A STUDY OF IDENTIFYING THE TRENDS AND STRATEGIES INVOLVING EXPORT OF SUGAR

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INTRODUCTION

Sugar is made from sugarcane, and was discovered thousands of years ago in New Guinea. And then the route was traced to India and Southeast Asia. India was the first to begin the production of sugar following the process of pressing sugarcane to extract juice and boil it to get crystals. The government of India in 1950-51 made serious industrial development plans and set many targets for production and consumption of sugar. The plans laid by the government projected installment capacity for the sugar industry in its Five Year Plans. India is well known as the original home of sugar and sugarcane. Indian mythology supports the fact it contains legends showing the origin of sugarcane. Today India is the second largest producer of sugarcane next to Brazil. The sugar industry's contribution to the rural economy has significant social and economic impact for the nation as well. The sugar industry is a green industry and is largely self-sufficient in energy needs through utilization of bagasse for generating electricity and steam. Sugar industry is probably the only industry in the country which utilizes all its by-products commercially by value addition thereby contributing towards the renewable power generation and green bio-fuel namely, Ethanol.

TYPES AND SIZE OF SUGAR INDUSTRIES IN INDIA

The sugar industry in India consists of organized and unorganized sector. Most of the sugar factories fall under organized sectors whereas, traditional sweeteners fall under the unorganized sector. Today India has 453 sugar mills, constituting 252 mills to cooperative sector and 134 mills from private sector. India ranks second in the world in sugarcane production. Tamil Nadu ranks first in India in highest yield per hectare, followed by Karnataka. The total sugarcane produced in India is not used for the extraction of sugar. Nearly 50% of it is used for making gur. At one time India exported a lot of sugar but today she has to import sugar.

PROBLEMS FACED BY SUGAR INDUSTRIES

- 1. Indian sugarcane is not of good quality as both the juice and content of sugar is low.
- 2. The fibre left after the extraction of juice is mainly used as fuel. If it was used for the making of paper or
- 3. board the farmer's income would increase.
- 4. The yield per hectare is low.
- Most of the sugarcane is used to make gur. If sugar was produced then the farmer would get a better price by selling their sugarcane and therefore, be willing to produce more sugarcane.

OBJECTIVE OF THE STUDY:

- To study the trends of export of sugar from India.
- To study the reasons behind the growth of export in sugar.
- To identify the sugar industry's competitiveness based on export performance.
- To study the contribution made by sugar exports.

ISMA'S statistical services maintain a global & domestic agricultural market intelligence, key indicators, outlook analysis, a wealth of data on sugarcane & its by-products. Reporting includes Indian current scenario on sugarcane acreages, world sugar forecasts, harvesting & crushing reports, historical detailing on acreages/ yields/production/utilization/stock position/ policies and related data upto State/Country level.

Table 1: Detail s regarding No of factories and Sugar cane area and production from 2009-10 to 2015-16

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	CGR (%)
No of Factories in operation	490	507	529	526	509	528	526	0.92
Cane Acreage (000 Hectares	4175	4885	5100	5279	5341	5307	5284	3.34
Sugar cane production (Lakh tones)0	2923	3424	3528	3544	3456	3668	3369	1.96
Molasses production (000 Tons)	8400	10970	11824	11744	10882	12482	10837	3.41

Research Methodology

Descriptive research design was adopted for the study considering the nature and scope of the study. Secondary data was collected from different websites relevant to the study conducted. And the data collected was analyzed by using compound growth Rate (CGR) in order to know the growth happened over a period of years with respect to the study statics.

Data Analysis and Interpretation

Table: 2 Country-wise Export of Sugar (1981 and 1986 to 2009) (Th. MT)

Year	Cuba	Dominican Rep.	Brazil	Thailand	Mauritius	South Africa	Australia	India	Total World
1981	7071	864	2670	1154	458	736	2982	64	24832
1986	6702	480	2554	2049	662	874	2710	38	27239
1987	6482	587	2424	2071	695	1105	2826	-	28368
1988	6978	528	1610	1961	692	909	2980	-	27419
1989	7123	521	965	3105	673	924	3149	-	27924
1990	7172	369	1576	2496	612	833	3069	-	28353
1991	6767	336	1614	2863	584	897	2456	296	22793
1992	6085	301	2273	3719	634	255	2894	493	25705
1993	3662	305	3008	2401	575	-	3441	324	24429
1994	3188	306	3602	2720	551	264	4504	17	24473
1995	2603	141	6299	3887	533	346	4592	174	28418
1996	3830	353	5309	4628	616	972	4286	906	29127

1997	1731	390	6586	4317	569	984	4461	248	30655
1998	663	216	8675	2444	597	1087	4688	40	31910
1999	719	-	12467	3430	527	996	4185	20	32171
2000	414	203	6502	4339	408	1291	3770	94	27931
2001	343	130	11168	3364	614	1040	3550	57	32143
2002	528	116	13383	4204	-	762	3888	309	33315
2003	307	185	13386	5485	-	804	4077	324	35516
2004	429	165	16295	4893	-	672	4303	48	35562
2005	-	154	18399	3300	-	859	4232	-	38857
2006	-	152	19530	2290	-	754	4150	1177	39480
2007	-	146	20530	4740	-	623	3906	2691	37399
2008	106	143	20143	5108	-	244	3289	4209	38070
2009	166	191	24988	5374	-	498	3252	NI	40232
CGR (%)	4.17	-6.65	14.28	3.25	-1.07	1.37	1.21	12.78	2.91

The results revealed that (From Table 2) the compounded growth rate of export of sugar from India stands at 12.78197 just behind Brazil which is 14.282923. Hence India has made good progress as far as export of sugar is concerned and has the potential to become the largest exporter of sugar. India clearly has a competitive advantage with Brazil in terms of infrastructure and sugar cultivable land. Cuba is also a strong contributor to the export of sugar to the world at 4.175532 but definitely has a lot of catching to do to overtake Brazil and India. Mauritius has seen a negative growth of -1.07666 as it has moved its focus from manufacturing of sugar to export of sugarcane to different countries.

Table3: Export of Sugar i.e from 1961 to 2006

SI No	Year	Export (' 000 Tonne)
1	1961	184
2	1966	392
3	1971	395
4	1976	1020
5	1981	61
6	1986	54
7	1991	203
8	1996	883
9	1997	419
10	1998	86
11	1999	22
12	2000	202
13	2001	1220
14	2002	1288
15	2003	1678
16	2004	133
17	2005	39
18	2006	1198
CGR (%)		2.62

Table 4: Export of Sugar from India	(1990-1991 to 2014-2015)
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(Qty. in Tonne; Value: Rs. in Crore)

Financial Years (October to September)	Quantity	Value
1990-91	2000.00	0.91
1991-92	82000.00	55.80
1992-93	365000.00	316.73
1993-94	119000.00	111.33
1994-95	39350.00	48.88
1995-96	434320.00	597.34
1996-97	667274.00	860.80
1997-98	173282.00	244.44
1998-99	12735.00	17.36
1999-00	12990.00	18.14
2000-01	338691.00	430.98
2001-02	1456448.00	1728.29
2002-03	1662370.00	1769.49
2003-04	12.01*	1216.59
2004-05	1.09*	149.53
2005-06	3.17*	557.09
2006-07	17.52*	3268.65
2007-08	46.41*	5404.18
2008-09	33.34*	4426.03
2009-10	2.37*	108.84
2010-11	28.14*	1035.22
2011-12	36.73*	5655.17
2012-13	12.02*	-
2013-14	26.85*	-
2014-15 (P)	24.31*	-
CGR (%)	-39.20	-

It is observed that from Table 4. The compounded growth rate of export of sugar is

constant at 2.629053 but does have a lot of potential to grow at a faster rate. The quantity of exports of sugar from India has been wavering over a period of years due to various reasons. The potential reasons have been wavering monsoons, droughts and lack of proper irrigation facilities which have hampered the sugarcane growth as it's a major raw material for manufacturing of sugar. Indian sugar manufacturer use out dated technology for manufacturing of sugar has increased the cost of sugar production. Availability of electricity to farmers consistently has been scarce and therefore it has affected cultivation of sugar and its potential output as observed negative compounded growth rate of -39.20 percent.

Table5: Month wise vis a vis year wise export of sugar from

Months	2009-10	2010-11	2011-12	2012-13
October	5000	147982	159577	66741
November	-	350877	116687	37918
December	-	190346	63620	122202
January	-	283121	182222	67024
February	-	346669	326785	110335
March	-	318709	409172	57663
April	-	261674	411671	91546
May	-	188013	459226	98137
June	2560	295738	351270	96227
July	21642	148998	547821	144198
August	25705	216134	176444	138983
September	180164	355719	185427	76489
Total	235071	3104578	3389922	1107463

Source: Indian Sugar Mills Association. (16879)

Selected State-wise Quality of Raw Sugar Exported during Sugar Season in India (2012-2013 to 2015-2016-upto 30.11.2015)

	(In MT)						
States/UT	2012-13	2013-14	2014-15	2015-16-upto 30.11.2015			
Gujarat	5697	69600	0	0			
Karnataka	0	180321	79229	2120			
Maharashtra	34576	935884	240723	764			
Puducherry	760	8077	2162	303			
Tamil Nadu	1052	70536	188409	153			
Telangana	0	2646	0	0			
Uttar Pradesh	0	46	0	0			
India	42085	1267110	510523	3340			

Source : Lok Sabha Unstarred Question No. 1491, dated on 08.12.2015.

The above data shows that some states such as Gujarat, Uttar Pradesh have not contributed significantly to the export of sugar due to use of out-dated technology, politicization of sugarcane as it's the prime input for producing sugar. Lack of proper markets for marketing the byproducts generated from sugar which would help generate good amount of profits by making optimum utilization of sugarcane byproduct sales.

IMPORTANT FINDINGS:

- According to the data available and the analysis made, it is observed that India's contribution to sugar exports have been significant but it stands second to Brazil and could further look towards becoming the largest exporter of sugar to the world.
- The state-wise data indicates that uttar Pradesh which has highest sugar cultivable land and produces highest quantity of sugar but has made no contribution towards export of sugar.
- The sugar output has been in-consistent over a period of time due to

various reasons and has therefore contributed immensely to slow growth of sugar export.

- The CGR of export of sugar has just been a dismal 2.629053 and indicates that India lacks consistency in production and export of sugar.
- The export of sugar from India lately after 1990 till 2014-15 has been -39.20 and hence indicates that India has been losing its quantity of export over a period of time.
- The sugar output during the year 2014-15 has been lower due to consecutive droughts which have affected the output of sugar.

CONCLUSION:

From this study we can conclude that India has all the potential to become the largest exporter of sugar to the world but due to lack of proper infrastructure it has been seeing a wavering output of sugar and this has resulted in lowered export of sugar. One potential reason for lower export of sugar has been the increasing consumption of sugar by the domestic economy and simultaneously the output has not increased.

India can look towards improving infrastructure which would facilitate in increase in cultivable output of sugar. Infrastructure facilities such as availability of electricity for providing proper irrigation facilities for an increased output per acre. The government can increase private participation which would ensure efficiency in operational process and would allow for more exports of sugar at a competitive price.

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