

Financial Management in Sugar Industry

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Abstract: *India has been known as the original home of sugar and sugarcane. Indian mythology supports the above fact as it contains legends showing the origin of sugarcane. India is the second largest producer of sugarcane next to Brazil. Presently about 4 million hectares of land is under sugarcane with an average yield of 70 tonnes per hectare.*

Keywords: *sugarcane*

I. INTRODUCTION

India has been known as the original home of sugar and sugarcane. Indian mythology supports the above fact as it contains legends showing the origin of sugarcane. India is the second largest producer of sugarcane next to Brazil. Presently about 4 million hectares of land is under sugarcane with an average yield of 70 tonnes per hectare.

Sugar and sugar-cane have been known in our country from pre-his- toric times. India is the birth place of sugar-cane. In 800 BC sugar cane was taken to China. Alexander introduced it to the Western Hemi- sphere in 300 BC. Sugar manufacture started in India between 4th and 6th century A.D. Juice was extracted from the cane by crushing it with heavy weights. The juice was then boiled and stirred until solids were formed. These solids of uneven size and shape looked like gravel and were hence called Sharkara, a Sanskrit term for gravel. China and Persia learnt the art of sugar manufacture from India in the early part of the 7th century.

About Sugar Industry in India

Sugar consumption rate is highest in India as shown in the statistics received from USDA Foreign Agricultural Service. However, as per production is concerned, India has notched up 2nd position follow- ing Brazil, the largest sugar producer in the world. The Indian sugar industry uses sugarcane in the production of sugar and hence maxi- mum number of the companies is likely to be found in the sugarcane growing states of India including Uttar Pradesh, Maharashtra, Gujarat, Tamil Nadu, Karnataka, and Andhra Pradesh. Maharashtra alone ac- counts for 30% of the overall sugar production in the nation and Uttar Pradesh contribution can be totaled to 20%.

Sugar is a sector of significant importance to the national economy. At present, the sugar industry is regulated across the value chain and the sector has struggled to generate a return on invested capital in excess of its cost of capital in the last few years, primarily due to a high mandated fixed cane prices and a volatile sugar prices.

Types of Sugar Industry in India

The sugar industry can be divided into two sectors including organ- ized and unorganized sector. Sugar factories belong to the organized sector and those who produce traditional sweeteners fall into unor- ganized sector. Gur and khandsari are the traditional forms of sweet- eners.

Objectives of the study:

- To study the fixed assets management.
- To analyse the inventory management.
- To examine cash management and
- To evaluate the profitability of the industry.



Research methodology Sample Design

Daund Sugar Pvt Ltd is taken for the purpose of the study, due to the availability of the data and based on the important limiting factor for the study 'time'.

The Daund Sugar Pvt Ltd was established at Village- Alegaon, Tal- Daund District-Pune. it was set up in 2009. This is an important land mark in industrial history of Pune. This factory initial crushing capacity was 3500 tonne capacity per day (TCD). This crushing capacity increased upto 17500 TCD in 2022-23 season. the factory provided employment opportunities to nearly 1500 employees on permanent, seasonal and temporary basis.

Sources of data

The study is based on both primary and secondary data. Primary data covering all financial aspects of the Daund Sugar Pvt Ltd were collected through the help of a structured schedule specially designed for this study.

Secondary data has been collected from Indian Sugar Mills Association, Maharashtra Sugar Corporation Limited, the Annual Survey of Industries and Annual reports of the Daund sugar factories, Books, Journals, Magazines, News Papers and Internet.

Period of study

The study period covers five financial accounting years of Daund Sugar Pvt Ltd, in Maharashtra i.e. from 2019-20 to 2023-24.

Tools and Techniques

In the analysis of the financial data various financial tools and techniques like, percentages, averages and ratios are adopted wherever necessary in order to evaluate the financial performance in the Daund Sugar Pvt Ltd

Fixed Assets Management

Fixed Asset Management is an accounting process that seeks to track fixed assets for the purposes of financial accounting, preventive maintenance, and theft deterrence. Many organizations face a significant challenge in tracking the location, quantity, condition, maintenance and depreciation status of their fixed assets. A popular approach to tracking fixed assets utilizes serial numbered Asset Tags, often with barcodes for easy and accurate reading. Periodically, the owner of the assets can take inventory with a mobile barcode reader and then produce a report. Some tracking methods automate the process, such as by using fixed scanners to read barcodes on railway freight cars or by attaching a Radio Frequency Identification (RFID) tag to an asset

Table 1: Percentage of Fixed Assets to Total Assets and Fixed Assets Turnover Ratio
(Rs. in Crores)

Year	Fixed Assets Rs	Total Assets Rs	Percentage	Sales Rs	Fixed Assets Turnover Ratio
2019-20	18.96	595.86	3.18	216.06	11.39
2020-21	21.60	565.35	3.82	247.68	11.46
2021-22	22.44	637.62	3.51	131.55	5.86
2022-23	22.71	291.96	7.77	248.04	10.92
2023-24	23.82	340.2	7.00	253.26	10.63
Average	21.90	486.19	5.05	219.31	10.05

Value of Fixed Assets

The values of fixed assets in the year 2019-20 were Rs.18.96 crores. The value of fixed assets normally increases Rs. 21.60 crores in the year 2020-21, Rs. 22.44 crores in the year 2021-22, Rs. 22.71 crores in the year 2022-23 and Rs.23.82 crores in the year 2023-24. The average fixed assets values of during the study period were Rs. 21.90 crores.



It is observed from the table I the value of fixed in the Daund sugar pvt ltd increased normally in the year 2019-20 to 2023- 24

Fixed Assets to Total Assets

The values of total assets in the year 2019-20 were Rs. 595.86 crores, Rs.565.35 crores in the year 2020-21, Rs. 637.62 crores in the year 2021-22, Rs.291.96 crores in the year 2022-23 and Rs. 340.20 crores in the year 2023-24. The total assets abnormally decreased in the year 2022-23 and 2023-24.

The percentages of fixed assets to total assets in the year 2019-20 were 3.18 percent. The percentage was increased during the year 2020-21 and 2021-22. Finally the percentage was increased to 7.77 percent in the year 2022-23. The average percentage of fixed assets to total assets worked out to 5.06 percent.

Fixed Assets Turnover Ratio

Maximum utilization of fixed assets is one of the ways of increase profitability. Efficient management of fixed assets serves this purpose. The efficiency depends upon the fixed assets turnover ratio.

The fixed assets turnover ratio decreased from 11.39 times in the year 2019-20 to 5.86 times in 2021-22 and increased from 5.86 times in 2021-22 to 10.92 times in the year 2022-23. The average fixed assets turnover ratio is 10.05 times. During the study period the fixed assets turnover ratio is less than the standard ratio. The lowest time indicates the poor utilization of fixed assets. This may also be as sign of fact that funds are not being employed fully or they are not being utilized properly.

Inventory Management

The overseeing and controlling of the ordering, storage and use of components that a company will use in the production of the items it will sell as well as the overseeing and controlling of quantities of finished products for sale. A business's inventory is one of its major as- sets and represents an investment that is tied up until the item is sold or used in the production of an item that is sold. It also costs money to store, track and insure inventory. Inventories that are mismanaged can create significant financial problems for a business, whether the mismanagement results in an inventory glut or an inventory shortage.

Inventory Turnover Ratio

Inventory turnover ratio is also known as stock turnover ratio, estab- lishes a relationship between the cost of goods sold during a period and the amount of inventory. This ratio acts as an indicator of the li- quidity of the inventory. A higher turnover indicates efficient invento- ry management of a firm. This ratio helps in judging the efficiency of inventory management.

Table 2: Inventory Turnover Ratio and percentage of inventory to current assets
(Rs. in Crores)

Year	Sales Rs	Inventory Rs	Inventory Turnover Ratio	Current Assets Rs	Percentage
2019-20	216.06	125.34	1.72	147.96	84.71
2020-21	247.68	109.17	2.26	136.92	79.73
2021-22	131.55	130.77	1.00	193.86	67.45
2022-23	248.04	159.42	1.55	237.3	67.18
2023-24	253.26	184.98	1.36	284.43	65.03
Averag	219.31	141.93	1.10	200.7	70.71

Inventory turnover ratio and percentage of inventory to current assets is presenting in table 2. The inventory turnover is 1.72 times in the year 2019-20. This ratio decreased from 2.69 times in 2019-20 to 1.36 times in the year 2023-24. The average inventory turnover ratio during the study period is 1.10 times.



Normally the inventory constitutes a major percentage in current as- sets. But in the Daund sugar pvt ltd the percentage of inventory to cur- rent assets varies from 84.71 percent to 65.04 percent. The percentage of total inventories to total current assets in 2019-20 is 84.71 percent, in 2020-21 is 79.73 percent, in 2021-22 is 67.45 percent, in 2022-23 is 67.18 percent and 2023-24 is 65.03 percent. The average percentage of inventory to current assets is 70.71 percent.

Cash Management

Cash management is one of the important aspects of the financial management. Cash is the most liquid asset that a business owns. It includes money and instruments such as cheques, money orders or bank drafts, which bank normally accept for deposits and immediate- ly credit to the depositors account. The cash management has mainly two objectives (1) liquidity and (2) profitability. Cash is the starting point as well as the end of the operating cycle of manufacturing con- cern. It is the basic input needed to keep the business running on continuous basis and also the ultimate output expected to be realized by selling the product.

Table 3: Current Ratio, Quick Ratio and Net Cash flow Ratio (Rs. In Crores)

Year	Current Assets	Current Liabilities	Current Ratio	Quick Ratio	Net Cash Flow Ratio
2019-20	147.96	108.36	1.36	0.63	1.32
2020-21	136.92	112.47	1.22	0.75	2.85
2021-22	193.86	85.77	2.26	2.22	3.18
2022-23	237.3	314.85	0.75	0.75	0.27
2023-24	284.43	390.03	0.73	0.75	0.09
Average	200.7	202.29	1.27	1.02	1.53

Current Ratio

The current ratio indicates the quality coverage of current assets over current liabilities. It indicates the ability of the company to meet its maturing current obligations. It is also the reflection of a static con- dition and of a relationship on one date between two variables. The current ratio is computed using the following formula:

$$\text{Current ratio} = \text{Current assets} / \text{Current Liabilities}$$

A standard current ratio is 2:1. During the study period, in Daund Sugar pvt ltd the current ratio is 1.36:1 in 2019-20, 1.22:1 in 2020- 21, in except for in 2021-22 it is above the usual current ratio 2.26:1, 0.75:1 in 2022-23 and 0.73:1 in 2023-24. The average current ratio in Daund sugar Pvt ltd is 1.27:1 this shows that the ratio is below the standard current ratio in the Daund sugar Pvt Ltd.

Quick Ratio

Quick ratio is also known as acid-test ratio, indicates the ability of the company to meet its immediate liabilities out of its quickly realizable current assets. This ability of an undertaking is indication of its strong liquid position. As inventory is considered to take relatively more time to realize compared to other current assets, it is excluded from current assets while computing the quick ratio. A desirable quick ratio is 1:1, but it may differ from firm to firm and industry to industry. However, a low quick ratio indicates the quickly realizable assets are not ade- quate to meet current liabilities at a particular point of time. This can be expressed as:

$$\text{Quick ratio} = \text{Quick assets} / \text{Quick Liabilities}$$

A standard Quick ratio is 1:1 in Daund Sugar pvt ltd the quick ratio is 0.63:1 in 2019-20, 0.75:1 in 2020-21, 2.22:1 in 2021-22, 0.75:1 in 2022-23 and 0.75:1 in 2023-24. The average Quick ratio in Daund sugar mills is 1.02:1 this shows that the ratio is high the standard quick ratio in the Daund sugar mill during the study period which is High.

Net Cash Flow Coverage Ratio

The computation of actual liquidity attempts to measure the poten- tiality of the firm in meeting the current obligations on the basis of cash flow originating from the operations. The actual approach is based on the idea that an enterprise



cannot or least expected to pay off its current obligations from its current assets when it is on the run. Whatever may be the sources from which the cash is generated, that will definitely provide coverage to the current obligations

In the Daund sugar mill the average percentage of net cash flow coverage is 1.53 percent. The cash flow coverage is 1.32 percent in 2019-20, 2.85 percent in 2020-21, 3.18 percent in 2021-22, 0.27 percent in 2022-23 and 0.09 percent in 2023-24. The net cash flow coverage ratio increased from 1.32 percent to 1.53 percent.

Evaluation of profitability

The profitability can be measured either on the basis of operating profit or net profit. It may be said that the operating profit reflects on profits of the main business for which the enterprise was launched and offers the most reliable measure for the long-term perspective. In other words, the net profit reflects net operating and non-operating income. It helps the analyst with the most reliable measure of profitability from the short-term point of view. However the figure net profit may assume any of the following forms;

1. Net Profit before interest and taxes (NPBIT)
2. Net Profit before tax but after interest (NPBT)
3. Net profit after tax (NPAT)

Profitability can be measured in terms of different components of income statements and Balance sheet. More commonly used measures of profitability are;

1. Profitability in terms of total investment,
2. Profitability in terms of sales,
3. Profitability in terms of shareholders investment, and
4. Profitability from creditor's point of view.

A well organized profit planning programme will help towards maintaining a level of profit which will ensure the continuation of the business and fulfillment of other responsibilities. Profitability implies profit making ability of business enterprises. For the successful management profits are to be evaluated and compared with the previous year's figures. The profitability of sugar mill depends upon the cost of production.

Table 4: Return on Investment, Sales, Cost of goods sold, and Gross & Net operating profit/loss
(Rs. In Crores)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	Average
Return on Investment	0.06	0.39	0.15	-2.16	-0.54	-2.1
Sales	216.06	247.71	131.55	248.04	253.29	219.33
Cost of goods sold	322.32	293.4	237.45	240.30	235.26	265.74
Gross operating profit / loss	-50.58	16.65	8.07	-26.67	-31.41	-16.8
Net profit /loss	12.63	71.22	63.25	19.95	10.71	35.55
Cost of goods sold to Sales	447.54	355.44	541.5	203.64	278.64	365.34

The profitability of sugar mill is analyzed with reference to capital as well as sales. The return on investment in Daund sugar mill varies between -2.16 percent and 0.39 percent. The average return on investment worked out to -2.1 percent.

The percentage of cost of goods sold to sales in Daund Sugar pvt ltd increased from 541.50 percent in 2021-22 to 203.64percent in 2022-23. It is highest in the year 2021-22 and lowest in the year 2022-23. The cost of goods sold is high in the mill in the year 2021-22 is due to gross loss. In 2020-21 the mill earned a net profit of Rs.71.22 crores. But in the year 2023-24 profit was Rs.10.71 crores. The average net profit during the study period was Rs.35.55 crores.



Findings and Suggestions

- The Daund Sugar Pvt Ltd not concentrated on sales as much as on fixed assets. They have to improve a lot in the sales department then only the fixed assets turnover ratio will improve. They must utilize the fixed assets like plant and machinery and land and buildings at full capacity.
- The average inventory turnover ratio is 1.10 times it is very low when compared to other sugar mills. So it is suggested that the sugar mill should improve the inventory and sales.
- The current ratio and quick ratio shows that the sugar mill has not maintained. So to maintain above the standard ratio. The average current ratio is 1.27 times and quick ratio is 0.34 times. So it is suggested that the sugar mill should maintain standard ratio or more than the standard ratio.
- The average cost of goods sold and sales is Rs.265.74 crores and Rs. 219.33 crores respectively. The average percentage of cost of goods sold to sales is 365.34. Moreover it has an increasing trend. So the mill should plan the level of operations through the estimated cost of production.

II. CONCLUSION

The performance of the Daund Sugar pvt ltd has been satisfactory except in fixed assets management. The inventory turnover ratio is also good during the study period. As far as concerned to current and liquidity ratios the company to be maintained standard ratio or more than the standard ratio. The company has to control the cost of production and utilize the fixed assets at maximum level.

