

sugar. At no point in the last 7 years has India imported or exported more than 2 percent of the total world sugar trade.

STATE WISE SUGAR PRODUCTIVITY

Sugar companies have been established in large sugarcane growing states like Uttar Pradesh, Maharashtra, Karnataka, Gujarat, Tamil Nadu, and Andhra Pradesh and these six states contributing more than 85% of total sugar production in the India while, over 60% of total production is together contributed by Uttar Pradesh (UP) and Maharashtra.

Sugar output in Uttar Pradesh, the country's second biggest sugar producing state, rose by 7% to 7.43 MT till April of this year on account of better recoveries especially in west and central zones of the state. Sugar recovery was higher at 9.19% and mills crushed 5% more sugarcane than last year. It is believed that UP is likely to close this year with a total sugar production of around 75 lakh tonnes after crushing approximately 813.5 lakh tonne of cane. The recovery, too, improved, with the eastern and central parts of the state showing better results. This has pushed sugar production from the state up by 7% during FY13 as compared to SY12 season.

However, sugar production in Maharashtra, the country's top sugar producing state, fell by 10% to 7.97 MT so far from over the year-ago period on account of severe drought in some parts of the state. Sugar recovery remained lower at 11.40% and mills crushed 8% less sugarcane. Marathwada, which contributes up to 20% to the total state sugar production, produced 22% lesser sugar than last year as the region is reeling under water shortage. Similarly, sugar production from Pune and Kolhapur zone remained lower by 6% so far.

At present, only four mills in Satara and Nagpur are under operations, against 40 last year. In case of Karnataka, sugar production declined to 3.36 MT till April of this year, as against 3.72 MT in the same period corresponding year. The recovery rate was lower at 10.44% in the state, where five mills are still crushing while sugar production in Tamil Nadu, where 29 mills are still operation, remained slightly lower at 1.57 MT so far, while in Andhra Pradesh the output was lower at 9,90,000 tonnes, as against 11,10,000 tonnes in the year period (**Table 2**).

PESTEL ANALYSIS OF SUGAR INDUSTRY

The PESTEL analysis of the Indian Sugar industry has been analyzed in this section:

- a) **Political Factors:** The Indian sugar industry works under high political intervention. Farmers usually deal through co-operative society, where the local political parties have a strong influence on the finance disbursement and preferences. Even though to protect the sugar farmers, the government introduced Fair and Remunerative Pricing (FRP), the situation has not changed much.
- b) **Economic Factors:** The sugarcane production in the country constitute almost 2.2-2.7 percent of India's total cropped area. Even though there is annual volatility, the contribution of this crop to the total GDP stands almost 0.7 percent (2018-19). In addition, the sugar industry pays almost Rs. 1700 crores to various

state government in the form of excise duties and purchase tax (now GST) on sugar cane.

- c) **Social Factors:** The employment generation of this industry is a remarkable one. Almost 7.5 percent of the rural population in the country depends on sugarcane farming. The direct employment of the industry is approx. 2 million and there is also significant indirect employment generation through various ancillary services.
- d) **Technological Factors:** Indian sugar mills suffer from lower capacity utilization. The food and public distribution of India (FPD) department has initiated the technological upgradation in sugar mills. Even department of science and technology has collaborated with the government to improve the plant efficiencies of the mills, including the introduction of energy saving technology and reduction of utilization of major inputs.

Table 2: State wise sugar performance.

Sl.no	State	Area Covered (in lakhs hectare)				
		2012-13*	2011-12	2010-11	2009-10	2008-09
1	Andhra Pradesh	1.76	1.96	1.92	1.58	1.96
2	Assam	0.35	0.25	0.28	0.27	0.29
3	Bihar	2.70	3.00	3.00	1.16	1.12
4	Gujarat	2.03	1.77	1.88	1.54	2.21
5	Haryana	1.07	1.06	0.85	0.74	0.90
6	Karnataka	3.84	4.16	4.21	3.37	2.81
7	Madhya Pradesh	0.90	0.60	0.65	0.62	0.71
8	Maharashtra	9.45	9.92	9.64	7.56	7.68
9	Odisha	0.39	0.40	0.13	0.08	0.11
10	Punjab	0.75	0.80	0.70	0.60	0.81
11	Tamil Nadu	3.73	2.86	3.36	2.93	3.09
12	Uttar Pradesh	24.25	22.52	21.25	19.77	20.84
13	Uttarakhand	1.05	1.08	1.07	0.96	1.07
14	West Bengal	0.22	0.21	0.15	0.14	0.18
15	Others*	0.39	0.34	0.35	0.43	0.37
Total		52.88	50.93	49.44	41.75	44.15

*Includes Chhattisgarh (0.14), Manipur, Mizoram, Nagaland (0.098), Tripura, Goa, Arunachal Pradesh, Kerala, Jharkhand, Rajasthan etc.

Source: Directorate of Economics & Statistics, State Directorate of Agriculture weekly report.

- e) **Environmental Factors:** The major benefit of the sugar mill is the bi-product of the sugarcane. It is held that ethanol emits less carbon dioxide than crude oil and can supplement the same. The use of ethanol not only benefits environment, but also helps the industry to earn carbon credits.
- f) **Legal Factors:** Legal aspects of the sugar cane affect the industry and producers. But government is trying to support the sugarcane producers with the

enactment of various acts which will provide both financial support and protect from international competition.

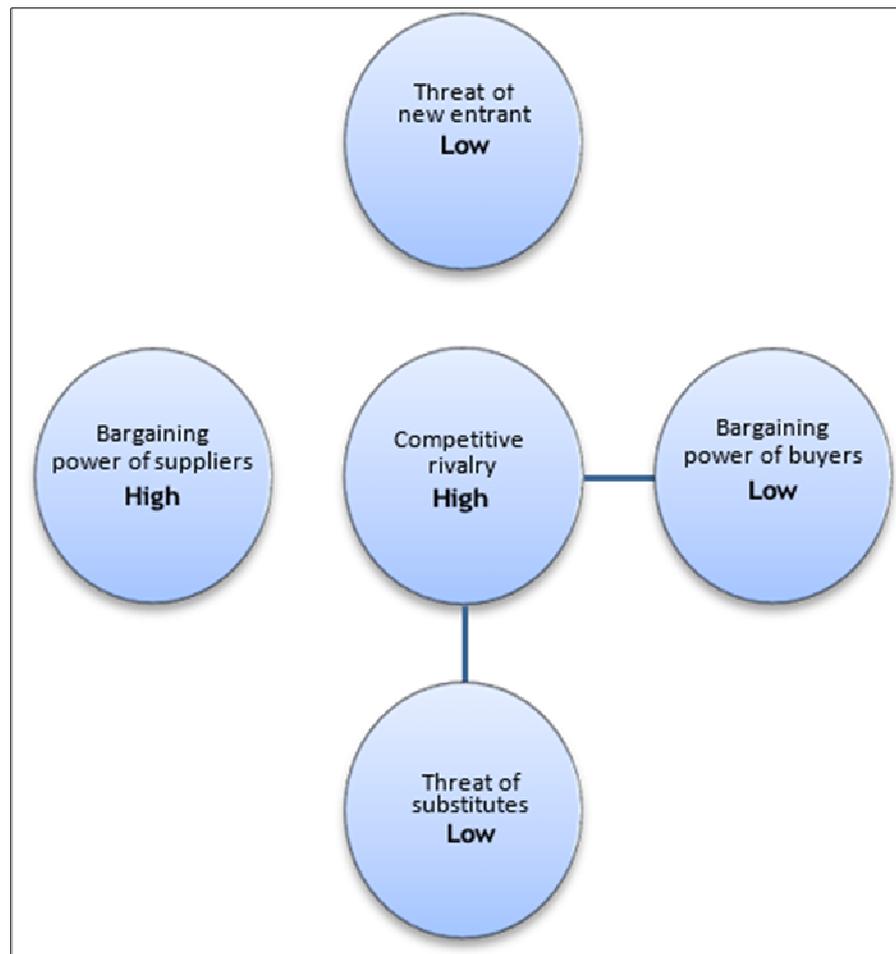


Figure 6: Porter's Five Force Model.

To determine industry attractiveness and long-run industry profitability of the Indian Sugar Industry, we chose to apply the Porter's five forces in our analysis (**Figure 6**). Porter's five forces are:

1. Barriers to Entry and exit: The Indian Sugar Industry is characterized with modest entry and exit barriers. Integrated business model and increasing capital requirement in the industry restrict new entrants. The Government earlier used to give incentives to set up new plants by granting higher free sales quota for the first five to eight years of operations that had led to mushrooming of small units. This incentive has been withdrawn and the new sugar units are required to comply with the levy quota regulation from first year of operations. The GOI has also put restriction on setting up of two sugar factories within the radius of 15Kms.
2. Threat of substitutes: Being an essential commodity the demand for sugar is not elastic. Alternate sweeteners to refined sugar in India are gur and khandsari. But with increased per capita income and easy availability of sugar at competitive rates, use of gur and khandsari is seeing a downward trend and is mostly confined to rural areas. Hence, threat of substitute is low in the industry.
3. Buyer bargaining power: Indian sugar market is highly regulated by the

Govt. influencing distribution, purchase price of levy sugar and the free sale quota releases for sugar. Hence, buyer's power is highly restricted in this sector.

4. Supplier bargaining power: Allocation of the area from where the sugarcane can be procured is allocated by the government. The Sugar mills have no choice but to purchase all the Cane sold to them, even if it exceeds their requirement. Sugar producers are not allowed to own cane fields in India. Though recent sugar de-control is likely to give higher pricing power to the mills, the government still can influence the prices with its PDS system.

5. Industry Competition: Competitiveness among the Indian sugar players is high. With around 500 units engaged in production of sugar, the industry is highly fragmented. Private Individual players do not have big market share. Cooperatives are relatively high as they account for more than 50% of the industry's production.

FACILITATING SMES ACCESS TO INTERNATIONAL MARKETS

During the past decade there have been steady technological and structural changes which have made it easier for SMEs to participate in the international economy. Advances in ICTs, and in particular, the Internet, have been a major factor in facilitating information flows and expanding the market potential of smaller firms. Governments have been making efforts to reduce barriers to international business activity, at the global and especially at the regional level.

However, SMEs are still relatively under-represented in the global economy. SMEs only contribute between one quarter and one third of manufactured exports and account for a very small share, usually less than 10%, of foreign direct investment (FDI) in India (Schreyer, 1996; Hall, 2002; Sakai, 2002). In most national economies SMEs make up more than 95% of market participants, and contribute around 50% of direct value added or production. The reasons for such small contribution by Indian firms are manifold. Globalization has exposed SMEs to a more complex and risky business environment. Compared to larger firms, SMEs are relatively unprepared and less well-resourced. Some of these risks and complexities can be addressed by governments as they relate to the differing regulatory, administrative and policy environments.

For many enterprises gaining access to international markets and internationalization requires much strategic support. Many firms have high fixed and sunk costs which need to be recouped as quickly as possible. Access to global markets can also offer a host of business opportunities, such as new niche markets; possibilities to exploit economies of scale, scope, volume and technological advantages; the upgrading of technological capability; lowering and sharing costs, including R&D costs; and in many cases, affording improved access to finance. Recent research findings link high-growth firms and exports, and find that exporting is not the end of a strong growth process but rather appears as a starting point to accompany the growth process (OECD, 2002).

CONCLUSION

With the large benefits, globalization comes with numbers of costs. The main costs are likely to be felt by small and micro businesses that are unable to cope with the increased competition. These small firms are usually operating only at a local level, but are nonetheless affected by the broader international environment. In addition, there will always be gains accruing to some regions or

countries which have a more attractive entrepreneurial business environment. This attractiveness is relative to that prevailing in other locations and countries, and relative to the different types of entrepreneur.

A main factor impeding factor of development could be governments themselves. These impediments are difficult to monitor at present, because they are relative, not absolute, and because most are non-border impediments. There need to be better ways of identifying what government regulations and practices are impeding the startup, growth and internationalization of fast growth firms. Because many of these firms are small, and they are “pushing the envelope” in new industries and new technologies they do not show up as significant “blips” on trade negotiation. Governments need to collaborate to set up monitoring systems to identify these impediments, understand their longer-term impact, and establish mechanisms for addressing them, at bilateral and multilateral levels. The success and growth of international SMEs will be enhanced by a more internationalized infrastructure geared to the smooth growth of firms across borders. This applies to the infrastructure for financial markets, advisory services, information access, telecommunications, intellectual property rights markets and regulation, dispute resolution processes, etc. all of which need to be internationalized. All of this requires active collaboration between governments, international agencies and the private sector to address these issues with the view to create a simpler, more business friendly, and more integrated economy at international levels for Indian SMEs.

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