

Export Competitiveness of Indian Oilseeds: The Method of Constant Market Share (CMS) with Special Reference to Groundnut

Anudeep Arora, Durgesh Batra

Abstract: This research Paper examines the export competitiveness of oilseeds. The main and huge production in agriculture is oilseeds which make India on the first number in Production of oilseeds in the world. Oilseeds compose one of the significant groups of cash crops in Indian agriculture. India has a proportional benefit in agriculture and there is a considerable potential in raising farm returns and employment by stepping up agro base exports. The constant market share (CONSTANT MARKET SHARE) study framework is used to decompose changes in India's share of the worldwide market for goods export in to competitiveness and structural consequence over 2001-2017. The CONSTANT MARKET SHARE Method is universally used to observe empirically the country's export performance. This paper is addressed to examine the regions export performance by applying CONSTANT MARKET SHARE Method.

Index Terms: CONSTANT MARKET SHARE, Export, Export Competitiveness, Trade Specialization, Groundnut, Oilseed, Export Potential.

I. INTRODUCTION

For economic strength of entire world it is essential that international trade grows. The growth of international trade is directly related to import and export. Two biggest challenges of international trade is sudden change of policies and unawareness of trade rules of particular country. There was a necessity of a global body that can provide international traders confidence to trade across the planet.[5] Until 1991 the trade in agriculture was heavily controlled by government interventions, namely tariff and non-tariff barriers, quantitative restrictions, licensing and canalization and subsidies. Economic reforms in the early 1990s followed by establishment of WORLD TRADE ORGANIZATION in 1995 changed agricultural trade rapidly.[6] Trade liberalization led to greater integration of world economies. It opened up new opportunities, challenges and competition in agricultural markets (Jagdamba 2016). Studies shows mixed effect of liberalisation on Indian agricultural trade (Bhalla 2004; Karnool et al. 2007; Angles et al. 2011; Sharma 2013). In order to boost agriculture exports it becomes indispensable to assess the competitiveness of agricultural exports. We couldn't come across any study that

focuses on competitiveness of groundnut from India other than Rani et al.

(2014). Therefore, competitiveness of Indian groundnut in post- WORLD TRADE ORGANIZATION period is crucial to analyse its sustainability in domestic and international markets. This study has made a modest attempt to analyse competitiveness of India's groundnut export using CONSTANT MARKET SHARE approach.

Oilseeds constitute one of the important groups of cash crops in Indian agriculture. They are the most important sources of supply of edible oils in the country. Indian vegetable oil economy is the fourth largest in the world, next only to that of USA, China and Brazil, accounting for about 14 per cent of world oilseed area and 7 per cent of global production. However, the productivity in India is low, only 986 kg/ha (2003) as compared to the world average of 1777 kg/ha (2003).[6] The oilseed sector has been playing a major role in reducing the gap in domestic demand and supply, and is also earning valuable foreign exchange from its byproducts (Virupakshappa and Kiresur, 1998). The oilseed scenario in the country has undergone a sea change during the past twenty years.[14] India emerged as a net exporter of edible oil in 1990s from a net importer during the early 1980s. However, it has again become a net importer, accounting for more than 40 per cent of annual edible oil needs. India has a comparative advantage in agriculture, and there is a considerable potential in raising farm income and employment by stepping up agro-based exports. Economic integration and trade liberalization will have a great impact on the national economy in general, and on the agricultural sector in particular. It will be a good opportunity to expand markets and acquire advanced technologies from the developed countries.[16]

II. REVIEW OF LITERATURE

Samar Verma (November, 2002) researched and take a deep dig into "Export Competitiveness of Indian Textile and Garment Industry" massively where he originate the competitiveness is expanding day by day in coming era for all the firms including clothes and textiles. Indian textile and clothing industry takes a considerable place in Indian economy which contributes about 4% of GDP and 14% of industrial output. This is the second largest employer after agriculture. It reveals that agriculture is the first largest containing employer. This study has also clarified &

Revised Manuscript Received on July 02, 2019.

Anudeep Arora, Assistant Professor, Kamal Institute of Higher Education and Advance Technology, Affiliated to IP university, New Delhi, India

Dr.Durgesh Batra, Associate Professor Amity University Jaipur, India



examined the India's competitive performance in two international EU and US markets for (ATC) product categories which all are important for Indian export. He also found the Indian exports to the US and EU are the whole export competitive. It has also delineated the changing landscape in the international trading environment which is likely to be extensively get a impact on global textile and clothing trade.

Widgren (2005) on the comparative benefit of a sample of Asian, American and European countries from 1996 to 2002. His probe is into mostly used the data of HS classification at the 4-digit level. He studied the source of comparative advantage and came to the following conclusion. In the context of the Asian continent, the factor content of comparative advantage had some kind of similarity. Whereas in the case of the US, it was basically based on highly expert labour and for the EU, it moved towards use of human as well as physical capital.

Ranjana Kumar (2005) reported in his worked that "Constraints facing Indian agriculture: Need for policy intervention" India continues to be predominantly an agrarian economy and without improvements and development in this sector, the economy as a whole cannot anticipate achieving and maintaining a balanced and sustainable development trend.

RS Deshpande (March, 2005) has researched that after the review in Karnataka, he come across with looking at the economy factor of Karnataka state all over peers it entirely depends upon the agriculture. The mostly part of the Karnataka is enclosed by the agriculture. Karnataka is also having mostly poor population which is located in rural areas among the agriculture laborers this shows that most of the poor population do the agriculture which makes the Karnataka strong in their back bone because Karnataka state is having the large production of agriculture and hence for increasing their motherland export market recently Karnataka emergence as an important partner in boosting up the export growth of the country. Among all other states in the production Karnataka comes on a medium level.

Hailegiorgis Biramo Allaro (2011) researched on "Export Performance of Oilseeds and ITS Determinants in Ethiopia" than he found the export presentation of the oilseed over the period 1974 – 2009. The Ethiopia country still depends upon the few product of agriculture. This research also examines the coefficients of real output and nominal exchange. In Ethiopia technology were applied for agriculture production. This theory studies over the last half of 18th century when Adam Smith realized the significance of specialization. Ethiopia also do the trade of oilseed over the world. Ethiopia exports the oilseeds in world market. He also explained the major oil seeds worldwide are: Soybean, rapeseed, cottonseed, safflower seed, groundnut, palm, copra, Sesame, Castro seed, maize oil and coconut oil. The major producers of oilseeds are India, China, US, Europe, Canada and Brazil. All these countries have the large production of oilseed across the world. Ethiopia is only 500m above from the sea level so Ethiopia has a very different climate so the production of oilseed in Ethiopia is very less.

Oilseed is only the one crop which is second largest earner for the country in agriculture trade.

Shoufeng et.al (2011) analyses the export competitiveness of agricultural products between China and Central Asian countries by using the RCA index and trade competitiveness index, came to the following conclusions: (1) China's total agriculture products do not have comparative advantage while Central Asian countries have changed from comparative advantage into comparative 4 disadvantage, (2) The total agri-products of both China and Central Asian countries have changed from trade competitive advantage to trade competitive disadvantage, (3) China and Central Asian countries have different advantage structures on specific categories of agricultural products, which presents vast bilateral trade potential on the basis of comparative advantage.

Dr. N C Pahariya (2014) researched on "Impact Assessment of Trade Liberalisation in Oilseeds Sector: Rajasthan" than he originated and came up with that India followed different types of oilseed policies until 1994 which gave different types of benefits in oilseed sector. It means all the policies followed for oilseed they all are followed before establishing the WORLD TRADE ORGANIZATION agreement on oilseed in 1995. These all policies was not only able to double the oilseed output and stabilize the oilseed production but these also use to production of new crops like soybean, sunflower etc. even for those areas where poor farmers typically face more limited growth opportunities. In 1990's India was more self sufficient in edible oils and a large exporter in oilseeds. This represent that India is always a large exporter in oilseeds which represent India always has good creation of oilseeds this make India unique and put India among those countries who have large market share of oilseed in world market. In the mid of 1990's cheaper imports and faster economic growth accelerates the demand of edible oils which was imported sufficiently according to the demand. The trade liberalization in oilseed sector initiated in 1994-45.

Dushyant Kumar (Feb, 2015) researched on "EXPORT COMPETITIVENESS OF INDIAN TEXTILE INDUSTRY" and subsequently he followed that sectoral structure of world trade and country condition in competitiveness reflect in its export performance. Whereas Dushyant Kumar imply those methods which is constant market share (CONSTANT MARKET SHARE) to analyze the constant measures in variations market share found that the geographical structure of exports. Dushyant Kumar essentially analyzes the export performance and export competitiveness from 2010 to 2013. He created and come across with both export performance and export competitiveness more than three years and groping in depth for both export performance competitiveness he applied Balassa (1965) formula where he get a hold on Revealed Comparative Advantage (RCA) which represent the competitiveness of the country, which lead into measuring the method for export presentation and



export competitiveness all the required data occupied from Indian Trade Center (ITC) which is used as source of statistics.

Sunil Kumar Niranjana (2016) whereas he researched and after the study on WORLD TRADE ORGANIZATION agreements in India that the WORLD TRADE ORGANIZATION agreement and other previous agreement like GATT they all put a great impact on all different sectors of the India either it is industry or any trading business but the major effect of this agreement is on agriculture of India because Indian economy is mainly depend upon the agriculture if the trade of agriculture increase than Indian economy increase also. Here Sunil Kumar Niranjana also did some researches on the way of imports and exports he find out and come across that how do India agriculture trade in and sell overseas what are their level of creative ideas and outline to promote import and export since 1995 and he also analyze the trend of export and imports since 1995 of the India. Here he mainly illustrate & explain the agriculture trade after establishing the WORLD TRADE ORGANIZATION. It reveals that WORLD TRADE ORGANIZATION is the successor over the GATT. There were 77 countries member when WORLD TRADE ORGANIZATION established on 1 Jan 1995 and there are 154 countries have member of WORLD TRADE ORGANIZATION by 2011. Leading aim and principles of WORLD TRADE ORGANIZATION was to enlarge the economic factor for the trade in goods and services to increase the living standard of member countries still Indian trade did not add on or put any effort to enhance enough as much we expected and neither had we seen any change in the living standard of India.

Girish Kumar Gupta and Mohd.Asif Khan (2017) take a deep dig into it and scrutinize on “Exports Competitiveness of the Indian Textile Industry throughout and after ATC” later than he started and initiate with the level of the output productivity of the country by calculating the export competitiveness. Here he make clear and enlighten the way to calculate the export competitiveness. He also enlighten & examines the International market share, Revealed Comparative Advantage (RCA), Compound Annual Growth Rate (CAGR) and Coefficient variation. In favor of considering all these results all the data occupied from International Trade Center (ITC). He also examined that the country is growing on the rise in the production of textiles. It also examines comparative analysis. If we see according to the % share point of view than India and China are the most competitive country but Brazil did not get better to progress its position after ATC.

III. OBJECTIVES

1. To examine the export performance of Indian oilseeds.
2. To analysis the competitiveness of Indian oilseed for period of 2001 to 2017.

IV. RESEARCH METHODOLOGY

To achieve the objectives of the paper the study employs two economic methodologies. Firstly it uses various Revealed

Comparative Advantage’s and then CONSTANT MARKET SHARE (Constant Market Share).

Measures of revealed comparative advantage (RCA) have been used to help assess a country’s export potential. The RCA indicates whether a country is in the process of extending the products in which it has a trade potential, as opposed to situations in which the number of products that can be competitively exported is static. [1][2]

Balassa - RCA Index

Bela Balassa introduced the revealed comparative index to measure the comparative advantage of any country. According to Balassa (1979, 1986, 1989) when the factor costs related data are not available, comparative advantage of a country can be revealed with the help of relative costs and differences in various factors other than price as indicated by pattern of exports. Balassa’s Revealed Comparative Advantage (RCA) Index known as Balassa Index is more likely an index of revealed export advantage (RXA) [1]

The RCA index of country I for product j is often measured by the product’s share in the country’s exports in relation to its share in world trade:

$$RCA_{ij} = RXA = (x_{ij}/X_{it}) / (x_{wj}/X_{wt})$$

(1)

Where x_{ij} and x_{wj} are the values of country i’s exports of product j and world exports of product j and where X_{it} and X_{wt} refer to the country’s total exports and world total exports. A value of less than unity implies that the country has a revealed comparative disadvantage in the product. Similarly, if the index exceeds unity, the country is said to have a revealed comparative advantage in the product.

Vollrath- Alternative RCA Indices

One major censure has been identified in Balassa’s RCA is the oversight of imports; this index reveals only export advantage of nation rather than the comparative advantage. In 1991, Thomas Lachlan Vollrath has proposed three alternative RCA indices to measure the revealed comparative advantage of nation. The first, the relative trade advantage (RTA) is can be expressed as:

$$RCA_{ij} = RTA = RXA - RMA = \frac{\frac{X_{ij}}{X_{wj}}}{\frac{X_i}{X_w}} - \frac{\frac{M_{ij}}{M_{wj}}}{\left(\frac{M_i}{M_w}\right)} \quad (2)$$

Here all variables are same as in RCA expect M represents imports.

The second measure is the logarithm of the relative export advantage (ln RXA) is expressed as:

$$RCA_{ij} = \ln RXA = \ln \left\{ (X_{ij}/X_{it}) / (X_{wj}/X_{wt}) \right\} \quad (3)$$

The third Vollrath measure is revealed competitiveness (RC) can be defined as:

$$RCA_{ij} = \ln RXA - \ln RMA = \ln \left(\frac{X_{ij}}{X_{wj}} \right) - \ln \left(\frac{M_{ij}}{\left(\frac{M_i}{M_w}\right)} \right) \quad (4)$$

If the values of all three of Vollrath’s measures are positive it shows a competitive advantage of country in that product while negative values imply comparative/competitive disadvantage of country in that product.



CONSTANT MARKET SHARE (CMS)

Constant Market Share method decomposes the export growth to provide a better understanding of whether this growth is coming from increased competitiveness or resulting from various other structural factors. Constant Market Share (CMS) technique facilitates to comprehend about export performance of a selected country or group of countries vis-à-vis to their competitors in choosing fast growing markets (product or destination or sectors). According to the CMS model the export growth of concern country can attribute to structural or competitive factors as below:

- Structural Effects or Demand Effects
 - a. General Rise in World's Demand/Import
 - b. Product/Commodity Composition Effects
 - c. Market Distribution Effects
- Competitiveness Effects

The four key components of CONSTANT MARKET SHARE model which play a vital role in country's export performance are World Trade Effect (WTE); Commodity Composition Effects (CCE); Market Distribution Effects (MDE) and Competitiveness Effects (CE).

The CONSTANT MARKET SHARE model, as applied in this study, can be numerically presented as:

$$\Delta q = \left[\sum_{i=1}^n r_i q_i^1 \right] + \left[\sum_{i=1}^n r_i q_i^0 - r_i q_i^0 \right] + \left[\sum_{i=1}^n \sum_{j=1}^m r_{ij} q_{ij}^0 - \sum_{i=1}^n r_i q_i^0 \right] + \left[\sum_{i=1}^n q_i^1 - q_i^0 - \sum_{i=1}^n \sum_{j=1}^m r_{ij} q_{ij}^0 \right]$$

Here, Superscript 1 and 0
 1 = Terminal time period
 0 = Initial time period
 i = 1,2,...,n = Number of commodities
 j = 1,2,...,n = Number of markets
 qi0=Total exports by the focus country of commodity i, in the initial period
 qi1=Total exports by the focus country of commodity i, in the terminal period

Period of analysis

The study focuses on to analyze the competitiveness of Indian oilseeds specially groundnut (HS code 1202). For the purpose this study uses primarily various methods of RCA and finally CONSTANT MARKET SHARE. The time period use for RCA(Revealed Comparative Advantage) is from 2008 to 2017, whereas to apply CONSTANT MARKET SHARE two periods have been used 2000-2006 and 2007-17 because of WORLD TRADE ORGANIZATION agreement which start impacting from 2007.

Constant market share calculations

Table II: CONSTANT MARKET SHARE Calculations

V. RESULTS

The analysis employs Revealed Comparative Advantage Indices as indicated in the following table. The RCA introduced by Bela Balassa, known as Balassa Index. RCA index value greater than 1 indicates that country has comparative advantage in the export of product in the world market and the RCA index value lesser than 1 shows that country has comparative disadvantage in the world market. In 1991, Thomas Lachlan Vollrath has proposed three alternative RCA indices to measure the revealed comparative advantage of nation; the Relative trade advantage (RTA), the logarithm of the relative export advantage (ln RXA) and the Vollrath measure of revealed competitiveness (RC). [1][2][6] To overcome the problem of upward-biased RCA index values, Laursen (1998) adjusts the RCA index to make it symmetric, such that the adjusted index values are between -1 and +1. Positive (negative) values of following RC's show a competitive advantage (disadvantage) in exporting product in the world market.

Table I: RCA Calculations

The above table with various methodologies of Relative Competitiveness indicates that India has the competitive advantage in exporting groundnuts from year 2008 to 2017.

Year	RCA(or RXA)	RMA	RTA	ln RXA	ln RMA	RC
2008	16.23835	0.000277	16.23808	2.787376	-8.19119	10.97857
2009	11.02466	0.000815	11.02384	2.400134	-7.11227	9.512401
2010	17.09855	0.005449	17.0931	2.838994	-5.21228	8.051273
2011	22.29136	0.007024	22.28433	3.104199	-4.95845	8.062651
2012	20.73645	0.000694	20.73575	3.031893	-7.27275	10.30464
2013	11.02277	0.000885	11.02188	2.399963	-7.03029	9.430257
2014	17.31902	0.00034	17.31868	2.851806	-7.98622	10.83803
2015	17.36536	0.001306	17.36405	2.854477	-6.64104	9.495517
2016	16.19041	0.001084	16.18932	2.784419	-6.82666	9.611076
2017	14.55995	0.020973	14.53897	2.678274	-3.86454	6.542812
Mean	16.384688	0.003885	16.3808	2.773154	-6.50957	9.282723

The mean values of all the RC's are above >1 (other than 0.003885) and thus India has a comparative advantage in export of oilseeds specially groundnuts.

Further to analyze the competitiveness from the changes in the export performance of a country the Constant Market Share (CMS) model is widely used. The CMS analysis can be applied as a descriptive or diagnostic tool (Ahmadi Esfahani, 2006). This model decomposed into four structural components that could cause changes in the country's export share overtime.

Country	AVERAGE (2001-2006) q0	AVERAGE (2007-17) q1	q1-q0	r	rq0	r1	r1q0	r1q0 - rq0
Albania	0	82.81818182	82.81818	1.898807	0	2.002039	0	0
Algeria	370	7681.454545	7311.455	1.898807	702.5588	2.002039	740.7544	38.19564
Angola	0	56.72727273	56.72727	1.898807	0	2.002039	0	0
Armenia	0	18.90909091	18.90909	1.898807	0	2.002039	0	0
Australia	10.5	24.45454545	13.95455	1.898807	19.93748	2.002039	21.02141	1.08393
Austria	0.333333333	1.545454545	1.212121	1.898807	0.632936	2.002039	0.667346	0.03441
Azerbaijan	0	35.63636364	35.63636	1.898807	0	2.002039	0	0
Bahrain	11.16666667	105.6363636	94.4697	1.898807	21.20335	2.002039	22.3561	1.152751
Bangladesh	42.83333333	370.8181818	327.9848	1.898807	81.33225	2.002039	85.754	4.421748
Belarus	4.666666667	192	187.3333	1.898807	8.861102	2.002039	9.342848	0.481747
Belgium	339.8333333	307.9090909	-31.9242	1.898807	645.2781	2.002039	680.3596	35.08149
Bhutan	0	6.090909091	6.090909	1.898807	0	2.002039	0	0
Bosnia and Herzegovina	0	56.45454545	56.45455	1.898807	0	2.002039	0	0
Botswana	0	0.181818182	0.181818	1.898807	0	2.002039	0	0
Brazil	1.166666667	13.63636364	12.4697	1.898807	2.215275	2.002039	2.335712	0.120437
Brunei Darussalam	96	454.0909091	358.0909	1.898807	182.2855	2.002039	192.1957	9.91022
Bulgaria	104.1666667	156.1818182	52.01515	1.898807	197.7924	2.002039	208.5457	10.75328
Cabo Verde	0	10.18181818	10.18182	1.898807	0	2.002039	0	0
Cambodia	0	633.7272727	633.7273	1.898807	0	2.002039	0	0
Canada	487	593.1818182	106.1818	1.898807	924.7192	2.002039	974.993	50.27372
China	74	14679.27273	14605.27	1.898807	140.5118	2.002039	148.1509	7.639128
Colombia	0	188.8181818	188.8182	1.898807	0	2.002039	0	0
Costa Rica	0	3.272727273	3.272727	1.898807	0	2.002039	0	0
Croatia	0	289.9090909	289.9091	1.898807	0	2.002039	0	0
Cyprus	1.5	1.181818182	-0.31818	1.898807	2.848211	2.002039	3.003058	0.154847
Czech Republic	12.16666667	0	-12.1667	1.898807	23.10216	2.002039	24.35814	1.255983
Denmark	5.333333333	0	-5.33333	1.898807	10.12697	2.002039	10.67754	0.550568
Dominican Republic	0	4.090909091	4.090909	1.898807	0	2.002039	0	0
Ecuador	0	91.27272727	91.27273	1.898807	0	2.002039	0	0
Egypt	320.3333333	2017.181818	1696.848	1.898807	608.2513	2.002039	641.3198	33.06848
Estonia	50.16666667	286.3636364	236.197	1.898807	95.25684	2.002039	100.4356	5.178778
Ethiopia	0	215.4545455	215.4545	1.898807	0	2.002039	0	0
Fiji	0.666666667	0.363636364	-0.30303	1.898807	1.265872	2.002039	1.334693	0.068821
Finland	0	13.27272727	13.27273	1.898807	0	2.002039	0	0
France	10.16666667	5.909090909	-4.25758	1.898807	19.30454	2.002039	20.35406	1.04952
Georgia	7.166666667	706.6363636	699.4697	1.898807	13.60812	2.002039	14.34795	0.739825
Germany	494.1666667	805.8181818	311.6515	1.898807	938.3274	2.002039	989.3409	51.01355
Greece	5.166666667	299.0909091	293.9242	1.898807	9.810505	2.002039	10.34387	0.533363
Grenada	0	8.181818182	8.181818	1.898807	0	2.002039	0	0
Guyana	0	0.636363636	0.636364	1.898807	0	2.002039	0	0
Hong Kong, China	51.66666667	4347.818182	4296.152	1.898807	98.10505	2.002039	103.4387	5.333626
Hungary	43	2.545454545	-40.4545	1.898807	81.64872	2.002039	86.08767	4.438953



Export Competitiveness of Indian Oilseeds: The Method of CMS with Special Reference to Groundnut

Iceland	17.16666667	0	-17.1667	1.898807	32.5962	2.002039	34.36834	1.77214
Indonesia	43958.16667	193161.7273	149203.6	1.898807	83468.1	2.002039	88005.96	4537.866
Iran, Islamic Republic of	18.33333333	4152.272727	4133.939	1.898807	34.81147	2.002039	36.70405	1.892577
Ireland	57.33333333	243.7272727	186.3939	1.898807	108.865	2.002039	114.7836	5.918604
Israel	8.166666667	589.3636364	581.197	1.898807	15.50693	2.002039	16.34998	0.843057
Italy	720.8333333	23.45454545	-697.379	1.898807	1368.724	2.002039	1443.136	74.41268
Jamaica	0	0.727272727	0.727273	1.898807	0	2.002039	0	0
Japan	103.5	431.6363636	328.1364	1.898807	196.5266	2.002039	207.211	10.68446
Jordan	71.66666667	382	310.3333	1.898807	136.0812	2.002039	143.4795	7.398255
Kazakhstan	0	113.8181818	113.8182	1.898807	0	2.002039	0	0
Kenya	2.166666667	15.54545455	13.37879	1.898807	4.114083	2.002039	4.337751	0.223668
Korea, Republic of	1.833333333	13.45454545	11.62121	1.898807	3.481147	2.002039	3.670405	0.189258
Kuwait	130.1666667	762.9090909	632.7424	1.898807	247.1614	2.002039	260.5987	13.4373
Latvia	19	134.9090909	115.9091	1.898807	36.07734	2.002039	38.03874	1.961398
Lebanon	0	229	229	1.898807	0	2.002039	0	0
Lithuania	17.5	283	265.5	1.898807	33.22913	2.002039	35.03568	1.806551
Macedonia, The Former Yugoslav Republic of	8	68.18181818	60.18182	1.898807	15.19046	2.002039	16.01631	0.825852
Malawi	0	1.727272727	1.727273	1.898807	0	2.002039	0	0
Malaysia	19335.16667	65575.90909	46240.74	1.898807	36713.76	2.002039	38709.76	1995.998
Maldives	4.666666667	4.363636364	-0.30303	1.898807	8.861102	2.002039	9.342848	0.481747
Mali	2.166666667	0	-2.16667	1.898807	4.114083	2.002039	4.337751	0.223668
Malta	7.5	0	-7.5	1.898807	14.24106	2.002039	15.01529	0.774236
Mauritius	221.1666667	351.1818182	130.0152	1.898807	419.9529	2.002039	442.7843	22.83136
Mexico	299.3333333	7074.181818	6774.848	1.898807	568.3764	2.002039	599.277	30.90062
Moldova, Republic of	0	29.72727273	29.72727	1.898807	0	2.002039	0	0
Montenegro	0	48.18181818	48.18182	1.898807	0	2.002039	0	0
Morocco	94.66666667	5.363636364	-89.303	1.898807	179.7538	2.002039	189.5264	9.772579
Mozambique	0	19.54545455	19.54545	1.898807	0	2.002039	0	0
Nepal	281.5	1358.090909	1076.591	1.898807	534.5143	2.002039	563.574	29.05966
Netherlands	1679.833333	3014.090909	1334.258	1.898807	3189.68	2.002039	3363.092	173.4117
Netherlands Antilles	4.5	0	-4.5	1.898807	8.544634	2.002039	9.009175	0.464542
New Zealand	0.166666667	12.63636364	12.4697	1.898807	0.316468	2.002039	0.333673	0.017205
Niger	1.5	0	-1.5	1.898807	2.848211	2.002039	3.003058	0.154847
Nigeria	0	0.818181818	0.818182	1.898807	0	2.002039	0	0
Norway	4.666666667	8.272727273	3.606061	1.898807	8.861102	2.002039	9.342848	0.481747
Oman	10	363.3636364	353.3636	1.898807	18.98807	2.002039	20.02039	1.032315
Pakistan	466	15289.72727	14823.73	1.898807	884.8443	2.002039	932.9502	48.10586
Philippines	8423.5	55389	46965.5	1.898807	15994.6	2.002039	16864.18	869.5702
Poland	515.6666667	11.54545455	-504.121	1.898807	979.1517	2.002039	1032.385	53.23302
Portugal	0.166666667	0	-0.16667	1.898807	0.316468	2.002039	0.333673	0.017205
Qatar	22	232.7272727	210.7273	1.898807	41.77376	2.002039	44.04486	2.271092
Romania	62.83333333	4.363636364	-58.4697	1.898807	119.3084	2.002039	125.7948	6.486377
Russian Federation	293.1666667	8452.272727	8159.106	1.898807	556.6671	2.002039	586.9311	30.26402



Saudi Arabia	675.5	2342	1666.5	1.898807	1282.644	2.002039	1352.377	69.73285
Senegal	0	0.181818182	0.181818	1.898807	0	2.002039	0	0
Serbia	0	335.6363636	335.6364	1.898807	0	2.002039	0	0
Seychelles	2	7.636363636	5.636364	1.898807	3.797615	2.002039	4.004078	0.206463
Singapore	3018.833333	6580	3561.167	1.898807	5732.183	2.002039	6043.822	311.6386
Slovakia	24	4	-20	1.898807	45.57138	2.002039	48.04893	2.477555
Slovenia	10.66666667	6.363636364	-4.30303	1.898807	20.25395	2.002039	21.35508	1.101136
Somalia	10.83333333	0	-10.8333	1.898807	20.57041	2.002039	21.68876	1.118341
South Africa	1090	2573.818182	1483.818	1.898807	2069.7	2.002039	2182.222	112.5223
Spain	15.83333333	17.54545455	1.712121	1.898807	30.06445	2.002039	31.69895	1.634498
Sri Lanka	1066.333333	2508.272727	1441.939	1.898807	2024.762	2.002039	2134.841	110.0792
Suriname	0	12.54545455	12.54545	1.898807	0	2.002039	0	0
Swaziland	0	31.72727273	31.72727	1.898807	0	2.002039	0	0
Sweden	0	13.18181818	13.18182	1.898807	0	2.002039	0	0
Switzerland	0	0.454545455	0.454545	1.898807	0	2.002039	0	0
Syrian Arab Republic	4.5	338.8181818	334.3182	1.898807	8.544634	2.002039	9.009175	0.464542
Taipei, Chinese	546.5	2938.818182	2392.318	1.898807	1037.698	2.002039	1094.114	56.41599
Thailand	100	27485.45455	27385.45	1.898807	189.8807	2.002039	200.2039	10.32315
Trinidad and Tobago	0	13.45454545	13.45455	1.898807	0	2.002039	0	0
Tunisia	0	49.27272727	49.27273	1.898807	0	2.002039	0	0
Turkey	74.33333333	1179.454545	1105.121	1.898807	141.1447	2.002039	148.8182	7.673539
Turkmenistan	0	33.27272727	33.27273	1.898807	0	2.002039	0	0
Uganda	1.333333333	0	-1.33333	1.898807	2.531743	2.002039	2.669385	0.137642
Ukraine	1992.166667	11811.18182	9819.015	1.898807	3782.741	2.002039	3988.395	205.6543
United Arab Emirates	1621.666667	8025.545455	6403.879	1.898807	3079.233	2.002039	3246.64	167.407
United Kingdom	4698	4906.545455	208.5455	1.898807	8920.598	2.002039	9405.579	484.9814
United States of America	3336.833333	281.0909091	-3055.74	1.898807	6336.004	2.002039	6680.47	344.4662
Uruguay	0	0.272727273	0.272727	1.898807	0	2.002039	0	0
Viet Nam	112.3333333	89871.09091	89758.76	1.898807	213.2994	2.002039	224.8957	11.59633
Yemen	174.8333333	3812.818182	3637.985	1.898807	331.9748	2.002039	350.0231	18.0483
	97983.66667	557802	459818.3	218.3629	186052.1	230.2345	196167.1	10115
					459818.3			
			100		40.46209			2.199781
			Total Effect		WTE			CCE

Table III : Competitiveness Effect

2000-2006 compared to 2007-2017		
Decomposition	Value(in USD)	%
Change in Exports	459818.3333	100
World Trade Effect	186052.1198	40.46209
Market Distribution Effect	10114.99729	2.199781
Commodity Composition Effect	-520647.5087	-113.229
Competitiveness Effect	784298.725	170.5671

Above table is formed to examine the results of Constant Market Share (CONSTANT MARKET SHARE) on the basis of the export share of India in the total world export for the four Groundnut oilseeds during the period I (2000-06) and period II (2007-17). The above table decompose the results of CONSTANT MARKET SHARE into four structural components (Change in Total Export)

1. World Trade Effects,
2. Commodity Composition Effect,



3. Market Distribution Effect and
4. Competitiveness Effect

Table indicates the relative contribution of each of the components of CONSTANT MARKET SHARE model on the expansion of export of Groundnut (OILseeds) for India for the selected periods. Total export change of India for Groundnut (OILseeds) in value term USD 459818.3333 million for the period I to II. The world trade effect and market distribution effects have positively contributed to the change in the total export of India during the period I(2000-06) to period II (2007-17) with the contribution of 40.46209% and 2.199781%. The results for World trade effects in the table indicates the increases in the Groundnut (OILseeds) export of India with expansion in the size of world market during the period I to period II. Similarly, the results of market distribution effects exhibit that Indian export of Groundnut (OILseeds) is concerted in the markets where demand is rising faster than world demand. The negative value -113.229of commodity composition effects suggests that India concentrates on slowly grew markets for Groundnut (OILseeds). During the same period, India gains market share of her export of Groundnut (OILseeds) in the various markets due to its competitiveness in the export of the same product.

VI. CONCLUSION

The above analyses clearly depicts that India has a competitive advantage in exports for Groundnut (OILSeed). The RCA reveals that over the years from 2008 to 2017 after WORLD TRADE ORGANIZATION india maintained the advantage. Ffurther CONSTANT MARKET SHARE reveals that while comparing the periods before and after WORLD TRADE ORGANIZATION India has benefited in the advantage.

REFERENCES

- [1]Balassa, Bela (1977), "‘Revealed’ Comparative Advantage Revisited: An Analysis of Relative Export Shares of the Industrial Countries, 1953-1971", The Manchester School of Economic & Social Studies, 1977, vol. 45, issue 4, pp. 327-44.
- [2]Vergheze SK (1979) Developments in International Competitiveness in India in 1970. Economic and Political Weekly 14: 1718-1726.
- [3]Balance, Robert H, Helmut Forstner and Tracy Murray (1987), "Consistency Tests of Alternative Measures of Comparative Advantage", the Review of Economics and Statistics, Vol. 69, No. 1, pp. 157-161. 2.
- [4]Reddy, B. D. R., Lalith Achoth and B. V. Chenappa Reddy., 1998, Export Competitiveness of Groundnut Empirical Evidence from Karnataka. *Astha Vijnana*, Vol.15 (3): pp. 263-270.
- [5]Bhavani T.A (2001), "Determinants of firm-level export performance: a case study of Indian Textile garments and apparel industry", The Journal of International Trade & Economic Development,10:1, 65-92.
- [6]Datta, S.K., 2001. How to Judge Global Competitiveness of Indian Agribusiness: Methodological Issues and Lessons for India. In S.K.Datta and S.Y.Deodhar (Eds), Implications of WORLD TRADE ORGANIZATION Agreements for Indian Agriculture. Oxford and IBH Publishing Co.Pvt.Ltd, New Delhi.
- [7]Samar Verma (November, 2002) "Export Competitiveness Of Indian Textile And Garment Industry" .
- [8]Verma S (2002) Export Competitiveness of Indian Textile and Garment Industry Working.Indian Council for Research on International Economic Relations 94.
- [9]Ranjana Kumar (2005) "Constrains facing Indian agriculture: Need for policy intervention", Indian journal of agricultural economics, Vol. 60, No. 01, Jan –March.
- [10] RS Deshpande (March, 2005) "Karnataka Oilseed Production".

- [11] Zhang, Xiu-ling and Liu, M., 2008. Experimental study on the international competition power of China’s peanut industry. Journal of Henan Agricultural Sciences, 11.
- [12] Bhatt PR (2010) China’s Competitiveness in World Economy Foreign Trade 44: 19-41.
- [13] Jiang Y, Zhang Q, Chai J (2010) The Empirical Research of the Competitiveness based on the Informationization of China’s Textile & Clothing Industry. The Conference on Web Based Business Management.
- [14] HailegiorgisBiramAllaro (2011) "Export Performance of Oilseeds and ITS Determinants in Ethiopia".
- [15] Devendra S (2013) Performace of Indian Textile and Clothing Industry in the United States Market A Post ATC Analysis. Journal of Research in Commerce & Management 2: 64-76.
- [16] Sharma SK, Bugalya K (2014) Competitiveness of Indian agriculture sector a case study of cotton crop Procedia - Social and Behavioral Sciences 133: 320-335.
- [17] Dr. N C Pahariya (2014) "Impact Assessment of Trade Liberalisation in Oilseeds Sector : Rajasthan".
- [18] Akmal, N., W. Akhtar, H. Shah, M. A. Niazi and T. Saleem, 2014. The structure and competitiveness of Pakistan’s Basmati Rice exports. Asian Journal of Agriculture and Rural Development, 4 (4): 304-312.
- [19] Sunil Kumar Niranjana (2016) "WORLD TRADE ORGANIZATION Agreement on Indian Oilseed Agriculture".
- [20] Cann O (2016) what is competitiveness? World Economic Forum.

AUTHORS PROFILE



Anudeep Arora was honored with **25th Prestigious Dr Sarvepalli Radhakrishnan Smriti National Media and Teacher Network Award at Hansraj College Delhi University**. He received this award from **Ram Niwas Goyal, speaker of Delhi Vidhan Sabha and Rajinder Pal Gautam, Minister of water, social welfare, art and culture, GNCT Delhi**.

He has facilitated various conferences, programs and seminars on Digital Media Marketing, Leadership and other topics for Corporate Professionals, faculties and students. He has been associated as an Assistant professor with **Kamal Institute of Higher education and Advance Technology (G.G.S.IPU)**. He has taught subjects like International Business Management, Export and import documentation, International Marketing, Entrepreneurship Development, International Trade Operations, Market Research, Production and Operation Management, Family Business Management, Indian Economy, Foreign Trade Policy, Brand Management in MBA and other post graduate programs. He has prepared students for various cultural and literary competitions. More than **Twenty five research papers** of **Anudeep Arora** have been published in well-regarded national and international journals. He is **UGC NET Qualified** and did his Masters in International Business from Amity University and currently pursuing Ph.D in Management from Amity University. He was awarded the **silver medal for standing second in academics** in entire university while doing graduation



Durgesh Batra, BSc, (Rajasthan University), BT(Computing),(Thompson River University, Canada), MSc(statistics),(Rajasthan University), MBA(Mkt & Fin)(Rajasthan University), ADSE(Hons)(4 year diploma in computer sciences from APtech Computer Ed.), PhD.(Rajasthan University). He has an experience of 14+ years including 1.5 years in projects with different private and government organizations and 12+ in Teaching with reputed institutes and Universities. Training and development workshops conducted: Several Workshops conducted with CA institute/ Geographical Institutes on Communication skills, Banks for Basic Computers etc. Consultancy: 3 months on ERP to SamScreen US. And 1 year to RUIFDSCO (SLNA for Ministry of Housing and Poverty Alleviation).

