



Financial Performance of Sugar Industries in India

M. Balasubramanian Assitant Professor in commerce (SFC), Jamal Mohamed College, Triuchirappalli, Tamilnadu

ABSTRACT

Indian sugar industry, second largest agro-based processing industry after the cotton textiles industry in country, has a lion's share in accelerating industrialization process and bringing socio-economic changes in under developed rural areas. Sugar industry covers around 7.5% of total rural population and provides employment to 5 lakh rural people. About 4.5 crore farmers are engaged in sugarcane cultivation in India. Sugar mills (cooperative, private, and public) have been instrumental in initiating a number of entrepreneurial activities in rural India. Present paper is an attempt as to review progress of sugar industry in India, understand its problems and challenges in context of ongoing liberalization process. Indian sugar industry can be a global leader provided it comes out of the vicious cycle of shortage and surplus of sugarcane, lower sugarcane yield, lower sugar recovery, ever increasing production costs and mounting losses. 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.

KEYWORDS:

Introduction

India is the major sugar producing country in the world, the first three being Russia, Brazil and Cuba. Sugar industry occupies an important place among organised industries in India. Sugar industry, one of the major agro-based industrial in India, has been instrumental in resource mobilization, employment generation, income generation and creating social infrastructure in rural areas. Indeed, sugar industry has facilitated and accelerated pace of rural industrialization. At present, there are 553 registered sugar factories having capital investment of Rs. 50,000 crores and annual production capacity of 180 lakh metric tonnes (ISMA Report, 2004). The annual turnover of industry is to the tune of Rs. 25,000 crores. The central and state governments receive annually Rs. 2500 crore as excise duty, purchase tax, and cess. More than 4.50 core farmers are engaged in sugarcane cultivation and about 5 lakh rural people have got direct employment in the industry. Sugar industry has brought socioeconomic changes in rural India by way of facilitating entrepreneurial activities such as dairies, poultries, fruits and vegetable processing, and providing educational, health and credit facilities.

Sugarcane has been one of the major crops of India since times immemorial. Iksu, the term of sugarcane, is found in the Atharvaveda¹, Vajasaneyii², Maitrayani³ and Taittiriya⁴, Samhitas and the subsequent Sutras⁵. The Aryans knew the plant from a very early time and the fact that sugarcane is indigenous to India is beyond dispute. The word Iksu has no parallel in any other Indo-Aryan language, which suggests that the Indo-Aryans only came to know about the plant only after entering India.

Five year Plan and Sugar Industry

The sugar industry was granted protection till 1950. Since independence there has been an overall increasing trend in sugar production in India. Production of sugar has increased by leaps and bounds in the period. To meet the increasing sugar requirement during different plan periods targets of sugar production were fixed as depicted in table 1.

Table - 1 Progress of Sugar Industry During Five Year Plans

Plan	Production Target (lakh tonnes)	Actual Production (lakh tonnes)	No. of Sugar Mills
First Plan (191-56) last year	18	19.34	138
Second Plan (1956-61) last year	25	30.29	175
Third Plan (1961-66) last year	35	35.32	200
Fourth Plan (1969-74) last year	47	39.50	229
Fifth Plan (1974-78) last year	54	58.42	298
Sixth Plan (1980-85) last year	76	61.78	356
Seventh Plan (1980-85) last year	102	109.90	414
Eight Plan (1992-97) last year	143	-	412
Ninth Plan (1997-2002) last year	148	185	434
Tenth Plan (2003-04) last year	-	170	461

Source : Yojana Nov. 2011, ISMA Report 2010 and Internet.

Before the commencement of First Plan there were 138 sugar factories

with an installed annual sugar production of 19.34 lakh tonnes. During the plan period, to achieve targets of sugar production, licences were issued for setting up of new factories and for many of the existing units to expand the size of the units. The number of the sugar factories increased to 143 in the first plan, 175 in the second plan. The production increased to 30.29 lakh tonnes in the second plan. During second plan the target of production was 22.5 lakh tonnes which was increased to 25 lakh tonnes but the actual production exceeded upto 30.29 lakh tonnes which was slightly more than demands. This resulted in decontrol upto some extent. In the third plan the target of production was 35 lakh tonnes. Due to short fall in production of the cane in first three years of the Third plan the target could not be fulfilled but at the end of the plan the target of production was achieved with production of 35.32 lakh tonnes of sugar. Although the sugar production upto 3rd Plan was more than target but due to seasonal variations the target could not be achieved in fourth plan. Again in Fifth plan the production was more (28.42 lakh tonnes) than target (54 lakh tonnes). In the Sixth plan the target was 76 lakh tonnes but the production was only 61.76 lakh tonnes. Again in Seventh plan it was more than target. In Eight plan the target further could not be achieved. Although the production of sugar decreased in 1992-93 and 1993-94 but it increased to 146 lakh tonnes in 1994-95 and India became largest sugar producing country in the world. In 2002-2003 the production of sugar in India was 28 lakh tonnes which decreased to 170 lakh tonnes in 2003-04. In 1950-51 there were 138 sugar mills in India but upto 31st March 2004 this number increased to 461. At present there are 553 registered sugar factories having capital investment of Rs. 50,000 crores and annual production capacity of 180 lakh metric tonnes (ISMA Report, 2004) and presently sugar industry is the second largest agro-based industry of India.

SUGAR POLICY OF THE GOVERNMENT

Sugar is a controlled commodity in India under essential commodities act, 1955. Government of India initiated de-licensing policy in sugar industry on 11th September, 1998 in view of globalization process, and since then industry has experienced significant changes. De-licensing of sugar industry has led to mushrooming growth of sugar mills. During 1988-89 to 1991-92, government had introduced partial control in accordance with levy-free sugar ratio was 45:55. It was 40:60 during 1992-93 to 1996-97. Decontrol of sugar trade got momentum in due course and at present (2005), levy free sugar ratio is 10:90. The Committee appointed by government under chairmanship of S.K. Tuteja recommended decontrol of free sale sugar by October, 2005. Central government announced statutory minimum prices (SMP) of sugarcane and on this basis state governments fix state advised prices (SAP). Unfortunately, SAP is being used as a political tool and has been main concern of sugar mills as it results in escalation of production costs.

PRODUCTION

Both area and production of sugarcane fluctuate considerably from year to year. This is due to variations in climatic conditions, the vulnerability of areas cultivated under rainfed conditions, fluctuations, in prices of gur and Khandsari, and changes in returns from competing crops. Despite this instability, both area and production of sugarcane

have increased considerably over the past three decades.

The chief raw material for sugar production in India is Sugarcane. The data shows that area under sugarcane and production had shown a mixed growth during 1994-95 to 2003-04. Out of 10 years of the study, area under sugarcane had positive growth during 7 years and negative growth was observed during 1997-78, 2002-03 and 2003-04 (Table 2). As far as sugarcane production is concerned, it had negative growth during 1996-97, 2000-01, 2002-03 and 2003-04 due to lower rainfall. There had been considerable variations in area under sugarcane, sugarcane production, and yield of sugarcane during 1994-95 to 2003-04.

Table 2 : Progress in Sugarcane area, production and yield 2010-11

Year	Area ('000' ha)	Production ('000' tonnes)	Yield/ha
1994-95	3867	275540	71.30
1995-96	4147 (7.24)	281100(2.01)	67.80 (-4.91)
1996-97	4174 (0.65)	277560 (-1.25)	66.50 (-1.92)
1997-98	3930 (-5.84)	279541 (0.71)	71.10(6.92)
1998-99	4055(3.18)	288722 (3.28)	71.20(0.14)
1999-00	4223(4.14)	299324 (3.67)	70.90 (-0.42)
2000-01	4316(2.20)	295956 (-1.13)	68.60 (-3.24)
2001-02	4430 (2.64)	297208 (0.42)	67.40 (-1.75)
2002-03	4361 (-1.55)	281575 (-5.26)	64.60 (-4.15)
2003-04	3995 (-8.39)	236176 (-16.12)	59.10 (-8.51)

Source: Report of the committee on revitalisation of sugar industry, Government of India, Dec. 2004 Cooperative sugar, Vol. 12, August 2001.

Note: Figures shown in brackets indicate percentage change over previous year.

Fluctuations in sugarcane prices also led to under or over production of sugarcane during this period. Sugarcane yield had negative growth during 7 out of 10 years of study. As a result, sugar industry had storage of sugarcane. Sugarcane yield (per hectare) in India was 59:10 tonnes during 2003-04. It is too low in comparison with sugarcane yield in Kenya (100 MTs), Hawaii (150 MTs), and Australia (75 MTs). In view of this situation, India needs to increase sugar cane yield at par with global competitors to assure viability of sugarcane cultivation and sugar industry. Government should provide irrigation facilities, adequate, and regular power supply to agriculture sector.

In India, 65-70% of available sugarcane is used for manufacturing sugar, and 30-35% for making gur and khandasari. During 1994-95, there were 408 operating sugar factories in India. The number of sugar factories rose to 461 over period of 10 years, registering an increase by 12.99% (Table 3). Over the period of 10 years of study, sugar production saw substantial variations. During 1994-95, sugar produced by 408 factories was 14.64 million tonnes. A moderate increase in sugar production (i.e. 12.97%) was observed during 1995-96 over 1994-95 but succeeding two years saw a substantial decrease in sugar production.

Table 3: Number of operating sugar factories, production, and recovery

Year	No. of operating sugar factories	Sugar production ('000 tonnes)	Recovery (%)
1994-95	408	14643	9.92
1995-96	416(1.96)	16543 (12.97)	9.42 (-5.04)
1996-97	412 (-0.06)	12905 (-21.99)	9.90 (5.09)
1997-98	400 (-2.91)	12852 (-0.41)	9.95 (0.50)
1998-99	427 (6.75)	15541 (20.92)	9.86 (-0.90)
1999-00	423 (-0.94)	18200(17.11)	10.20 (3.45)
2000-01	436(3.07)	18511(1.71)	10.48(2.74)
2001-02	434 (-0.46)	18529(0.09)	10.27 (-2.00)
2002-03	453 (4.37)	20100(8.48)	10.36(0.88)
2003-04	461 (1.77)	17000 (-15.42)	N.A.

Source: Report of Indian sugar mills association, 2011.

Note: Figures shown in brackets indicate percentage change over previous year.

The data shows that there was negative growth of sugar production during 1996-97, 1997-98 and 2003-04. As far as sugar recovery is concerned, it remained below 10% during 1994-95 to 1998-99, and slightly above 10% during 1999-00 to 2002-03 (Table 3). Use of low yield va-

rieties, unscientific harvesting of sugarcane and delays in crushing are some of reasons responsible for low sugar recovery. Global competitors, such as Australia have sugar recovery between 14.25%, 16% in Kenya, Columbia and Hawaii have above 12%. In the context of competitive global scenario, Indian sugar industry urgently needs to undertake research and development activities to increase sugar recovery.

Table 4 : Production of molasses, and ethanol consumption

Year	Molasses ('000' tonnes)	Ethanol ('000' litres)	Ethanol consumption ('000' litres)
1994-95	64.97	12147	9000
1995-96	82.85 (27.52)	15491 (27.53)	9450 (5.00)
1996-97	59.36 (-28.35)	10669 (-31.13)	9922 (4.99)
1997-98	56.07 (-5.54)	12632(18.40)	10418(5.00)
1998-99	69.76 (24.41)	13202(4.54)	11486(5.00)
1999-00	80.22 (15.00)	13801 (5.45)	10939 (5.00)
2000-01	78.22 (-2.49)	14427(5.54)	12060 (4.99)
2001-02	80.66(3.12)	15085(4.56)	12663 (5.00)

Source: Report of Indian sugar mills association, 2011

Note: Figures shown in brackets indicate percentage change over previous year.

EXPORT IMPORT AND DOMESTIC CONSUMPTION

Indian sugar industry contributes 15% of global sugar production. While its share in global sugar consumption is around 13.4%. Sugar exports from India had shown remarkable growth during 1998-99 to 2002-03, i.e. from 10000 MTs to 1410000 MTs. However, exports of sugar declined substantially during 2003-04 by 78.72% and 93.33% during 2004-05 over their respective previous years due to decreased sugar production and uncompetitive sugar prices (Table 5). Whenever there is lower production of sugar in the country, sugar is imported to meet domestic demand. Sugar imports during 1998-99 to 2003-04 had mixed growth trend. Domestic consumption of sugar in India had slight fluctuations during 1998-99 to 2003-04.

Table: 5 Exports, Import and Domestic Consumption of Sugar

Year	Sugar exports ('000' MTs)	Sugar imports ('000' MTs)	Domestic consumption ('000' MTs)
1998-99	10	1075	16971
1999-00	25(150)	438 (-59.26)	17296(1.91)
2000-01	1360 (5340)	-	17845(3.17)
2001-02	1130 (-16.91)	10 (-77.17)	19960(10.73)
2002-03	1410(24.78)	10 (-90.00)	19880(1.11)
2003-04	300 (-78.72)	500(4900)	19580 (-2.00)
2004-05 (Prov.)	20 (-93.33)	1800(260)	19170 (-2.09)

Source: Report of Indian sugar mills association, 2011.

Note: Figures shown in brackets indicate percentage change over previous year.

CRITICAL ASSESSMENT

Sugar Industry occupies an important place among organised industries in India. Its main raw-material is sugarcane. The special thing for all kinds of the raw material is that it should contain the highest percentage of the content for which it is used as raw material. But the quality of sugarcane of our country is not so good and researchers are trying to update it but due to lack of interest and proper attention from the government side, they are not succeeded yet today. Per hectare production of the sugarcane is also not improving which is a matter of great concern. It is probably due to lack of land fertility and lack of irrigation facilities. Other countries of the world such as Cuba, Fizzy & Caribbean's, which are very small in comparison to India, are producing much more sugarcane per hectare than India.

The share of India in the total production of sugarcane in the world is 37%. But the production of sugarcane is only 15 tones per acre whereas in Java it is 56 tones and in Hawaii it is 52 tones i.e. almost four times than India. The production cost of sugar is also high due to inferior quality of Indian sugarcane. Since sugar mills are running to loss so they are unable to pay the cane grower growers timely. So the quality improvement in cane grower is the need of the time.

The sugar policy of the Government has been seriously lacking a long-term perspective. Controls, decontrols, partial controls, etc. have been

used in past in an adhoc manner. It is necessary to assure supply of sugar to poorer sections at reasonable rate. But government policy on cane prices, control of price of sugar, dual pricing etc. have been designed and implemented for the benefit of sugar mill owners and distributors and rarely for benefits of cane growers or for benefit of consumers of sugar. Much of the illness and problems of sugar industry are the result of the government's policy.

In the sugar industry several by-products specially bagasse and molasses are found. At one time bagasse was used as fuel, which sugar factories didnot know what to do with the accumulating molasses, a health hazards. Small cottage industries may be established for disposing these by-products in a positive way for preparing paper, cardboards, alcohol, fertilizers, cattle field etc. Apart from it manufacturing process of sugar also needs certain modification so that yield may be improved.

CHALLENGES FOR SUGAR INDUSTRY

India ranks first in sugar consumption and second in sugar production in world but it's share in global sugar trade is below 3%. Indian sugar industry has been facing raw material, and resource as well as infrastructural problems. Globalization has brought a number of opportunities but at the same time posed certain challenges before sugar industry. Most of sugar units in India utilize production capacity below 50%. Low capacity utilization and inadequacy of raw material led to closure of 100 sugar factories in India. Mounting losses and decreasing networth of sugar factories have been responsible for sickness of sugar industry. Sickness in sugar industry has reached to an alarming proportion. Indian sugar industry has been cash striven for decades. Low cash inflow due to piling stocks leads to serious financial crisis and finally to closing sugar factories. Sugar prices have been a political issue rather than economical issue. Many a times it worsens economy of sugar factories.

The main concern of sugar industry in India is fluctuations in sugarcane production due to inadequate irrigation facilities, lower sugarcane yield, and frequent droughts in tropical and sub-tropical areas where sugarcane is grown on a large scale. In addition, sugarcane yield has been lower (59 Mts per hectare). Sugar recovery is also lower in comparison with other sugar manufacturing countries. This leads to escalation of

production costs and weakness competitive edge of the industry. Most of sugar mills in India are having daily sugarcane crushing capacity of 1250 tonnes. These mills cannot have economies of scale so they have to incur high production costs. Indian sugar industry is characterized by high production costs. Therefore, daily crushing capacity should be extended to 2500 tonnes. Obviously, industry has a great challenge of existence in global market, in recent years, sugarcane production in India has decelerated to a great extent due to water and power shortage. Special attention is needed to be given on water resource management. All the area under sugar cultivation should be brought under drip irrigation to conserve water as well as fertilizers. Adequate and regular power supply to sugarcane growers and sugar factories would increase production and productivity. To enhance share of Indian sugar industry in global trade, quality and quantity of sugar needs to be enhanced.

CONCLUSION & SUGGESTIONS

Sugar industry is the second largest agro-based industry in India. Sugar factories, particularly cooperative sugar factories in Maharashtra and other states have been instrumental in building confidence among rural people and strengthening industrial base in rural India. In the era of globalization, sugar industry needs more competitive edge which can be given by way of modernization, enhancing productivity, and manufacturing excellent quality sugar at competitive prices. It needs quality management at every level of activity to enhance its performance. The need of the hour is to liberalize industry from clutches of unprofessional people. Most of the sugar units do not have byproduct utilization plants. Projects based on bagasses and molasses should be initiated, Ethanol, alcohol, and paper projects have tremendous scope for development in India. In future, 10-15% ethanol may be allowed to be blended with petrol. Bagasses based power generation projects installed adjacent to each sugar factory would fulfill need of power. NABARD should provide adequate and timely refinance to these projects at concessional interest rates. New sugar units should be set up taking into consideration sugarcane availability. Research programme should be undertaken in area of sugarcane cultivation, enhancing sugarcane productivity, and sugar recovery. Sugarcane prices should be fixed on basis of sugar recovery. Attention is to be given on manufacturing quality sugar as per international standards at competitive prices.

REFERENCES

- Appiah, O. (2002). Black and White viewers' perception and recall of occupational characters on television. *Journal of Communication*, 52(4), 776-793. | Appiah, O. (2004). Effects of ethnic identification on web browsers' attitudes toward and navigational patterns on race-targeted sites. *Communication research*, 31(3): 312-337. Sage Publications. | C.R. Kothari. *Research Methodology- Methods and Techniques*, New Age International Publisher. | Durga Das Basu. *Introduction to the Constitution of India*. Publisher: Lexisnexis Butterworths Wadhwa Nagpur | Gopal Saxena. *Television in India: Changes and Challenges*. Vikas Publishing House Pvt Ltd, 1996 | Keval J. Kumar. *Mass Communication in India*. Fourth Edition. Jaico Publishing House. | MacGuire, W. 1984. Search for the self: Going beyond self esteem and the reactive self. In R.A. Zucjer, & A.I. RABIN (Eds). *Personality and the prediction of behavior*: 73-120. New York: Academic Press India Entertainment and Outlook 2010 and 2011 TAMADEx. 2010 | Exchange 4 media. Com, HT. Edelweiss Research IRS-Q 1. 2010 Indian Census Report 2001.