CHAPTER-VII

CONCLUSIONS, SUGGESTIONS AND RECOMMENDATIONS

PROBLEMS FACED BY THE PROCESSING UNIT (SANGAM DAIRY)

A detailed analysis of the performance of the processing unit was done in order to document the problems faced by the unit and thereafter suggestions were offered towards stated problems. The suggestions and opinions were culled out to ascertain the major problems affecting the unit and industry.

The findings of the study are discussed under the following headings in order to arrive at a meaningful interpretation.

1. Procurement management in processing units
2. Demand and product management in processing units
3. Value addition in the selected units
4. Sales management in selected units
5. Problems faced by the processing units
6. SWOT analysis of the dairy processing units

1. PROCUREMENT MANAGEMENT IN PROCESSING UNITS

There is domination of procurement of raw milk in the month of November, followed by December, October, January and other months, since these months come under flush season during which quantity of milk procured was more than the average monthly procurement. The major portion of procurement during these months was diverted for preparation of milk products. Since, the demand for milk is more or less constant during these months and demand for value
added products would be more due to marriage and festivals, the processors would derive more benefits by procuring higher quantity of milk and diverting it for preparation of milk products. The price per litre was highest in summer months i.e., March and April. The supply of milk used to be low owing to lesser productivity of animals during these months due to non-availability of sufficient green fodder. Added to it, chances of spoilage also would be very high in these months. These will have direct effect on total supply of milk and thus on the prices. Surprisingly, the price of milk was higher also during the peak procurement months. The wastage of milk was exorbitant during these months. The quantity procured and its value was lowest in the month of June, since this is a lean season month, during which the quantity of milk procured in the hinterlands will be less. During this period, supply remains less than demand; hence, milk powder is reconstituted into milk to cater to the demand of liquid milk.

Further, it can be seen that of all the units, the quantity and value of raw milk procured, transportation and handling cost and wastage cost was the highest in case of cooperative unit

2. DEMAND AND PRODUCT MANAGEMENT IN PROCESSING UNIT

The co-operative milk processing unit in general utilizes about 95 per cent of their installed capacity, which in turn speaks off the success of co-operative movement. Out of the different products processed, milk processing utilized 96.42 percent of installed capacity highest among the products in terms of their capacity utilization. Curd, SMP and Butter are next in that order.

Co-operative has well established hinterland as far as milk is concerned. With a well connected network of collection points and refrigerated transport vans they can usher to the needs of processing unit. The horizontal integration between different milk unions operating throughout the country would provide siphoning effect to meet the installed capacity of the individual
unions. The other products are processed according to local needs and demands. Hence, their capacity utilization would largely depend upon the demand in the immediate following market.

Further, it was also observed that, higher quantity processed and capacity utilization was observed in co-operative sector unit because the efficiency per unit of consumption of raw materials was very high. They have set up modern processing technology. Plant has significantly increased the processing over the years in co-operative sector unit.

With respect to the Cost of carrying inventory of finished products by the co-operative unit, the co-operative processing unit on an average stored the finished products up to a maximum of 45 days. The total cost of carrying inventory was considered as necessary evil with respect to most of the agro-processing units. The commodity which was stored for maximum duration was ghee, since it was less perishable compared with other products. The average total cost was found to be highest in the case of paneer Rs. 5.04 per kg per day, because the storage and maintenance cost was high. The total cost was least in the case of curd since the storage and maintenance cost was less as it was stored maximum of one day. The interest on carrying inventory was also less in the case of curd.

With respect to the Demand management of milk and milk products in milk processing units, the total quantity processed and demanded and the value of milk, curd, butter and pedha was highest in case of co-operative unit, followed by private large scale units and private small scale units, the co-operative had a wide spread and well knit network of procurement as its area of operation was also very large and the excess of milk procured was diverted towards the production of curd, butter and pedha since the demand for these products produced was high. Hence, obviously its volume of business would be very high. Similarly the quantity sold and the sold value of these products was highest in cooperative unit. The excess and deficit were also

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highest in co-operative unit. Skimmed Milk Powder (SMP) was processed only in co-operative unit. In case of MBM, lassi, ghee and paneer, it was found that, the total quantity processed and demanded and the value of the processed product was highest in case of private large scale units, followed by co-operative unit and private small scale units, marketability of many of the dairy products goes with their brand name, and usually the customers are brand loyal. Hence, there used to be a regular demand for a product of particular brand. Similarly the quantity sold and the sold values were highest in these unit. The production of certain products was highly demand specific.

3. VALUE ADDITIONS

The co-operative sector unit produced a wide range of products, which include the product groups like liquid milk, curd, SMP, butter, MBM, pedha and ghee formed bulk of product line (99.96 per cent) followed by paneer (0.03 per cent) and Khowa (0.01 per cent). The large and small scale private units mainly concentrated on liquid milk, where as the co-operative sector concentrates on many product lines such as curd, SMP, butter, MBM, pedha, ghee, paneer and khowa. The product mix of a unit largely depends on the quantum of demand in the market. Depending upon the type of product demanded by the customers, co-operative unit has to go for the product mix, supporting the assumption that the production of a given preparation is demand driven.

The cost of processing for all the products together was considered. The costs associated with the processing of milk were broadly categorized in to two heads, namely, fixed costs and variable costs. The major cost components under fixed costs were salaries, administrative cost, depreciation, and repairs and maintenance. These costs together constituted 8.90 per cent of the total cost in the co-operative sector. Higher depreciation and maintenance costs in the co-
operative sector unit reflected the state of technology used in processing. The major items, which constituted the variable costs in processing of milk, were raw milk, packing, electricity and other raw materials. These costs accounted for 91.10 per cent of total cost in the co-operative sector.

With respect to the Cost and returns in co-operative unit, the co-operative unit process large quantity of milk. The economy of large scale operation operates here. Therefore, the processing cost per unit was lower in cooperative unit. Still, it was observed during the investigation that the cooperative unit uses the old technology and old machinery and equipments.

Hence, cooperatives could reduce their cost of processing still more if they replace their old machinery, equipments and technology with the modern ones.

Co-operative unit had its own distribution unit, equipped with own transport and distribution equipments and personnel. The total cost was low in co-operative unit compared to private (large and small scale) units, which resulted in higher net returns in co-operative unit.

4. SALES MANAGEMENT IN SELECTED UNIT

With respect to the Annual cost of marketing of processed products by co-operative sector unit, the transportation cost by co-operative unit accounted for maximum in the case of marketing of finished products, since their area of operation was very large, followed by carriage and hamali charges and advertisement expenses. Sometimes the milk was lifted to other union to balance the demand. High risk was also associated with long distance transportation like to spoilage and other calamities. All these would add up to the marketing cost to budget. Among all these products the cost under all the categories was highest for milk followed by other products.
5. PROBLEMS FACED BY THE PROCESSING UNIT

In case of co-operative unit,

- The main problem of the milk processors was processing, because of difficulty in maintenance of machinery, cost effective technology and also moderate availability of skilled labour.

- The problems of infrastructural facility and sales were the second major problem in cooperative processing units, respectively. All the units complained about the problem of high taxation of the products which constituted major share in total cost. The various studies conducted by Government of India showed that the processed food products have been subjected to high tax incidence at various stages of processing.

- The problem of finance was the third major problem in co-operative unit, because of moderate availability of funds and high rate of interest

- The major constraints observed in milk processing units were the lack of cost effective technology, irregular power supply, and higher taxes for processed products. These could be overcome by proper planning of processing technologies. The units should create some more channels in order to reduce the commission and the competition. The government policies also need to be changed to regulate regular power supply and appropriate tax policies for processed products.

6. SWOT ANALYSIS OF THE DAIRY PROCESSING UNIT

Strengths

- Regular and guaranteed supply of raw milk from the milk co-operative societies

- The location has a spatial advantage
Large area of operation

Maximum capacity utilization

Economy of large scale operation

Lesser commission and procurement charges

Largest network of artificial insemination centers help to get quality milk from the farmer through societies

Due to horizontal integration, ability to meet the demand and withstand competitiveness even during varied procurement is possible.

Well established brand name

Weakness

Seasonal fluctuation in supply of raw milk

Due to institutional management losses during handling is higher

Obsolete equipment and technologies

Chronic lack of technical and management skills

Opportunities

Increased demand for milk and milk products

Diversification of products

Scope for modernization of the unit

Threats

High raw material cost

Strong competition from private companies

Extremely challenging climatic condition
7. SUPPLY CHAIN MANAGEMENT:

Supply Chain Management (SCM) is the process of planning, implementing and controlling the operations of the supply chain as efficiently as possible. Milk supply chains are more concerned with controlling of milk quality and supply fluctuations. For the success of a dairy industry, efficient supply chain management is a pre-requisite. Thus for the success of Sangam Dairy strong efforts of Supply Chain Management are needed.

8. TECHNOLOGICAL UPGRADEATION- NEED OF THE HOUR

In the quest for higher quality, for more profitability, the dairy business needs technological up-gradation. It has become a point of vital importance as the nation has now captured the first rank in milk production globally and is now ready and set to march ahead in the global race for dairy products market.

In Sangam Dairy there is a need to improve the milk production and infrastructure, for linking procurement to manufacturing facility, processing and packaging innovations taking into account local preferences and improving technology.

9. CLARITY BETWEEN ROLES:

Lack of clarity between roles of the State Livestock Development Agency and the State Department of Animal Husbandry, Dairying and Fisheries is an issue for effective policy implementation. For example, the National Cattle and Buffalo Breeding program has not been
well implemented in several states. Further, availability of funds is a major issue in implementing livestock activities. The Livestock Department is within the Department of Agriculture and thus the resources are biased towards agriculture. There is need to emphasize the importance of dairying to smallholder incomes to direct more resources towards dairy development.

10. STRENGTHENING THE CO-OPERATIVE

Two very significant factors for the growth of the dairy sector are dairy development activities and milk prices paid to farmers. In the liberated policy environment, any player can procure milk in any region. This is a very different situation from the earlier concept of milk sheds, which limited the agency or organization procuring milk to a particular area. Hence, earlier it made sense for agencies and organizations to invest in dairy development activities.

But the freedom for procurement has thwarted the incentive for private companies to invest in dairy development activities. However, private sector investment in procurement is increasing. What is clear is that while the number of buyers is increasing, little is being done to develop the sector. In this situation, farmer-owned organizations (such as cooperatives, producer companies, common interest groups and women's self-help groups) have to be strengthened at the grassroots level and linked to service and input providers.

11. ENCOURAGEMENT OF DAIRY FARMER ORGANIZATIONS:

Dairy farmer organizations can be used as a platform to address issues regarding availability of all inputs, including feed, fodder, breeding, veterinarian services, medicines, vaccines, credit and insurance. As is evident from the examples presented previously, the GCMMF has been the most
successful in meeting the input requirements of farmers. However, this model has not been successful in other states because of issues with the basic organization of cooperatives.

Dairy cooperatives in several states function as parastatals and lack the spirit of cooperative organization with farmer involvement in ownership and decision-making. Alternative models of dairy farmer organizations – such as the MACS, producer companies, women’s self-help groups – also need to be explored. International agencies and donor groups need to be directed towards creating political will to strengthen dairy cooperatives and to set them up.

12. ASSISTING IN INCREASING THE PRODUCTIVITY PER ANIMAL

Low productivity per animal is another factor hindering development of the dairy sector. Many issues related to low productivity have been discussed – an inadequate cattle and buffalo breeding program, extension and management on dairy enterprise and feeding practices, and availability of quality feed and fodder. Another important aspect related to low productivity is the lack of quality animals for farmers to purchase. A major hindrance to the availability of quality animals in dairy developing areas is the policy regarding interstate movement of animals.

Finally, it is important to discuss the hygienic issues. Milk quality concerns go beyond the farm level and require assurance of safe milk at all stages, including within the informal sector. Through the formal channel, the cooperatives, can address the farmers through training and education on clean milk practices, including the use of bulk coolers. It is also important to develop diagnostic facilities for milk testing, including infrastructure and human resources that
enable constant monitoring for quality. At the processing level, plant certification will help to enhance consumer confidence.

CONCLUSIONS DRAWN THROUGH ECONOMIC ANALYSIS OF DAIRY FARMING IN SELECTED REGIONS:

Herd size varies directly with the farm size in all the regions.

Variable cost per animal varies directly with farm size/herd size among different regions except Narasaraopet region, where it was the lowest for small farm size categories.

Variable cost per animal was highest in Guntur region followed by Tenali in all farm size categories.

Green fodder and concentrates constituted 85 percent of the total cost among the marginal and small farmers in Narasaraopet region; whereas it is 62 percent for other categories. In Guntur region and in Tenali region these items constituted 50 percent and 35 percent and 60 percent and 38 percent of the total cost respectively, varying inversely with the farm size.

Hired labour constituted around 1 percent among marginal and small farmers; 19-24 percent for other categories for different regions.

Returns per lactating animal were estimated to about Rs. 12,000/ annum for marginal and small farmers and Rs. 9,000 per annum for other categories of farmers. It was the highest in Guntur region and lowest in Narasaraopet region. Among different farm size categories, it was the highest for marginal farmers and the lowest for other categories of farmers among different regions.
Definite trend was not followed in returns over CI cost among different categories of farmers. However it was the highest for small size categories of farmers. Higher use of green fodder, animal health care and concentrates and mineral mixture improve the returns from dairy in the selected regions.

- Using the cost per equivalent income method, farms are producing a litre of milk at a cost less than the selling price
- This method of economic analysis applies to farms that are currently operating.
- Dairying is a profitable enterprise, nevertheless other factors are impeding its further development (Environmental laws, problem of organized marketing, a change in consumer taste etc)

SUGGESTIONS:

- Now a days as the basic problem is management of procurement during the different periods of slack and lean the dairy management should concentrate on non-rejection of milk from the vendors and farmers and consequently process excess milk into milk powder and improve exportability to milk products.
- As of all the units, the quantity and value of raw milk procured, transportation and handling cost and wastage cost was highest in the case of cooperative unit efforts should be on to reduce the costs and improve the profits.
- Horizontal integration between different milk unions operating throughout the country would provide siphoning effect to meet the installed capacity of the individual unions.
- Processing of products should be according to the local needs and demands as well as regeneration of surplus should in accordance with the export needs and demands.
• Whereas the carrying costs and other transportation costs are high in the case of co-operative unit, the processing costs are comparatively less in the case of co-operative unit thus this advantage should be exploited by improving the processing by replacing the old machinery, equipment and technology with modern ones. This ultimately causes the total cost to be less which results in higher net returns to the co-operative unit.

• As high risk is associated with long distance transportation which results in spoilage and other calamities, the products likely to be marketed to long distances should be less receptive to spoilage for which the required precautions should be met.

• Cost-effective technology, application of skilled labour, maintenance of machinery takes a long way to efficient processing.

• Tax management should be efficient as tax varies at different stages of processing.

• Irregular power supply should be managed as irregular power supply not only lessens the production but also likely increases the chances of spoilage.

• The unit should create some more channels in order to reduce the commission and the competition.

• Taken the SWOT analysis given above as the basis, efforts should be on that the strengths and opportunities are exploited and weaknesses and threats are overcome.

• Strong efforts on Supply Chain Management are needed as the success of Sangam Dairy to the large extent depends on supply chain management.

• Dairying provides regular incomes which perhaps causes to meet the daily cash needs of the dairy farmers which fact has be made aware so that the small and medium holders divert their resources on improving their dairy farming activity.
• Strengthening of the cooperative is deemed essential which is possible through encouragement of dairy farmer organizations and improvement of infra-structural facilities.

• Dairy should aid and assist the dairy farmers in purchase of quality animals whose productivity levels are at the best.

• Maintaining hygiene is of paramount importance in a dairy industry in order to reduce the possibilities for spoilage.

• The current ratio of the firm is good but Sangam Dairy management should take immediate steps so that there should not be further decrease in the ratio.

• For the last two years the quick ratio of Sangam Dairy is declining so it is better to maintain more quick assets.

• Absolute liquid ratio of the Sangam Dairy is good; this position has to be maintained in future also.

• The inventory turnover ratio levels are also good which confirms that Sangam Dairy is efficiently using the inventory for production purpose.

• The gross profit position of Sangam Dairy is good, whereas its net profit ratio is fluctuating because of operating expenses so it is better to manage judiciously.

• The selling and distribution expenses are increasing so necessary measures should be undertaken with proper care to reduce those expenses.

• Even though there is an increase in Return on Capital in 2007-08 it is decreasing which shows that returns on the capital employed is not up to the mark which needs proper care.