Assessment of Performance of Sugar Industry in India with Special Reference to Maharashtra State

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Abstract: This paper discusses about the present performance of Sugar Industry in India as well as Maharashtra, government’s role in sugar industry and the basis on which the performance of sugar industry is assessed. Also discussion on the sugar industry assessment which includes discussion on vagaries of monsoon, regulatory risks, operational & market position, financial position and uncertainties may help management of the sugar factories to improve their performance. To perform well, remain competitive and develop rural areas, Indian sugar industry should bring in corporate management. This paper may certainly provide guidelines to the Management, Government, share holders, creditors and employees to take decisions related to their own sphere of interest.

Keywords: present state, government, sugar industry, performance assessment

I. Introduction

In an era where there is a need for inclusive growth, the Indian sugar industry is amongst the few industries that have successfully contributed to the rural economy. It has done so by commercially utilizing the rural resources to meet the large domestic demand for sugar and by generating surplus energy to meet the increasing energy needs of India. In addition to this, the industry has become the mainstay of the alcohol industry. The sector supports over 50 million farmers and their families, and delivers value addition at the farm side. In general, sugarcane price accounts for approximately 70 percent of the ex-mill sugar price. The sector also has a significant standing in the global sugar space. The Indian domestic sugar market is one of the largest markets in the world, in volume terms. India is also the second largest sugar producing geography. India remains a key growth driver for world sugar, growing above the Asian and world consumption growth average. [1]

Indian sugar industry happens to be the largest employer in rural areas, direct and indirect employment included and it is also one of the most efficient sugar industry in the world. This is a factor which has not been recognized sufficiently within the country, but it is interesting to see technologist and people from Australia and South Africa for example, coming to India to learn from us in matters of sugar technology. One of the signs of being technologically advanced is to be able to produce good quality material at low cost and we are able to confirm that among all the major sugar producers in the world, India has the lowest conversion cost of sugar from sugarcane. The other measure of technological advancement is to be flexible in using new technology. The world is coming to India to look for consultancy, to look for machinery for the sugar industry, which is a matter of personal satisfaction to us. The world is coming to India to look for trained manpower for the sugar industry, [2]

With the above we can say that Indian sugar industry have more potential to produce sugar on large scale and if Indian sugar industry needs to perform well and want to be the number one in the world, monsoon, support of government and other risk factors should be in favour of sugar industry.

II. OBJECTIVES

The important objectives of the present paper which cover sugar industry in India as well as in Maharashtra:
(1) To know the present state of Sugar Industry.
(2) To study the basis for measuring the performance of sugar factories.
The conclusion drawn from this paper may certainly provide guidelines to the Management, Government, Share Holders, the Creditors & Employees to take decisions related to their own sphere of interest.

III. CONTENTS

(A) Present state of Indian sugar industry
Due to good monsoon and increase in sugarcane area under cultivation, the sugar production from sugarcane during the seasons 2005-2006 to 2006-2007 increased substantially to 189.59 lakh tonnes and 282 lakh tones
(Provisional), respectively, as compared to 130 lakh tonnes produced in 2004-2005. However, sugar production declined to 263 lakh tonnes in 2007-08 sugar season. During the season 20015-20016, it is estimated to be around 150 -155 lakh tonnes. There were 624 installed sugar factories in the country as on 31.03.2009. The sector-wise breakup is as follows:

<table>
<thead>
<tr>
<th>Sector</th>
<th>No. of Factories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative</td>
<td>317</td>
</tr>
<tr>
<td>Private</td>
<td>245</td>
</tr>
<tr>
<td>Public</td>
<td>62</td>
</tr>
<tr>
<td>Total</td>
<td>624*</td>
</tr>
</tbody>
</table>

* Include closed sugar factories.

Maharashtra is the largest sugar producing State in India. It accounts for more than one third of the total sugar produced in the country. Sugarcane farming is the source of livelihood for nearly 2.5 crore population living in rural areas of Maharashtra. The sugar industry provides direct employment to 1, 65,000 workers. Besides 8 lakh workers are engaged in harvesting and transport operations every year for a period of six months. Sugarcane cultivation in the State has become an excellent example of industrial agriculture. The sugar industry provides an annual revenue of over 2,200 crore to the Government. [4]

According to Press Trust of India, Mumbai, leading sugar producing state, Maharashtra, has registered a 50 per cent decline in production during October-April 2009 to 4.6-million tonnes. Maharashtra has registered a 4.6-million tonnes of sugar production in the season ended October-April as compared to 9.1-million tonnes in the previous year, posting a decline of around 50 per cent. Maharashtra State Co-operative Sugar Factories Federation Managing Director Mr. Prakash Naiknavare told Press Trust of India, Maharashtra contributed 31 per cent of India's total sugar production. The industry was expecting a decline by over 30 per cent to around 6-million tonnes (MT) in the ongoing 2008-09 season mainly due to low sugarcane produce. The non-availability of sugarcane and dry weather were the reasons for lower output. Sugar mills in Maharashtra crushed only 40-MT of cane as compared to 76.1-million tonnes a year ago. It is anticipated that lower output by both leading sugar producers, Maharashtra and Uttar Pradesh, may lead to firming up of sugar prices by Rs. 100-200 per quintal in the next few weeks. However, the sugar production will touch 6 million tonnes next year and become normal in two year's time. There will be an overall demand and supply mismatch and the industry has requested the government to allow duty-free imports. Mr. Naiknavare pointed out that sugar producers in Maharashtra were not able to take advantage of government schemes. They are approaching the government to seek extension of the advance licensing on a tonne-to-tonne basis for raw sugar imports. Once the extension is granted, Indian sugar mills are expected to import around 5, 00,000 metric tonnes of raw sugar by end-May or the first week of June. [5]

(B) Government’s role in Sugar industry

The progress of co-operative sugar factories in Maharashtra is an outcome of the partnership among various public authorities, State & Central Governments, public corporations and the co-operative institutions. The public corporations that have been concerned with the co-operative sugar factories are industrial finance corporation of India and the Reserve Bank of India. The co-operative institutions vitally connected with the co-operative sugar factories are the State and District co-operative Banks and their primary units. The success of the scheme of the co-operative sugar factories in Maharashtra lies in the democratic and autonomous character of the co-operative institutions. In certain matters the sugar industry is not free to act on its own. The Central Government has imposed certain controls like -

i. Fixation of minimum cane price.
ii. Regulation of price & movement of sugar and
iii. Release of sugar Quota for open sale.

The Central Government also regulates the wages and conditions of service of the clerical, manual and supervisory personnel in the co-operative sugar factories and levies excise and income tax on them. The State Government’s interest in the co-operative sugar factories is not limited to the contribution to the share capital owned by the factories, but also in the successful working of these co-operative sugar factories. The government protects public interest by distributing sugar at a fair price through fair price shops to the public. In Maharashtra, the Government’s appoints a committee of ministers at the state level where the Chief Minister acts as a Chairman. This committee considers the financial working results of every sugar factory at the end of the year and determines the amount of the rate of additional cane price which is always more than the statutory minimum cane price decided by Central Government. The State Government through its pricing policy ensures that the area under sugar cane production. [6]

(C) Basis for performance assessment of Sugar industry

Sugar industry background:

India is currently one of the largest producers and consumers of sugar in the world, with an annual output of approximately 18 million tonnes per annum (tpa). The growth of the sugar industry in India has been driven by
Government regulations, which incentivized the existing units to set up fresh capacities rather than expand existing ones. This has resulted in the creation of a fragmented supply base, with an average installed capacity of 2500 tonnes crushed per day (tcd), which is considerably lower than the global minimum economic size of 10000 tcd. Another important characteristic of the domestic sugar industry is the presence of a large number of units in the co-operative sector, which currently controls over 55% of the domestic production capacity. The evolution of the cooperative sector has been influenced by the patronage of the various State Governments, and was aided by the need of the farming community to forward integrate into sugar manufacture, so as to find a ready market for their produce. Although the cooperative sector aided the growth of the industry in the past, many of them have become financially weak which may lead to a consolidation process in the industry. The domestic industry is highly regulated, with the Government controlling all aspects of business ranging from the allocation of sugar cane, to distribution and pricing of sugar. However, over the last decade, the industry has been going through a process of phased deregulation, which has brought with it several challenges, which the sugar companies have to tackle successfully to remain competitive.

(A) Assessment framework

Assessment framework for sugar factories involves an assessment of the risks, which characterize the sugar industry and an evaluation of a company’s operational, market and financial position.

(B) Industry assessment

The sugar industry carries a relatively high level of business risks, the key ones being the exposure to vagaries of monsoon, regulatory risks pertaining to distribution and pricing controls, and the uncertainties associated with the further deregulation of the sector.

Assessment methodology for Sugar industry:

Sugar industry can be assessed on the following basis [7]:

(i) Agro-climatic risks

The sugar industry, being directly dependent on the cane crop, is susceptible to agro-climatic risks. The climatic conditions, and more importantly, the monsoons, have a critical bearing on the cane output, which is the primary feedstock for a sugar producer. Further, climatic conditions also influence various operational parameters for a sugar company, such as the crushing period and sugar recovery levels. Although India has had successive years of normal monsoon, its dispersion across the sugar growing areas has not been uniform leading to fluctuating trends in sugar production in different regions. In this context, one can evaluates the ability of a sugar company to partially mitigate such agro-climatic risks, either through access to an established irrigation system in the command area, or a geographical dispersion of capacities, which would serve to reduce the impact of a weak monsoon in a particular area.

(ii) Regulatory risks

The Sugar industry is highly regulated, with various Government Acts governing virtually all aspects of the business, which include the availability, and pricing of sugar cane, and also certain critical aspects of distribution and pricing of sugar. The procurement of sugar cane by the sugar companies is governed by the Sugarcane (Control) Order, 1966, which stipulates that the mills need to source their sugarcane only from the command area allocated to them. The Order also makes it mandatory for the sugar mill to necessarily uplift the entire sugarcane production of the farmer, irrespective of the market demand, which leads to considerable variability in inventory holding patterns and hence creates demands on a sugar mill's working capital management systems. The minimum procurement price for sugar cane, which is a key determinant of a sugar company's profitability, is also set by the Government (Statutory Minimum Price of SMP). This price is usually a function of the cost of production of sugar cane for the farmers, return to farmers from alternate crops, fair price to consumers of levy sugar, producers’ realization on sugar and sugar recovery levels. The Central Government needs to ensure that a part of the sugar produced gets routed to the poorer section of the population through its Public Distribution System (PDS). Consequently, it sets the minimum quantum of levy sugar, which the sugar mills need to produce for the PDS, and given the subsidized pricing for levy sugar, a higher proportion of levy sugar in the product mix invariably impacts the profitability of sugar companies. However, as part of the gradual decontrol of the sugar industry, the Government has been progressively reducing the proportion of levy sugar, which partially mitigates the impact of increasing cane procurement prices. Regulations also cover the distribution of "free" sugar, through a monthly release mechanism, and various issues related to the import and export of sugar. The domestic sugar industry is going through a process of phased deregulation, which could significantly affect the competitive dynamics within the industry. The changes envisaged would be in the nature of an abolition of the levy quota system, freeing controls on procurement of cane, and a discontinuance of the release mechanism for sugar. These measures would result in the pricing risks being borne by the sugar companies, unlike the existing situation, where some amount of pricing stability is ensured through various regulatory controls.

(C) Operating and market position

(i) Cane availability and pricing risks
Access to sugarcane of a certain quality is absolutely critical for the existence of a sugar mill, which faces regulatory constraints in accessing sugarcane from outside its command area. However, a farmer's decision on whether to grow sugarcane or alternative cash crops is a function of the relative economics of crop selection. This aspect of the business confers considerable amount of bargaining power to the sugarcane supplier. Many State Governments announce State Advised Price (SAP) on sugarcane, although the constitutional validity of State Governments fixing sugarcane prices is an area of dispute. In States where SAP is still in vogue, SAP has been much higher than SMP where the individual mills do not have control over prices to be paid to the farmers. In States where the announcement of SAP has been stayed by Courts, prices are decided by mutual negotiations between farmers' associations and respective mills. Farmers have a greater bargaining power in such States. The nature of the relationship, which a sugar company shares with the farming community in the command area, is a key measure of its operational strength. One can evaluate this relationship by looking at the past history of timeliness of cane payments, registration of farmers for cane supply, the kind of allied services provided, the area under cane development and trends in cane diversion. Another determinant of the operational efficiency is its yield level, which for a sugar mill is dependent on various exogenous factors such as cane variety, the crushing period, cane management systems and climatic conditions. Sugar recovery levels have tended to be in the region of 9-10%, although some players have been able to achieve considerably higher recovery levels, and one can consider the ability to consistently achieve high yields as an important measure of operating efficiency and a driver of profitability.

(ii) Business profile and cost structure
A key driver of the operating profitability of a sugar company is the mix of levy and free sugar in its product mix. As discussed, since the levy sugar is channeled through the PDS of the Government of India, it carries a subsidized pricing relative to free sugar. However, unlike free sugar, where dispatches are determined by a release mechanism, the levy sugar sales carry minimal off-take risks. The proportion of levy sales, as prescribed by the Government, has been reducing as part of the decontrol process, and is expected to come down even further, which augers well for the domestic sugar industry. One can evaluate the trends in product mix in the past, along with the free and levy sale realizations, and compares them with similar data for other sugar mills in the region to assess the market position of the sugar company being rated. Usually, a higher than warranted levy sales, and a lower than average free sale realization would suggest a weaker franchise in the economic consumption zone around the mill. The economics of sugar production is critically dependent on five factors; the crushing period, the size of the plant, the corresponding availability of cane, operational efficiency and the ability of the sugar company to generate value through forward integration into the co-generation of power and manufacture of byproducts.

One of the most important factors driving operational efficiency is the number of crushing days available to a sugar mill, as a higher crushing period ensures optimal capacity utilization levels, higher recovery levels and hence lower operating costs. The crushing period is dependent on climatic patterns, as mills located in temperate climates and which experience prolonged monsoons, usually have higher crushing periods. The size of the plant also has a bearing on the operating cost structure of a sugar mill, although the economics could get seriously jeopardized if the higher capacity is not backed by adequate availability of cane within the command area. Issues related to the regulatory stance governing the availability of cane have been one of the primary reasons for the development of a fragmented supply base in the country. In this context, the need to expand sources of cane supply for achieving greater economies of scale have been one of the key drivers of the consolidation process, which has been seen in the sugar industry in recent times. A sugar company generates considerable value by integrating forward into the co-generation of power and the manufacture of products such as molasses, alcohol based chemicals and organic manure, which are relatively insulated from the risks that characterize the sugar industry. We can analyze the operating profile of the company, its cost structure in the context of achieving economies of scale, and the extent of value addition; it is able to generate through its forward integration initiatives.

(iii) Market risks
The demand-supply situation for sugar is largely determined by supply side dynamics, with demand growth having been quite stable at 2-3% per annum in the recent past. Sugar is supplied either in the levy or the free form, with the levy sales finding their way into the PDS of the Government of India. The sale of free sale sugar is governed by a monthly release mechanism, which decides the extent of sugar which can be sold by the sugar companies independent of their production levels. The supply mechanism has necessitated that sugar companies absorb the variations in inventory levels depending upon the fluctuations in the sugarcane output, which they need to compulsorily process. However, the release mechanism has also allowed the sugar companies to maintain a certain amount of stability in their realizations, despite their increasing production and hence stocking levels in recent times. The situation could however change quite significantly if the release mechanism for distributing sugar gets dispensed with, which would lead to the pricing of sugar becoming a function of demand supply positions in individual markets. The threat of imports is however limited due to the high level of import duties on finished sugar, which are within the permissible limits specified by the WTO. The Indian
market is presently witness to over-supply conditions, however Indian producers have demonstrated limited export capabilities in the past, which have primarily been on account of high non tariff barriers in importing countries, and a high level of subsidies provided to the exporting countries. Perceived low quality of Indian sugar has also been a contributing factor to sluggish export performance. We can assess the demand supply position for sugar in and around the command area of the sugar mill, a producer's quality and its cost competitiveness in being able to supply under different pricing environments, along-with its ability to export its surplus production.

(iv) Financial Evaluation
The sugar business is characterized by high working capital intensity, more so, in the present context, when the sale of free sugar is regulated through a monthly release mechanism. This has in recent times resulted in a considerable build up of inventory and has affected the liquidity position of most companies. Hence, evaluation of the financial position of a sugar company involves a detailed understanding of the working capital management practices of the company, and its ability to generate cash. We can also evaluates the trends in divisional (sugar, co-generation, distillery and chemicals) as well as overall profitability, to establish the stability and sufficiency of cash flow generation for meeting future debt service obligations. Trends in operating margin (OPBDIT/OI) and return on capital employed (PBIT/ (Total Debt + Tangible Net worth)) relative to the company’s cost of capital are also analyzed. Further, since the sugar business is seasonal, the working capital requirements tend to peak during the crushing period, and need to assess month-wise cash flow position of the company, and the adequacy of un-drawn credit facilities from banks for meeting peak working capital requirements. This assessment is particularly important in the context of negative perception which institutional lenders carry about the sugar industry, which has affected the flow of credit to this sector. We also need to assess the capital structure of the company, the gearing levels and the maturity profile of the debt relative to its business and operating risks.

IV. CONCLUSION
The sugar industry has grown under an umbrella of protection, with Government regulations governing almost all aspects of the business. The decontrol of the business has been initiated, and when completed, would result in a considerable change in the operating industry for players in the industry. The sugar industry has seen stagnant levels of growth in recent times, which together with a sharp increase in production levels, has resulted in a considerable build up of inventory. The over supply situation is expected to continue in the medium term, with demand growth not expected to increase significantly. In this context, a discontinuance of the release mechanism for free sale sugar and a reduction in the levy quota could lead to severe pricing pressures for most players in the industry. Further, in this context, the high bargaining power of the sugarcane producers and the restrictions on cane sourcing from outside ones command area, could further undermine the profitability and credit quality of the participants in the sector. Overall, ICRA (International Credit Rating Analysis) carries a negative outlook on the prospects for the sugar sector in view of high regulatory risk, expected continuance of glut situation in the country, likely pressures on realizations and cost side pressures. However, certain bigger mills are expected to outperform the weaker mills in view of their geographical spread of capacity, access to greater economies of scale, high level of vertical integration, and ability to forge good relationships with the sugar cane producers. Another source of strength for these companies would be their ability to access the capital markets for relatively lower cost debt for meeting seasonal working capital requirements. Some of these companies are also using the prevailing situation in the industry to consolidate their position so as to achieve greater economies of scale, by acquiring existing units, which lend themselves to a turnaround. Sugar factories today have to operate in an open market environment. To remain competitive and do well, the sugar factories must bring in corporate management in cooperatives. Whereas the nature of organization and process of decision making will still continue to be based on principles of cooperatives, the day to day management of the factory must adopt corporate discipline and modern management techniques. We should not look at competition as our enemy, we should treat it as an opportunity instead, an opportunity to strengthen our resolve to improve our working and bring ourselves at par or even ahead of our private counterparts.

V. References
[1] ISMA Indian Sugar Year Book 2005-06, KPMG Analysis