destination

In this section the diversification of Ethiopia's export value by destination which considers geographical location were presented. Ethiopia exports its major exports to Africa, Europe, Asia, America and Oceania continents. Diversification of Ethiopia's export value varies among those continents as well as countries in each continent. All Ethiopia's export destination countries in each continent on average year of 2005/06-2008/09 and 2009/10-2012/13 were compared and discussed below to see the growth rate of Ethiopia's export growth in each country of the continent in millions of USD.

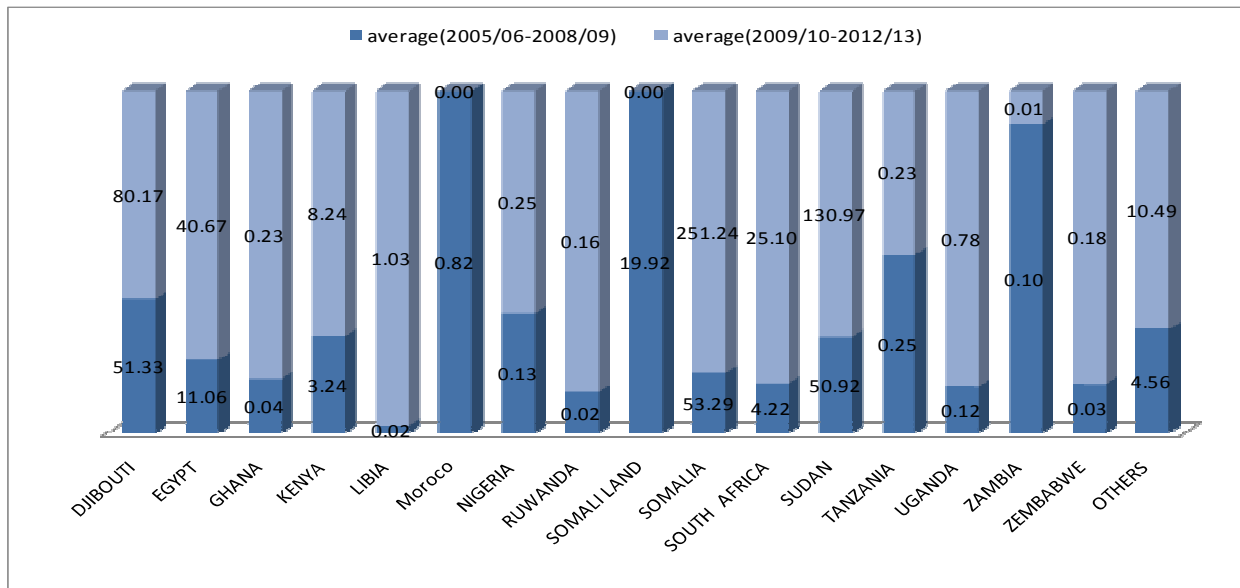


Figure 4 Diversification of Ethiopia's export value by destination for African countries

The above figure 3 shows that the value of earning from exporting in millions of USD increases for most countries on average between 2005/06-2008/09 and 2009/10-2012/13 specially for Somalia from 53.29 million USD to 251.24 USD which shows more than fourth fold growth, for Djibouti it rises from 51.33 million USD to 80.17 million USD, for Egypt from 11.06 million to 40.67 million USD and for Sudan from 50.92 million to 130.97 million USD. These indicate the value of export earning highly increased from Somalia, Djibouti, Egypt and Sudan. There are also other countries like Ghana, Kenya, Libya, Nigeria, Rwanda, South Africa, Uganda and Zimbabwe shows an increment of Ethiopia's earning from export. But on the other hand there are countries that show Ethiopia's value earning from export declines these are Somaliland, Zambia, Morocco and Tanzania. As we see the overall effect between the two horizons export earnings increases on average from 2005/06-2008/09 to 2009/10-2012/13 in African countries.

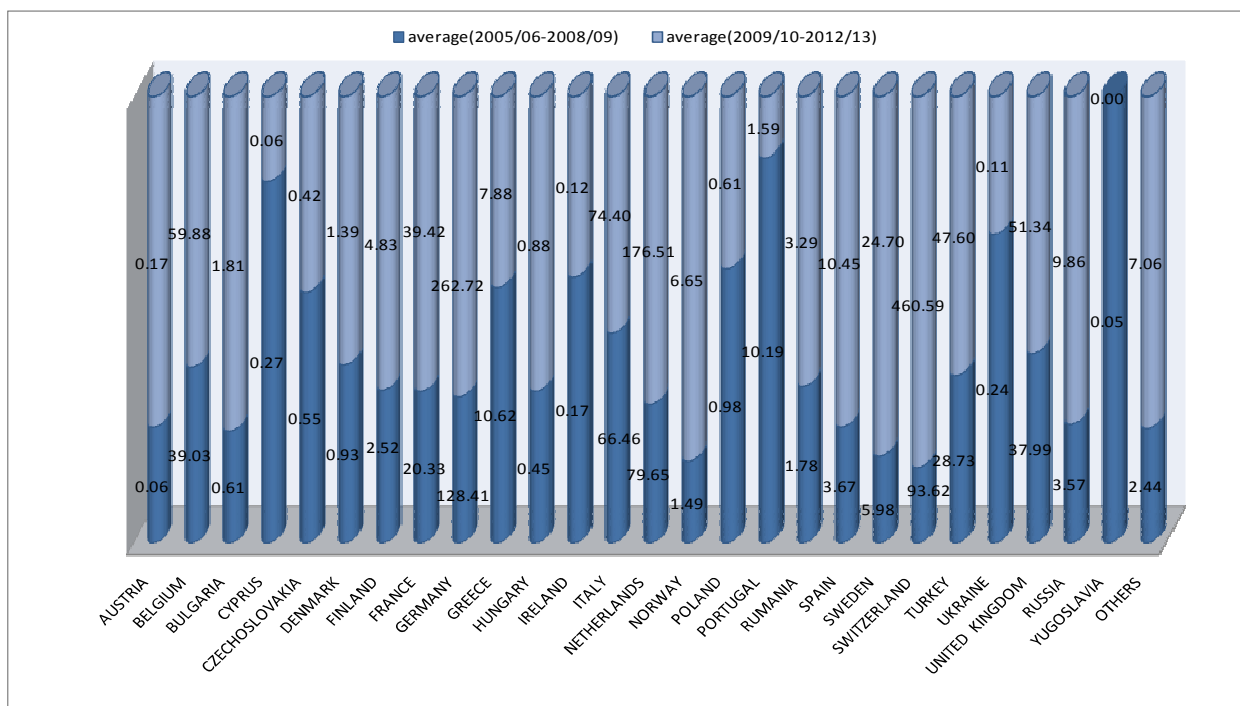


Figure 5 Diversification of Ethiopia's export value by destination for Europe countries

From the above figure 4 the researcher could understand that the value of Ethiopia export earnings from some European countries increase and on the other hand on some it decreases in millions of USD on average for year 2005/06 to 2008/09 and 2009/10 to 2012/13. The value earning from export increases for Switzerland from 93.62 million USD to 460.59 millions of USD, for Netherlands 79.65 million to 176.51 million USD, for Belgium from 39.03 million to 59.88 million USD, for Germany from 128.41 million to 262.72 million USD which shows the largest share of export in European countries. In addition to above four countries there were other countries which show an increase of Ethiopia's value earning from export to those countries. There are other countries which show the decline of Ethiopia's export value earning. These were Cyprus, Czechoslovakia, Greece, Ireland, Poland, Yugoslavia, Ukraine and Portugal but the decline was small as compared to those countries which increases the value of earning from export from European countries in millions of USD.

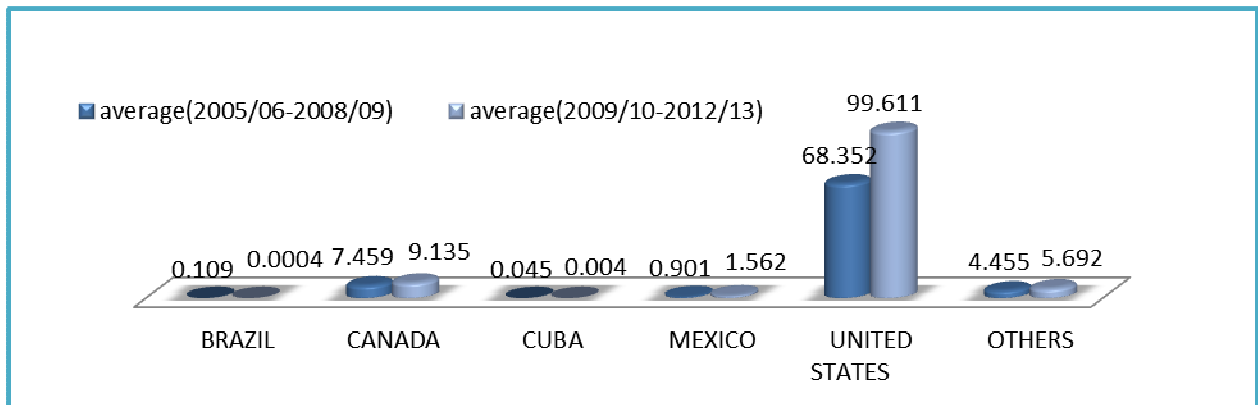


Figure 6 Diversification of Ethiopia's export value by destination for American countries

The above figure 5 shows that the value of export earnings gain from the American continent both from North and South America was dominated by united states which shows the largest share both for an average value of (2005/06 to 2008/09) and (2009/10 to 2012/13). The average values for these periods were 68.35 and 99.61 millions of USD respectively. Next to United States of America the value of earning also increases for Canada and Mexico which shows an increment from 7.45 million to 9.13 million USD and from 0.9 million to 1.6 million USD respectively. But on the other hand the export value earning declines for Brazil and Cuba but as compared to the increase United States of America, Canada and Mexico it is less significant.

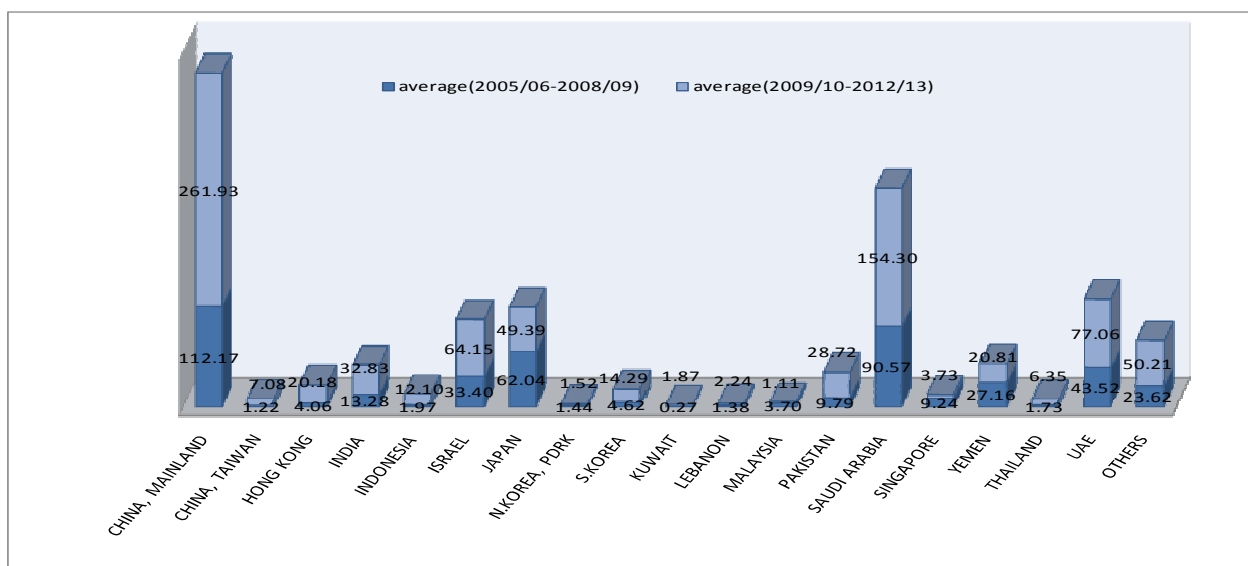


Figure 7 Diversification of Ethiopia's export value by destination for Asian countries

The above figure 6 shows that the value of earnings from export increases for most Asian countries except some. The value export gained from China, Mainland increases from 112.17 to 261.93 million US dollar, from Saudi Arabia it increases from 90.57 to 154.3 millions of USD, from United Arab Emirates from 43.5 million to 77.05

million USD. It also increases from 33.4 million to 64.15 million, from 4.06 to 20.18 million, 13.28 to 32.83 million, 1.22 to 7.08 million USD, from 4.62 to 14.29 million USD, from 9.79 to 28.72 million USD for Israel, Hong Kong, India, China, Taiwan, South Korea and Pakistan respectively. There are also countries Ethiopia's exports earning declines on average for the two time periods these are Japan from 62 to 49.4 million USD for Yemen from 27.26 to 20.81 million USD and for Singapore from 9.24 to 3.73 million USD dollars.

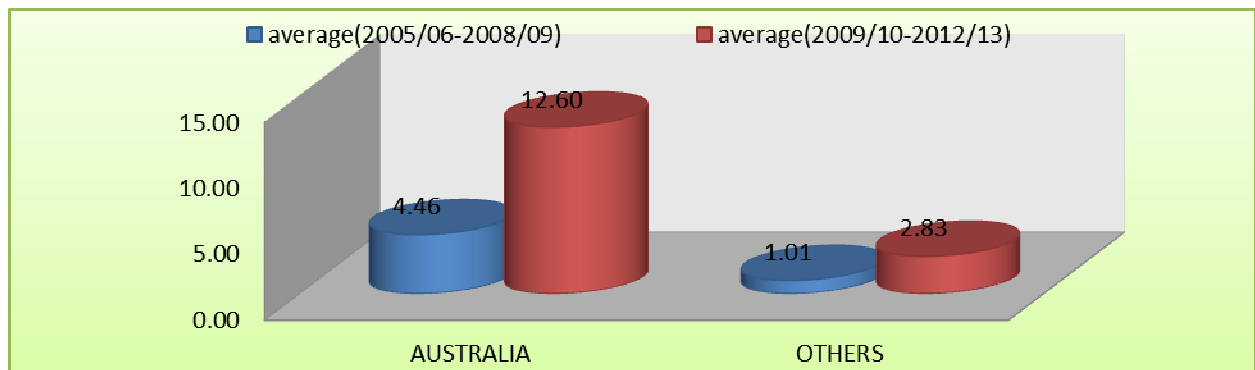


Figure 8 Diversification of Ethiopia's export value by destination for Oceania countries

The above figure 7 shows that Australia has the largest value share of Ethiopia's export earnings from the Oceania continent. The export earnings increase from 4.46 million USD to 12.6 million USD. The value of earning increases for other countries from 1.01 to 2.83 million USD.

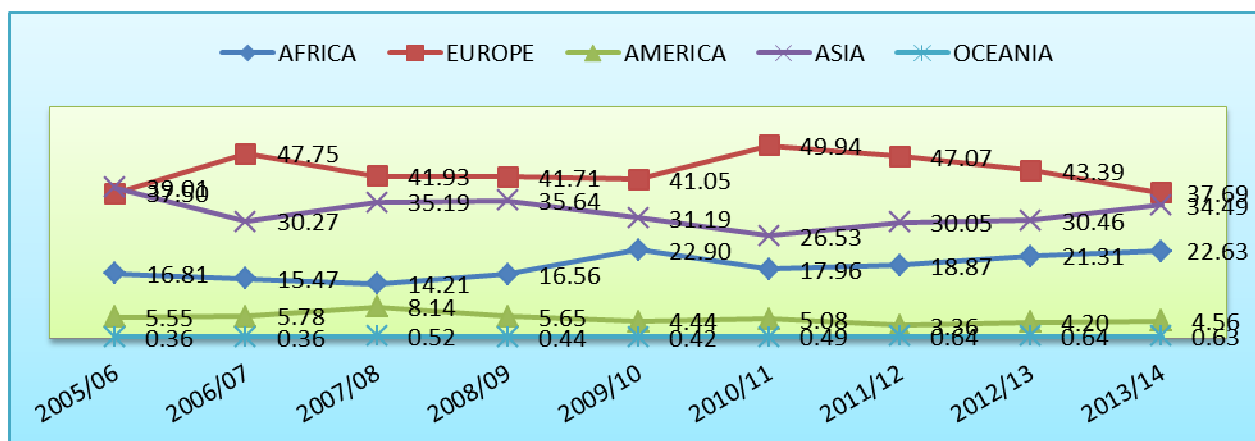


Figure 9 Trends of Ethiopia's export share by destination of continents

The above figure 8 shows the trends of Ethiopia's export diversification by destination of the continents. Its largest export destination continent for the previous nine years starting from 2005/06 to 2013/14 was Europe. The trend shows that Ethiopia exports more goods to Europe on year 2010/11 and 2006/07 which account 49.94 percent and 47.75 percent respectively. Asia is the second export destination continent following Europe. Export to Europe declines starting from year 2010/11 to 2013/14 but on the reverse side the African and Asian trade share increases on these years. Specifically it seems there is an inverses relationship between Europe and Asia continents share of Ethiopia's export. We can conclude Ethiopia export high to Asia by decline its export to Europe and vice versa. The Ethiopia's export to American declines starting from the recession period (2008/9) up to 2013/14. The least export destination continent was Oceania which accounts less than one percent for the previous nine years.

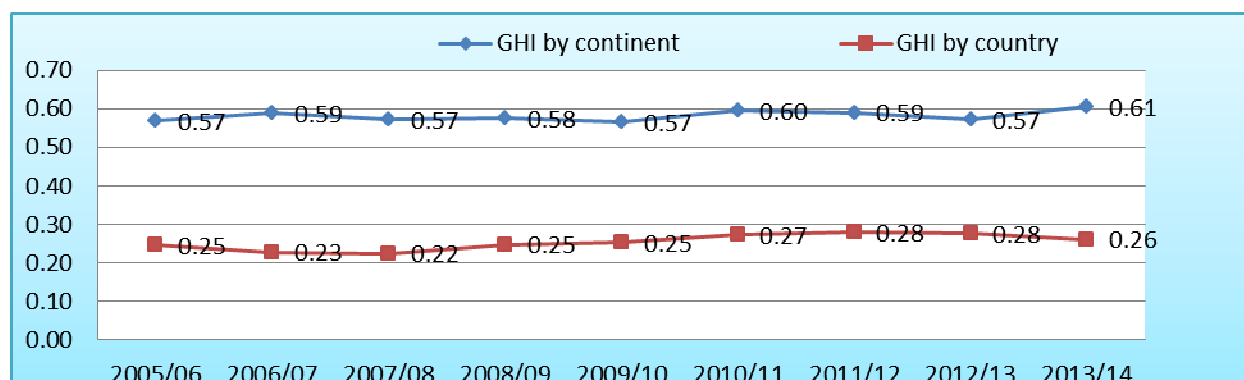


Figure 10 Export diversifications by countries and continents using Gini Hirschman Index

The result from the above figure 9 shows that the GHI index of the export destination countries less than 0.4 (U.S. Department of Justice and the Federal Trade Commission (2010)) for all countries starting from 2005/06 to 2013/14 which shows that the GHI values are close to zero indicates that Ethiopia's export earnings are diversified among countries in the world. While the result of GHI by the continent is greater than 0.5 indicates that the Ethiopia's export was undiversified to the continents in the world. This implies Ethiopia's export is skewed more to two continents Europe and Asia. As the researcher compares from year to year there was an improvement (decline of Gini Hirschman index) on Ethiopia's export destination countries but an increase of Gini Hirschman index on the continent indicates that export diversification declines when the researcher compares year 2005/06 to year 2013/14.

4.3.2. Diversification of Ethiopia's export commodities

Currently Ethiopia is increasing its exports even if it does not finance the import bills by diversifying the export commodities. The diversification of Ethiopia's export commodities is from both sides from vertical and horizontal export diversification. Vertical export diversification includes textile and textile products and leather and leather products, beverages etc. while on the horizontal; flower, cotton and other primary commodities.

Table 3 Ethiopia's export earnings from Major Commodity groups (millions of birr)

Major Commodity Groups	average year						
	1980/81-1984/5	1985/6-1989/90	1990/91-1994/5	1995/6-1999/0	2000/01-2004/05	2005/6-2009/10	2010/11-2013/14
Coffee	511.4	532.0	698.2	2233.5	1832.0	4512.2	13830.2
Oil Seeds	21.4	11.8	19.9	191.5	547.8	2803.5	8478.8
Leather and Leather products	91.5	123.7	172.5	311.8	503.4	770.9	2063.8
Pulses	24.2	17.9	30.2	89.9	205.3	979.7	3505.6
Meat & Meat Prods.	6.3	3.5	1.6	26.0	47.5	241.0	1288.8
Fruits & Vegetables	4.6	8.7	9.2	36.6	91.3	182.4	750.7
Sugar	9.3	17.1	10.2	7.5	80.2	39.3	0.0
Gold				217.2	366.0	1381.1	9330.1
Live Animals	13.7	20.3	5.1	8.5	28.0	531.2	3130.4
Chat	25.1	17.5	74.3	342.0	610.5	1349.8	4633.5
Petrol. & Pet. Prdts	67.7	30.5	48.8	31.0	0.0	0.0	0.0
Bees Wax	3.1	4.4	3.1	8.6	7.0	16.6	41.4
Tantalum					37.4	74.9	232.3
Cotton					72.3	113.1	47.2
Text. & Text. Prdts					47.7	157.3	1582.9

Cereals and Flour					99.6	47.4	229.6
Natural Gum					32.8	84.5	211.4
Animal Fodder					9.7	22.5	0.6
Natural Honey					0.2	9.5	45.7
Flower					29.2	1073.4	3364.0
Beverage					3.0	9.6	65.6
Spices					63.6	132.2	573.1
Other	34.2	38.8	45.0	180.0	671.9	2310.6	8,179.8

The above table shows that export earnings increase from year to year due to an increase both vertical and horizontal export diversification. Ethiopia diversifies its export commodities by exporting Gold, Tantalum, Cotton, Text. & Text. Prdts, Cereals and Flour, Natural Gum, Animal Fodder, Natural Honey, Flower, Beverage, Spices and others started from 2002/2003. Among those diversified Ethiopia's exports Ethiopia earn the largest value from Gold next to coffee on five year average in recent years starting from year 2005/06. Even if we understand that Ethiopia's export of goods were diversified the share of high value earning is still concentrated only on few commodities which is supported by the table presented below which shows the share of major commodities.

Table: 4. Share of Ethiopia's export commodities

Major Commodity Groups	Average(2009/10-2013/14)		2013/14	
	Value(million birr)	Share (%)	value(million birr)	Share (%)
Coffee	12,446.8	25.6	13708.1	19.4
Oil Seeds	7,717.2	15.9	12477.2	17.6
Leather and Leather products	1,797.6	3.7	2474.7	3.5
Pulses	3,140.0	6.5	4790.4	6.8
Meat & Meat Prodts.	1,119.2	2.3	1424.0	2.0
Fruits & Vegetables	683.0	1.4	919.2	1.3
Gold	8,206.0	16.9	8722.2	12.3
Live Animals	2,739.8	5.6	3553.3	5.0
Chat	4,248.9	8.7	5628.7	8.0
Bees Wax	37.2	0.1	52.0	0.1
Tantalum	216.6	0.4	86.4	0.1
Cotton	65.4	0.1	20.1	0.0
Text. & Text. Prdts	1,325.8	2.7	2100.9	3.0
Cereals and Flour	198.6	0.4	213.1	0.3
Natural Gum	201.9	0.4	231.5	0.3
Natural Honey	41.5	0.1	47.2	0.1
Flower	3,132.1	6.4	3817.4	5.4
Beverage	56.9	0.1	59.9	0.1
Spices	507.0	1.0	561.2	0.8
Others	784.19	1.6	9848.7	13.9

The above table shows that on the average (2009/10-2013/14) years coffee export was the first by accounting the lion share of 25.6 percent from total Ethiopia's export revenue. The other commodities such as gold, oilseeds,

chat, pulse, flower and live animals 16.9 percent, 15.9 percent, 8.7 percent, and 6.5 percent, 6.4 percent and 5.4 percent respectively.

The above table also shows that coffee still has the largest share which accounts 19.4 percent on Ethiopia's export earning in year 2013/14 but it declines as compared to its lion share for the previous decades of years. Next to coffee oil seeds enable Ethiopia to get 17.6 percent of its export value. The rest gold, chat, pulse, flower and live animals also contributes 12.3 percent, 8 percent, 6.8 percent, 5.4 percent and 5 percent respectively.

When we compare the share of major exports for the average share of (2009/10-2013/14) and 2013/14 the share of coffee export declines from 25.6 percent to 19.4 percent, the share of oilseeds and pulses increase from 15.9 percent to 17.6 percent and from 6.5 percent to 6.8 percent respectively, the share of gold, chat, flower and live animals decreases from 16.9 percent to 12.3 percent, from 8.7 percent to 8 percent, from 6.4 percent to 5.4 percent and from 5.6 percent to 5 percent respectively. The decline of these shares may be due to the increases of the share of other commodities. That there are other commodities (diversified export commodities) assigned to other commodities groups which increase the share of other exports from 1.6 percent to 13.9 percent.

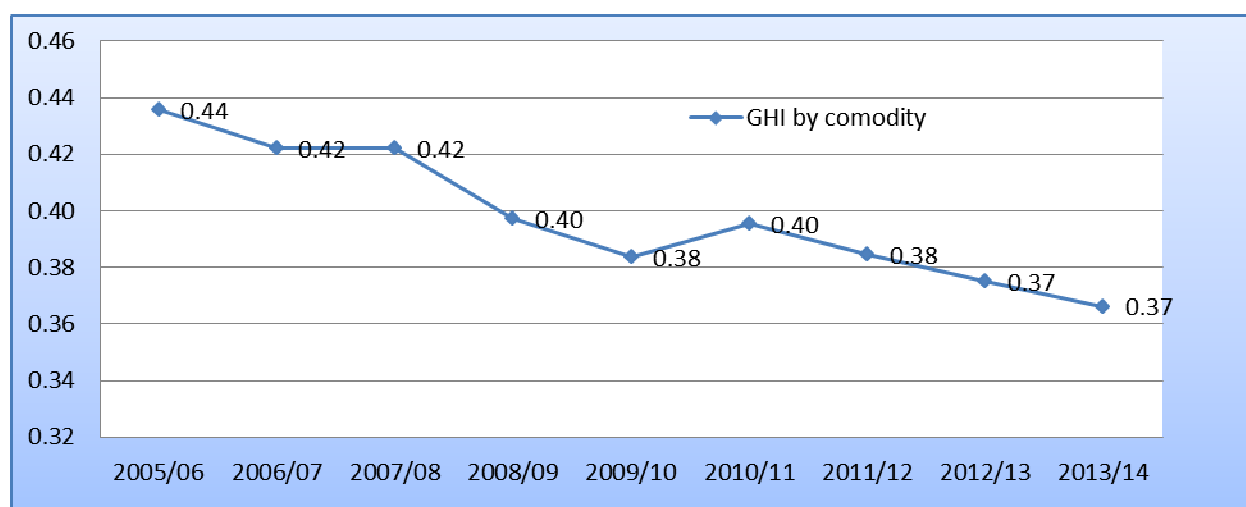


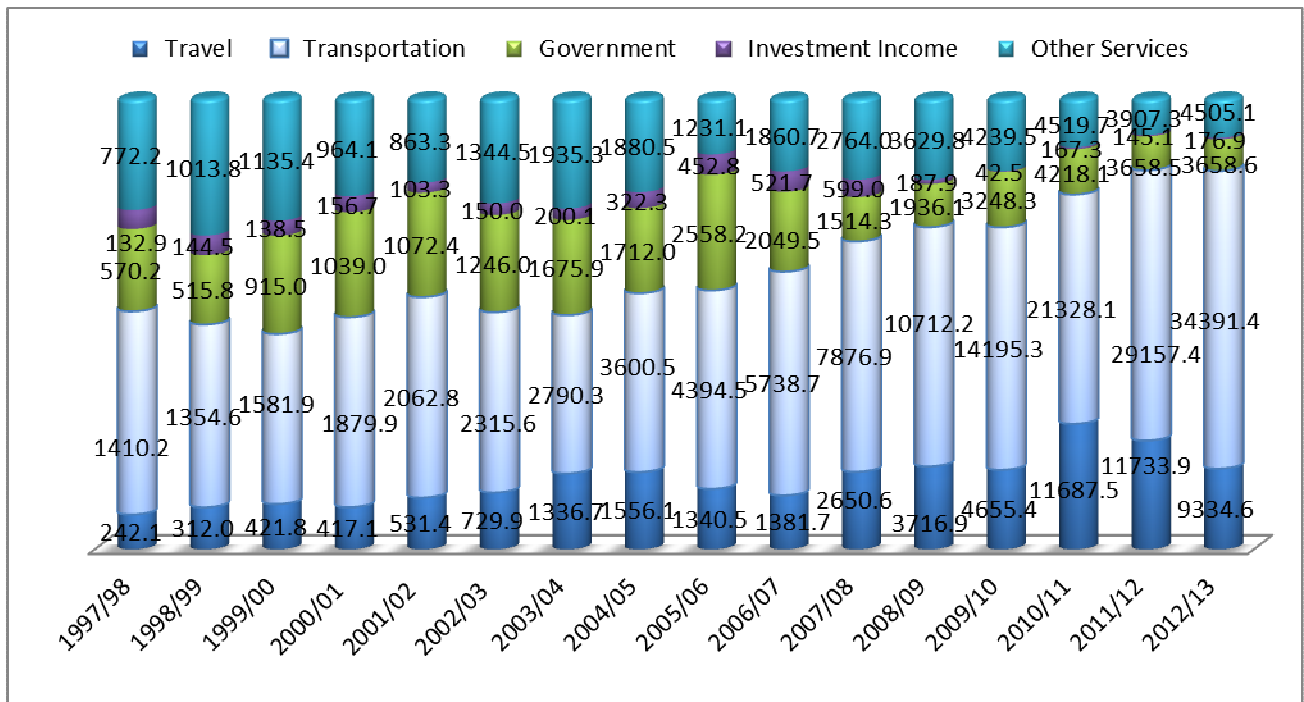
Figure 11 Export diversification by commodities using Gini Hirschman Index (GHI)

The result from the above figure 4.1.2 shows that the GHI of the export commodities moderately concentrated between years 2005/06 to 2007/08 since the value is in between 0.4 and 0.5 and diversified from year 2008/09 to 2013/14 since the GHI values are less than 0.4. As the researcher compares from year to year there was an improvement (decline of Gini Hirschman index) on Ethiopia's export commodities diversification that is there was an increase export diversification of commodities when the researcher compares between year 2005/06 and 2013/14.

4.4. Diversification of service export

Using the same procedure and method of measuring goods export diversification of service export was discussed. First the composition and share of service export had discussed for the previous sixteen years. Service export includes travel, transportation, government, investment income and other service exports. Other service exports include communication, construction, insurance, financial, computer and information, other business, personal, cultural and recreational services.

Figure 12 Composition of service export (in millions of birr)



The above figure shows the composition of service export over the previous sixteen years. The largest contribution for the service export sector was transportation sector which have largest shares for the previous sixteen years. Even though the share of other service export and government export were account the second and third share contribution for the service export it shows declining from year to year while transportation share increases from year to year. On the other hand travel share shows a little improvement but investment income declines over all periods.

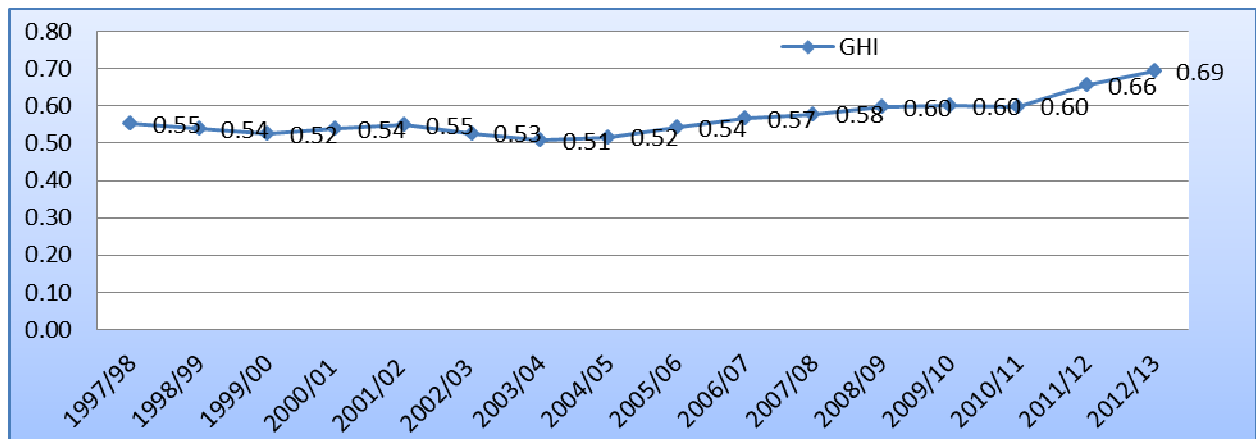


Figure 13 Service export diversification using Gini Hirschman Index (GHI)

The Gini Hirschman Index from figure 12 above shows that all values of GHI are greater than 0.5 which implies that service export is highly concentrated. This is due to the fact that the largest share of service export was skewed to transportation service export which accounts more than 50 percent of service export.

5. CONCLUSION AND RECOMMENDATION

5.1. Conclusion

To summarize this research export of goods and services are very important for developing countries which follow export lead growth strategy due to its importance for economic growth by importing of capital and intermediated goods. Export of goods and service affects economic growth through forward and backward linkage that is the output of one industry is used as an input of the other industry.

The development of Ethiopia's export was expressed export as a percentage of gross domestic products at market price. Ethiopia's export of goods and services is not stable rather it shows volatility over the time horizon included in this research. It is also observed that, Ethiopia's export (tx) to gross domestic product at market price (GDPM) shows declining for recent years specifically for year 2012, 2013 and 2014. This result challenge Ethiopia's government plan which follows export lead growth strategy and introducing a lot of incentives to the export sector.

Export diversification is important for a country whose objective is to have a stable macroeconomic environment. Export diversification both in geographical location and product are very important to have a stable foreign exchange rate earning which are very imperative for a country to be competent in the international market and import those capital goods which are very important for one country to achieve sustainable economic development.

The finding of this research using Gini Hirschman index shows Ethiopia's export of goods were diversified between year 2008/09 to 2013/14 even most of exports were primary agricultural products. Even if the diversification by country is good but when we see it on the continent it was not diversified rather it was skewed to some continent to Europe, Asia and Africa with respective trade share. The result of service export diversification also shows that the service export sector was not diversified rather it concentrated on too few products the main was transportation service. To generalize the Ethiopia's export performance was going on good way since it shows an improvement on diversification of goods export by product and destination of countries, but still there is no diversification on service export and export of goods by continent as well as growth rate total export is impulsive.

5.2. Policy implication

Based on the finding of this paper the researcher recommends the following to the concern body

- ✓ The export of goods was moderately concentrated before year 2007/08 and diversified after this year but still it is close to the above boundary of un-concentrated interval so policy makers should take additional measures to increase export diversification.
- ✓ Even though the government planned to increase export diversification to different countries and continent destinations it only have good performance on countries but not at continent level so it is important to take additional policy measures to increase export diversification to all continents which are very important to reduce instability of foreign exchange earnings.
- ✓ The service export is concentrated to few sectors it is more skewed to transportation. So the government should take various measures to diversify the type of service export in order to reduce foreign exchange earnings volatility in the service sector.
- ✓ Even if the development of export share on income on average was good, when we see export growth rate by component it shows unstable and needs policy measures to increase exports which are important for sustainable economic development by importing capital goods.

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