Chapter - 3

BUSINESS - OPERATIONS

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BUSINESS **OPERATIONS**

A study of the fmancial performance of the four unions under review should begin with the perusal of business - operations and progress achieved therein. Given the eost strueture, it is the volume and value of the business operations which determine total revenue, marginal contribution and profit. Therefore. this chapter is addressed to the task of evaluating the grovvth of the business - operations of the four unions under study.

Parameters and Criteria

Collection *and* SaSes

Collection and sale of milk are the most pertinent parameters to be studied. It is volume of collection of milk that determines the seale of subsequent operations. Sales forcast is the basis of the entire budget of the business and therefore, some companies revise estimates of expected sales four or five times a year '. Therefore collection and sales and their growth will be among the yard sticks in the evaluation of the business operations. Another equally important aspect to be considered is the diversification of the business aetivities since it is diversification that determines the operation cycle, stability, profitability and employment opportunities of the business.

Diversification

Diversification of the business operations will be measured in terms of value addition, achieved in the business - operations. Known as net output and net value added by manufacture (NVAM) it is surplus of outpul over input. The study employs the following formula for computation of NVAM. :

NVAM = a - b - d

where a = Value of sales and of closing stock.

b = Value of opening stock and expenditure on purchase of materials.

ci = amount of depreciation.

As shovvn above, NVAM is the surplus of output over inputs and capital consumption. Whereas profitability is the measure of benefits accruing to the owners of the business value-addition (NVAM) is the contribution of the business to national income of the society[2]. Since business is a socio-economic unit its value - addition is a critical aspect of its efficiency-\ As a measure of span of production, it indicates scope for managerial maneuvers aiming at cost-reduction and profit-maximisation. Failure to make profit causes business sickness whereas failure in value addition can be death knell of the business[4]. Naturally the concept of value addition or NVAM has been used in many diagnostic stiiclies\

It is therefore necessary to study the rates of growth in collection, NVAM and sales as they vitally detennine profitability and financial health of the business. This exercise will highlight progress and fluctuations in the three paranieters, and enable us to gauge the level and consistency of the performance of the four unions and assess prospects held by the future for these unions. In a well- managed business with steady growth. overhead cost per litre of milk collected should decrease. It is therefore proposed to relate võlume of collection to total fixed costs of overhead expenses. Overhead eost in this exercise will comprise establishnient expenditure (on salary ete) and depreciation (eost of consumption of fixed assets).

Growth **Rate**

Rate of variations in collection. NVAM and sales can be measured with the help of a variety of statistical tools. Simple and compound growth rates are among the most well-known tools. But they use Data for the base year and final year ignoring the fluctuations during the other years between the base and final years. Geometric mean cannot be used when growth rates are negative in some years, as it has happened in the institutions under study. Harmonic mean is found to be producing misleading results in the form of luige reciprocals ofsmall variations. Therefore, the present exercise relies on application of the following linear equation. :

$$V = C + mx$$

where Y = amount of dependent vari abi e
(quantity of collection/sales / NVAM)

C = Constant

m = Slope of the curve or growth rate

x = independent variable (number of years)

The above formula is often used for forecasting the demand. Võlume of demand in future will depend on the number of years and slope of the curve(m) showing the growth of demand in the past. Thus m denotes the vigor and consistency of the perfomance in the past. Therefore, it (m) has been employed in this section as yardstick of growth in collection, NVAM and sales. Value of m will be supplemented by simple average of annual growth rates in collection, NVAM and sales. If both methods yield different results, value of m will be accepted as more reliable indicator since linear equation covers fluctuations more effectively than simple average and is therefore used for demand-projection. Thus the value of m will be a more reliable measure of the consistency of performance than simple average of the annual growth rates.

Thus growth and efficiency of business - operations are to be studied in tenns rate of growth in collection, NVAM and sales and overhead charges per litre of milk. In view of changes in price - levels and consequent

Table 3.1

Collection of Milk

(litres in millions)

Year	CMU	DMU	SMU	TMU
(1)	(2)	(3)	(4)	(5)
1981-82	12.01	-	22.63	-
1982-83	14.08 (17.23)	-	28.83 (27.39)	-
1983-84	17.40 (23.57)	-	31.40 (8.91)	-
1984-85	17.65 (1.43)	-	32.85 (4.62)	-
1985-86	21.01 (19.03)	-	39.78 (21.10)	-
1986-87	18.50 ((-)11.94)	-	50.00 (25.69)	-
1987-88	19.19 (3.72)	-	49.51 ((-)1.00)	13.29
1988-89	28.29 (47.42)	14.91	57.90 (16.96)	12.70 ((-)4.36)
1989-90	38.71 (36.83)	17.58 (17.90)	70.60 (21.93)	12.0 ((-)5.58)
1990-91	32.54 (15.93)	14.80 ((-)15.81)	63.61 ((-) 9.90)	23.5 (95.80)

Table 3.1 (contd.)

Year (1)	CMU (2)	DMU (3)	SMU (4)	TMU (5)
1991-92	31.64 ((-) 2.76)	14.95 (1.01)	66.20 (4.08)	29.8 (26.80)
1992-93	32.34 (2.21)	15.02 (0.46)	76.10 (14.95)	28.0 ((-)6.16)
1993-94	35.84 (10.82)	16.71 (11.18)	94.91 (24.70)	35.3 (26.07)
1994-95	38.65 (7.84)	-	93.60 ((-)1.36)	42.6 (20.67)
1995-96	-	-	-	46.9 (10.09)
Simple mean of annual growth rates	13.18	3.08	13.83	20.42
Value of `m`	2.08	0.04	5.44	4.59

Note : Figures in paranthesis represent annual growth rates in percentage.

Source : Records of the four unions.

variations in the value of money, data on NVAM and overhead charges have been deflated to the price level of 1981-82 with the help whole sale price index with 1981-82 as base year.

Collection

Particulars of the quantity of milk collected by the four unions and tvvo measures of growth rates viz value of m and average of annual growth rates can be found in Table 3.1. The four unions havc been ranked by the both standards as shown below.

Ranking in Collection according to

Value of m	average of annual growth rates
SMU (5.44)	TMU (20.42)
TMU(4.59)	SMU (13.83)
CMU (2.08)	CMU (13.18)
DMU (0.04)	DMU (3.08)

As already noted value of m covers fluctuations more effectively than the average of annual growth rates. Therefore, the value of m is more reliable than the average of the growth rates. Whereas SMU gets the first place by m value, TMU gets the top place by the average of growth rates. However CMU and DMU get third and fourth place respectively by both the measures.

Production of milk in Tarnil Nadu rose from 2 million toimes in 1984-85 to 3.7 million toimes in 1994-95 registering an average annual growth rate of 2.86 percent and value of m at 0.08^{6}. By the standard of average annual growth rate all the four unions registered a higher growth rate in collection than the state and by value of m, DMU alone posted a lower growth rate.

Data on the share of co-operative unions in the total production of milk in the area of jurisdiction can be found in Table 3.2. Whereas the vvhole state is the area of jurisdiction for all the 17 unions. Coimbatore. Dindigul. Salem and Tiruchirapalli districts are the areas of jurisdiction for CMU. DMU.SMU and TMU respectively. Between 1988-89 and 1992-93. collection in all the 17 unions in the state rose by 15.56 percent .while collection in the four unions under study grew by 14.29 percent in CMU, 0.74 percent in DMU, 31.43 percent in SMU and 41.73 percent in TMU. Thus DMU has fallen far behind the state average while CMU has nearly matched the state average and SMU and TMU performed farbetter.

Particulars, furnished in Table 3.2 also enable us to evaluate the peifonnance of the four unions by the standard of the share of the unions in the total production of milk in the area of their jurisdiction. All the 17 unions in Tamilnadu raised their share in total production of milk in Tamilnadu from 13.8 percent in 1988-89 to 15.2 percent in 1992-93. Only

Table 3.2

Production of Milk and Share of Collection by the Unions

	Area / Union	Total production of milk (in thousands of metric tonnes) in	
		1988-1989	1992-1993
1.	Coimbatore District (CMU)	213 (12.8%)	189 (16.9%)
2.	Dindigul District (DMU)	145 (10.4%)	153 (9.8%)
3.	Salem District (SMU)	246 (23.2%)	335 (22.1%)
4.	Tiruchirapalli District (TMU)	299 (4.0%)	361 (7.5%)
5.	Tamil Nadu (All 17 Unions)	3238 (13.8%)	3468 (15.2%)

Note : Figures in paranthesis in col.2 and 3 represent percentage of collection of milk by the unions as indicated in paranthesis in Col.1

Source : Annual Administrative Reports of the Registrar of Cooperative Societies Government of Tamil Nadu, Madras.

SMU had a higher share than the state average in both years. Though CMU remained behind in 1988-89 it improved its share above the state average in 1992-93. Even though the share of TMU was less than the state average in both years, it neaiiy doubled its share in 5 years and from 1992-93 it further raised collection by 67.5 percent in the next 3 years (vide Table 3.1). Only in the case of DMU tlie share of collection in the total production of milk in Dindigul district declined in 1992-93.

Three nomis viz the growth rate of production of milk in Tamil Nadu grovvth rate of collection of milk by all the 17 co-operative unions in Tamil Nadu and the share of their collection in the total production of milk were used for the evaluation of the perforrnance of the four unions in the collection of milk. Three unions CMU, SMU and TMU perfonned well. Though the share of collection in TMU in the total production of Tiruchirapalli District was lower than that of all the unions in the state the uni on has effected fast improvement in its collection. Only DMU recorded a poor performance by all the three standards.

Overhead Cost

A business enjoying steady growth and profitability reduces overhead cost per unit of output over a period of time. Particulars of overhead cost per litre of collection in the price level of 1981-82 are fumished in Table

Table 3.3

Overhead Charges per Litre of Milk Collected *

(Rs. in the price level of 1981-82)

Year	CMU	DMU	SMU	TMU
	Rs.	Rs.	Rs.	Rs.
(1)	(2)	(3)	(4)	(5)
1981-82	0.20	-	0.11	-
1982-83	0.25	-	0.12	-
1983-84	0.21	-	0.14	-
1984-85	0.21	-	0.51	-
1985-86	0.19	-	0.44	-
1986-87	0.19	-	0.35	-
1987-88	0.30	-	0.27	0.23
1988-89	0.27	0.17	0.27	0.25
1989-90	0.19	0.20	0.20	0.36
1990-91	0.21	0.25	0.20	0.26
1991-92	0.18	0.25	0.17	0.18
1992-93	0.21	0.24	0.15	0.20
1993-94	0.21	0.23	0.15	0.17
1994-95	0.21	-	-	-

* Overhead charges in the table comprise expenditure on salary, establishment and depreciation ie. costs of indirect labour and capital - consumption.

Source : Audited statements of the final accounts of the four unions.

3.3. Overhead in Table 3.3 covers two major items of indirect eost viz, indirect labour eost and depreciation. The surn of these two items were deflated to the price level of 1981-82 and divided by the quantity of collection. Of the four unions under study, TMU with its fast growth in collection reduced overhead eost per litre considerably despite the fact that the share of its collection in the total prodüction of milk in the district remained lovv. Though SMU reduced overhead per litre substantially from 1985-86 onwards the eost per litre in 1993-94 was higher than what obtained in 1981-82 and 1982-83. Similarly, CMU should try to reduce overhead cosl per litre in order to match its best performances in 1991-92. The declining and stagnani trends in collection by DMU has resulted in contiiuious inerease in eost per litre.

Therefore, all the four unions should improve the quantity of collection, thougli for different reasons - TMU forraising its share in the prodüction of milk in the district, CMU and SMU for regaiiiing their best perfonnance of the past and DMU for its very survival.

Measures for Improving Collection

At present the cooperative sector covers only about 15 percent of the total prodüction of milk in the state. Therefore, there is considerable scope

for increasing the collection of milk by the cooperative organisations and this requires loyal cooperation of the milk-producers. The milk-producers have tvvo complaints against the cooperatives about price and delay in disbursenient. According to them the cooperative sector is more sympatlietic to consumers who are largely urban based tlian to the rural producers while fixing the price of milk. That between 1983-84 and 1993-94 the whole sale price index rosc by 1.33 tiine as against 1.11 time rise in the price paid by the unions lends some credance to this complaint[7]. Hence the need for renmnerative price. Hovvever, the producers are more concerned about the delay in payment. Most of the unions make disbursenient once in a week as in the case ofCMU, SMU and TMU while DMU makes disbursenient once in a fortmght. Often a part of the payment is vvith lield by the unions. Sucli delay in fLI 11 settlement causes problems to the prhnary cooperatives vvhich are to organise collection of milk. The delay in disbursenient has resulted in large amounts of sundry creditors in the unions and it will be further diseussed in chapter-5. Timely full settlement of dues is essential for improving the collection of milk.

Though the above problems are cornmon to all the unions they are particularly pertiiient in explainingthe dismal performance of DMU. Besides foitnightly disbursenient, DMU is blamed for withholding as much as one third of the dues. Another problem of DMU is the competition from the strong private imorganised dairy sector especially in places like Nilakottai

and Ottanchatharam. As a restilt the number of active village level cooperatives decreased from 298 in 1990-91 to 248 in 1994-95. Their average daily collection too declaimed from 49,951 liters to 42,682 liters during this period. More damaging was the development of their own distribution to the exclusion of DMU, caused by delay in settlement of the bills*. Therefore DMU has to take special steps to improve its administrative practice, especially in settlement of bills, win the confidence of the cooperatives and inspire them to greater efforts in collection and supply to tlie union.

NVAM

Particulars of value of NVAM in the four unions under study are furnished in Table 3.4. By both the scales of value of m and annual average of growth rates, SMU tops the list followed by CMU, TMU and DMU. Except DMU. the other three unions posted higher growth rates in diversification than in collection suggesting that the three unions (CMU, SMU and TMU) were more successful in value-addition than in collection. If this were the case, a significant increase in NVAM in a year should be either proceeded by a substaiitial rise in collection, or followed by a fail in sale of liquid milk. But variations in collection, NVAM and sale of liquid milk (vide Tables 3.1, 3.4 and 3.5) do not confirm the assumption of higher growth rate of diversification. For instance, a sharp increase in the value of

Table 3.4

Net Value Added by Manufacture (NVAM)

(Rs. in millions)

Year	NVAM in the price level of 1981-82			
	CMU	DMU	SMU	TMU
	Rs.	Rs.	Rs.	Rs.
(1)	(2)	(3)	(4)	(5)
1981-82	6.67	-	0.54	-
1982-83	10.63	-	2.16	-
	(59.25)		(294.87)	
1983-84	13.76	-	4.97	-
	(29.47)		(130.42)	
1984-85	13.17	-	7.13	-
	((-) 4.27)		(43.48)	
1985-86	17.19	-	0.70	-
	(30.49)		((-)90.04)	
1986-87	28.15	-	16.11	-
	(63.77)		(216.90)	
1987-88	24.18	-	17.91	13.31
	((-)14.08)		(11.15)	

Table 3.4 (contd.)

Year	NVAM in the price level of 1981-82			
	CMU	DMU	SMU	TMU
	Rs.	Rs.	Rs.	Rs.
(1)	(2)	(3)	(4)	(5)
1988-89	21.89	5.18	27.43	13.65
	((-) 9.48)		(53.18)	(2.63)
1989-90	24.07	5.88	31.79	11.02
	(9.93)	(13.59)	(15.89)	((-)19.32)
1990-91	25.92	5.16	24.78	14.37
	(7.68)	((-)12.40)	((-)22.04)	(30.42)
1991-92	24.56	4.57	32.77	12.07
	((-) 5.24)	((-)11.33)	(32.25)	((-)16.03)
1992-93	26.18	4.61	33.55	13.61
	(6.62)	(0.83)	(2.37)	(12.82)
1993-94	32.02	3.97	31.33	17.49
	(23.32)	((-)13.64)	((-) 6.63)	(28.45)
1994-95	33.39	-	-	-
	(4.27)			
Simple mean of annual growth rates	14.34	(-)3.83	52.45	5.57
Value of 'm'	17.63	(-)2.98	31.81	5.56

Note : Figures in paranthesis represent annual growth rate in percentage.

Source : Audited statements of the final accounts of the four unions.

NVAM in SMU from 1982-83 to 1984-85 occurued along with gradual rise in collection and sale of liquid milk. In CMU, a significant increase in NVAM in 1986-87 and 1992-93 coincided with a fail and meager rise respectively in collection without any compensating change in sales. Therefore. higher growth rates of NVAM should be attributed rather to the purchase of milk products from the other unions than to diversification.

As already noted in Chapter-1 the scope for diversification and vai ae addition is limited, given the style and standard of living in India. Therefore. an expansion of mark et for the milk products should emanate from the new consumers of liquid milk. Hence the need for increase in collection and sale of liquid milk.

Sales

Data on the sale of liquid milk in the four unions under study are fumished in Table 3.5. By the standard of average of annual growth rates CMU gets the first ränk, followed by SMU, TMU and DMU. By the seale of value of m which is more reliable, SMU gets the first place followed by TMU, CMU and DMU. Thus DMU gets the last place in both scales. Growth rates are found to be higher in collection (Table 3.1) than in sales in all the four unions. Comparison with Table 3.1 shows that sales fell short of collection significantly in 1984-85, 1988-89 and in 1 990-91 in CMU and

Table 3.5

Sale of Milk

(Liters in Millions)

Year (1)	CMU (2)	DMU (3)	SMU (4)	TMU (5)
1981-82	11.93	-	21.90	-
1982-83	13.34 (11.81)	-	27.74 (26.67)	-
1983-84	17.15 (28.56)	-	29.93 (7.93)	-
1984-85	10.44 ((-)39.12)	-	34.31 (14.63)	-
1985-86	20.97 (100.86)	-	41.61 (21.28)	-
1986-87	15.75 (24.89)	-	47.10 (13.22)	-
1987-88	20.94 (32.95)	-	48.01 (1.91)	13.29
1988-89	22.11 (5.58)	14.88	55.30 (15.20)	12.72 ((-) 4.20)

Table 3.5 (contd.)

Year (1)	CMU (2)	DMU (3)	SMU (4)	TMU (5)
1989-90	23.68	17.55	69.81	12.62
	(7.10)	(17.94)	(26.22)	((-) 0.78)
1990-91	26.94	14.77	61.91	14.58
	(13.76)	((-)15.84)	((-)11.31)	(15.53)
1991-92	27.32	14.10	65.50	14.89
	(1.41)	((-) 4.53)	(5.81)	(2.11)
1992-93	29.46	14.0	73.51	14.71
	(7.83)	((-) 0.70)	(12.21)	((-) 1.20)
1993-94	30.71	13.9	94.22	15.62
	(4.24)	((-) 0.71)	(28.16)	(6.18)
1994-95	33.41	-	91.91	16.48
	(8.79)		((-) 2.44)	(5.50)
1995-96	-	-	-	18.75
				(13.77)
Simple mean of annual growth rates	7.43 16.00	(-)0.77	12.26	4.62
Value of 'm'	0.16	(-)0.46	5.33	0.65

Note : Figures in paranthesis represent annual growth rates in percentage.

Source : Records of the [illegible]

from 1990-91 onwards in TMU without compensating changes in NVAM (Table 3.4) Su cli short fail of retail sales vvas not very significant in the other tvvo unions. Wlien retail sales fail to absorb the collection. the unions resort to bulk sales to the other unions and federation. Such bulk sales involve sharing of profit märgin between the buyer union federation and seller union. Thus bulk sales reduces the märgin of profit of the selling unions.

Measures for Expansion of Market

If collection of milk is to be increased for the reduction of overhead eost per litre and improvement of profitability there should be measures for corresponding inerease in the sales also. At present, these unions largely confine themselves to the consumers in the headquarters of the respective unions and to some extent to the consumers in other municipalities in addition to some of the institutional consumers like hostels. hospitals and prisons. With the rising scientific temper among the people because of rising levels of literacy and burgeoning media services like T.V. there is a growing awareness of the malpractices of the iinorganised dairy sector. Taking advantage of this emerging situation. the unions should enlarge their existing markets in municipalities and institutional consumers and penetiate into new markets in small towns like town panchayats and major village panchayats which have growing discemible consumers. When unions

succeed in collection of milk, supply of milk available to the private traders will come dovvn weakening their competetive provvess in the mark et for milk.

Conclusion

All the four unions have to increase collection - TIVIU to raise its share in production of milk, CMU and SMU for reduction of overliead cost per li tre and improvement of profit and DMU for ensuring its very existenee. Renuinerative price and timely payment are essential for raising the level of collection. The unions have to improve their administrative praetice for reducing delay in payments. In vievv of the given pattem of consumption in the country. dominated by the liquid milk, scope for value addition is limited. Any increase in demand for milk products like butter and ghee shoLild come from new consumers of liquid milk.

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