

Globalization and Indian Agricultural Exports: A Critical Evaluation

Dr. Sr. Stella Mary

Department of Economics, Stella Maris College (Autonomous), Cathedral Road, Chennai, India

Abstract

Over the past decade, agriculture very particularly horticulture outputs have been recorded growth year by year. When compare with developed world our crop productivity is generally low. This low productivity is due to number of factors like erratic monsoon, shrinking ground water resources, declining in fertility of soil in efficiency of food distributional channels, shortage of storage facilities, transportation problems, lack awareness in the use of updated agricultural practices particularly technologically advancement are among the forming community, uncertain weather, small size of firms and agricultural subsidies that are distort the agricultural marketing channels and hamper productivity enhancement.

In this juncture, India agricultural sector is also witnessing for a shift from organic farming from modern chemical farming. Horticulture, Aquaculture, Poultry and Dairy production needs to be modernized. The demand for fresh and processed food products are continuously increasing in the backdrop of urbanization and raising in rural income. The growth of agricultural sector lies in the marketing of agricultural products in domestic and global market. The federal government and several other state governments are working to improve the initiative of the farmers and extend their support to face the challenges in the cultivation. Policy interventions are often taking place. Adopting innovative technical knowhow also take place. Solutions to the agricultural sector's problems are addressed as early as possible. In this background India's export potential and possibilities are projected up to 7.5%. However, this target is not achieved. India's food and grocery retail business also increasing today. This is also a supporting factor to increase market share of agricultural product. In the financial year, 2017-18, significant changes are take place in the Indian retail market and E-marketing. This will also enhance the farmer's income. Domestic players and international players role in the food retail segment is continuously increasing. This is a kind of positive trend in Indian agriculture marketing. The present study focuses on to analysis and understand the growth pattern of Indian agricultural exports and to estimate the annual and compound growth trajectories of selective agricultural exports in India and to suggest possible measures to improve agricultural export in future course of time pertained to the selected products.

Keywords: Agriculture, Exports, Productivity, Income, External Sector.

Introduction

Over the years, India has developed its export competitive spirit in certain specialized products. This makes India as the 14th largest agriculture product exporter. India's export market is continuously increasing. In the year 2015, 35.2 Billion US dollars were earned as agricultural export income. This has been increased to 39.4 Billion US dollar in the 2018. This statistical information is more valuable and it leads to make some studies in agricultural exports. Food processing industry is also a fast growing sector

in Indian Agriculture. 32 % of the food products are processed food in Indian food market. This processing sector is a 6th largest sector in the world. Among the 17 % of agricultural GDP 9 to 11 % can be taken into consideration for food processing industry.

Exports of Indian agriculture including processing foods estimated around 38.49 Billion dollar during the year 2019. Top five exported commodities were marine food product, Basmati Rice, Buffalo meat, Spices, and non-basmati rice. Indian Agriculture and processed products are exported to foreign countries such as South East Asia, USA, Europe, Middle East countries and SAARC Countries. “Agricultural Export policy” was introduced by Ministry of Commerce and Industry in the year 2018. The main objectives of the policy are to increase the export of agricultural commodities and at the same time to integrate the countries farmers in global level.

Agricultural and processed food products exports are increased to 7% in the year 2018. Export of Dairy products, Wheat, Pulses and non-Basmati rice are increased to double digit level, according to APEDA. Export of processed food was increased to 1.28 lakh crore from 1.20 lakh crore from the year 2016 to 2018. After introducing the Agricultural Export policy, the overall exports of agricultural products are continuously increasing. The policy recommended for export of diversified goods including perishable products. It also recommended to find out the booster for high-value and value-added agricultural exports. The Share of high-value and value added products are less than 15 %, when compared to 25% in the US and 49% in China. The focus is now on exporting processed food products, which can fetch high value in global markets. Hence, it is right time to analysis various dimensions of Indian agricultural exports and find out the dynamics of Indian agricultural exports. Based on the findings Indian agricultural exports avenues, export ventures, export policy, export strategies should be evolved. For this purpose the researcher has undertaken the study on “Dimension of Indian Agricultural Exports; A Critical Evaluation”. Following objectives and methodology used for this study will be helpful to carry out the study.

Objectives of the study:

1. To analysis and understand the growth pattern of Indian agricultural exports.
2. To estimate the annual and compound growth trajectories of selective agricultural exports in India.
3. To suggest possible measures to improve agricultural export in future course of time pertained to the selected products.

Limitation of the study:

This study is completely depends on secondary data provided by RBI. Data is available in the RBI bulletin only for four products with physical and monetary values. For remaining four products monetary value was given. Hence, part of the study analysis in terms of physical value and monetary value and remaining part of the analysis based on monetary values.

Methodology of the study:

Research methodology is useful to find out the solution for the research problems in the field of study which is helpful to conducting research systematically and scientifically.

Research Design

To explore the result for the research problems the researcher has used an Analytical tools like calculation of Annual Growth rate and compound growth rate.

Sources of Data

The Research study was based on secondary data only. The secondary data published by RBI.

Period of Study

For this research work the secondary data were collected for past 20 years from the year 1998-99 to 2017-19. They are the Agriculture export of prominent commodities such as Tea, Coffee, Spices, Cashews, Oil Meals, Fruits and Vegetables, Meat and dairy in India.

Data Analysis and Interpretation:

Economic growth is measured in various terms among the various criteria annual growth rate is a popular scale to measure the economic growth. Through the growth rate analysis, we could able to understand the percentage change in production in terms of physical and monetary value. In the present study the researcher used both annual as well as compound growth rate analysis parameters. Nine agricultural products were selected for this analysis on the basis of availability of data and value of the exports.

Select Agricultural Exports for Analysis:

In India Agricultural products like Rice, Wheat, Pulses, Dairy Product, Oil, Spices, Tea, Coffee, Cashew nut, Fruits and vegetables, Marine Products, cereals and cereal preparation, fish and processed fruits, Cotton, Tobacco, Meat and Meat preparation, etc. are exported in India and also earned foreign exchange through these exported. The researcher has been selected some Agricultural commodities like Tobacco, Tea, Coffee, Rice, Spices, fruits and vegetable, Meat and Dairy, Cashews, and Oil Meals for analysis.

Tobacco:

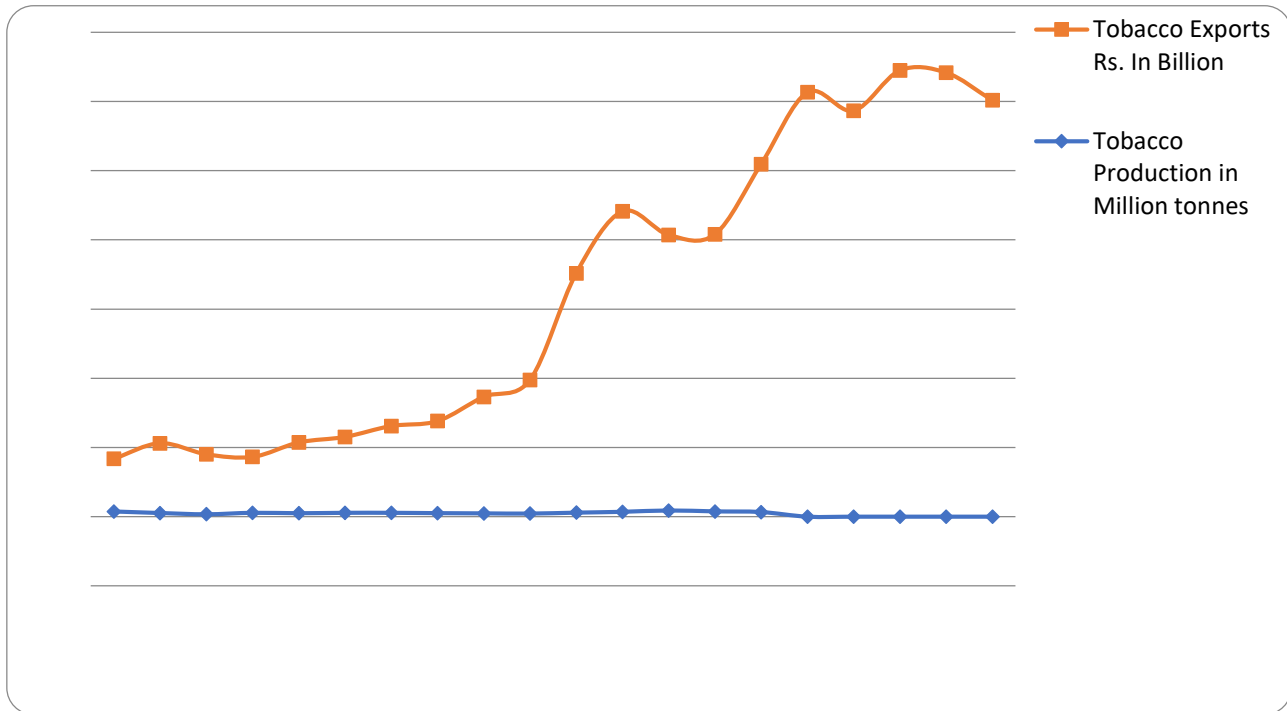
Indian sub-continent is the second largest producer in Tobacco. Its estimated annual production is around 800 million k.g. Tobacco production occupies a very minimal percentage (0.24%) of cultivatable land in India. Tobacco is cultivated largely in rain fed areas and semi arid area. Andhra Pradesh, Assam, Bihar, Gujarat, Chhattisgarh, Karnataka, Maharashtra, Madhya Pradesh, Odissa, Telungana, UP, West Bengal and Tamil Nadu are the Tobacco production states in India. Different varieties of Tobacco production pattern is not aligned with world pattern of Tobacco production. The Tobacco products are used for the cigarette and non-cigarette purposes. Within the available Tobacco Products, a sizable amount of Tobacco is exported for various countries. Indian tobacco is exported to Western Europe, South East and South East Asia, East Europe and Africa. In terms of countries around 100 countries are importing Tobacco from India.

Table No: 1
Production and Export of Tobacco in India

Year	Tobacco Production in Million tones	Tobacco Exports Rs. In Billion	Growth of production	Growth of export	CAGR of Production	CAGR of Export
1998-99	0.74	7.62	-	-	-0.006707425	0.098504619
1999-00	0.52	10.09	-29.72972973	32.41469816	-	-1
2000-01	0.34	8.67	-34.61538462	-14.07333994	-	-1
2001-02	0.55	8.08	61.76470588	-6.805074971	-	-1
2002-03	0.49	10.23	-10.90909091	26.60891089	-	-1
2003-04	0.55	10.97	12.24489796	7.233626588	-	-1
2004-05	0.55	12.55	0	14.40291705	-	-1
2005-06	0.5	13.31	-9.090909091	6.055776892	-	-1
2006-07	0.47	16.85	-6	26.59654395	-	-1
2007-08	0.44	19.32	-6.382978723	14.65875371	-	-1
2008-09	0.57	34.61	29.54545455	79.14078675	-	-1
2009-10	0.69	43.44	21.05263158	25.51285756	-	-1
2010-11	0.88	39.85	27.53623188	-8.26427256	-	-1
2011-12	0.75	40.06	-14.77272727	0.526976161	-	-1
2012-13	0.66	50.3	-12	25.56165751	-	-1
2013-14		61.34		21.94831014	-	-1
2014-15		58.69		-4.320182589	-	-1
2015-16		64.5		9.899471801	-	-1
2016-17		64.2		-0.465116279	-	-1
2017-18		60.2		-6.230529595	-	-1
2018-19						
2019-20						
2020-21						
2021-22						

Source: Reserve Bank of India Data.

Chart: 1
Production and Export of Tobacco in India



The researcher has collected secondary data from Reserve Bank of India Bulletin data were collected from 1998-99 to 2017-18. In the year 1998-99 we could observe the export performance of Tobacco 0.74 million tones value of the export of tobacco is 7.62 billion. From 1999-2000 onwards we could able to estimate the annual growth rate of production of tobacco and its export performance. In the year 1999-2000 tobacco export performance in terms of production shows 29.73 percentage of negative growth. At the same time export value of the same shows 32.41 positive growth performances. In the analysis period 6 financial years show negative growth rate. In the year 1999-2000, 2000-2001 are shows highest negative growth (-29.73, -34.62). In the year 2002-03, 2005-06, 2007-08 are shows a negative growth but it is less than 10%. In the year 2001-02, in terms of production 61.76 percentage positive growth trend has been shown in the analysis. This is the highest positive growth of tobacco analysis in the analysis period. In the year 2008-09, 2009-10 and 2010-11 the inferences shows that positive nature of growth of production is around 25%. From the financial year 2013-14 onwards there is no promotion of exports in tobacco. But tobacco products are exported and this shows a positive and healthy trend in the Indian economy. In terms of export value performance majority of the years shows that exports of tobacco is shows a positive trend and also the positive is 25 percentages and above in many cases. Only 4 years the researcher could observed minimal growth rate around 10%.

In an overall analysis, through exports of tobacco in terms of production is minimal its performance in terms exports value is sizable and positive. In the later period of analysis we could observe there are no raw exports of tobacco. But tobacco products only exports. In the 20 years period of analysis tobacco export physical performance shows negative trend (-0.007). But its monthly performance shows a positive trend (0.098). This is a good sign for Indian economy.

Tea Production:

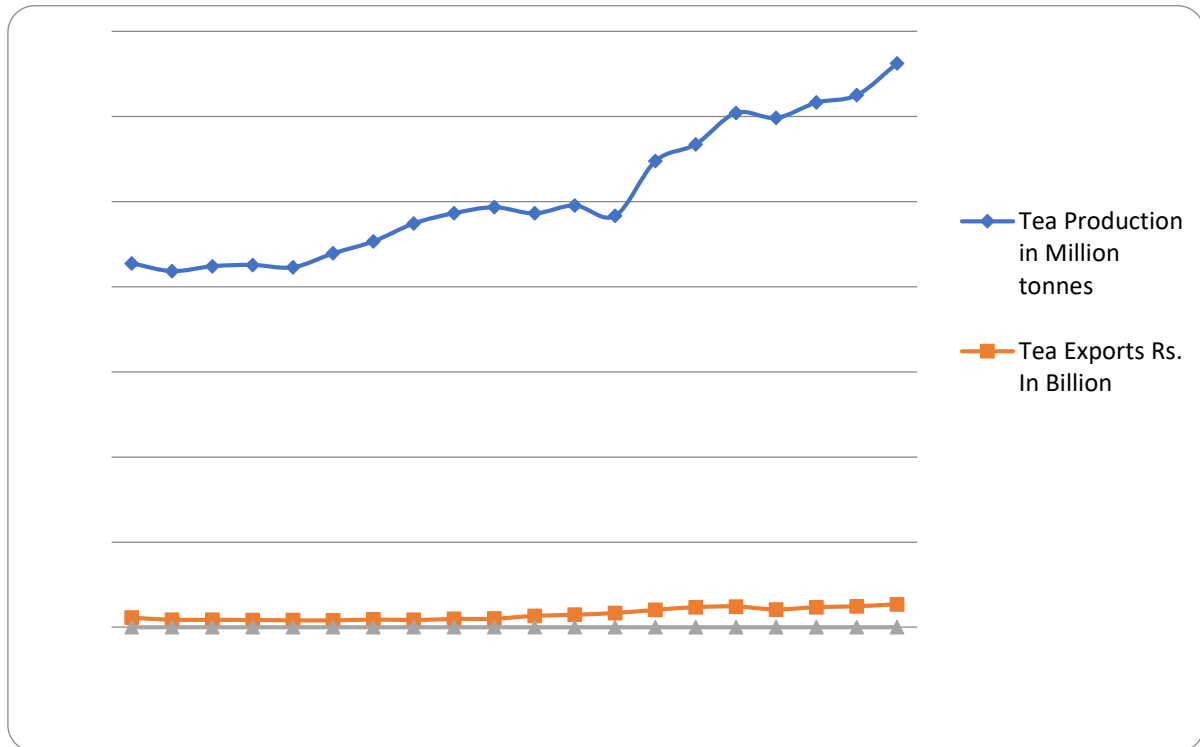
Indian Tea is one of the first products in the world. Geographical location heavy investments on processing of Tea units, continuous innovation in the processing of Tea-product are the basic factors for quality of Tea in the world market. North East India, North Bengal and Nilgiris in South India are the main Tea growing reasons in India. 3/4th of the countries Tea production is consumed domestically. Remaining 1/4th is exported from India. Russia, Iran, UK, United Arab Emirates, Kenya and its neighbouring countries in Africa, China, Srilanka, are the major imports of Indian Tea.

Table: 2
The Growth Rate of Tea Production and Export in India

Year	Tea Production in Million tonnes	Tea Exports Rs. In Billion	Growth of production	Growth of export	CAGR of Production	CAGR of Export
1998-99	855.16	22.65	-	-	0.022137	0.225627
1999-00	836.86	17.85	-2.139950419	-21.19205298	-1	-1
2000-01	848.43	17.89	1.382549052	0.224089636	-1	-1
2001-02	851.41	17.19	0.351236991	-3.912800447	-1	-1
2002-03	845.97	16.52	-0.638940111	-3.897614892	-1	-1
2003-04	878.65	16.37	3.863021147	-0.907990315	-1	-1
2004-05	906.84	18.4	3.208330962	12.40073305	-1	-1
2005-06	948.94	17.31	4.642494817	-5.923913043	-1	-1
2006-07	973.07	19.7	2.542837271	13.80704795	-1	-1
2007-08	987.02	20.34	1.433607038	3.248730964	-1	-1
2008-09	972.77	26.89	-1.443739742	32.20255654	-1	-1
2009-10	991.18	29.44	1.892533692	9.483079212	-1	-1
2010-11	966.73	33.54	-2.466756795	13.92663043	-1	-1
2011-12	1,095.46	40.79	13.31602412	21.61598092	-1	-1
2012-13	1,135.07	47.19	3.615832618	15.69012013	-1	-1
2013-14	1,208.78	48.73	6.493872625	3.263403263	-1	-1
2014-15	1,197.18	41.71	-0.959645262	-14.40591012	-1	-1
2015-16	1,233.14	47.2	3.003725421	13.1623112	-1	-1
2016-17	1,250.49	49.1	1.40697731	4.025423729	-1	-1
2017-18	1,325.05	54	5.962462715	9.979633401	-1	-1

Source: Reserve Bank of India Data.

Chart: 2
The Growth Rate of Tea Production and Export in India



The Table No.2 shows the Tea production and Tea exports from India. Production is given million tones where as exports value given in Billion rupees. Over the 20 years period of analysis of the date, all financial year shows continuous increase in the export of Tea products. Only in the year 1999-2000, 2008-09, 2010-11 and 2014-15 shows Marginal negative performance. Remaining financial years shows positive trend. Tea export in terms of physical value has shown extra – ordinary performance in the year 2011-12.

When we measure the performance of Tea- exports in monetary terms, it is also shows a positive trend in general according to the RBI data. Only 1999-2000, 2001-02, 2002-03, 2005-06 and 2014-15 shows a negative trend. Within this negative performance only 1999-2000 and 2014 -15 show a grave negative picture. Compound growth rate are tea-production and exports shows a meager negative performance.

Coffee Production:

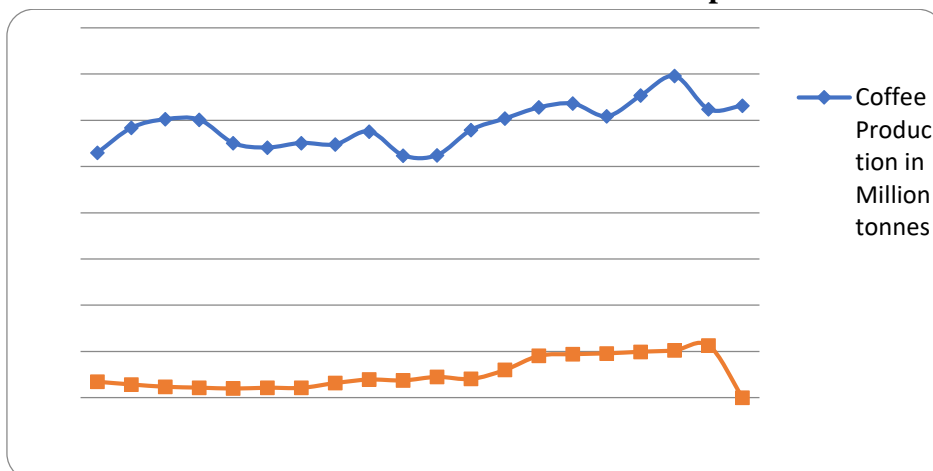
India is the third largest producer and exporter in Asia. Coffee is produced in high rainfall regions. Coffee is grown in the regions where 2500 to 4000 mille metre rainfall in there. At least it means 100 days of rainfall in a year. Coffee growing areas in our country is in diverse climate condition. Of course it is suitable for cultivation of different varieties of coffee. India is the producer of 3.30% of global coffee production. In the current financial year India has produced 316000 Metric Tonnes. Indian coffee exports for Belgium, Germany, and few other countries.

Table: 3
The Growth Rate of Coffee Production and Export in India

Year	Coffee Production in Million tonnes	Coffee Exports Rs. In Billion	Growth of production	Growth of export	CAGR of Production	CAGR of Export
1998-99	265	17.28	-	-	0.008033	-
1999-00	292	14.35	10.18867925	-16.95601852	-1	-1
2000-01	301.2	11.85	3.150684932	-17.42160279	-1	-1
2001-02	300.6	10.95	-0.199203187	-7.594936709	-1	-1
2002-03	275.3	9.94	-8.416500333	-9.223744292	-1	-1
2003-04	270.5	10.86	-1.743552488	9.255533199	-1	-1
2004-05	275.5	10.69	1.848428835	-1.565377532	-1	-1
2005-06	274	15.89	-0.544446461	48.64359214	-1	-1
2006-07	288	19.69	5.109489051	23.91441158	-1	-1
2007-08	262	18.72	-9.027777778	-4.926358558	-1	-1
2008-09	262.3	22.56	0.114503817	20.51282051	-1	-1
2009-10	289.6	20.32	10.40792985	-9.929078014	-1	-1
2010-11	302	30.1	4.281767956	48.12992126	-1	-1
2011-12	314	45.35	3.973509934	50.66445183	-1	-1
2012-13	318.2	47.11	1.337579618	3.88092613	-1	-1
2013-14	304.5	47.99	-4.305468259	1.867968584	-1	-1
2014-15	327	49.73	7.389162562	3.625755366	-1	-1
2015-16	348	51.3	6.422018349	3.15704806	-1	-1
2016-17	312	56.5	-10.34482759	10.13645224	-1	-1
2017-18	316	62.5	1.282051282	10.61946903	-1	-1

Source: Reserve Bank of India Data.

Chart: 3
The Growth Rate of Coffee Production and Export in India



Source: Reserve Bank of India Data.

Coffee exports in India shows a positive growth in general. According to the Researcher analysis coffee export start from 265 million tonnes in the year 1998-99. Gradually, it has increased to 316 million tonnes in the year 2017-18. When we calculate the monetary value it also shows a significant positive trend. It start from 17.28 billion rupees in the year 1988-99. There is consistent increase in the monetary value up to 62.5 billion rupees in the 2017-18. Calculation of annual growth rate also giving significant increase in the physical and monetary performance. Only 2003-04, 2007-08, 2013-14 and 2016-17 show a negative trend with in the four years. Only 2007-08 and 2016-17 are consider to be analysis. Around 10 % declined in these years. like that only 3 years to be considered to find out the cause and reason for declining performance (1999-2000, 2002-01).

Rice Production:

India is one of the leading rice exporters in the world. It emerged as a largest rice exporter in the year 2011-12. India displaces Thailand from its leadership positions. Two important factors played a major role in this leading position. First one is government of India’s decision in February 2011 to lift the ban on export of non-Basmati rice. The second reason is that the decision of Thailand g-12overnment to enhance stock of rice up to 50 %. In the year 2011-12 export of rice showed to 4 million tonnes. This is circumstance with leads to take the dominant by India in the global rice market. India share in world rice market is around 25%. Thailand performance was also around 25%. Major Rice importing countries are China, Iran, Saudi Arabia, Indonesia, United States, Philippines, Ivory Coast, United Arab Emirates, Iraq, South Africa, Japan, United Kingdom and Ghana. Within the major importing countries Saudi Arabia imports own rice up to 16%; Iran holds second rank by importing rice from our country (11%). United Arab Emirate was importing 8.6% in our country. Iraq is importing 6.1% from India.

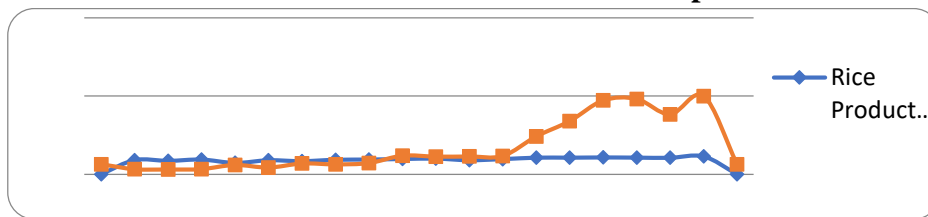
Table: 4
The Growth Rate of Rice Production and Export in India

Year	Rice Production in Million tones	Rice Exports Rs. In Billion	Growth of production	Growth of export	CAGR of Production	CAGR of Export
1998-99	-	62.81	-	-	-	0.098724
1999-00	89.68	31.26	-50.23085496	-	-1	-1
2000-01	84.98	29.32	-6.206014075	-5.240856378	-1	-1
2001-02	93.34	31.74	8.253751705	9.837608849	-1	-1
2002-03	71.82	58.31	83.71140517	-23.05549604	-1	-1
2003-04	88.53	41.68	-28.51997942	23.26649958	-1	-1
2004-05	83.13	67.69	62.40403071	-6.099627245	-1	-1
2005-06	91.79	62.21	-8.095730536	10.4174185	-1	-1
2006-07	93.36	70.36	13.10078765	1.710425972	-1	-1
2007-08	96.69	117.55	67.06935759	3.566838046	-1	-1
2008-09	99.18	111.64	-5.027647809	2.575240459	-1	-1
2009-10	89.09	112.55	0.815120029	-10.17342206	-1	-1
2010-11	95.98	115.86	2.940915149	7.733752385	-1	-1

2011-12	105.3	241.09	108.0873468	9.710356324	-1	-1
2012-13	105.24	338.58	40.43718114	-0.056980057	-1	-1
2013-14	106.65	470.87	39.07200662	1.339794755	-1	-1
2014-15	105.48	480.28	1.998428441	-1.097046414	-1	-1
2015-16	104.41	382	-20.46306321	-1.014410315	-1	-1
2016-17	112.91	498.4	29.6566077	2.926162261	-1	-1
2017-18	-	62.81	-	-	-	0.098724

Source: Reserve Bank of India Data.

Chart: 4
The Growth Rate of Rice Production and Export in India



Source: Reserve Bank of India Data.

Rice Export in India shows a significant impressive performance in our analysis. Rice exports increased from 86.08 million tonnes to 112.91 million tonnes (1998-99 to 2007-2008). Monetary performance also increase around seven times from 1998-99 to 2017 -18. In the year 2011 -12 onwards Indian Rice exports has increased in a vertical growth. Because of India as well as Thailand government Rice export decision. Annual growth rate calculation gives an impression picture in general. In the 1999-2000, 2003-04, 2014-15 shows a negative performance according to annual rate calculation. But this is regressive picture not replicated in the monetary value annual growth rate. Only in the year 2002-03, shows the highest amount of decline in the exports earning of rice. Around 1/4th declined in the export value, in the overall analysis both annual growth rate and compound growth rate shows a positive trend. Within the compound analysis monetary performance of rice exports shows significant level of positive trend.

Spices:

Spices are major constituent for food. It provides taste and flavour. Many Spices are important to maintain good health. Certain spices are having medical usage. Ginger and Turmeric is used as inflammatory property. Cumin and Cinnamon help for digestion and maintain ace of weight. Spices make the food as delicious. These properties lead to increase the scope for export of spices. Hence, it is helpful to conserve the national economy.

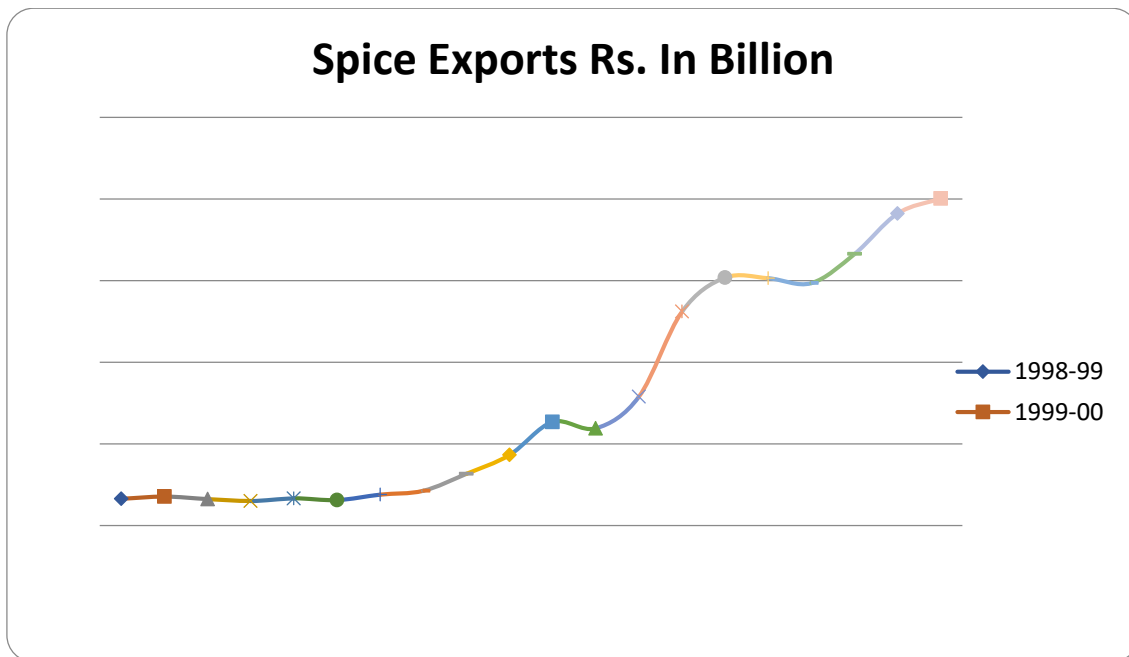
Indian spices exports has recorded considerable gains in terms of value and value pepper, cardamom, chilli, ginger, turmeric, coriander cumin, celery, fennel, fenugreek. Garlic, Net-meg and mace, mint product and spice oil. These are the products which are exported by government of India. Spice Board of India is the authority to administrate and regulate spices production sales and exports.

Table: 5
The Growth Rate of Spices Export in India

Year	Spice Exports Rs. In Billion	Growth of export	CAGR of Export
1998-99	16.33	-	0.012597737
1999-00	17.67	8.205756277	-
2000-01	16.18	-8.432371251	-
2001-02	14.97	-7.478368356	-
2002-03	16.56	10.62124248	-
2003-04	15.44	-6.763285024	-
2004-05	18.83	21.95595855	-
2005-06	21.16	12.37387148	-
2006-07	31.58	49.24385633	-
2007-08	43.15	36.6371121	-
2008-09	63.38	46.8829664	-
2009-10	59.49	-6.137582834	-
2010-11	78.87	32.57690368	-
2011-12	131.03	66.1341448	-
2012-13	151.77	15.82843624	-
2013-14	151.46	-0.204256441	-
2014-15	148.48	-1.967516176	-
2015-16	166.3	12.00161638	-
2016-17	191.1	14.91280818	-
2017-18	200.2	4.761904762	-

Source: Reserve Bank of India Data.

Chart: 5
The Growth Rate of Spices Export in India



RBI, provide data on spices only in the monetary terms. There are varieties of spices. It cannot be given separately. Hence, they have provided only monetary terms of exports. Spices exports starts from 16.33 billion in the year 1998-99. But it has encouraged more than ten times in the study period. 2017-18, export performance of spices is 200.2 billion rupees. When we analysis annual growth rate of spices exports it shows a fluctuating growth trend. We could able to find negative performance in few years and highest performance in few years. In certain financial year, it is mixed. Though there is a greater demand for spices this fluctuating trend can't be approved. In the year, 2011-12, we could able to observe 66.13% of growth rate. This is abnormal growth in the spices exports. Like that, in the year 2006-07, we could able to observe 49% of positive growth rate in the export of spices. In the year 2010-11 also we could able to observe impressive performance of spices exports. Only two financial years are having constraints in export of spices. However, overall compound growth rate shows a positive trend.

Fruits and Vegetables:

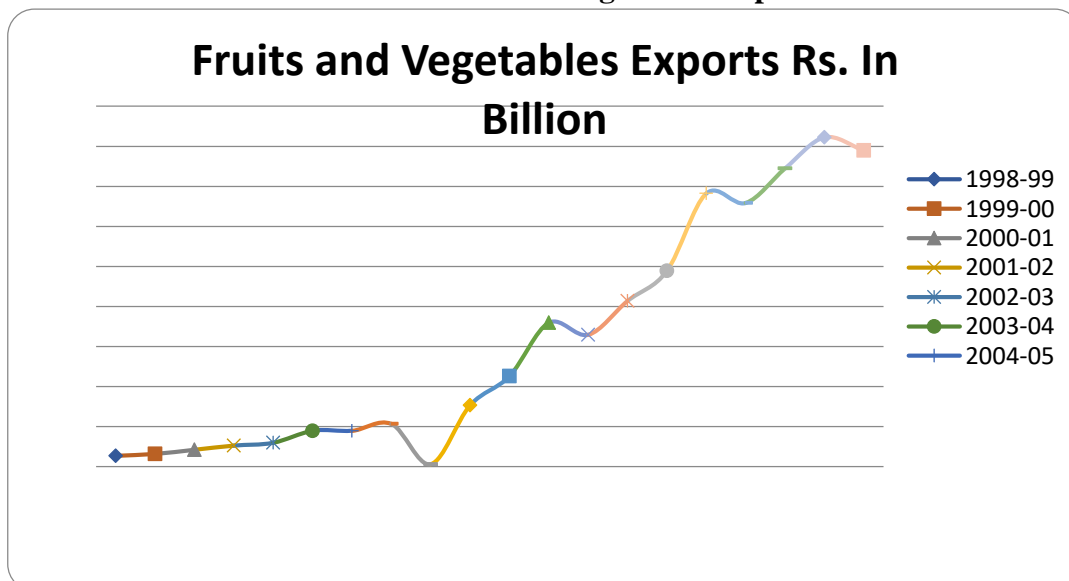
India's diversity in climate conditions ensures verities of fresh fruits and vegetables. India ranks second in the fruits and vegetable production at world level. China holds the first place in fruits and vegetable production. Ginger, Okera, Potatoes, Cauliflower, Onion, Brinjal, Cabbages, these are the importance vegetables. India rank first in Banana production, Papaya production, and Mango production. The vast amount of production offers India to export these products at large scale. Grapes, Pomegranate, Bananas, and Oranges, Onion, Mixed vegetables, Potatoes, Tomatoes and Green chilli are the large quantity of export basket from India. Indian sub-continent is exporting fruits and vegetable to Bangladesh, United Arab Emirates, Netherland, Nepal, Malaysia, UK, Srilanka, Omen and Qatar. India has a large scale global market in fruits and vegetables. But this global export comes around only one percentage of global exports.

Table: 6
The Growth Rate Fruits and Vegetables Export in India

Year	Fruits and Vegetables Exports Rs. In Billion	Growth of export	CAGR of Export
1998-99	5.4	-	0.021608
1999-00	6.43	19.07407407	-
2000-01	8.43	31.10419907	-
2001-02	10.55	25.14827995	-
2002-03	11.88	12.60663507	-
2003-04	17.92	50.84175084	-
2004-05	17.91	-0.055803571	-
2005-06	21.34	19.15131212	-
2006-07	1.22	-94.28303655	-
2007-08	30.66	2413.114754	-
2008-09	45.19	47.39073712	-
2009-10	71.86	59.01748174	-
2010-11	65.84	-8.377400501	-
2011-12	82.81	25.7746051	-
2012-13	97.74	18.02922352	-
2013-14	136.51	39.66646204	-
2014-15	131.75	-3.486924035	-
2015-16	148.9	13.0170778	-
2016-17	164.5	10.47683009	-
2017-18	157.9	-	-

Source: Reserve Bank of India Data.

Chart: 6
The Growth Rate Fruits and Vegetables Export in India



Source: Reserve Bank of India Data.

Volume of fruits and vegetables export start from a marginal amount when compare with present state of exports of fruits and vegetables. In the year 1998-99, India has exported 5.4 Billion worth of fruits and vegetables but it increased many fold and reaches the 157.9 billion worth of exports of fruits and vegetables. In the year 2017-18, export market for fruits and vegetable has picked up in the year 2013-14 onwards. Through our analysis we could able to classify the growth trend of fruits and vegetables exports from India in to three categories. In the first phase (1998-99) to (2005-06), second phase start from 2007-08 and end up in 2012-13. Third phase start from 2013-14 to 2017-18.

In the first phase fruits and vegetables export accounts for up to 21.34 billion only. In the second phase, it ranges from 30.66 billion to 97.74 billion. In the third phase India fruits and vegetable market gear up to 167.9 billion. Calculation of annual growth rate also shows prosperous pictures. The compound growth rate has also shows positive significant.

Meat and Dairy:

A meat product plays an important role in the socio-economic life of India. It is which source of high quality products. Meat, milk, egg these are the important product of meat production. India share in the meat production is 20%. 5.56% of egg products of India occupy the global egg market. India has also the largest population of mulch animals in the world. India has 110 million Buffaloes, 63 million of Sheep and 133 billion of goats. Exports of animal product represent an important contribution to the agricultural sector of India. Goat, Meat, Poultry products, animal casings, milk and milk product and Honey are exported from India. India’s exports of meat products, including Buffalos meat, Sheep and Goat meat, Poultry product, Dairy products, Animal casings, processed meat, export of albumin are included in these items. The demand for Indian buffalo meat in the international market has sparked a sudden increase in the meat exports. Buffalo meat dominates in the world market. It contributes 89.08% in the world market of exports. The main markets for India are Vietnam, Malaysia, Egypt, Arab Republic, Iraq and Saudi Arabia.

Table 7: The Growth Rate Meat and Dairy Export in India

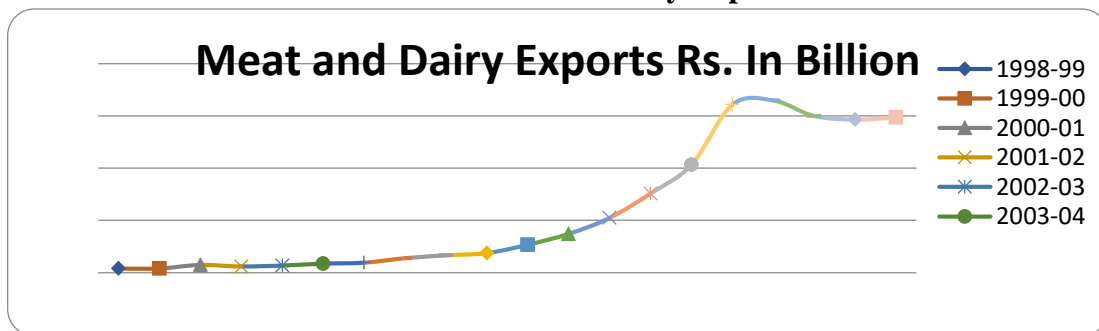
Year	Meat and Dairy Exports Rs. In Billion	Growth of export	CAGR of Export
1998-99	7.88	-	0.012286143
1999-00	8.19	3.934010152	-
2000-01	14.7	79.48717949	-
2001-02	11.93	-18.84353741	-
2002-03	13.77	15.4233026	-
2003-04	17.14	24.4734931	-
2004-05	19.05	11.14352392	-
2005-06	27.5	44.35695538	-
2006-07	33.14	20.50909091	-
2007-08	37.5	13.15630658	-
2008-09	53.71	43.22666667	-
2009-10	74.49	38.68925712	-
2010-11	104.6	40.42153309	-

2011-12	151.47	44.80879541	-
2012-13	206.88	36.58150129	-
2013-14	321.66	55.48143852	-
2014-15	329.67	2.490207051	-
2015-16	299.9	-9.030242364	-
2016-17	292.8	-2.367455819	-
2017-18	297.3	1.536885246	-

Source: Reserve Bank of India Data.

Chart: 7

The Growth Rate Meat and Dairy Export in India



Source: Reserve Bank of India Data.

Dairy and milk products are important components of our Indian exports. Dairy and meat product shows a vertical growth from the year 2011-12. From 2011-12 onwards this vertical performance start from Indian meat and milk market. The researcher observed that, the annual growth rate is positive in nature and its performance is visible. Majority of the annual growth rate performance shows an interesting positive performance. In the year 2016-17, a marginal decrease takes place. Only one year, growth performance shows a negative performance. Overall compound growth rate is positive. This export market has to be maintained.

Cashews:

Cashew is the king of all nuts. It is also known as the wonder nut of the world. Cashew nut found its home in India at the time of Portuguese regime 500 years ago. Over all years it has become one of the leading exports of India. In the early days cashew nuts are instrumental factors to increase the foreign exchange to India. India rank's first in imports of raw cashew nuts and export of different processed cashew nut in the world. India export its cashew nuts United States of America various countries in Europe, Japan and Australia. However in recent years India's raw cashew nut production has become stagnant. Even though we are having high level of technology and high yield varieties there stagnations took place. In the recent past, we faced this decreasing trend because of various reasons. This has to be identified and corrected. Either low quality of production or there is demand for alternative nuts or prices of the cashew nut products? This has to be analysed. Cashew nut is produced in 32 countries in the world. Majority of the countries are tropical country. Within these countries India is taking systematic efforts to increase the exports of cashew nuts. India has formed the cashew nut export promotion council. This council promote exports in a systematic way.

Table: 8

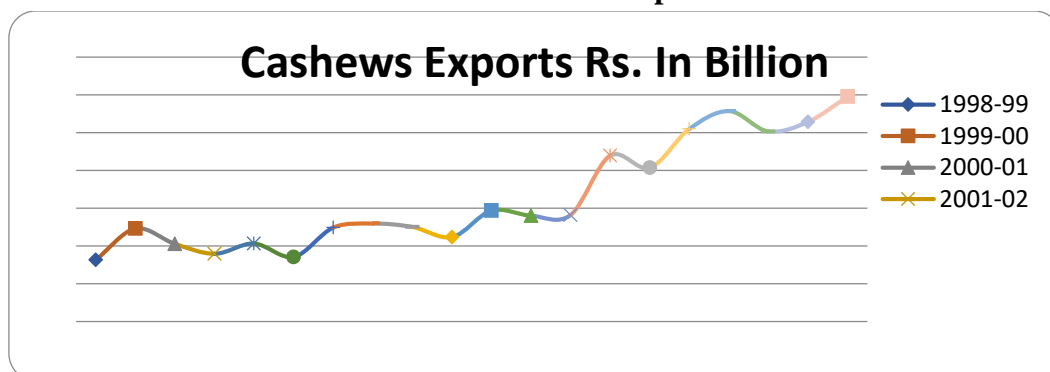
The Growth Rate Cashews Export in India

Year	Cashews Exports Rs. In Billion	Growth of export	CAGR of Export
1998-99	16.32	-	0.02197898
1999-00	24.61	50.79656863	-
2000-01	20.54	-16.53799269	-
2001-02	17.94	-12.65822785	-
2002-03	20.62	14.9386845	-
2003-04	17.05	-17.31328807	-
2004-05	24.85	45.74780059	-
2005-06	25.93	4.346076459	-
2006-07	25.01	-3.548013884	-
2007-08	22.35	-10.6357457	-
2008-09	29.31	31.1409396	-
2009-10	28.02	-4.40122825	-
2010-11	28.19	0.606709493	-
2011-12	43.9	55.72898191	-
2012-13	40.67	-7.357630979	-
2013-14	50.95	25.27661667	-
2014-15	55.66	9.244357213	-
2015-16	50.3	-9.629895796	-
2016-17	52.8	4.970178926	-
2017-18	59.5	12.68939394	-

Source: Reserve Bank of India Data.

Chart: 8

The Growth Rate Cashews Export in India



Source: Reserve Bank of India Data.

This study focussed on the export performance of cashew from 1998-99 to 2017-18. In the year 1998-99 cashew exports was worth Rs. 16.32 billions. It has increased to four times (59.5 billion) in the year 2017-18. In the year 2011-12 onwards we could able to identify the rapid increase in the exports of cashews. India has taking systematic steps t increase the processed cashew exports. This is the important reason for increasing exports of cashews. Annual growth rate was calculated and presented in the table no.4.8. This

annual growth rate shows a significant improvement in the cashew exports. In certain year like 1999-2000, 2004-05, 2011-12, 2013-14 shows tremendous improvement in the cashew nut export performance. Negative performance identified only in few years in an average according to compound annual growth rate calculation. We could able to observe a satisfactory performance in the analysis of compound growth rate.

Oil Meals:

India has the high potential to export oil meals. Based on the potentially the government of India established a council named as Indian oil seed and produce export promotion council (IOPEPC). The council is governed by ministry of commerce government of India. The council carry out various functions to promote export of oil meals. For this purpose the council gives highest prosperity on development of oil seeds, edible oil, oil cakes, and other related products. The council concentrate on improvement of yield and quality of oil seeds which is basic requirements in global markets. This council also committed to boost the Indian images in global markets as a consistent supplier of oil seeds and oils. This council has visited many countries including China to demonstrate the quality of Indian oil meals and learn from other countries to improve the quality of oil meals. It also promotes the technology to be used to promote exports of oil meals. The export promotion council learns lesson from oil meal importing countries to control the pesticides residues in the exporting products. Creation of awareness is one among the important function for oil seeds export promotion council. It creates awareness among the farmers to use safe and permissible pesticides. Po; seed export promotion council has also strength the supply chain of oil seeds among various stakeholders like Traders, Exporters, Processes, Brokers and service provides. There is a systematic effort from the council to increase the exports through trade fairs and exhibitions. All these systematic efforts lead to increase the exports of oil meals in India at large level.

Table: 9
The Growth Rate Oil Meals Export in India

Year	Oil Meals Exports Rs. In Billion	Growth of export	CAGR of Export
1998-99	19.42	-	0.060150765
1999-00	16.38	-15.65396498	-1
2000-01	20.45	24.84737485	-1
2001-02	22.63	10.6601467	-1
2002-03	14.88	-34.24657534	-1
2003-04	33.48	125	-1
2004-05	31.78	-5.077658303	-1
2005-06	48.75	53.39836375	-1
2006-07	55.04	12.9025641	-1
2007-08	81.4	47.89244186	-1
2008-09	102.69	26.15479115	-1
2009-10	78.32	-23.73161944	-1
2010-11	110.7	41.34320735	-1
2011-12	117.96	6.558265583	-1

2012-13	165.2	40.04747372	-1
2013-14	170.7	3.329297821	-1
2014-15	81.29	-52.37844171	-1
2015-16	36	-55.71410998	-1
2016-17	54.1	50.27777778	-1
2017-18	70.2	29.75970425	-1

Source: Reserve Bank of India Data.

Findings:

Finding of Tobacco export performance in India:

- Compound growth rate of physical value of Tobacco exports shows a negative performance. At the same time compound growth rate analysis of Tobacco exports in monetary terms shows positive trends.
- From 2013-14 onwards Tobacco exports was stopped and Tobacco products exported. Monetary terms of Tobacco exports shows a consistent positive performance in monetary terms according to the annual growth rate analysis. But when we analysis the export growth of Tobacco in monetary terms, it shows a fluctuating figure.

Finding of Tea export performance in India:

- Analysis of Tea exports shows a marginal positive trend according to the compound growth rate analysis in terms of physical an monetary value.
- Annual growth rate analysis also shows a positive trend both interm of physical and monetary value. There is an exception for few years.
- Tea export is one of the major exports in 1960s. Now it becomes secondary exports of Indian agriculture but it result are impressive and having positive significant.

Finding of Coffee export performance in India:

- Coffee is one of the important export items and Physical and Monetary compound growth rate shows positive trend but it is less significant. Because the compound growth rate is 0.008%.
- Annual Growth rate shows a positive growth in general. A consistency is maintained in terms of physical exports and monetary value of exports.
- There is a negative trend in performance for four years.

Finding of Rice performance in India:

- Compound growth of Rice export analysis shows a significant position trend (0.098).
- Annual growth rate analysis shows a vertical growth in the recent past (2011-12) onwards. This is because of non-Basmati Rice export. There are pure negative performance years. This is due to seasonal variation of Rice production and public proclaiming of government of India.

Finding of Spices export performance in India:

- Spices are one of the important export items. Spices export market performance shows a positive growth. But this is marginal. It is because of performance of exports from 1998-99 to 2010-11.

This is because of government of India focus on spices production and spices management strategies.

- Annual growth rate calculation indicated a better performance. But its character is in fluctuation. In certain year like 2006-07, 2008-09 and 2011-12 shows a tremendous increase in export performance.

Finding of Cashews export performance in India:

- Cashews export is having long history of export market and its compound growth rate performance shows a positive and insignificant growth.
- Interpretation data to get the result on the basis of available spices export data shows that a fluctuating picture. Increase and decrease year after year is quite nature. However, its export performance is essential for farmers and foreign exchange.

Finding of Oil meals export performance in India:

- Oil meals exports analysis of data to find out the compound growth rate shows a positive trend and it is significant.
- Oil seeds exports promotion council of India has taken systematic efforts, to increase the exports of oil meals. Due to the efforts taken by the promotion council, export promotion increased from 2008-09 onwards. But this is not stable. An Oil meals exports come down in the recent past (2015-16 onwards).

Finding of Fruits and vegetables export performance in India:

- Compound analysis of fruits and vegetable exports shows positive trend. Fruits and vegetables have a potential scope after 2013-14 onwards. This leads to increase the compound growth rate analysis calculation.
- Annual growth rate shows how fruits and vegetable export has increased from a negligible value of market to great potential of export market. In 1998-99, it is 5.4 billion. But, 2017-18, there is a magnificent improvement up to 1957.9 billion.
- There is consistent positive trend prevail and the period of analysis.

Finding of Meat & Dairy export performance in India:

- Increasing milk production leads to increase the all other production related to milk. Meat & Dairy product exports show a positive trend based on the compound growth rate analysis. But it is marginal.
- Annual growth rate of meat and dairy products export shows impressive growth rate year by year. It is one of the important factors for export of agricultural products.

References:

1. Ashalatha., 2000, Export Trade Performance of Indian Cashew, *M.Sc. (Agri) Thesis*, Uni. Agric Sci., Bangalore (India).
2. Ananthi, S., 2000, An Econometric Analysis of Indian Rice Export, *M.Sc. (Agri.) Thesis*, Uni. Agric. Sci., Dharwad (India).

3. Bender, S. and Kui-Wai Li., 2002, The Changing Trade and Revealed Comparative Advantages of Asian and Latin American Manufacture Exports, Yale University, Economic Growth Center Discussion Paper Series No. 843.
4. Guledgudda, S.S., Patil, B.L., Hosamani, S.B., Hiremath, G.K., Okelar, J.N., 2002, Production and Export Performance of Tea Industry in India. *J. Plantation Crops*, 30 (3): 27-32
5. Jalajakshi, C.K., 1994, Export of Shrimps from India: An economic analysis. *M.Sc. (Agri.) Thesis*, Uni. Agric. Sci., Bangalore (India).
6. Kurien, V., Swaminathan, M.S. and Paroda, R.S., 2000, Visions of Indian Dairying for the New Millennium. *Indian Dairyman*, 52(1): 5-1.
7. Kanaka, S. and Chinadurai, M., 2012, A Study of Comparative Advantage of Indian Agricultural Exports, *J. Mgt. Sci.*, 2(3): 25-29.
8. Kathuria S., 1996, Export incentives: The Impact of Recent Policy Changes in India. *Ind. Econ. Rev.*, 31(1): 109-126.
9. Sinha, Manoj Kumar. Structural Change in Composition of India's Export during Post-Economic Reform Period. *Business Analyst*. 2016; 37(1):99-116.
10. Nikita, G. P., Jeyanthi, V., Geethalakshmi and Unnithan, G.R., 2009, Indian Finfish Exports -An Analysis of Export Performance and Revealed Comparative Advantage, *Agric. Econ. Res. Rev.* 22: 291-297.
11. Namasivayam, N. and Paul, R.V., 2004, Trend Analysis of Coconut Production in India, *J. Plantation Crops*. 32 (3): 64-67.
12. Prabeena, Ambidattu. An analysis of performance of agro based industries in Tamil Nadu with special reference to cashew nut. *Indian Journal of Economics and Development*, 2015, 3(12).
13. Phillips, C., 1997, Trends in Demand in the Major Regions: South East Asia and the Far East, *Bulletin International Dairy Federation*. 325: 31-40.
14. Sahni, Priyanka. Trends in India's Exports: A Comparative Study of Pre and Post Reform Period. *IOSR Journal of Economics and Finance (IOSR-JEF)*. 2014; 3(2):5925.
15. Dr.Ruchira, S. (2011, December). Significance of supply chain management in agribusiness. *agribusiness Rashtriya Krishi* , pp. 23-24.
16. Ranjendran, R. A. (2013), "WTO Agreements and Dimensions of India's Foreign Trade: Food Security, Water and Environment", *International Journal of Current Research*, 26.
17. Richardson, D. J and Chi Zhang., 1999, Revealing Comparative Advantage: Chaotic or Coherent Patterns Across Time and Sector and U.S Trading Partner? *Nation. Bureau Econ. Res.*, Working Paper 7212
18. Singh R K, Rather G M and Singh S K (1995), "Structural Change: Implications for agricultural Production Environment in India", *Indian Journal of Agricultural Economics*, Vo1.50, No.3, July-September.
19. Thomas Sunny, Sheikh Waheeda (2011), "Growth and Composition of Indian Agricultural Exports during reform era, *Abhinav monthly refereed Journal of Research in Commerce and Management*, 13.