SYNOPSIS OF THE THESIS

AN ASSESSMENT OF COST EFFECTIVENESS OF SUGAR CO-OPERATIVES IN WESTERN MAHARASHTRA WITH SPECIAL REFERENCE TO BY-PRODUCTS, JOINT PRODUCTS AND MULTI PRODUCTS

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Co-operative sugar factories in Maharashtra have played a very important role in the acceleration of the pace of the rural economy of the State. They have been instrumental in the development of the rural infrastructure like hospitals, road building, establishment of schools and colleges etc. They have done commendable work of improving the standard of living of the rural masses by providing employment to millions of people from that area. As a result of the establishment of sugar factories, many other allied activities have started in the vicinity and thus self-employment is generated. The sugarcane growers have also benefited as they are getting proper price for the sugarcane produced by them.

It has been observed that there is a rising number of sick units amongst the sugar co-operatives in the State. According to the
information given by the office of the Commissioner of Sugar, Maharashtra, 14 sugar factories are in the process of liquidation while 56 sugar factories are having a negative net worth with accumulated losses of more than Rs. 1600 crores are on the verge of liquidation. If these factories are liquidated, there would be a huge social loss as lakhs of people will become jobless and apart from that the sugarcane growers will also suffer from huge losses. As stated above, the sugar co-operatives have done a commendable work and if they are allowed to close down, there will be irreparable loss.

With a view to study these aspects in detail, the present study has been undertaken by the Researcher. In order to make the focus of study sharp, the following objectives have been formed.

1. To list out the technical parameters for assessing the effectiveness of the sugar co-operatives.
2. To study the cost structure of the sugar co-operatives in Western Maharashtra.
3. To identify and assess the profitability of by-products and its implications on the overall profitability of the sugar factories.
4. To review the accounting methods used for by-product accounting.

In consistent with the objectives, the following hypotheses were formed.

1. The growth of co-operative sugar factories is accelerated or retarded due to the Government policies.
2. For assessing the effectiveness of sugar factories, existing parameters are not sufficient or they do not exist.
3. The policies of sugar factories regarding by-products, are affecting the overall profitability of the sugar factories.
4. The profitability of by-products, of the sugar co-operatives are not assessed either scientifically or assessed crudely by any thumb rule.

RESEARCH DESIGN:

In order to make the study focussed, it was decided that the time span should be four years commencing from the year 1998-99 to the year 2001-02. The reason behind the same were availability of data. In the case of the co-operative sugar factories, the data is not available easily. Similarly, the cost accounting data which was required for this study was not available as the factories in the co-operative sector were not required to keep cost accounting records in the form prescribed by the Ministry of Finance, Central Government. These factories are brought under the Cost Accounting Record Rules only from the year 2003-04 by Government of Maharahstra and hence the data available through the Annual Reports was to be converted into the costing data and since this data was available only for a period of four years, the time span of four years was taken for the purpose of the study.

The geographical area of Western Maharahstra was selected as the area of the study basically because it was found that out of the total 169 sugar co-operatives in the State, 72 factories i.e. 44 % are situated in this area. Thus Western Maharahstra is considered to be the sugar-belt of the State of Maharahstra. According to the statistics published by the Commissioner of Sugar, out of the production in the entire State, the Western Maharahstra consisting of the districts of Kolhapur, Sangli, Satara, Pune and Ahmednagar, accounts for nearly 70 %. Besides being the pioneer in the field of the co-operative sugar factories, the Western Maharahstra has two factories with the highest capacity of crushing sugarcane which is 7000 tones per day. It was
therefore thought that this area should be selected for the purpose of this study.

From this universe, 15% of the factories were selected for the indepth study. The factories selected were divided in two control group as shown below.

1. Control Group one consisting of the factories with by-products.
2. Control Group second consisting of the factories without by-products.

For this study, the primary data was collected through the field visits to the factories selected for in-depth analysis. The secondary data was collected through the Annual Reports of the respective sugar factories, various journals like Bhartiya Sugar, other publications like the publications of the Vasantdada Sugar Institute, Pune, Anekant Prakashan, Jaisingpur etc. Besides this personal discussions were made with the officers of the Commissionarate of Sugar, practising Cost Accountants, Researchers in the area of sugar co-operatives, Experts in the area of sugar industry etc.

The financial data made available through the Annual Report was converted into cost data by using the prescribed Cost Accounting Record Rules (1997).

The chapter design and brief contents of each one are given in the following paragraphs. The Thesis is divided into Eight chapters

CHAPTER I
OVERVIEW OF SUGAR CO-OPERATIVES IN STATE OF MAHARASHTRA

This chapter discusses the overview of Indian Sugar Industry in brief and an overview of co-operative sugar industry in Maharashtra in detail.
CHAPTER 2
REVIEW OF LITERATURE

A review of the available literature is taken in the second chapter. This chapter provides the framework for the present study.

CHAPTER 3
RESEARCH DESIGN

This chapter explains the purpose of the study, objectives, hypothesis and research design of the study. A detailed explanation and discussion on the study period, universe and selection of the units and the method followed for data collection are the parts of this chapter. The chapter also discusses the Analysis Design of the study.

CHAPTER 4
ASSESSMENT OF COST-EFFECTIVENESS: COST STRUCTURE ANALYSIS

This chapter contains a detailed analysis of the cost structure of the sugar co-operatives under study. The chapter also explains the method followed for the compilation of cost data. This chapter also finds whether there is any difference between the cost structure of sugar co-operatives with by-products and without by-products. Statistical tools are used for establishing the co-relation between the results of the factories with by-products and without by-products. The technical parameters for the assessment of the performance of the sugar factories are also reviewed in this chapter
CHAPTER FIVE
PROFITABILITY ANALYSIS OF SELECTED SUGAR CO-OPERATIVES

This chapter analyses the profitability of the sugar co-operatives i.e. factories with by-products and factories without by-products, with the help of certain key ratios. The ratios calculated are,

a) Return on Capital Employed.
b) Return on Fixed Assets
c) Current Ratio
d) Debt-Equity Ratio
e) Own Capital to Fixed Assets
f) Ratio showing the Crushing Capacity Utilisation
g) Inventory to Sales.

CHAPTER SIX
IMPACT OF BY-PRODUCTS ON THE PROFITABILITY OF SELECTED SUGAR CO-OPERATIVES

This chapter shows the impact of by-products on the profitability of sugar co-operatives. To show the impact, profits from sugar business and from other activities are segregated and conclusions about the same are drawn.

CHAPTER 7
HYPOTHESES TESTING AND SURVEY FINDINGS

The present study is based on certain Hypotheses listed at the beginning of this chapter. These hypotheses are tested on the basis of
the information available and also by applying the statistical test i.e. ‘t’ test.

CHAPTER 8
CONCLUSIONS AND RECOMMENDATIONS

Based on the study, the Researcher has come to certain conclusions and he had offered some recommendations for improving the functioning of the sugar co-operatives. Some of the important conclusions are listed below.

a) From the analysis of the cost structure, it has been found that the proportion of various components in the cost structure is as under.

Material cost: - 65 %
Conversion Cost: - 25 %
Interest: - 10 %

b) It has also been found that the factories do not have any Retained Earning and the available surplus is being distributed amongst the members in the form of sugarcane price.

c) The cost of production is showing a consistently rising trend in the four years under observation.

d) Important ratio like the Return On Capital Employed is consistently below 1 % for majority of the factories.

e) It has been proved by the application of the ‘t’ test that the cost structure of the factories with by-products and that of the factories without by-products differs only as regards to the interest payments. The interest payments of the factories without by-products are more as compared to the factories with by-products. The other elements of cost, i.e. Material and the
Conversion Cost do not show much difference between the two control group.

f) It has been observed that the profitability of the sugar factories is affected by the policies regarding the by-products. In case of the factories who have established ancillary units based on the by-products, the distillery units are making profits consistently while paper mills are incurring losses. As regards the other divisions, there has been profits, though the amount is quite small.

g) The inventory to sales ratio of all the factories has been showing a consistently rising trend which indicates that the inventory of finished goods is continuously increasing. In case of some of the factories it is above 150% to sales. This is a very dangerous trend and requires urgent action, otherwise there is a serious threat to the existence to the sugar co-operatives.

RECOMMENDATIONS:

Some of the important recommendations are mentioned in the following paragraphs.

a) The sugar co-operatives should take urgent steps to liquidate the large inventory of sugar lying with them.

b) More diversified uses of the by-products should be developed which will contribute to the profitability of the sugar co-operatives.

c) Steps should be taken to control the conversion cost which has been showing an increasing trend in all the four years under observation.

d) The sugar co-operatives are resorting to heavy borrowings for working capital and this has resulted an increase in the interest
burden. It is suggested that for reducing the indebtedness, they are allowed to export sugar in the international market. More incentives should be offered to the exporting units.

e) It has been observed that the sugar industry has come in trouble due to excess capacity being built up due to proliferation of factories as a result of the liberalisation policy of the Government. There is a need to look into the licensing policy followed by the Government and new permissions should be given after careful study of availability of the sugarcane in the area and also the projected demand and supply position of the sugar.

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