



“Strategies to increase profitability of dairy processing units “

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India is the largest producer of milk with around 133 Million MT of milk production in 2013. This milk is produced at around 75 million dairy farms with captive holding of two cows per farm with an average yield of around 1000 liters per day. Out of this almost half of the milk is consumed at the production level and balance comes to the market for direct sales and processing. The ratio of unorganized to organized sector in milk procurement and trading is 60:40.

If we compute it on daily basis then around 18 crore liters of milk comes to the market daily out of which around 11 crore is handled by unorganized and 7 crore liters to the organized sector. Cooperatives and government dairies process close to 45 % of it and 55 % is being handled by the private sector as per latest media reports.

The milk coming to organized sector is processed in close to 1400 dairy processing plants with an installed capacity of close to almost 13.5 crore liters per day. The average capacity utilization is around 60 % in the organized sector's plant. The processing capacity in India is growing at a high rate of 20-25 % in last 3-4 years. There have been both inorganic and organic growth being considered by the investors from India and abroad.

While the milk production is growing at slightly above 4.5 %, the demand is showing slightly edge over it at around 6 %. Now the market is becoming conscious about the quality of milk and ready to pay more for better quality and varieties of packed milk and milk products . The competition is becoming fierce and gone are the days when the processors were minting high value on basic products like pasteurized milk in poly-packs. With Food safety laws becoming more stringent and covering cover cold chain also, the overheads of all the dairies on supply chain from farm to table is moving north.

In this context let us explore the ways in which the profitability of processing plants could be improved. I would like to suggest the following strategies to improve profitability in processing plant.

- A. Establishment of own milk procurement through VLC and latest technologies for maintaining high quality of milk across the supply chain.
- B. Modular designs of plants in terms of milk processing and utilities.
- C. Use of heat exchanging technologies for maximum energy recoveries.



- D. Better production scheduling to avoid rerun of process for product making and standardization.
- E. Use of automatic milk heating system for indigeneous milk products like dahi, panir, rasogolla etc so as to reduce costs.
- F. Developing more and more variants in different packaging of milk products so as to add value and provide convenience and reduce discontent of consumers.
- G. Planning CIP systems with recycling of chemicals as well as recirculation of water.
- H. Setting targets for better recovery in all the products by using appropriate technologies say for panir, cheese etc.
- I. Finding ways of recovery from whey, butter milk, ghee residues etc.
- J. Maintaining the plant and machineries to avoid breakdowns and reduce idle hours.
- K. Maintaining packaging machineries so as to limit the packaging loss.
- L. Creating a system of recording energy consumption both at Motor control center level specific to respective sections of the dairy plant.
- M. Developing a robust recording systems for all processing and utility parameters and control all parameters through close monitoring.
- N. Set standard temperatures for processing and emphasize more on controlling finished quality through high quality raw milk rather than by elevating the processing temperatures, say in pasteurization.
- O. Use of allowed chemicals to effect better recoveries in fermented and coagulated milk products.
- P. For larger plants selection of technology in utilities for low cost of power through turbine, HVAC, AAS etc as well as selection of low cost fuel with local availability.
- Q. Avoiding any kind of leakages in pipes or any other machine as saving losses is the simplest route to added profitability.

Dairy operations are cross functional and ownership of profitability needs to be taken up by everyone.

These are indicative strategies only but for long run a separate council or team should be formed in the organization which only looks after cost management through performance improvements at all levels of production. This team might comprise of one member each from cost accounting, quality control, production, maintenance , marketing and procurement.