Greener Journal of Business and Management Studies

ISSN: 2276-7827 Impact Factor 2012 (IJRI): 0.6670 ICV 2012: 6.03

Comparative Advantage and Export Development: The Case of Egypt

By

**Divaries .C. Jaravaza
Macleans Mzumara
Sarah Nyengerai**

Research Article

Comparative Advantage and Export Development: The Case of Egypt

Divaries .C. Jaravaza^{1*}, Macleans Mzumara² & Sarah Nyengerai³

^{1,3}Department of Marketing, Bindura University of Science Education, P/Bag 1020, Bindura, Zimbabwe.

²Department of Economics, Bindura University of Science Education, P/Bag 1020, Bindura, Zimbabwe.

Emails: ²macmzumara@yahoo.com, ³snyengerai@gmail.com

*Corresponding Author's Email: divariescjaravaza@gmail.com

ABSTRACT

The authors investigated the comparative advantage of Egypt and highlighted the role played by export development. The authors found that Egypt has revealed comparative (RCA) ≥ 1 in 733 product lines. They have concluded that Egypt has comparative advantage and is specialized in the production of such products. They have recommended that Egypt put in place an appropriate export development strategy to assist it with product development and adaptation.

Key Words: Revealed comparative advantage, Exports promotion, International trade, Exports, Markets.

INTRODUCTION

Comparative advantage is necessary for a country to produce its products efficiently as it participates in the global market. It entails a country to specialize in those products in which comparative advantage exist. Export development works hand in hand with comparative advantage and it relates to the production of new products and access of new markets.

Egypt is a member of the Common Market for Eastern and Southern Africa (COMESA) and African Union. The authors are residents in the two organizations hence their interest in Egypt. Comparative advantage of Egypt and its export development strategies are important in increasing trade in COMESA and improving the African economy in general. This paper's objective is to investigate comparative advantage in Egypt and role of export development.

Background

Egypt is in the horn of Africa. It enjoys membership in the African Union (AU) and in the Arab League. It is a member of the Common Market for Eastern and Southern Africa. A sub-regional integration organization with membership of countries in the North, Eastern and Southern Africa.

Egypt became a member of COMESA on the basis of the requirement by COMESA that any country which shares the border with a COMESA member can apply for a membership. Egypt shares a common border with Sudan which is the member of COMESA and on that basis Egypt was admitted. According to the World Trade Organization (WTO) (2012), Egypt has been a member of the WTO since 30th June 1995. Egypt's Gross Domestic Product (GDP) amounts to US\$252.458 billion. The real GDP growth was 4.7% in 2009, 5.1% in 2010, 1.8% in 2011 and 1.5% in 2012. Its per capita income is US\$3, 119 (Global Finance, 2013). The Egyptian population has increased from 27.9 million in 1960 to 82.5 million in 2011 (Trading Economics, 2013).

Comparative Advantage

According to Case and Fair (2002), a country has a comparative advantage in the production of a specific product if that country is richly endowed with inputs which are used to produce the product in question. The principle of

comparative advantage and its extension allude to that comparative advantage arises due to international differences in the cost which arises from the differences in endowment from one country to the other. A country endowed with a specific factor will use that factor more intensively to produce a good which utilizes such a factor. This will lead to the specialization by the given country. The country will then import goods which used the factor which it is less endowed (Mzumara, 2006). The sources of comparative advantage emanates from factors in the form of natural resources, land and labour. Their quality and availability as stock matters (Case & Fair, 2002).

According to Goldin (1990), the principle of comparative advantage as advocated by Samuelson is the only proposition in the rest of social sciences which has elements of the truth as well as being non-trivial. It gives the premises which explain specialization and benefits from international trade and determines the direction and terms of trade. Initially, Ricardo used factor endowment to explain the trade between England and Portugal where the former exported wine and the later exported cloth. This was the beginning of the famous principle of comparative advantage. Ricardo's focus was mainly on physical and natural determinants as opposed to technological, competitiveness and human factors. The modern treatment and basis for empirical work emanates from Heckscher-Ohlin theorem which explains international division of labour in relation to different endowment of different nations in possession of two factors of production namely capital and labour. The Heckscher-Ohlin theorem reveals that factors of production are not easily transferable from one country to the other and that the said factors are utilized in different combinations to produce different products. A nation is said to have comparative advantage in the production of say rice if that nation is abundantly endowed with factors which are utilized intensively in the production of rice (Goldin, 1990).

According to Lee (1999), a nation has an absolute advantage in the production of a particular product without necessarily possessing a comparative advantage in the production of a particular product. However, it is the comparative advantage which will determine whether it is beneficial to produce a product or rather just import it.

The comparative advantage has been empirically tested. According to Goldin (1990), Leontief showed that exports of the United States of America (USA) industries are labour intensive while its imports are capital intensive. He therefore empirically invalidated the comparative advantage. This is in agreement with Mzumara (2006) who asserts that Leontief did a research in 50 industries and found that the USA economy exports labour intensive goods and at the same time imports capital intensive goods. This then challenged the principle of comparative advantage as propagated by Ricardo and extended by Heckscher-Ohlin. The conclusions made by Leontief that exports in the USA contain a lower ratio of capital to labour inputs than its imports was later on extended to other countries such as Japan, Canada and Germany (Goldin, 1990). However, the principle of comparative advantage was never completely demolished by Leontief's paradox (Mzumara, 2006). Goldin (1990) attributes to a rescue plan by applied Economists who moved away from two-factor models to the three-factor model which includes human capital in addition to the physical capital and raw labour inputs. With the inclusion of human capital, the principle of comparative advantage escaped demolition.

Export Development

According to the East African Community (EAC) (2006) and Mzumara (2012), export development relates to trade fairs, exhibitions and buyer and seller missions. It also relates to product development and adaptation. Product development and adaptation helps exporters to meet tastes and preferences of their customers, to diversify their exports and assists to create a strategy for encouraging entrepreneurship. Lastly, it relates to trade information capacity building. Trade information capacity building in turn relates to business guidance and capacity building initiatives and trade policy research (relates to monitoring the changes which take place in particular markets).

The major focus of Export development is production of new products and/or the penetration of new markets that were not previously accessible. Its objective is to identify existing opportunities and encourage new firms or production facilities to be established to satisfy demand in the international market (UNESCAP, 2011; Mzumara, 2012).

According to UNESCAP (2011; Mzumara, 2012), export development is not only desirable, but also necessary in some countries so that it can help in enlarging a small export base. It assists nations especially in developing nations, to export a wider range of goods which boost their export earnings. It is important that export development activities of a country be initiated together with appropriate economic instruments such as export promotion measures as they are critical to national trade performance (UNESCAP, 2011).

There are also two types of policies which affect international trade administration in general, and export development specifically. These are international trade policies and macroeconomic policies which may directly influence international trade and have effect on the general performance of international trade (UNESCAP, Mzumara, 2012). Several studies have however, shown that there are many theoretical and practical problems from the supply side that are yet to be solved in the field of export development (Purlys, 2007).

METHODOLOGY

Where (Balassa, 1965):

$$RCA = \left(\frac{X_{i,j}}{X_{W,j}} \right) / \left(\frac{X_{i,tot}}{X_{W,tot}} \right)$$

With:

$X_{i,j}$ denoting country i 's exports of product j ;

$X_{i,tot}$ denoting country i 's total exports;

$X_{w,j}$ denoting the world's (all countries) export of product j ; and

$X_{w,tot}$ denoting total exports in the world.

An RCA of equal and greater than 1 demonstrates that the country has revealed comparative advantage. In other words, the exporting country is relatively specialized in producing and exporting the product line under consideration. An RCA of less than one demonstrates that the country has no revealed comparative advantage and is not specialized in the product line (Balassa, 1965; Krugell & Matthee, 2009:461). According to Deardorff (2010), the RCA remains valid in revealing true comparative advantage.

Data on exports relating to Egypt and the world exports for 2008, 2009 and 2010 was obtained from International Trade Centre (ITC)'s Trademap based in Geneva, Switzerland. The data was obtained on 6 digit-level the most acceptable disaggregated international product classification.

RESULTS AND ANALYSIS

Egypt has 733 product lines with an $RCA \geq 1$. The country has comparative advantage in the production of 733 product lines. This means that Egypt is highly specialized in the production of such products. Table 1 shows top 50 products in which Egypt has the highest RCA.

Table1: Top 50 products in which Egypt has the highest RCA

Product code	Product description	2008 RCA	2009 RCA	2010 RCA	Average RCA
380700	Wood tar, tar oil creosote naptha veg pitches	549.7021	350.2661	408.4183	436.1288
760320	Powders/flakes, of aluminum, of lamellar structure	371.6616	299.5492	335.7459	335.6522
570190	Carpets of material knotted	196.0913	241.3684	267.767	238.0756
581100	Quilted textile products in piece (not embroidered)	119.5854	246.3166	314.9814	226.9621
520548	Combed mult cotton yarn	194.8594	205.9928	254.4843	218.4455
690810	Glazed ceramic mosaic tiles, cabses & similar <7cm wide.	154.6455	245.1327	225.6937	208.4906
690710	Unglazed ceramic mosaic tiles etc, ,7cm wide.	195.2565	149.5271	228.3129	191.0322
530110	Flax fibre, raw, netted.	146.2584	209.3195	196.9574	184.1785

540500	Artificial monofilament >67dtex t<1mm strip, straws t<5mm.	160.8284	206.519	147.7742	171.7072
071010	Potatoes, frozen uncooked steamed or boiled	244.6439	158.1451	84.22321	162.3374
310390	Phosphatic fertilizers, mixes pack>10kg.	200.192	56.2309	172.6777	143.0333
251512	Marble and travertine in blocks	123.586	207.99667	77.14198	136.2316
701391	Glassware except kitchen, table ware, of lead crystal.	16.58448	187.8661	179.1424	127.8643
630291	Toilet or kitchen linen of cotton.	156.3382	119.9812	90.07815	122.1325
700320	Cast glass sheet wired.	106.3891	85.256	167.399	119.6817
090950	Fennel seeds juniper berries.	92.3963	116.3489	101.686	103.4771
550820	Sewing thread of artificial staple fibres.	77.35719	125.1446	125.175	109.2256
740911	Plate sheet, strip, refined copper	92.3963	116.3489	101.686	103.4771
090940	Caraway seeds	67.70318	128.8988	101.686	99.3824
120300	Copra	12.65455	80.75266	203.9861	99.13111
281420	Ammonia in queous solution	26.89342	45.18992	211.1446	94.4093
150300	Lard stearin, oleostearin &noils, natural tallow oil.	44.22983	147.6741	76.62445	89.50947
293354	Derivatives of malonylurea (barbituric acid) excluding of 2933.53.	0	0	192.013	64.00434
071120	Olives, provisionally preserved.	53.82704	75.84569	59.7211	63.13128
620349	Mens, boys trousers & shorts, material, not kit.	9.315598	75.93524	101.7593	62.3367
071220	Onions dried, not further prepared	73.39116	57.53396	49.9052	60.27677
080510	Oranges, fresh or dried.	58.44206	62.47077	59.27769	60.06351
130219	Vegetable saps and extracts.	30.20617	70.01303	79.70771	59.97564
610349	Mens, boys trousers & shorts of material, knit.	19.22372	91.17007	68.53291	59.64223
121130	Coca-leaf	33.31372	130.8086	14.01849	59.38027
230690	Vegetable oil-cake and other residues.	70.74911	22.22944	83.01849	58.66569

120921	Seed Lucerne (alfalfa) for sowing.	28.21298	69.17901	70.79068	56.06089
470319	Chem, wood pulp, soda or sulphate, non conifer unbleached	0	164.0169	0	54.67231
720826	Flat rid product/coils>4.75	34.37372	69.54014	55.76871	53.22752
750890	Articles of mickel.	57.61173	48.28142	48.12376	51.33897
252321	Portland cement, white or white artificially coloured.	55.31881	56.05651	41.78517	51.0535
721699	Angles, shapes & sec not worked.	92.64174	51.53584	8.737527	50.9717
392210	Baths, shower-baths and wash basins of plastic.	57.29542	45.37662	49.40486	50.6923
070110	Potatoes seed fresh or chiller	84.96017	55.34079	9.224795	49.84192
070820	Beans, shelled unshelled.	36.46916	54.12773	51.35908	47.31866
540332	Yarn, viscose rayon, single >120turn/m not retail.	0	31.71441	102.4287	44.71438
310210	Urea including aqueous solution in packs >10kg.	20.0493	58.68702	53.95779	44.23189
291440	Ketone-alcohols.	36.66936	95.55564	0	44.075
010620	Live reptiles, including snakes/turtles	60.33119	28.5652	41.23463	43.37703
721310	Hot rolled bar/rod grooved iron or non-alloy steel in irregular coils.	19.86074	18.85457	91.05089	43.2554
271290	Mineral waxes.	20.83749	48.17383	58.99332	42.66821
120210	Ground-nuts in shell not roasted or cooked.	22.70158	74.05483	30.66886	42.477984
120922	Seed clover, for sowing.	41.9241	55.70964	27.70578	41.77984
410419	Tanned/crust hides & skins of bovine (including buffalo) equine animals.	4.637768	48.02526	70.90267	41.18857
251010	Natural calcium phosphates, unground.	19.28499	75.91427	27.34274	40.84733

Source: Computed using data from Trademap(2013)

Egypt has the highest RCA in wood tar, tar oil creosote with an index of 436. The product line is followed by powders/flakes aluminum with an index 336. The third position is occupied by carpets with an index of 238. The fourth position is occupied by quilted textile products with an index of 227. The fifth position is occupied by cotton yarn with an index of 218. Tiles occupy the sixth position with an index of 208.

The top 50 products show some evidence of manufacturing but not very high level manufacturing. There are also a large number of products in primary form. There is evidence that Egypt, as advocated by Ricardo then

Heckscher-Ohlin is gaining from participation in international trade. It has fairly a good number of product lines in which it has comparative advantage well above an average developing country. However, the top 50 product lines are not those considered high value products.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that Egypt has comparative advantage in a relative number of product lines. It is therefore specialized in the production of such products. It is recommended that Egypt puts in place an appropriate export development program in place. This will help it with product development and adaptation.

REFERENCES

- Balassa, B. (1965). *Trade Liberalisation and Revealed Comparative Advantage*. Newhaven: Yale University, Economic Growth Centre.
- Deardorff, A. V. (2010). *Thoughts on Revealed Comparative Advantage*. OECD Global Forum on Trade Chengdu, China, October 14.
- East African Community (EAC). (2006). Joint export and investment strategies for the East African Community 2006-2010. www.eac.int/trade/index.php?option=com_docman&task Date of access: 8 Jun. 2011.
- Goldin, I.C. (1990). Comparative advantage: The theory and application to developing country agriculture. OECD Development Centre. Working Paper No. 16.
- Krugell, W., & Matthee, M. (2009). Measuring the Export Capability of South African Regions. *Development Southern Africa*, 26(3), 459-476. <http://dx.doi.org/10.1080/03768350903086838>
- Lee, D.R. (1999). Comparative advantage continued the Freeman: ideas on liberty. From <http://www.fee.org/publications/the-freeman/article.asp?aid=4962>.
- Mzumara, M. (2006). *The Theory of Money and Banking in Modern Times*. Mustang: Tate Publishing LCC.
- Mzumara, M. (2012). *Developing an Export Promotion Strategy for the Post-Conflict Reconstruction of Zimbabwe*. Ph.D. Thesis, Unpublished. Potchefstroom: North-West University.
- Purly, C. (2007). Export marketing and promotion: Analysis of theories and practice for composing of Lithuanian export strategy. *EkonomikairVadyba. Aktulijisirperspektyvos*, 2(9):218-227. TradeMap 2013. *Trade Statistics*. Retrieved April 2, 2013, from www.trademap.org. UNESCAP. 2011. Introduction to export promotion. Commission for Asia and Pacific (ESCAP). http://www.unescap.org/tid/publication/tinpub2107_chap3.pdf Date of access: 11 May 2011.