A STUDY ON EXPORT PERFORMANCE OF ETHANOL IN INDIA

Dr.N.BHUVANESH KUMAR

Assistant Professor, PG Department of Commerce with International Business,

Nallamuthu Gounder Mahalingam College, Pollachi.

KAVINPRASANTH K.

PG Department of Commerce with International Business, Nallamuthu Gounder Mahalingam College, Pollachi.

ABSTRACT

Ethanol Products important role in the socio- economic life of India.Ethanol production in India is expected to reach a record 3 billion liters this year, up 11 percent from 2018. India is expected to consume a record 3.8 billion liters of ethanol this year, up from a record 3.1 billion liters in 2018.The report indicates it is unlikely the country's E20 goals will be reached by 2030 due to the general inability of the cane industry to supply India's fuel demand, the fact that imports are managed in a way that minimizes the role they can play, and the expected timeframe for commercial-scale production of advanced biofuels.India currently aims to achieve an E10 blend by 2020 and E20 by 2030.main objective of the study is To find out the export performance of agriculture and processed food products of India during the period of 2005-2019. The study makes use of statistical techniques such as Percentage analysis, Growth analysis, Standard Deviation, CAGR and CV in analyzing the data for finding the result.

Keywords: Ethanol, Production, Export and India

INTRODUCTION

Ethanol production in India is expected to reach a record 3 billion liters this year, up 11 percent from 2018. Last year, approximately 2.7 billion liters of ethanol was produced from molasses.Regarding imports, the U.S. has remained the largest ethanol supplier to India for the past six years. Indian ethanol importers were down 14 percent last year, falling to 633 million

liters. The U.S. accounted for 94 percent of 2018 imports. According to the report, India had 166 ethanol refineries in place last year, up from 161 in 2018. That number is expected to increase this year. Nameplate capacity was 2.3 billion liters in 2018 and is expected to increase to 2.6 billion liters this year. Capacity use was 117 percent in 2018 and is expected to fall go 115 percent in 2019. The report indicates it is unlikely the country's E20 goals will be reached by 2030 due to the general inability of the cane industry to supply India's fuel demand, the fact that imports are managed in a way that minimizes the role they can play, and the expected timeframe for commercial-scale production of advanced biofuels.

India is expected to consume a record 3.8 billion liters of ethanol this year, up from a record 3.1 billion liters in 2018. The report states a 6.6 percent blend rate could be achievable if all the ethanol produced form molasses this year is blended with gasoline. "Potential blending would be higher yet if imports were permitted and duties lowered," the report states. "However, given demand from the potable and industrial sectors and limitations on imports, a national blend average of 5.8 percent in 2019 is expected.

India currently aims to achieve an E10 blend by 2020 and E20 by 2030. According to the report, India's Ethanol Blending Program stipulates procurement of ethanol produced directly from B-heavy molasses, sugarcane juice, and damaged food grains. A surplus sugar season coupled with financial incentives to convert excess sugar into ethanol is expected to help the country's oil marketing companies (OMCs) procure more than 2.4 billion liters (634.01 million gallons) of ethanol this year.

OBJECTIVES OF THE STUDY

The research aims to at enriching the knowledge understanding role of export performance of Ethanol. The main objectives are,

- To examine the growth and stability in Ethanol production and export.
- To study product wise export of Ethanol in India.
- To analyze the direction of export of Ethanol.
- To offer necessary suggestions based on findings.

SCOPE OF THE STUDY

The scope of this project is involved the export performance of Ethanol products in Indian industry. The export performance of Indian Ethanol is affected by the high competition. This study also gives growth rate and trend percentage of the Ethanolproducts for the forth coming years in year wise and also country wise. The study gives information about the size of the Ethanolexport network. The study provides suggestions to the organization to improve their functions.

RESEARCH METHODOLOGY

Sample Design

The study is made for the purpose of an in depth analysis of various indicators and its effect on export performance of Indian marine industry. The major fifteen products are selected by using convenient sampling method.

METHOD OF DATA COLLECTION

The present study based on secondary data.The secondary data were collected from Cereals statistics and other web based sources.

- Secondary Data

Secondary Data

The secondary data is collected to supplement the primary data. The annual reports of sample units, Publications of Copper Economic Survey of India, Publications of Ministry of Commerce and Ethanol, Bulletins Working and Occasional Papers of EXIM Bank, Occasional Papers and Statistics on Indian Economy of RBI, Periodicals and Journals of Foreign Trade of Ethanolproduce, Publications of EEPC were used as important sources of secondary data for the study.

TOOLS AND TECHNIQUES

- Percentage Analysis
- Trend Analysis

- Growth Rate
- Standard Deviation
- CAGR
- CV

LIMITATIONS OF THE STUDY

- The analysis is made only by considering 10Ethanol products and 10 major countries.
- Time constraint is one of the limitation

REVIEW OF LITERATURE

L.Jagadeesan and Dr. H.Shankar (2017), "Operational Performance of Mango Pulp Industry in Tamilnadu". Mango is acknowledged as the king of fruits of tropical area by the world. Tamilnadu is one of the major mango growing states in India as the climate is conductive for mango cultivation. It is generally grown under rain-fed conditions in the state. While mangoes are popularly consumed directly as fruits, not all could be done so and preservation in the form of processing is widely recorded to. It is also an economic requirement in order that remunerative prices are realised by growers and the consumers get the benefit of spread over consumption The main objective of this study is to analyze the operational performance of Mango Pulp Industry in Tamilnadu.

David Boans (2014), "Comparative Performance of Agricultural Export Trade: During and Post-Agricultural Diversification Project in Ghana".This study compares export performance for seven agricultural commodities prior to, during and after initiation of the Agricultural Diversification project (1991-1999) in Ghana. This is to help identify the impact of the initiative on Ghana's agricultural exports and to ascertain the ability or otherwise of the country to sustain or improve on performances observed under the project. Covering the years 1987 to 2013, the study primarily made use of secondary data on commodity and aggregate agricultural export values for Ghana and the world, the latter being used as the reference group.

Dr. K. C. Gummagolmath (2015), "Trends in Marketing and Export of Onion in India". Onion is one of the important vegetable crops grown in India. In terms of area, India ranks first with an area of 5.54 lakh hectares (2010-09) accounting for around 22.40 per cent of the world onion

area. In terms of production, the country occupies second position after China constituting 19 per cent of the global onion production. It is produced for both domestic consumption as well as exports. In the wake of galloping price rise in onion, it is imperative to understand the nature and causes of price rise and effect on consumer.

MitulDeliya, ChandujiThakorandBhaveshParmar (2015), "A Study on "differentiator in Marketing of fresh fruits and Vegetables from Supply Chain Management Perspective". In today's competitive marketplace the pressure on organizations to find new ways to shape and deliver value to customer grows ever stronger. Gradually, in emerging economies as well as developments markets, the power of the seller has overtaken that of the customer. The unorganized retailers are homogeneous group. Recent development in retailing is the entry of large number of organized retailers. Current supply chain catering mainly to the unorganized retailers is riddled with number of drawbacks. As per this paper important drawbacks of the current supply chain are number of intermediaries, high level of wastage, quality degradation, poor infrastructural facilities and high cost. Government and private operators have to join hands to improve the physical infrastructure, information sharing and the service required for quality improvement of the supply chain.

Md Abdullah and Mohammad RokibulHossain (2015), "A New Cooperative Marketing Strategy for Agricultural Products in Bangladesh". The vegetables and rice growers and suppliers were considered as the population for this study. The research is qualitative in nature that is based on primary and secondary data. The research procedure includes preparation of questionnaire, pre-testing of questionnaire, survey, data decoding, data analysis, interpretation and findings. SPSS 17 version issued to analyze the primary data. Mainly the descriptive statistics is used to analyze the survey data. Crop production has also exceeded the national demand in the last few years. But the farmers are always deprived of the fair price for their products due to improper marketing systems that exist in Bangladesh.

Dr. R.N. Hegde and Dr. N.V. Madhuri (2015) , "A Study on Marketing Infrastructure For Fruits and Vegetables In India",To study the existing supply chain available for fruits and vegetables and to find the place of small and marginal farmers in the chain.

EXPORT OFETHANOL PRODUCTS FROM INDIA

(Values Rs in Lakhs)

Year	waters, including natural or artificial mineral waters	waters, including mineral waters and aerated waters, containing	beer made from malt	wine of fresh grapes, including fortified wines	vermouth and other wine of fresh grapes flavoured with plants or aromatic substances
2005	246.43	1,460.66	2,990.20	320.49	47.46
2006	448.51	1,284.92	2,982.65	533.84	22.46
2007	365.8	1,915.86	2,979.62	776.48	8.96
2008	247.97	1,104.82	2,895.70	1,250.65	20.34
2009	188.72	2,155.54	4,589.88	1,503.05	1.25
2010	117.61	2,734.54	7,057.00	1,959.10	40.19
2011	160.45	3,050.14	8,466.99	1,349.63	244.95
2012	146.29	3,491.76	13,113.62	2,554.63	33.39
2013	380.44	5,269.93	17,385.62	2,641.47	25.77
2014	144.8	6,976.13	19,245.65	4,174.51	13.78
2015	209.76	7,925.11	20,587.46	4,711.74	110.31
2016	226.32	8,765.41	25,309.33	3,036.16	24.65
2017	224.47	9,695.72	25,905.80	5,475.99	36.53
2018	371.45	12,249.49	30,593.35	6,202.24	7.42
2019	305.29	16,776.66	32,193.09	6,805.91	5.07
AVERAGE	**252.29**	**5657.11**	**14419.73**	**2886.39**	**42.84**
CAGR	-0.18	-0.90	-0.89	-0.94	7.06
SD	**100.55**	**4658.66**	**10727.85**	**2115.05**	**61.82**
CV	**39.85**	**82.35**	**74.40**	**73.28**	**144.32**

(Source:Exim data bank)

EXPORT OF ETHANOL PRODUCTS FROM INDIA

(Values Rs in Lakhs)

Year	Other Fermented Beverages	undenatured ethyl alcohol of an alcoholic strength	undnatrd ethyl alchlwth<80 % alchlstrngth	vinegar and substitutes for vinegar obtained from acetic acid	Beverages, Spirits And Vinegar
2005	1.89	755.25	8,355.51	34.68	14,212.57
2006	81.15	8,681.73	11,729.15	56.07	25,820.48
2007	45.09	6,559.84	14,880.83	166.4	27,698.88
2008	86.9	7,714.93	21,555.98	182.75	35,060.05
2009	1,830.92	4,276.18	41,091.21	619.95	56,256.69
2010	173.27	8,902.55	39,981.58	540.48	61,506.31
2011	252.37	21,853.63	49,515.96	73.54	84,967.65
2012	138.01	61,027.30	69,078.04	144.06	149,727.10
2013	73.89	83,985.51	86,824.70	349.16	196,936.47
2014	48.72	107,311.80	109,412.60	117.62	247,445.62
2015	179.71	87,028.87	110,544.07	225.66	231,522.68
2016	1,182.67	73,436.65	97,649.62	130.69	209,761.51
2017	66	67,957.28	99,693.65	162.31	209,217.74
2018	16.84	63,263.90	110,494.47	212.65	223,411.80
2019	30.93	54,314.67	117,051.97	279.07	227,757.59
AVERAGE	**280.56**	**43804.67**	**65857.29**	**219.67**	**133420.21**
CAGR	-0.93	-0.98	-0.91	-0.86	-0.92
SD	**517.20**	**36647.12**	**40935.90**	**168.48**	**90873.05**
CV	**184.35**	**83.66**	**62.16**	**76.70**	**68.11**

(Source:Exim data bank

The economic reforms that are currently underway in India encompass the agricultural marketing system as well. The essence of these measures is to improve the efficiency and productivity of all institutions whose working is far from satisfactory. Over the years, while the agricultural marketing and trade scenario have undergone tremendous changes, marketing infrastructure has not changed enough to meet the emerging demands for marketing services. The data collected from respondent farmers and consumers were tabulated and analysed by using simple statistical tools and techniques.

Dr. R.N. Hegde and Dr. N.V. Madhuri (2015), "A Study on Marketing Infrastructure for Fruits and Vegetables in India". Agricultural marketing, essentially being a sub-set of the overall marketing system, refers to all the activities, agencies and policies involved in the procurement of farm inputs by the farmers and the movement of agricultural produce from the farms to the consumers/manufacturers/ exporters. An efficient marketing system minimizes costs and maximizes benefits to all the stakeholders in the supply chain and all the sections of the society. It ought to provide remunerative prices to the farmer, food of the required quality at reasonable prices to the consumers and also adequate margins to the middlemen so that they are encouraged to remain in the trade.

INTERPRETATIONS

The total exports of waters, including natural or artificial mineral watersproduct which ranges from Rs.246.43lakhs and Rs.305.29lakhs during the period of 2005 to 2019. Among ten years the average export among the period of study is Rs.252.29lakhs. The overall compound annual growth rate of waters, including natural or artificial mineral watersexport stood at -0.18.Growth of waters, including mineral waters and aerated waters, containingproduct which ranges from Rs.1,460.66lakhs and Rs.16,776.66lakhs. Among ten years the average export among the period of study is Rs.5657.11lakhs. The overall compound annual growth rate of waters, including mineral waters and aerated waters, containingexport stood at -0.90.Growth of beer made from maltproduct which ranges from Rs.2,990.20lakhs and Rs.32,193.09lakhs. Among ten years the average export among the period of study is Rs.14419.73lakhs. The overall compound annual growth rate of beer made from maltexport stood at -0.89.Growth of wine of fresh grapes, including fortified winesproduct which ranges from Rs.320.49lakhs and Rs.6,805.91lakhs.

Among ten years the average export among the period of study is Rs.2886.39lakhs. The overall compound annual growth rate of wine of fresh grapes, including fortified winesexport stood at -0.94.

The total exports of vermouth and other wine of fresh grapes flavoured with plants or aromatic substancesproduct which ranges from Rs.47.46lakhs and Rs.5.07lakhs during the period of 2005 to 2019. Among ten years the average export among the period of study is Rs.42.84lakhs. The overall compound annual growth rate of vermouth and other wine of fresh grapes flavoured with plants or aromatic substancesexport stood at 7.06. Growth of Other Fermented Beveragesproduct which ranges from Rs.1.89lakhs and Rs.30.93lakhs. Among ten years the average export among the period of study is Rs.280.56lakhs. The overall compound annual growth rate of Other Fermented Beveragesexport stood at -0.93.Growth of undenatured ethyl alcohol of an alcoholic strengthproduct which ranges from Rs.755.25lakhs and Rs.54,314.67lakhs. Among ten years the average export among the period of study is Rs.43804.67lakhs. The overall compound annual growth rate of undenatured ethyl alcohol of an alcoholic strengthexport stood at -0.98.

The total exports of undnatrd ethyl alchlwth<80% alchlstrngthproduct which ranges from Rs.8,355.51lakhs and Rs.117,051.97lakhs during the period of 2005 to 2019. Among ten years the average export among the period of study is Rs.65857.29lakhs. The overall compound annual growth rate of undnatrd ethyl alchlwth<80% alchlstrngthexport stood at -0.91.Growth vinegar and substitutes for vinegar obtained from acetic acid product which ranges from Rs.34.68lakhs and Rs.279.07lakhs. Among ten years the average export among the period of study is Rs.219.67lakhs. The overall compound annual growth rate ofvinegar and substitutes for vinegar obtained from acetic acid export stood at -0.86.Growth of Beverages, Spirits And Vinegarproduct which ranges from Rs.14,212.57lakhs and Rs.133420.21lakhs. Among ten years the average export among the period of study is Rs.67.67lakhs. The overall compound annual growth rate of Beverages, Spirits And Vinegarexport stood at -0.92.

FINDINGS

- Exports of waters, including natural or artificial mineral waters and aerated waters, not containing added sugar or other sweet which ranges from 246.43 lakhs and 305.29 lakhs during the period of 2005 - 2019. Among fifteen years the average export among the

period of study 252.2873 lakhs, The Standard deviation of and articles of waters, including natural or artificial mineral waters and aerated waters, not containing added sugar or other swee is 100.55The overall compound annual growth rate for fifteen years is in negative value -0.18.

- Exports of waters, including mineral waters and aerated waters, containing added sugar or other sweetening matter or flavoured which ranges from 1,460.66 lakhs and 16,776.66 lakhs during the period of 2005 - 2019. Among fifteen years the average export among the period of study 5657.113 lakhs, The Standard deviation of and articles of waters, including mineral waters and aerated waters, containing added sugar or other sweetening matter or flavoured is 4658.66The overall compound annual growth rate for fifteen years is in negative value of -0.90.
- Exports of beer made from maltwhich ranges from 2,990.20 lakhs and 32,193.09 lakhs during the period of 2005 - 2019. Among fifteen years the average export among the period of study 14419.73 lakhs, The Standard deviation of and articles of beer made from maltis 10727.85The overall compound annual growth rate for fifteen years is in negative value of -0.89.
- Exports of wine of fresh grapes, including fortified wines; grape must other than that of heading 2009 which ranges from 320.49 lakhs and 6,805.91 lakhs during the period of 2005 - 2019. Among fifteen years the average export among the period of study 2886.393 lakhs, The Standard deviation of and articles of wine of fresh grapes, including fortified wines; grape must other than that of heading 2009 is 2115.05The overall compound annual growth rate for fifteen years is in negative value of -0.94
- Exports of vermouth and other wine of fresh grapes flavoured with plants or aromatic substances which ranges from 47.46 lakhs and 5.07 lakhs during the period of 2005 - 2019. Among fifteen years the average export among the period of study 42.83533 lakhs, The Standard deviation of and articles of vermouth and other wine of fresh grapes flavoured with plants or aromatic substances is 61.82 The overall compound annual growth rate for fifteen years is in negative value of 7.06
- Exports of other fermented beverages (for example,cider, perry, mead); mixtures of fermented beverages and non-alcoholic beveragnes which ranges from 1.89 lakhs and 30.93 lakhs during the period of 2005 - 2019. Among fifteen years the average export

among the period of study 280.5573 lakhs, . The Standard deviation of and articles of other fermented beverages (for example,cider, perry, mead); mixtures of fermented beverages and non-alcoholic beveragnes is 517.20The overall compound annual growth rate for fifteen years is in negative value of -0.93

- Exports of undenatured ethyl alcohol of an alcoholic strength by volume of 80% vol. or higher; ethyl alcohol and other spirits, den which ranges from 755.25 lakhs and 54,314.67 lakhs during the period of 2005 - 2019. Among fifteen years the average export among the period of study 43804.6727lakhs,The Standard deviation of and articles of undenatured ethyl alcohol of an alcoholic strength by volume of 80% vol. or higher; ethyl alcohol and other spirits, den is 36647.12The overall compound annual growth rate for fifteen years is in negative value of -0.98
- Exports of undnatrd ethyl alchlwth<80% alchlstrngth;sprts ,liqrs and othrsprtousbvrgs;compndalchlprpn for mnufctre of which ranges from 8,355.51 lakhs and 8,355.51 lakhs during the period of 2005 - 2019. Among fifteen years the average export among the period of study 15,338.55 lakhs, The Standard deviation of and articles of undnatrd ethyl alchlwth<80% alchlstrngth;sprts ,liqrs and othrsprtousbvrgs;compndalchlprpn for mnufctre of is 17653.71The overall compound annual growth rate for fifteen years is in negative value of -0.89
- Exports of vinegar and substitutes for vinegar obtained from acetic acid which ranges from 34.68 lakhs and 279.07 lakhs during the period of 2005 - 2019. Among fifteen years the average export among the period of study 219.672667lakhs, The Standard deviation of and articles of vinegar and substitutes for vinegar obtained from acetic acid is 168.48The overall compound annual growth rate for fifteen years is in negative value of -0.86.
- Exports of beverages, spirits and vinegarwhich ranges from 14,212.57 lakhs and 227,757.59 lakhs during the period of 2005 - 2019. Among fifteen years the average export among the period of study 133420.209 lakhs, The Standard deviation of and articles of beverages, spirits and vinegaris 90873.05The overall compound annual growth rate for fifteen years is in negative value of -0.92.

SUGGESTION

- Cane development has been in full progress, with experienced senior professionals and staff appointed for the purpose. Biomass depots, trash bailers and entrepreneurship development / contracts with biomass traders proposed.
- A full time fuel manager and dedicated staff has been proposed for the cogen power plant.
- Firm marketing tie up in offing. Alternative marketing channels explored. No link with domestic demand. Value added products proposed.
- In 2016, GOI mandated 5% ethanol blending with petrol programme to directly benefit the sugarcane farmers by assuring the sugar industry a stable and reasonable return for the molasses and then passing a significant part of the same to the farmers.

CONCLUSION

The current situation is especially advantageous to American ethanol producers in search of new markets overseas as domestic demand reaches a bottleneck due to the blend wall. While industrial customers would very much prefer Brazilian sugar-based grade B ethanol for its superior quality, the surging Real and domestic supply tightness have placed Brazilian prices beyond reach.

The captioned integrated sugar, ethanol and ethanol power project is technically feasible and commercially viable and is recommended to financial institutions for financing term and working capital loans. The backward and forward linkages of this project / as well as socio-economic and environment benefits to the local populace makes this a win-win project to all the stakeholders.India is unlikely going to be the next China in terms of the impact it will have in ethanol, but it will certainly be thirsty enough to soak up some of the supply glut that we are seeing in the US.