CHAPTER VII

An Overview

Synopsis

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- Availability of raw material
- Efficacy of manufacturing processes
- Costs of fluid milk and milk products
- Efficiency of marketing milk and milk products

Summing up
Evolution and Growth

Dairy co-operatives have existed in India since 1913, mostly collecting and selling raw milk to local consumers. The first milk co-operative started in Gujarat was the Choryasi Taluka Co-operative Milk Marketing Society registered on 23-12-1939 in Surat. However, the real large scale and systematic breakthrough of the dairy co-operative movement took place in 1946, when the Kaira District Co-operative Milk Producers' Union Ltd., Anand was formed on 14-12-1946. The dairy industry in India was far more organised by the end of June, 1960 than a few years ago, which is no small way, was due to the creation of the co-operative structure by the milk producers themselves to handle production and marketing responsibilities.

The co-operative dairy industry in Gujarat could show a remarkable progress after the coming up of the separate State of Gujarat in May, 1960, when there were seven district co-operative milk unions and with the addition of three in 1964-65, one in 1970-71, 1972-73 and in 1973-74 and three in 1974-75, their strength reached to eighteen by June, 1975. With no addition to it till June, 1980, eighteen unions continued to
operate as on that date, of which eight had their own dairy plants operated by them and the plants of three unions were under construction. The installed processing capacity of these unions rose from 9,76,000 litres/day in 1970-71 to 20,28,000 litres/day at the end of June, 1980, and it is projected to be of 27,00,000 litres/day by the end of the Sixth Five Year Plan. The quantity of milk handled by these dairies during 1979-80, was 17.32 lakh litres/day and it is expected to rise upto 20,00 lakh litres/day by the end of the Sixth Five Year Plan. Over years they diversified their manufacturing activities and, during 1972-89, they, in addition to fluid milk of varied types, manufactured milk products worth Rs. eight crore. The co-operative dairy industry of Gujarat continued to be a model example for the growth and development of dairy industry elsewhere in the country.

Profitability Level

A clear idea regarding profitability trends of the DDCs in Gujarat can be had mainly from the return earned by them on different kinds of capital employed and the relation of net profit/net loss as a percentage of sales, as analytically discussed in Chapter II. Measuring, with any of the yard sticks applied earlier in this work the profit earning capacities of the
Co-operative dairy of Gujarat and its constituting unions possessing dairy plants, witnessed substantial improvement over the years but their profit earning capacities were quite low even during the year 1979-80, as evidenced from the data in regard to the ratios of net profit to net worth of the DDCs from 1960-61 to 1979-80 presented in Table VII.1. As against the net profit as percentage of net worth of 2.19 of the comparative dairy industry during 1979-80, these ratios of the Kaira, the Ahmedabad, the Baroda, the Bharuch, the Surat, the Mehsana, the Sabarkantha, the Banaskantha, the Rajkot, the Gandhinagar, the Bulsar and the Panchmahals, were 2.09, 2.49, 1.59, 1.15, 1.68, 2.99, 4.66, 2.29, -5.50, -27.32 and -2.11 respectively.

Factors Influencing Profitability

Number of factors interact at a time which generate favourable or adverse effect on the level of profitability.

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1. Of all the financial ratios in regard to the investment of funds used in the present work for ascertaining the levels of profitability of the DDCs in Gujarat, a comparative picture of the ratio of net profit/net worth is presented to indicate the levels of profitability of the industry and the individual unions as the ratio of net profit as percentage of the paid-up capital shows inflationary rate of return on the owners’ paid up capital invested since the net profit available to the paid up capital includes the earnings on the retained profits too, while the ratio of net profit as percentage of total capital employed indicates depressed rate of return on total capital employed, because the interest paid/payable on the borrowed capital dilutes the net profit available to total capital employed during a particular financial year for working out the ratio.
The profitability of DDCs in Gujarat was affected positively or adversely mainly by the interplay of such factors as availability of main raw material, production process, costs and marketing of milk and milk products.

Availability of raw material: It is one of the key factors affecting profitability of DDCs. The milk procurement should be at such a level that the plant capacity is utilised at the optimal level. To overcome the barrier of under-utilisation of capacity intensive efforts to procure more milk, specially during lean season, should be made. The Chairman of the Kaira Union has accepted this view and has candidly stated in the Annual Report of the Union for the year 1979-80 that "There is a wide gap between lean and flush season milk procurement which affects the utilisation of our plant capacity in lean season. Looking to the investment in assets and fixed costs, drop in milk collection in lean season affects our economy to a great extent during this period and in view of this, societies are requested to take all possible steps to increase milk collection in lean season." It is extremely important to minimise the seasonal fluctuations, which is one of the most dominant factors affecting the availability of milk to the dairy plants. The

policies and programmes of the district unions should aim at minimizing the seasonal fluctuations in milk collection as well as increasing the total supply of milk to the dairy plants.

In order to increase the milk supply to dairy plants, intensive and well-guided efforts are required to strengthen the primary milk co-operative societies and improve their viability by increasing the milk collection per society. The responsibility of promoting the primary societies should be entrusted to a team of specially trained persons with experience in the field of co-operative organisation. Action plans should be initiated to make more milk available per animal, per producer-supplier, per village society and per collection centre in a planned and phased manner with time-bound programmes.

Remunerative and incentive-oriented milk procurement prices should be fixed for lean as well as flush seasons keeping in view the normal expectation of the milk producers and the paying capacity of the milk consumers. If necessary, a phasing out subsidy system be introduced.

Intensive and integrated efforts should be made to enhance milk production and productivity of milk animals in the milk shed areas of the dairy plants. Animal health
and cattle development programmes should be encouraged and efforts should be made to provide technical inputs for milk production enhancement at the lowest possible cost. Policy decisions of the DDCs and other organisations and authorities concerned or associated with the co-operative dairy industry in Gujarat should ensure all efforts for substantial rise of milk production and milk yield of the milk animals in the milk shed areas of Gujarat.

There existed a wide disparity between the flush and the lean seasons supplies of milk to DDCs owing to the operation of the natural seasonal cycle of buffalo calving. The installation of any modern dairy plant has to be planned to deal with the anticipated daily flows and through puts during the peak flush periods. In the case of all the DDCs under study, while the summer months throughout witnessed serious downsizing in varying measures, during the flush seasons there were upswings in supplies which frequently required overstraining of existing capacities.

In addition to the normal intra-year seasonal wet-and-dry period cycle of the buffaloes, sometimes a peculiar phase of low-calving milk yielding in the wet periods, as experienced by the Kaira Union in 1969-70, has its adverse impact. The draughts, famines, torrential
rains and floods, which have unfortunately been repetitive with us, result in (a) heavy losses of milk stocks, (b) shortages of grass and other feeds, (c) animal diseases which greatly shrunk milk assembly because of low collectable surpluses and/or unpliant leads, and (d) low plant capacity utilisation.

Efforts should be made to enhance milk production through intensive and extensive steps in the areas of (i) better animal breeding (ii) improved animal nutrition, (iii) better animal care and hygiene and (iv) extension services. Such steps as genetic improvement, extending quality insemination, increasing the numbers of milch animals kept by the members, ensuring regularity in calving and reducing the span between two successive calvings, would cover (i) increased production and supply of green and dry fodder, concentrates and balanced feeds, improved feeding practices, supply of adequate pure drinking water, would be the main measures under (ii)

While provision of sanitary conditions and living space, stalls and sheds, protection against diseases, vagaries nature like excessive heat, cold, rains, timely and regular veterinary services would cover (iii), progressive improvement in the general quality of the stocks and milk, buffalo productivity, collectable milk surpluses and more even stable supplies of milk to the dairy plants would be the chief items to be planned under (iv).
The dairy plant capacity creation and the fluid milk flow capacity organisation should be undertaken simultaneously in terms of time-scheduling integration. Rapid surveys of under-developed and distant villages having milk potential should be made and preliminaries be completed for the promotion of new primary co-operative societies for milk assembly and transportation at a short notice. Intensification of milk procurement per primary co-operative society should start as soon as a plant gets commissioned (a) through the collection of larger lots per existing milk producer-member and (b) through the enlistment of new members.

In the short run, the problem of under-utilisation or unutilisation of installed capacities versus abnormal surplus flows of raw milk in different periods can be dealt with in one or more of the following three ways: (1) Temporarily low-restricted acceptance or non-acceptance of raw-milk from the milk producer members may be enforced. However, this is a negative approach, and may be enforced in extremely critical situation, because it inflicts heavy losses on the milk producer members and creates antagonism against the co-operative moment. (2) Available plant capacities can be over worked, if it is a question of temporary over supply of fluid milk, (3) Inter-union
milk flow grids can be established. The Kaira Union has pioneered multi-directional chain steps that have produced what is known as the Anil Model. The Mehasana Union, the Bareeda Union, the Sisam Union, the Sabarkantha Union, the Banasakantha Union and other unions have been following the example through individual and collective action. It should be replicated elsewhere to obtain the integrated optimal utilisation of plant capacities elsewhere in the dairy industry of our country.

Efficacy of manufacturing processes: Dairy being mainly a processing industry, and like availability of raw-material, the efficacy of the processes involved in manufacturing fluid milk and milk products affects profitability of the dairy plants. Raw milk has to undergo different processes before it reaches the final consumers in the form of either liquid milk or any other milk products. The DDCs of Gujarat manufacture different kinds of milk products in varying quantities. The main products manufactured are Butter, Ghee, Baby Food, Skim milk powder and Cheese.

Establishing control on handling losses during different dairy operations would have positive direct effect on efficiency of the processes and the costs involved therein. Handling losses in dairy operations
are influenced by a variety of forces and their interplay. A vigilant dairy plant operation would require systematic checking of the flow of milk solids from section to section. Most of the dairy plants, however, do not have adequate facilities for measuring or weighing milk while passing through from one operation to another. There should be provision for recording of weights at every stage of processing, which will enable the dairy plant operators to pin-point and control operational losses. Management could work out appropriate checks and counter-checks to maintain control on materials under process and improve their handling at every stage of production.

Efficient and smooth production process with minimum interruptions on account of machinery or service break down would ensure maximum production at minimum cost. This would contribute to increasing the revenues of the plant and thereby improving the profitability of the unit as a whole.

Effective production process would help keeping down the losses at the minimum level, decrease the supervision expenses and smoothen the production. Plant operation requires coordinated working and proper checking of various operations. Service units, which are
generally in the background should be properly maintained and given full attention. For maintenance of production standards and for overall improvement in the performance of plant operation, it is necessary that control instruments are properly serviced and maintained. Fuller coordination between production, maintenance and engineering sections of a dairy plant should be ensured for high standard production processes. Every milk union should attain optimum efficiency in the operations of its dairy plant in order to eliminate/prevent avoidable losses and minimise the unavoidable ones.

Costs of fluid milk and milk products: Another important factor that affects the profitability of DDCs in Gujarat is the total costs of the products manufactured by them. The survival and growth of any business enterprise is dependent on the continuous positive difference between the total costs incurred and revenue realised during each financial year. Continued upswing trend of different elements of the total cost affects the net realisation of a DDC adversely and thereby its profitability.

The constituents of costs of milk and milk products of DDCs of Gujarat comprise (i) milk purchase
and procurement cost; (ii) salaries and wages cost; (iii) fuel and electricity cost; (iv) laboratory, processing and packaging cost; (v) repairs and maintenance cost; (vi) depreciation on fixed assets, (vii) marketing cost; (viii) interest charges, (ix) research and development cost including extension, and (x) other administrative costs.

Raw milk is the main raw-material for milk and milk products, therefore, milk purchase and procurement is the major and the largest element of cost in their total cost. As discussed in Chapter III on availability of raw material, the DDCs of Gujarat do not 'purchase' milk. But, they make efforts to ensure that the milk producers get the best possible remunera-tive price for their produce. Thus, they in no case can economise on 'milk purchase' front. On the contrary, they are under continual heavy and strained pressures from their affiliates and milk producer-members for upswing of prices of raw milk. If a business enterprise can procure the main raw material of the best available quality at the lowest possible price, the possibilities of reducing cost and thereby improving its profitability levels are not only bright but are positively promising.
The purchase-prices paid by the DDCs during 1961-62 to 1979-80 varied from unit to unit. The non-observance of maintaining uniformity in purchase-prices of raw milk often (i) provided the basis to the milk producer members of the VCMPCs receiving low prices for milk for agitations and/or undue pressures on concerned unions for price-rises, (ii) generated heart-burning among such milk producer-members, and (iii) lowered down the profitability-levels of the unions that offered higher purchase-prices of raw milk, which on thorough examination of projections presented in Tables VII.2 to VII.5, would reveal as follows:

(i) The Kaira Union could have saved Rs. 9.03 lakh by way of reduction in milk procurement price during the year 1975-76 and would have earned net profit of Rs. 33.88 lakh. Consequently, its net return on capital employed during the year 1975-76 would have been 3.96 per cent instead of 2.91 per cent.

(ii) The Mehsana Union during the years 1976-77, 1977-78, 1978-79 and 1979-80 could have saved Rs. 37.71 lakh, 160.69 lakh, 72.37 lakh and Rs. 14.48 lakh respectively in milk purchase cost and would have earned net profit of Rs. 47.98 lakh,
191.26 lakh, Rs. 87.40 lakh and Rs. 28.49 lakh respectively with the result that its net return on capital employed would have been + 9.74 per cent, + 36.27 per cent, + 12.94 per cent and + 3.75 per cent (instead of + 2.08 per cent, + 1.97 per cent, + 2.22 per cent and + 1.85 per cent) respectively.

(iii) The Baroda Union during the years 1975-76, 1976-77, 1977-78, 1978-79 and 1979-80 could have saved Rs. 11.95 lakh, 19.05 lakh, 53.07 lakh, 10.91 lakh and 3.55 lakh in milk purchase cost, and would have earned net profit of Rs. 15.51 lakh, 24.84 lakh, 57.41 lakh, 13.46 lakh and 6.13 lakh in milk purchase cost, respectively and consequently its net return on capital employed would have been + 17.21 per cent, + 19.56 per cent, + 32.17 per cent, + 5.07 per cent and + 1.63 per cent (instead of + 3.72 per cent, + 4.56 per cent, + 2.43 per cent, + 0.96 per cent and + 0.77 per cent) respectively.

and should have earned net profit of Rs. 22.58 lakh, 40.01 lakh, 66.79 lakh, 39.55 lakh and 49.81 lakh respectively, andresultantly its net return in capital employed would have been + 8.72 per cent, + 13.58 per cent, + 17.58 per cent, + 8.15 per cent and 9.55 per cent, (instead of + 3.15 per cent, + 3.89 per cent, + 3.92 per cent, + 3.28 per cent and 3.06 per cent) respectively.

The Banaskantha Union during the years 1975-76, 1976-77, 1977-78, 1978-79 and 1979-80 could have saved Rs. 3.52 lakh, 14.76 lakh, 46.47 lakh, 9.42 lakh and 6.33 lakh in milk purchase cost and would have earned net profit of Rs. 5.62 lakh, 17.67 lakh, 50.51 lakh, 14.73 lakh and 10.54 lakh respectively. So that its net return on capital employed would have been + 3.05 per cent, + 15.18 per cent, + 15.18 per cent, + 3.63 per cent and 2.88 per cent (instead of + 1.14 per cent, + 1.54 per cent, + 1.26 per cent, + 1.31 per cent and 1.15 per cent respectively).

Raw milk is produced in hundreds of villages by milk producers, collected through the VCMPSs and
transported to the dairy plants of the concerned milk unions for processing. All the DDCs in Gujarat have arranged to get raw milk collected by their primaries to their plants through the vehicles hired by them on contract basis. Milk transportation cost can be significantly reduced by efficient planning and scheduling of milk routes. If necessary the collection routes may be realigned in order to reduce collection costs. The unions have experienced that hiring of vehicles not only reduces the cost of milk transportation but also helps in speedy transportation of milk. For ensuring all possible economy in the cost of transportation on contract, such conditions as follows be inserted in the agreements with the transport-contractors: (i) transport contractors adhere to the time-schedules, (ii) they quote the rates on 'milk route basis', (iii) rates are quoted on 365 days-basis. While deciding the milk routes such factors as (i) the approachability of the society, (ii) the volume of the milk to be hauled, and (iii) the time-schedules should be seriously thought of. Effective steps should be taken for controlling sourage of milk and its wastes during collection and processing by following comprehensive and well-integrated approach suggested earlier.
In view of processing demands for higher salaries, more and more amenities and facilities, rising trends of the inflationary pressures, there are practically no possibilities of either freezing or cutt-
ing-down the costs on wages and salaries. The planned and concerted steps regarding improving the employee-
productivity to reduce per-unit labour cost is the only alternative left with the DDCs to economise on this front.

For reducing the cost of fuel and electricity, economy in the use of steam, electricity and water requires to be enforced rigorously on the following lines : (a) steam economy through (i) prevention of the escape of heat, (ii) reduction of the work to be done, and (iii) utilisation of the heat over again. (b) Electricity economy through arresting wastages of electricity (i) by avoiding unnecessary use of light, (ii) by eliminating idle running of electric motors before and after the needed function and (iii) by stopping functioning of conveyors when not in operation. (c) water economy through (i) adapting conservation policy, (ii) avoiding excessive rinsing of equipment, floor etc., (iii) having hose with an automatic shut off valve, and (iv) reuse of water.
The rising trend of laboratory, processing and packaging costs needs to be arrested by economic use of chemicals, avoiding wastages and proper handling of equipments and processing machinery. The incidence of packaging cost has been increasing because of rise in basic packaging material cost; however, economic purchase of packaging material would help in reducing the packaging cost. The government also help the industry in reduction of packaging cost by lightening the burden of multiple taxes on packaging materials. The district unions should actively think of alternative packaging materials in view of enormous increase in the cost of tin plate and the associated problems encountered during storage and transhipment. Packaging of dairy milk products requires more diversification. Use of new materials and introduction of new packaging concepts like form, fill and pack would go a long way in extending the product profile and improving the market potential. Processes for utilisation of milk by-products should be developed for commercial exploitation. Undertaking of regular research studies on improving production processes, storage life, flavour and taste of various traditional milk food delicacies and their packaging and the use of these studies in decision making would go a long way in affecting cost reduction.
In the context of our economy and Government policies, the dairy plants installed by the BDCs in Gujarat can be said to be modern and sophisticated. But involvement of continuous operations of such plants, needs regular repairs and maintenance. Proper care at the time of purchasing machinery and equipments, operation, maintenance and repairs of machinery and equipment by well qualified and trained personnel, and creation of an independent engineering services department for regular and preventive maintenance, would reduce the rate of accidents and machine break downs, which would ultimately reduce the cost of repairs and maintenance.

The BDCs have invested sizeable amounts of their funds in fixed assets like land, plant and machinery, factory buildings, office buildings, roads, water works, drainage, staff quarters and other civil works. They follow the straight line method of charging depreciation on fixed assets keeping in view the provisions of our Income Tax Act. The percentage share of depreciation cost in the total cost of dairy products has been very negligible. However, reduction of depreciation burden for cutting down the total cost of milk and milk products is not advisable in view of its long term financial implications on the units.
Though the percentage share of marketing cost in the total cost of the dairy products of the co-operative dairy industry of Gujarat was significantly low, it varied from union to union. The formation of the GCMMF has definitely reduced the unhealthy internal competition amongst the member unions and, therefore, the DDCs which have so far not affiliated to this federation should do so and take advantage of the joint effort of marketing their products, which may help them in cutting down their marketing cost.

The percentage share of the borrowed capital in the total capital of the co-operative dairy industry of Gujarat was around fifty seven per cent in the year 1976-79, which differed from union to union. The DDCs of Gujarat can reduce the burden of the interest cost in two ways: (i) by reducing the amount of borrowed funds, and (ii) by getting borrowed funds at lowest possible rate of interest and a liberal terms and conditions. The amount of borrowed funds may be reduced by increasing the share of their own funds by one or more of such ways as: (a) by getting share capital from members, (b) by ploughing back of profits to the maximum extent, and (c) by exercising strict financial control.
Research, development and extension activities are very vital to the rapid development of Co-operative Dairy Industry of Gujarat and therefore, expenditure on them should be regarded as secret investment. With the growth of DDCs, these activities would need further expansion and progressive strength, which would necessitate more and more capital inputs and, hence, there are no possibilities of exercising any economy on this front. On the contrary, their share in the total cost would go on rising.

The percentage share of other administrative cost in the total cost of dairy products of the DDCs in Gujarat was below 1.0. But most of the items included in it are such that their rates/prices go on increasing year after year and therefore, the possibilities of reducing the actual expenditure on them appear to be rare. However, economy can be exercised through rigorous control on their use.

Efficiency of marketing milk and milk products: One of the important factors affecting the profitability of the DDCs in Gujarat is the marketing of milk and milk products. In a competitive economy, these units which produce acceptable quality goods at the lowest possible unit cost and which fetch higher prices for these products naturally gain strength to improve their
profitability. In view of the availability of the very limited scope for the DDCs in Gujarat to reduce substantially the per unit cost of their dairy products, the possible alternative for improving their profitability may lie in increasing their sales realisations through efficient marketing of their milk and milk products. Thus a properly planned marketing system is a pre-requisite for the operation and profitability of DDCs of Gujarat. A continuous flow of dairy products of acceptable quality, to the ultimate consumer is to be maintained at reasonable price. Strategy to have an enduring business in the competitive market, fetching reasonable margin to the overall turn over of DDCs is to be worked out. The DDCs should keep pace with the growing market demand for milk and milk products and should aim at meeting not only the demands of fluid milk but also of traditional and non-traditional milk products.

The GCMMF has achieved remarkable progress in consolidating its marketing efforts. Its formation has greatly contributed to the growth of co-operative dairies in Gujarat and, particularly in the areas covered by its six member unions - the Kaira, the Mehsana, the Baroda, the Surat, the Sabarkantha and the Banaskantha union - which have been greatly benefitted
by the organised and concerted efforts of the federation.

The DDCs and the GCMMF should make their utmost efforts to improve their realisation by marketing milk and milk products, and changing the product-mix to capture a wider market. The milk producer members of the respective district unions could also try to reduce their cost of milk production by adopting various improved techniques of animal husbandry and dairying.

In the present circumstances, if the DDCs exercise effective control on the marketing cost of their products and raise their sales volumes, they can certainly maintain their level of profitability. Improvement in sales volumes can be brought about by adopting a system of distribution which is readily acceptable to the consumers and at the same time commercially viable. Techno-economic feasibility and consumer acceptance studies concerning processing, packaging and delivery of milk should be taken up by large district unions in collaboration with the NDB, the NRI and other institutes having well developed engineering workshops. Such studies would provide valuable basis for (i) determining suitability of a system, and (ii) facilitating decision making.
The District Co-operative Milk Producers' Unions are basically the federal bodies of the Village Primary Milk Producers' Societies having milk producers as their members. Their primary objective is to develop the marketing facilities for all the milk which its member-societies procure and send to it for sale. It has now been established that the DDCs in Gujarat, by and large, have been successful in providing continuous market to the milk producers for their raw milk and have been able to pay, subject to certain constraints, possible remunerative prices for it. As producers' union they are naturally interested in primarily protecting the interests of the milk producers and paying them possible maximum prices of their raw milk marketed through them. But, these unions convert raw milk into processed fluid milks and milk products which are consumer products, mainly used by urban citizens who are not only very much vocal but also highly organised, especially when they are forced to protect their interest as consumers, and their efforts are often supported by the Government. Thus, the unions have to function in such a dilemmatic situation that, on one hand, they are under continual heavy and strained pressures from milk producers, demanding higher prices
of their milk supply to them (unions), and on the other, the unions cannot arbitrarily raise the prices of fluid milks and milk products, on account of (a) application of the Essential Commodities Act to fluid markets, (b) enforcement of Government Price Control Regulations on dairy products like baby food, (c) prevalence of competitive markets for milk products and (d) mounting resistance from urban consumers of milk products. Therefore, they have very restricted opportunities of (i) reducing cost of raw milk, and (ii) augmenting their sales realisations by raising the prices of milk products.

The DDCs are one of the forms of business organisations and being co-operative in character, their motto has been to ensure maximum service to their members in particular and to the mass in general. This basic approach that sounds philanthropic does not debar them from earning profits but certainly restrains them from the temptation of maximising profits like business enterprises operating in the private sector. However, like other co-operative organisations, the DDCs require to earn such quantum of annual profit as would warrant them to survive and to attain progressive growth.
All the DDCs in Gujarat had not attained the same level of profitability. In fact, the profitability differed from union to union and out of twelve unions, four unions had negative profitability during the year 1979-80. Also, the level of profitability of the co-operative dairy industry in Gujarat during 1979-80 was as low as 2.19 per cent. Such a situation necessitates systematic, integrated and co-ordinated action programme on the part of the milk unions to brighten the picture, as profitability is a very sensitive and comprehensive financial phenomenon, which is highly influenced by even the smallest change in the positive or negative contribution of the minutest part of any activity/function of a DDC. The level of profitability can be raised either by augmenting total revenues or by reducing cost of production, operation and management or by both. In so far as the former is concerned as there are restricted possibilities of raising total revenues by price rises of milk and milk products, total revenue can be raised by (i) changing the product-mix, (ii) capturing wider markets and (iii) improving the overall marketing efficiency. As the cost structure of the dairy products has been very highly dominated by the cost of raw milk, there is very limited scope of bringing about substantial
Reduction in the total cost of dairy products. Thus, the limited areas where possibilities of cost reduction exist should be most advantageously geared and fully exploited by (i) optimal utilisation of plant installed capacities and scarce resources, (ii) exercising economy through imbibing the spirit of cost-consciousness in the managerial and operational personnel, (iii) identifying wastages and controlling them, (iv) raising the level of employee-efficiency, and (v) horizontal integration of DDCs by promoting independent co-operative federal bodies on the lines of GCMIF, in the fields of transportation, packaging, printing and stationery, promotion, guidance and consultancy, research and development, etc., to avoid gaps and overlaps and to exercise utmost economy.