

TO STUDY THE PRODUCTIVITY ASPECT OF MILKFED AND HDDCF: A COMPARATIVE STUDY

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ABSTRACT

Cooperative as formal associations came to be set up in India from 1904 mainly as credit societies, followed by non – credit societies from 1912. Cooperatives are based on the cooperative values of “self – help, self – responsibility, democracy and equality, equity and solidarity”. Modern dairy industry plays a vital role in maintaining and promoting the health of the people. The dairy cooperatives are one of the largest and most important of food industries. Earlier, the dairy farming was basically a domestic economic unit. It was carried out at the household level for producing milk for home consumption. Now the dairy industry has an important place among the agriculture industries of most countries. It has a strategic role in ensuring food and nutritional security, income and employment generation and in balancing in rural inequity. As per March 2010, 6 unions of VITA are operating in Haryana and 11 unions of VERKA are operating in Punjab. The purpose of study is to examine the productivity of MILKFED and HDDCF for the period 2005-06 to 2009-10. Further, the data has been analyzed with the help of percentages, compound growth rate, mean, ratio analysis. The study found that the MILKFED is better than HDDCF.

KEYWORDS: *Democracy, Productivity, Consumption*

INTRODUCTION

The cooperative movement in India owes its origin to agriculture and allied sectors. Towards the end of the 19th century, the problems of rural indebtedness and the consequent conditions of farmers created an environment for the chit funds and cooperative societies. The farmers generally found the cooperative movement an attractive mechanism for pooling their meager resources for solving common problems relating to credit, supplies of inputs and marketing of agricultural produce. The experience gained in the working of cooperatives led to the enactment of Cooperative Credit Societies Act, 1904

The Punjab State Cooperative Milk Producers’ Federation Limited popularly known as MILKFED Punjab, came into existence in 1973 with a twin objective of providing remunerative milk market to the Milk Producers in the State by value addition and marketing of produce on one hand and to provide technical inputs to the milk producers for enhancement of milk production on the other hand.

Although the federation was registered much earlier, but it came to real self in the year 1983 when all the milk plants of the erstwhile Punjab Dairy Development Corporation Limited were handed over to Cooperative sector and the entire State was covered under Operation Flood to give the farmers a better deal and our valued customers better products. The setup of the organization is a three tier system: Milk Producers Cooperative Societies at the village level, Milk Unions at District level, Federation as an Apex Body at State level. [1]

List of Punjab milk cooperatives

Apart from Milkfed, some of the other dairy cooperatives in Punjab are mentioned below. These are:

- Hoshiarpur Dist Coop Milk Producers' Union Ltd, Hoshiarpur
- Ferozepur Dist Coop Milk Producers' Union Ltd, Ferozepur
- Gurdaspur Dist Coop Milk Producers' Union Ltd, Gurdaspur
- Ludhiana Dist Coop Milk Producers' Union Ltd, Ludhiana
- Bathinda Dist Coop Milk Producers' Union Ltd, Bathinda
- Amritsar Dist Coop Milk Producers' Union Ltd, Amritsar
- Doaba Coop Milk Producers' Union Ltd, Jalandhar
- Patiala Dist Coop Milk Producers' Union Ltd, Patiala
- Faridkot Dist Coop Milk Producers' Union Ltd, Faridkot
- Ropar Dist Coop Milk Producers' Union Ltd, Mohali
- Sangrur Dist Coop Milk Producers' Union Ltd, Sangrur

Haryana Dairy Development Cooperative Federation Ltd was established on April 1st, 1977. It is registered under the Haryana Co-operative Societies Act. Haryana Dairy Development Cooperative Federation Ltd. produces a wide range of products such as ghee, flavored milk, paneer, milk cake and table butter. The products of Haryana Dairy Development Cooperative Federation Ltd. are sold in the market under the brand name Vita.

The main aim of Haryana Dairy Development Cooperative Federation Ltd. is to encourage the economic interests of the producers of milk in the state of Haryana especially of those that belong to the poor sections of the society. The Haryana Dairy Development Cooperative Federation Ltd. is involved in buying and processing milk making various kinds of milk products and then selling it.

Haryana Dairy Development Cooperative Federation Ltd., in order to fulfill its aim has set up milk plants and it has also marketed its milk products under the brand name Vita. Haryana Dairy Development Cooperative Federation Ltd makes sure that the quality of its products is of high standard and this is the reason that it procures milk from Societies of Dairy Cooperative only. Further it makes sure that the milk is transported as soon as possible in sterilized and clean milk cans to chilling plants and centers.

These Unions either process milk at their own level or pass the same to the milk plants of other milk unions for processing. They also organize new Primary Milk Societies at the village level. A brief matrix of the Milk Unions is as follows: [2]

DAIRY COOPERATIVES IN HARYANA

1. Ambala Dist Coop Milk Producers' Union Ltd, Ambala
2. Gurgaon & Rohtak Coop Milk Producers' Union Ltd, Rohtak
3. Hisar & Jind Coop Milk Producers' Union Ltd, Jind
4. Kurukshetra & Karnal Coop Milk Producers' Union Ltd, Kurukshetra
5. Sirsa Dist Coop Milk Producers' Union Ltd, Sirsa
6. Ballabgarh Dist coop Milk producer's union Ltd, Ballabgarh

THREE TIER SYSTEM

Dairy cooperatives in Haryana function on three tier basis: Societies at village level, Milk Union at District level, State Dairy federation

NEED OF THE STUDY

Modern dairy industry plays a vital role in maintaining and promoting the health of the people. The dairy cooperatives are one of the largest and most important of food industries. Earlier, the dairy farming was basically a domestic economic unit. It was carried out at the household level for producing milk for home consumption. Now the dairy industry has an important place among the agriculture industries of most countries. It has a strategic role in ensuring food and nutritional security, income and employment generation and in balancing in rural inequity. India's milk output has not only placed the industry first in world, but also represents sustained growth in the availability of milk & milk products. As per March 2010, 6 unions of VITA are operating in Haryana and 11 unions of VERKA are operating in Punjab. Various studies relating to the customers perception regarding milk products have been found but no specific study has been found on the performance of milk cooperatives in India. So the present study entitled "Productivity of Milk Cooperatives: A Comparative Study of MILKFED and HDDCF has been designed. [3]

OBJECTIVES OF THE STUDY

The main objectives of the study are:

1. To study the dairy cooperatives in Punjab and Haryana.
2. To measure the plant wise productivity of MILKFED and HDDCF.
3. To measure the union wise productivity of MILKFED and HDDCF.
4. To compare the productivity of MILKFED and HDDCF
5. To give suggestions thereof.

RESEARCH METHODOLOGY

The study covers two dairy cooperatives in India. The Cooperatives are selected from the two different states. One is MILKFED in Punjab and HDDCF in Haryana state. It compares productivity of both the dairy cooperatives for the period from 2005-06 to 2009-10. The study is based on secondary data that has been collected through annual reports of MILKFED and HDDCF, articles published in reputed journals and newspapers and various websites relating to dairy cooperatives. The study pertains to the period from 2005-06 to 2009-10. The data has been analyzed by calculating various ratios to examine the productivity of MILKFED and HDDCF for the period from 2005-06 to 2009-10. Further, the data has been analyzed with the help of percentages, compound growth rate, mean, ratio analysis. The productivity of the dairy cooperatives has been analyzed on the basis of various indicators such as Procurement of milk per plant, Peak procurement of milk per plant, Sales per plant, Net profit per plant, Interest earned per plant, Total income per plant, Total expenditure per plant, Total expenditure per plant, Procurement of milk per union, Peak procurement of milk per union, Sales per union, Net profit per union, Total income per union, Total expenditure per union.

Plant Productivity:

In dairy co-operatives, the raw milk received from the farmers is processed at the Dairy Plants. The dairy plants do the processing in order to purify the milk received and also to extend its marketable life. As on March 2011, there were 10 milk plants run by MILKFED in Punjab and 5 milk plants run by HDDCF in Haryana, where the milk processing activities are undertaken. Thus, the output per unit of plant may refer to plant productivity. The plant productivity has been determined on the basis of selected parameters like Procurement of milk per plant, Peak procurement of milk per plant, Sales per plant, Total income per plant, Total expenditure per plant and Net profit per plant.

Procurement of Milk per Plant

The milk procurement per plant represents the ratio of total milk procured in lac litres per day (llpd) by the total number of plants. The milk procurement per plant has been calculated by dividing the total milk procured during the period of study by the number of milk plants. The higher value of milk procurement per plant shows higher level of plant productivity. Milk procurement per plant by MILKFED and HDDCF during the period 2005-06 to 2009-10 is shown in table 1.1.

TABLE 1.1: PROCUREMENT OF MILK PER PLANT

Year	MILKFED (llpd)	Percentage Change	HDDCF (llpd)	Percentage change
2005-06	78,200	--	80,400	--
2006-07	77,800	-0.51	92,000	14.42
2007-08	82,100	5.23	1,02,800	11.73
2008-09	92,100	10.85	1,08,000	5.08
2009-10	94,900	2.95	1,04,400	-3.33
MEAN	85,020		97,520	
CGR	3.95		5.36	

(Source: calculated from the Annual Reports of the institutions for the period 2005-06 to 2009-10)

The table 1.1 reveals that the procurement of milk per plant in MILKFED increased from 78,200 llpd in 2005-06 to 94,900 llpd in 2009-10 and registered a growth rate of 3.95 per cent over the period. The milk procurement per plant declined in the year 2006-07 by 0.51 per cent may be due to reduction in functional societies in that year. However, the milk procurement per plant was higher in HDDCF as compared to MILKFED throughout the period of study. In HDDCF the milk procurement per plant increased from 80400 llpd in 2005-06 to 104400 llpd in 2009-10 and thus registered a higher growth rate of 5.36 per cent during the period. In HDDCF, the milk procurement per plant has shown an increasing trend over the period of study but it was increasing at a decreasing rate. The annual growth rate of milk procurement per plant in HDDCF was 14.42 per cent in 2006-07, and was negative (-3.33 per cent) in the year 2009-10 due to low sale of ghee, butter and low procurement of milk in that year. Further, the mean value of milk procurement of per plant was higher in HDDCF (97520) llpd as compared to MILKFED (85020) llpd during the period of study.

Peak Procurement of Milk per Plant

The peak procurement of milk per plant represents the ratio of total milk procured during peak season i.e. monsoon season in lac litres per day (llpd) by the total number of plants. The peak procurement of milk per plant is obtained by dividing peak procurement of milk by the number of milk plants. The higher value of peak milk procurement per plant represents higher level of plant productivity. The peak milk procurement per plant by MILKFED and HDDCF during the period 2005-06 to 2009-10 is shown in table 1.2.

TABLE 1.2: PEAK PROCUREMENT OF MILK PER PLANT

YEAR	MILKFED (LLPD)	Percentage Change	HDDCF (LLPD)	Percentage Change
2005-06	1,13,700	---	1,35,000	----
2006-07	1,14,700	0.88	1,56,000	15.55
2007-08	1,23,900	8.02	1,77,000	13.55
2008-09	1,41,300	14.00	1,89,000	6.66
2009-10	1,48,800	5.33	1,68,000	-10.00
MEAN	1,28,480		1,65,000	
CGR	5.53		4.57	

(Source: calculated from the Annual Reports of the institutions for the period 2005-06 to 2009-10)

The table 1.2 depicts that the mean value of peak procurement of milk per plant was higher in HDDCF (165000 llpd) as compared to that in MILKFED (128480 llpd) during the study period. The peak procurement of milk per plant in MILKFED increased from 113700 llpd in 2005-06 to 148000 llpd in 2009-10 and registered a growth rate of 5.53 per cent during the period. The annual growth rate was highest (14%) per cent in 2008-09 and was lower (5.33%) in the year 2009-10. The Peak procurement of milk per plant in HDDCF showed an increasing trend till 2008-09 but it was increasing at decreasing rate. In 2006-07 the annual growth rate was 15.55 per cent but the same was lower (6.66) per cent in 2008-09 Further, the annual growth rate was negative (-10%) in the year 2009-10 and this may be due to low sale of ghee, butter and low procurement of milk in that year. Thus, the analysis indicates that the level of peak procurement of milk was higher in HDDCF as compared to that in MILKFED throughout the period of study,

whereas the growth rate of same was higher in MILKFED (5.53%) than that in HDDCF (4.57%) during the period of study.

Sales per Plant

The sales per plant show the ratio of total value of sales in rupees by the total number of plants. The higher value of sales per plant indicates higher level of plant productivity. Table 1.3 shows the sales per plant in MILKFED and HDDCF during the period 2005-06 to 2009-10.

TABLE 1.3 : SALES PER PLANT

YEAR	MILKFED (Rs. In lac)	Percentage Change	HDDCF (Rs. in lac)	Percentage Change
2005-06	690	-	13.58	-
2006-07	850	23.18	16.63	22.45
2007-08	1031	21.29	21.87	31.51
2008-09	1059	2.77	31.01	41.79
2009-10	1372	29.55	16.36	- 47.24
MEAN	1000.57		19.89	
CGR	14.74		3.80	

(Source: calculated from the Annual Reports of the institutions for the period 2005-06 to 2009-10)

The table 1.3 reveals that the mean value of sales per plant was higher in MILKFED (Rs. 1000.56 lac) as compared to that in HDDCF (Rs.19.89 lac). In MILKFED, the sales per plant increased from Rs. 690 lac in 2005-06 to Rs. 1372 lac in 2009-10 and registered a growth of 14.74 per cent during the period. The annual growth rate was the highest (29.55%) in the year 2009-10. Sales per plant in HDDCF increased from Rs.13.58 lac in 2005-06 to Rs. 31.01 lac in 2008-09 and then declined to Rs.16.36 lac in 2009-10 due to low sale of ghee and butter, low procurement of milk in that year, and registered a growth rate was 3.80 per cent during the period of study. The, the annual growth rate of sales per plant in HDDCF was the highest (41.79%) in the year 2008-09 and the same was negative (-47.24%) in the year 2009-10. Thus, the average value and growth of sale per plant was higher in MILKFED than that in HDDCF during the period of study.

Total Income per Plant

The total income per plant shows the proportionate share of total income earned per plants. Total income per plant has been calculated by dividing the total income earned during the period of study by number of milk plants. The higher value of total income per plant represents higher level of plant productivity. The total income per plant in MILKFED and HDDCF during the period 2005-06 to 2009-10 is shown in table 1.4.

TABLE 1.4: TOTAL INCOME PER PLANT

YEAR	MILKFED (Rs. In lac)	Percentage change	HDDCF (Rs. in lac)	Percentage change
2005-06	801.01	—	123.00	—
2006-07	994.50	24.15	159.00	29.26
2007-08	1189.80	19.63	183.80	15.59

2008-09	1237.10	3.97	222.60	21.11
2009-10	1674.09	35.32	205.00	-7.90
MEAN	1177		178.68	
CGR	15.75		10.76	

(Source: calculated from the Annual Reports of the institutions for the period 2005-06 to 2009-10)

The table 1.4 reveals that the mean value of total income per plant was higher in MILKFED (Rs. 1177 lac) as compared to that in HDDCF (Rs. 178.68 lac). It is clear from the table that the total income per plant in MILKFED showed an increasing trend throughout the period of study. The total income per plant increased from Rs. 801.10 lac in 2005-06 to Rs.1674.09 lac in 2009-10 and registered a growth rate of 15.75 per cent during the period. The annual growth rate was lowest (3.97%) in the year 2008-09 and the highest in (35.32%) 2009-10. In HDDCF, the total income per plant increased from Rs. 123 lac in 2005-06 to Rs. 222.6 lac in 2008-09 and then declined to Rs. 205 lac in 2009-10, and the growth rate was 10.76 per cent during the study period. The annual growth rate was 29.26 per cent in 2005-06 and declined to 7.90 percent in 2009-10 due to low sale of ghee, butter and low procurement of milk. Thus, the analysis indicates that the total income per plant and its growth rate was higher in MILKFED as compared to that in HDDCF during the study period.

Net Profit per Plant

Net profit represents excess of income over the expenditure during a period. Net profit per plant is obtained by dividing the net profit by the number of milk plants. The higher value of net profit per plant indicates higher level of plant productivity. Table 1.5 shows the net profit per plant in MILKFED and HDDCF during the period 2005-06 to 2009-10.

TABLE 1.5: NET PROFIT PER PLANT

YEAR	MILKFED (Rs. in lac)	Percentage change	HDDCF (Rs. in lac)	Percentage change
2005-06	45.56	—	62.88	—
2006-07	49.61	8.88	88.32	40.61
2007-08	26.55	- 46.48	101.87	15.34
2008-09	55.81	110	132.16	29.73
2009-10	181.21	224.69	112.52	-14.86
MEAN	71.73		99.53	
CGR	31.80		12.37	

(Source: calculated from the Annual Reports of the institutions for the period 2005-06 to 2009-10)

The table 1.5 shows that the mean value of net profit per plant is higher in HDDCF (Rs. 99.53 lac) as compared to that in MILKFED (Rs. 71.73 lac). In MILKFED, the net profit per plant increased from Rs.45.56 lac in 2005-06 to Rs. 49.61 lac in 2006-07 and then declined to Rs. 26.55 lac in 2007-08 due to high packing material expenses, selling and distribution expenses, production expenses and financial expenses. The profit per plant in MILKFED was Rs. 181.21 lac in the year 2009-10 and the growth rate was 31.80 per cent during the period of study. Thus, the annual growth rate was negative (-46.48%) in the year 2007-08 and the same was highest

(224.69%) in the year 2009-10. In HDDCF, the net profit per plant increased from Rs. 62.88 lac in 2005-06 to Rs. 132.16 lac in 2008-09 and then decreased to Rs. 112.52 lacs in 2009-10 may be due to reduction in number of functional societies, avg. milk procured per day, peak milk procurement, low sale of milk and ghee in that year. Thus, the average value of profit per plant was lower in MILKFED (Rs.71.73 lac) as compared to that in HDDCF (Rs.99.53), while the growth rate regarding the same was higher in MILKFED (31.80%) than that in HDDCF (12.37%).

Union Productivity:

The unions either process milk at their own level or pass the same to the milk plants of other milk unions for processing. They also organize new Primary Milk Societies at the village level. The union productivity has been determined on the basis of selected parameters like Procurement of milk per union, Peak procurement of milk per union, Sales per union, Net profit per union, interest earned per union, Total income per union, Total expenditure per union.

Procurement of Milk per Union

The milk procurement per union represents the ratio of total milk procured in lac litres per day (llpd) by the total number of unions. The milk procurement per union has been calculated by dividing the total milk procured during the period of study by number of milk unions. The higher value of milk procurement per union shows higher level of union productivity. The milk procurement per union by MILKFED and HDDCF during the period 2005-06 to 2009-10 is shown in table 1.6.

TABLE 1.6: PROCUREMENT OF MILK PER UNION IN MILKFED AND HDDCF

YEAR	MILKFED (llpd)	Percentage change	HDDCF (llpd)	Percentage change
2005-06	71090	—	67000	—
2006-07	70727	-.51	76666	14.42
2007-08	74636	5.52	85666	11.73
2008-09	83727	12.18	90000	5.01
2009-10	86272	3.04	87000	-3.33
MEAN	77290		81266	
CGR	3.95		5.36	

(Source: calculated from the Annual Reports of the institutions for the period 2005-06 to 2009-10)

The table 1.6 explains that the mean value of procurement of milk per union was higher in HDDCF (81,2,66 llpd) as compared to that in MILKFED (77290llpd). The procurement of milk per union in MILKFED increased from 71090 llpd in 2005-06 to 86272 llpd in 2009-10 and registered a growth of 3.95 per cent over the period. The annual growth rate was negative (-0.51%) in the year 2005-06 may be due to reduction in functional societies, low avg. daily procurement of milk and less handling capacity utilized. The procurement of milk per union in HDDCF increased from 67000 llpd in 2005-06 to 90000 llpd in 2008-09 and then declined to Rs. 87000 and registered a relatively higher growth rate 5.36 per cent during the period of study. The annual growth rate in HDDCF was negative (-3.33%) in the year 2009-10 may be due to low sale of ghee, butter and low procurement of milk in that year. Thus, the level and growth of milk

procurement per union was higher in HDDCF as compared that in MILKFED during the study period.

Peak Procurement of Milk per Union

The peak procurement of milk per union represents the ratio of total milk procured during monsoon season in lac litres per day (llpd) by the total number of unions. The higher value of peak milk procurement per union represents higher level of union productivity. The peak milk procurement per union by MILKFED and HDDCF during the period 2005-06 to 2009-10 is shown in table 1.7

TABLE 1.7: PEAK PROCUREMENT OF MILK PER UNION IN MILKFED AND HDDCF

YEAR	MILKFED (llpd)	Percentage change	HDDCF (llpd)	Percentage change
2005-06	103363	—	112500	—
2006-07	104272	.87	130000	15.55
2007-08	112636	8	143500	10.38
2008-09	128454	14	157500	9.75
2009-10	135272	5	140666	-10.68
MEAN	116799		136833	
CGR	5.53		4.57	

(Source: calculated from the Annual Reports of the institutions for the period 2005-06 to 2009-10)

The table 1.7 shows that the mean value of peak procurement of milk per union was higher in HDDCF (136833 llpd) in 2005-06 as compared to that in MILKFED (116799 llpd) in 2009-10. The peak procurement of milk per union in MILKFED showed an increasing trend through out the period of study. The peak procurement of milk per union in MILKFED increased from 103363 llpd in 2005-06 to 135272 llpd in the year 2009-10 and registered a growth of 5.53 per cent during the period. The peak procurement of milk per union in HDDCF registered a growth of 4.57 per cent during the period of study.

Sales per Union

The sales per society show the ratio of total value of sales in rupees by the total number of societies. The higher value of sales per society indicates higher level of society productivity. Table 1.8 shows the sales per society in MILKFED and HDDCF during the period 2005-06 to 2009-10.

TABLE 1.8: SALES PER UNION IN MILKFED AND HDDCF

YEAR	MILKFED (Rs. in lac)	Percentage change	HDDCF (Rs. in lac)	Percentage change
2005-06	689.91	—	11.32	—
2006-07	850.03	23.20	13.85	22.34
2007-08	1031.21	21.31	18.16	31
2008-09	1059.51	2.74	25	38
2009-10	1372.26	29.51	13.51	-45.96

MEAN	1000.57		16.36	
CGR	12.85		3.59	

(Source: calculated from the Annual Reports of the institutions for the period 2005-06 to 2009-10)

The table 1.8 shows that the mean value of sales per union was higher in MILKFED (Rs. 1000.57 lac) as compared to that in HDDDCF (Rs. 16.36 lac). The sales per union showed an increasing trend over the period of study. In MILKFED, the sales per union increased from Rs.689.91 lac in 2005-06 to Rs.1372.26 lac in the year 2009-10 and registered growth of 12.85 per cent during the period of study. The sale per union was relatively lower in HDDDCF, the mean value was Rs. 16.36 lac and the growth rate was also lower (3.59%) during the period of study.

Total Income per Union

The total income per union shows the proportionate share of total income earned per union. Total income per union has been calculated by dividing the total income earned during the period of study by no. of milk unions. The higher value of total income per union represents higher level of union's productivity. The total income per union by MILKFED and HDDDCF during the period 2005-06 to 2009-10 is shown in table 1.9

TABLE 1.9: TOTAL INCOME PER UNION IN MILKFED AND HDDDCF

YEAR	MILKFED (Rs. in lac)	Percentage change	HDDCF (Rs. in lac)	Percentage change
2005-06	728.19	—	102	—
2006-07	904.10	24	133	30.39
2007-08	1081.66	19.63	153	15.03
2008-09	1124.68	3.97	185.55	21.27
2009-10	1512.81	34.51	170.82	-7.93
MEAN	1070		148.86	
CGR	15.75		10.86	

(Source: calculated from the Annual Reports of the institutions for the period 2005-06 to 2009-10)

The table 1.9 shows that the mean total income per union was higher in MILKFED (Rs. 1070 lac) as compared to that in HDDDCF (Rs. 148.86 lac). The growth of total income per union was also higher in MILKFED (15.75%) as compared to that in HDDDCF (10.86%). The total income per union increased from Rs.728.19 lac to Rs.1512.81 lac during the period 2005-06 to 2009-10 in MILKFED. The annual growth rate was the highest (34.51) per cent in the year 2009-10. The total income per union in HDDDCF was increasing at decreasing rate. The total income per union increased from Rs.102 lac to Rs.185.55 lac during the period 2005-06 to 2008-09 but declined to Rs. 170.82 lac in the year 2009-10. The annual growth rate in HDDDCF was found negative (-7.93%) per cent in the year 2009-10, may be due to low sale of ghee and butter, low procurement of milk in that year.

Net Profit per Union

The net profit refers to excess of total income over the total expenditure in a particular period of time. The net profit per union is obtained by dividing the net profit by number of milk unions.

The higher value of net profit per union indicates higher level of union productivity. Table 1.10 shows the net profit per union in MILKFED and HDDCF during the period 2005-06 to 2009-10.

TABLE 1.10: NET PROFIT PER UNION IN MILKFED AND HDDCF

YEAR	MILKFED (Rs. in lac)	Percentage change	HDDCF (Rs. in lac)	Percentage change
2005-06	41.42	—	52.41	—
2006-07	45.09	8.86	73.62	40.46
2007-08	24.11	-46.52	84.81	15.19
2008-09	50.79	108	110.13	29.85
2009-10	164.78	228	93.77	-14.85
MEAN	65.23		82.94	
CGR	31.81		12.34	

(Source: calculated from the Annual Reports of the institutions for the period 2005-06 to 2009-10)

The table 1.10 reveals that the mean value of net profit per union was higher in HDDCF (Rs. 82.94 lac) as compared to that in MILKFED (Rs. 65.23 lac). However, the growth of net profit per union was higher in MILKFED (31.81%) than that in HDDCF (12.34%).

FINDINGS OF THE STUDY

- The analysis of the plant productivity shows that the mean value of milk procurement of per plant was higher in HDDCF (97520 llpd) as compared to MILKFED (85020 llpd) during the period of study.
- The level of peak procurement of milk was also higher in HDDCF as compared to that in MILKFED throughout the period of study, whereas the growth rate of same was higher in MILKFED (5.53%) than that in HDDCF (4.57%) during the period.
- The average value and growth of sale per plant was higher in MILKFED than that in HDDCF during the period of study. Further, income per plant, expenditure per plant and net profit per plant was higher in MILKFED as compared to that in HDDCF. Therefore, the plant productivity was higher in HDDCF on the basis of physical indicators whereas the plant productivity in MILKFED was higher when financial indicators are taken.
- The analysis of the union productivity depicts that the mean value of milk procurement of per union was higher in HDDCF (81266 llpd) as compared to MILKFED (77290 llpd) during the period of study.
- The level of peak procurement of milk per union was also higher in HDDCF as compared to that in MILKFED throughout the period of study, whereas the average value and growth of sale per union, income per union and expenditure per union was much higher in MILKFED when compared with that in HDDCF during the period of study.
- Further, the value of profit per union was higher in MILKFED (Rs. 164.78) as compared to that in HDDCF (Rs. 93.77 lac) during the year 2009-10. Therefore, the union productivity was higher in HDDCF on the basis of physical indicators whereas the union productivity in MILKFED was higher when financial indicators are taken.

CONCLUSIONS

Thus, the MILKFED and the HDDCF are involved in procurement and processing milk and making various kinds of milk products and then selling it in the states of Punjab and Haryana respectively. The main products manufactured and marketed include milk, butter, ghee, sweets, ice-cream, dahi, paneer, drinking delights etc. The alternative quantities available for various products were large for MILKFED products as compared to that of HDDCF products. However, the milk productivity was found to be higher in case of HDDCF as compared to that of MILKFED. Union wise MILKFED productivity was better than HDDCF but Plant was productivity was better in case of HDDCF.

SUGGESTIONS OF THE STUDY

Following are some suggestions to improve the performance of the milk cooperatives under study.

- It has been observed that the MILKFED and HDDCF have set up their milk booths in urban and semi-urban areas but they have no milk booth in the rural areas. Both the cooperatives should set up Milk Booths/milk bars in rural areas to increase their business. The reason being that some of the products manufactured by them like sweets, ice cream and drinking delights may get high sale in rural areas.
- It was found during the study that both the cooperatives procured less amount of milk during peak season so both the Cooperatives should make efforts for procurement of milk during peak season.
- The study found that MILKFED procured less amount of average daily milk per plant. So, the MILKFED should take steps to increase the average daily procurement of milk plant wise to increase the sale of milk and milk products.

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