

Problems and challenges of Sugar Industry in India

-With reference to sugarcane cultivation and sugar production in Northern Karnataka.

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Abstract:

Karnataka State is one among the major sugarcane and sugar producing states in the country. As sugarcane is being cultivating in large areas, Karnataka's sugar industry ranks 3rd in terms of its contribution in the total sugar production in the country. The sugar industry in Karnataka is able to manufacture sugar in such huge quantities due to the fact that sugarcane is abundantly available in the state. In fact, Karnataka stands 4th in country in the cultivation of sugarcane. It is also a major provider of livelihood to millions of agricultural families and their dependents particularly in rural areas. About a million people depend upon sugar industry directly or indirectly in rural areas. Apart from this, sugar factories are considered to be welfare centers in rural areas as they give scope for establishment of educational institutions, hospitals, communication and transportation facilities etc. The present research work is concerned with the problem and challenges of sugarcane cultivation and sugar production in Northern Karnataka. During the present season, the sugar mills which were getting ready to crush immature cane due to shortage of crop, are now forced to postpone their crushing cane due to shortage of crop, are now forced to postpone their crushing program by at least 15 days as heavy rains have left sugarcane fields unfit for harvesting. Therefore, it is very significant to study the problems and challenges of the Sugar Industries in North Karnataka.

Key words: Sugar, Short crushing seasons, govt. policies, farmers, North Karnataka

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Introduction:

Sugar Industry in India is well developed with a consumer base of more than billion of people. It is also the second largest producer of sugar in the world. There are around 45 million sugarcane growers in India. A larger portion of Rural Labours in the country, largely rely upon this industry. Sugar Industry is one of the agricultural based industries in India. It is the second largest agricultural industries. Therefore, the present study is very significant from the point of view of sugar production and sugarcane cultivation. Karnataka was the second state in the country to establish a sugar factory.

Karnataka has conducive agro-climatic conditions for sugarcane cultivation resulting in increased sugarcane production year after year, thereby giving scope for establishment of sugar producing units in the state. In Karnataka, sugarcane yield in 2009-10 is estimated as 249.48 million tones, which is lower than the production of 273.93 million tons during 2008-09. This represents a decline of 9% over the previous year and 27% vis-à-vis the targeted production for 2009-10. Thus, Sugar Industry of Karnataka has contributed a great deal to India's total level of sugar production and thus has helped the country to meet its demand for sugar.

Objectives of the Study:

1. To study the problems and challenges faced by Sugar mills owner/management, employees of sugar mills and sugarcane growers in North-Karnataka.
2. To study the Government and financial institutions support and services for the development of sugar and sugar based units in North Karnataka.
3. To make suggestions on the basis of findings of the study.

Hypotheses of the Study:

Hypothesis is the corner stone of any research work. Therefore, the important hypotheses are framed as below and will be tested in the final research work.

1. There is no difference in between Indian Sugar price when compare with rest of world's sugar price.
2. Short crushing season, low yield of sugar mills and heavy excise duties are not the reasons for high sugar price.
3. Faulty government policies are not the problems of sugar industries.
4. Non availability of adequate cane, inadequate support from government and the practice of state advice price are not the reasons for sickness of the sugar industry.
5. Low yield of sugarcane and Low milling efficiency are not the problems of production of sugar.
6. There is no relation between seasonally running of factory and problems of sugar industries.
7. There is no relation between overall satisfaction of employees of a sugar factory and problems of sugar industries.

Research Methodology

Present research is both primary and secondary sources. Primary data were collected through method of pre tested questionnaires. The secondary data collected though the various books, Indian census figures, periodicals, journals, magazines, research articles, seminar reports, news papers, study reports of expert committees, published research papers, unpublished works, departmental publications and through the internet.

Selection of respondents:

Researcher undertaken study of co-operative and private sugar factories, hence only co-operative and private units are considered for deciding sample and total 02 cooperative and 02 private sugar factories out of 43 from North-Karnataka are selected as samples. As the first stage in the sample selection the North

Karnataka is divided in to two regions on geographical basis namely Hyderabad-Karnataka and Bombay-Karnataka. The Hyderabad-Karnataka region includes 06 districts and The Bombay-Karnataka region includes 05 districts. Two districts from each region are selected on simple random sampling techniques. Hence 'Belagavi and Bagalkot from Bombay-Karnataka region, 'Bidar and Kalaburagi' from Hyderabad-Karnataka region emerged as the sample districts.

Table.1.02 Sample Respondents

Respondents	No. of selected sugar factories				Total
	Private		Co-operative		
	Bagalkot	Kalaburagi	Bidar	Belagum	
Employees	30	30	30	30	120
Sugarcane Growers	25	25	25	25	100
Management persons	05	05	10	10	40
Total	60	60	65	65	260

Data Analysis:

The data collected are properly classified, tabulated, analyzed and interpreted. The statistical tools like Percentage, Mean, Standard and Co-efficient of Variance and T-Test are used with the help of SPSS to analyze data.

Review of Literature:

Ram Vichar Sinha (1998)¹ studied and revealed that the sugarcane development activities were not efficient, effective plant modernization and effective infrastructure developments were not under taken, utilization of By-products yet to introduce in the sugar mills and the work force yet to get proper wage.

Pawar P.P." et al (2005)² examined the benefits in adopting improved production technology in sugarcane farms in Western Maharashtra. The survey revealed that 25 percent of the farmers were not aware of

the techniques. **Adya Prasad Pandey (2007)**³ attempted as to review progress of sugar industry in India, understand its problems and challenges in context of ongoing liberalization process. It needs quality management at all levels of activity to enhance productivity and production. Attention is required on cost minimization and undertaking by product processing activities.

Singh (2007)⁴ attempted to analyze the performance of sugar mills in U.P. by ownership, size and location using the dataset for 36 sugar firms over the period 1996/97 to 2002/03. Owing to the differences in ownership, size and location of the mills, the performance of sugar mills diverge significantly. Further the problem of surplus labour is found to be serious, as 43 percent reduction is theoretically possible in the labour input so as the sugar firms in UP can become labour efficient.

Sunil Kumar and Nitin Arora (2012)⁵ mentioned that, the empirical analysis presents high levels of managerial inefficiency in major sugar producing states of India. The negative profitability thus, hinders the technical efficiency of sugar industry. In sum, a policy of decontrolling the sugar industry from the government control is suggested to improve upon its managerial performance.

Table-01 Indian Sugar price when compare with rest of world's sugar price

Indian sugar price	No. of Respondents				Total	%
	PSB Bagalkot	NSL Kalaburagi	SSKN Bidar	SSKN Belgum		
High	03	04	07	08	22	73
Moderate	02	01	03	02	08	27
low	00	00	00	00	00	00
Total	05	05	10	10	30	100

N	Mean	Std. Deviation	Std. Error Mean
30	1.27	.450	.082

Test Value = 0					
t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
15.425	29	.000	1.267	1.10	1.43

Table-01 depicts the opinion of the respondents about Indian Sugar price when compare with rest of world's sugar price. The calculated value of one sample T-Test significance level is 0.00 which is less than the standard value of significance level i.e., 0.05, so the null hypothesis is rejected and accordingly the alternate hypothesis accepted i.e. Indian Sugar price when compare with rest of world's sugar price is high. In nutshell, it can be inferred that, the efficiency and uneconomic nature of production in sugar mills low yield and short crushing season the high price of sugar cane the heavy excise duties, leaved, by the government these are responsible for the high cost of production of sugar in India. A part from that manipulation of stocks by sugar factories, hoarding, Speculation and black marketing of sugar by wholesale dealers are rampant in India.

Table No: 02 running of sugar factories in a year

For the months the factory will run	No. of Respondents				Total	%
	PSB Bagalkot	NSL Kalaburagi	SSKN Bidar	SSKN Belgum		
Upto 04 months	09	04	16	19	48	40
04 to 05 months	19	25	14	11	69	58
More than 05 months	02	01	00	00	03	02
Total	30	30	30	30	120	100

N	Mean	Std. Deviation	Std. Error Mean
120	1.62	.536	.049

Test Value = 0					
t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
33.242	119	.000	1.625	1.53	1.72

Table-02 reflects the opinion of the respondents about factory runs in a year. The calculated value of one sample T-Test significance level is 0.00 which is less than the standard value of significance level i.e., 0.05, so the null hypothesis is rejected and accordingly the alternate hypothesis accepted i.e. there is relation between seasonally running of factory and problems of sugar industries. Ultimately inference can be drawn that, majority of the period running of the sugar mills 04 to 05 months. It is not better on the part of the workers as well as owners try to run it at least 06 months by making available of sugarcane.

Table No: 03 Problems Faced by Sugarcane Growers

Problems	PSB Bglkot	NSL Klbrgi	SSKN Bidar	SSKN Belgm	Total	%
Low rate for sugarcane	09	08	05	07	29	29
Waiting in a long queue	06	05	06	04	21	21
Dishonest in weighing at weigh bridge	02	01	02	02	07	07
Deductions in the name of toll, charges, etc.	01	02	01	01	05	05
Delay in payment of installments	03	05	05	04	17	17
Shortages of sugarcane buyer	03	04	03	05	15	15
Other reasons	01	00	03	02	06	06
Total	25	25	25	25	100	100

N	Mean	Std. Deviation	Std. Error Mean
120	3.08	1.967	.180

Test Value = 0					
t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
17.127	119	.000	3.075	2.72	3.43

Table-03 depicts the opinion of the respondents about problems faced by sugarcane growers. The calculated value of one sample T-Test significance level is 0.00 which is less than the standard value of significance level i.e., 0.05, so the null hypothesis is rejected and accordingly the alternate hypothesis accepted i.e. there is relation between all above problems and sugarcane growers. Ultimately inference can be drawn that, all above problems are to be mitigated to see smile in the faces of farmers which are causing lot to grow sugarcane.

Table No: 04 Problems of Production of Sugar

Problems	No. of Respondents				Total	%
	PSB Bagalkot	NSL Kalaburagi	SSKN Bidar	SSKN Belgum		
Low availability of cane	01	01	02	01	05	17
Short crushing season	01	01	02	01	05	17
Low yield of sugarcane	01	02	03	04	10	33
Low milling efficiency	02	01	03	04	10	33
Total	05	05	10	10	30	100

N	Mean	Std. Deviation	Std. Error Mean
30	2.83	1.085	.198

Test Value = 0					
t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
14.297	29	.000	2.833	2.43	3.24

Table-04 exhibits the opinion of the respondents about problems of production of sugar. The calculated value of one sample T-Test significance level is 0.00 which is less than the standard value of significance level i.e., 0.05,

so the null hypothesis is rejected and accordingly the alternate hypothesis accepted i.e. Low yield of sugarcane and Low milling efficiency are the problems of production of sugar. Ultimately the inference can be drawn that, the low yield of sugarcane, short crushing season, unsatisfactory location of industry in north Karnataka the inadequate supply of cane all these create problems of production of sugar factories have low milling efficiency and recovery of sugar from sugarcane is very low. Further Indian sugar mills do not have sugar plantations of their own and hence do not have control over the quantity and quality of sugarcane.

Table No: 05 Problem's of faulty Government policy

Problem's of faulty Government policy	No. of Respondents				Total	%
	PSB Bagalkot	NSL Kalaburagi	SSKN Bidar	SSKN Belgum		
Yes	04	05	07	09	25	83
No	01	00	03	01	05	17
Total	05	05	10	10	30	100

N	Mean	Std. Deviation	Std. Error Mean
30	1.17	.379	.069

Test Value = 0					
t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
16.858	29	.000	1.167	1.03	1.31

Table-05 Shows the opinion of the respondents about problem's of faulty government policy. The calculated value of one sample T-Test significance level is 0.00 which is less than the standard value of significance level i.e., 0.05, so the null hypothesis is rejected and accordingly the alternate hypothesis accepted i.e. faulty government policies are the problems of sugar industries. In nutshell, it can be concluded that, the government fixed export quotas and sugar exports have to be handling by designated export agency. This whole scheme of sugar controls is not in the interest of the industry or the economy. The government has announced its intention to review this policy regime with the objective of making sugar industry globally competitive and generating export surplus while insuring adequate supplies for domestic consumption as a part of restricting

sugar industry beginning was made when price and distribution controls on molasses were abolished and the government has also announced number of incentives to encourage sugar mills to maximize sugar production but still it has been not implemented in full.

Table No: 06 Main reasons for sickness of the sugar industry

Reasons	No. of Respondents				Total	%
	PSB Bagalkot	NSL Klbrgi	SSKN Bidar	SSKN Belgum		
The practice of state advise price	00	00	04	03	07	23
Non availability of adequate cane	02	03	03	03	11	36
Uneconomic size of the mills	01	01	00	00	02	07
Inadequate support from government	02	01	02	03	08	27
Other reasons	00	00	01	01	02	07
Total	05	05	10	10	30	100

N	Mean	Std. Deviation	Std. Error Mean
30	2.57	1.305	.238

Test Value = 0					
t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
10.775	29	.000	2.567	2.08	3.05

Table-06 exhibits the opinion of the respondents about reasons for sickness of the sugar industry. The calculated value of one sample T-Test significance level is 0.00 which is less than the standard value of significance level i.e., 0.05, so the null hypothesis is rejected and accordingly the alternate hypothesis accepted i.e. Non availability of adequate cane, inadequate support from government and the practice of state advise price are the reasons for sickness of the sugar industry. In toto the inference can be drawn that, the main reason for sickness in the sugar industry as many as mills are lying closed are: the practice of state advise price (SAP), non availability of adequate cane and mismanagement. This implies that adequate relief and concessions would

be required from state government banks and financial instructions for the revival of sick and closed sugar mills.

Table No: 07 Overall satisfaction as an employee of a sugar factory

Overall satisfaction	No. of Respondents				Total	%
	PSB Bagalkot	NSL Kalaburagi	SSKN Bidar	SSKN Belgum		
Unsatisfied	05	04	19	21	49	41
Moderately satisfied	16	19	09	06	50	42
Satisfied	09	07	02	03	21	17
Total	30	30	30	30	120	100

N	Mean	Std. Deviation	Std. Error Mean
120	1.77	.730	.067

Test Value = 0					
t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
26.500	119	.000	1.767	1.63	1.90

Table-07 reflects the opinion of the respondents about overall satisfaction as an employee of a sugar factory. The calculated value of one sample T-Test significance level is 0.00 which is less than the standard value of significance level i.e., 0.05, so the null hypothesis is rejected and accordingly the alternate hypothesis accepted i.e. there is relation between overall satisfaction of employees of a sugar factory and problems of sugar industries. Ultimately inference can be drawn that, majority of the workers are not satisfied and moderately satisfied so some benefits and assistance should be given to the employees to work with happy mood.

Conclusion:

Problems and Challenges of Sugar Industry have immense scope for the future research. In order to utilize its capacity fully and run efficiently, the sugar mills within the industry should get uninterrupted supply of raw sugar cane uniformly throughout the seasons and the government should ensure the supply of raw inputs. There is a need of coordinated and concerted effort for appreciation and consolidation of the needs of the consumer, farmer, and processor to address to various above issues if India has to attain the glory of self sufficiency and attain the status of net exporter and an important significant player in the international market. There is an urgent need to improve in productivity both in terms of yield as well as sugar contents and recovery by adopting better harvesting practices and close coordination of sugar mills with farmers. Government has to support lot to improve the production by giving more and more support to sugar mills and farmers.

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