

## DISTRIBUTION CHANNELS OF MILK AND THE PROBLEMS ENCOUNTERED BY THE MEMBERS OF PRIMARY DAIRY CO-OPERATIVES IN PONDICHERRY U.T.



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### ABSTRACT

*Milk has been the elixir of life ever since the creation of the world. Milk contains most of the essential nutrients for the maintenance of the physical well-being. It has been a pure, unalloyed and unblemished food of all the mammals. The economic importance of milk is invaluable and fortunately it has been a source of economy more for the people of the peripheral level. It is produced mostly in rural areas and it is distributed to the ultimate consumers in urban areas through effective marketing system. The consumers expect good quality milk at a fair price regularly. The producers want to have more remunerative price for the milk they sell. Here the dairy co-operatives play a major role in satisfying the milk producers as well as the consumers.*

*The aim of this paper is to identify the different channels of distribution followed by the respondents in the distribution of milk and to analyze the problems encountered by them. Data from the producers of milk in the chosen area were collected through a structured interview schedule and the various issues of the respondents are found out and categorized. The various problems encountered by the members of Primary Co-operative societies are found out and categorized. The Garrett's Ranking Technique was applied to assess the categorized different issues of the respondents including the issues relating to marketing of milk. Based on the Mean Scores of sub-issues involved in each category, the impact of different issues is given rank. In this regard, some measures are also suggested to overcome the categorized problems of the respondents.*

**KEY WORDS:** *Distribution Channels, Problems encountered, Primary Dairy Co-operatives, Garrett's Ranking Technique.*

### INTRODUCTION:

Milk is a precious gift of nature to all living beings under the sun. It nourishes our health and tones up the immune system of the body. It is produced mostly in rural areas and is distributed to the ultimate consumers in urban areas through effective marketing system. The consumers expect good quality milk at a fair price regularly. The producers want to have more remunerative price for the milk they sell. The milk produced in the rural areas mostly on a small scale and sold directly to the consumers or to the private milk traders or to the organizations (may be private agencies or co-operatives.) They neither follow the marketing strategy nor the marketing mix which are followed for the finished products or for the industrial products. Milk being perishable in nature, produced in different segments and its sale depends upon different factors, mainly the marketable surplus.

Now a days, there has been so much enthusiasm among the people of the rural India about starting their own individual dairy farms and Pondicherry is not an exception to it. With great deal of mass, Pondicherry the Union Territory has actively engaged in dairy farming as an agro-based occupation. Dairy farming in Pondicherry has developed into an organization with co-operative network being governed by the statues of the Government of Pondicherry as Co-operative Milk Society across the length and breadth of the Union Territory. The people of Pondicherry realized the usefulness of co-operative concepts only after its defacto merger with the Indian Union during 1954. The Pondicherry Co-operative Milk Producers' Union is the first society registered in Pondicherry on 14<sup>th</sup> February, 1955. Gradually many co-operative societies sprang up. Here the dairy co-operatives play a major role in satisfying the milk producers as well as the consumers.

This paper attempts to examine the channels of distribution followed by the members of Primary Dairy co-operative and analyse the constraints faced by the members in the process of milk marketing. While discussing the various problems encountered by the Members of primary dairy co-operatives, the necessary policy implications on the part of the Government and Co-operatives are also highlighted.

#### **Review of Literature**

Indian Dairy sector has made remarkable progress over the last few decades. The Co-operative movement, especially Operation Flood, has been an important driver of this progress and has played an important role in facilitating the participation of small holders in this expanding sector. Despite three decades of co-operative movement in India, however, a large proportion of milk and milk products in India continues to be marketed through the informal or unorganized sector. Although the share of organized markets has steadily increased over the last three decades, the informal sector comprising middlemen, private milk traders and direct sale from producer to consumer, still accounts for nearly 80 per cent of the marketed milk and milk products in the country. Trends indicate that, the informal sector will continue to play its dominant role in milk marketing in the foreseeable future.

Generally, it is revealed from the previous studies that the producers' gets maximum share (80-100 %) when they directly sell to the consumers. However, direct sales are not always possible for small farmers as they are often locked by the middlemen who offer them credit for the purchase of the inputs and animals.

Though India has the largest cattle and buffalo population in the world, more than 67 per cent of dairy animals are owned by marginal and small farmers, which constitute the core milk production sector in the country. Many of these farmers own dairy animals primarily to supply milk for their own consumption. Slightly more than 30 per cent of the milk produced in the country is retained in producer households. Nearly 80 per cent of milk is marketed through the highly fragmented unorganized sector, which includes local milk vendors, wholesalers, retailers and producers themselves. On the other hand, the organized dairy industry which accounts for about 20 per cent of total milk production

comprises two sectors, Government and co-operatives.

The co-operatives though provide a remunerative price to the producer; the unorganized sector plays a major role in milk marketing because of three factors. The First factor is the pricing policy of the co-operatives; their purchase price is based on the fat content of the milk whereas the private sector pays a flat rate per litre of milk. The Second factor, which motivates the milk producers to sell milk to private vendors, involves the type of milk animals reared by the producer. Crossbred cows yield more milk with a lower fat than do buffalo. The crossbred cow population has increased over years because of artificial insemination and improvements in management practices. The Third factor is payment policy. The private sector can pay their producers every day, whereas the co-operatives pay weekly or fortnightly. Producers sometimes have to fight with co-operatives to get their payment.

Even in high milk production areas such as Haryana, sales to marketing agent/middlemen are one of the common disposal mechanisms. At an aggregate, the producers get lowest remuneration when they sell milk to the co-operatives (50 -75 %). For example, in the early 1990's OMFED (Orissa Milk Federation) offered lowest price compared to any other channel in Orissa. The price realized by farmers from informal sector was Rs. 9.50 to Rs. 10.00 per liter, whereas Co-operatives paid between Rs.8.00 and Rs. 8.50. Further the middlemen who bought from them made instant cash payment whereas it took 12-15 days to realize payments from the co-operative system. (Kurup, 2003)

Broadly, the dairy co-operatives, government run milk producing units and large private dairies such as Nestle, Smith Kline, and Heritage are classified as 'Formal' sector whereas village vendors, curd and tea shops, contractors, and small-scale private dairies are classified as 'Informal' segment. Although the share of organized markets has steadily increased over the last four decades, the informal sector still accounts for a very large proportion of marketed milk in the country. It is further estimated that out of 3,700 cities and town in India only around 800 are served by organized milk distribution network. Only 15 per cent of the milk marketed is packed, of which 94 per cent is in pouches. It is evident that not only is the informal sector very large, it is the only channel available to

about 80 per cent of the towns in India ( Indian Dairyman, 2002).

An opinion survey conducted by Sharma (2000) in Andhra Pradesh regarding the consumers' perception and attitude towards the different sources of milk purchase revealed that a majority of the families purchase milk from private vendors due to non-availability of dairy milk within the reasonable distance from the consumers' residence. In this connection, Rajasthan market is little different. 48 per cent of the marketable surplus moves through the unorganized channel within Rajasthan and a further 39 per cent moves to other states through both organized and unorganized channels ( Department of AHU & S, Integrated Sample Survey Report, 2002-03)

**Methodology**

In order to study the problems faced by the Members of Primary Dairy Co-operatives in Pondicherry, data were collected from the producers of milk residing in the villages of Union Territory of Pondicherry which consists of four regions namely Pondicherry, Karaikal, Mahe, and Yanam. Among the four regions, a sample of 300 respondents were selected from two regions, by applying stratified random sampling technique from the primary co-operative milk producers' societies functioning under the control of the Pondicherry Co-operative Milk Producers' Union (PCMPU) in Pondicherry and Karaikal region. Data were collected through a structured interview schedule from the respondents and the issues were found out and categorized.

In the study area it has been observed that some of the respondents are selling milk to other agencies also. So it is felt imperative to discuss and analyze the factors responsible for the distribution of milk by the members to agencies other than the societies.

In this effort, Garrett's Ranking Technique was used to analyze the reasons for selecting the primary dairy co-operative society or other middle men for the distribution of milk by members. The respondents were asked to rank the reasons given. The order of reasons given by the respondents was converted into ranks by using the following formula:

$$100 (R_{ij} - 0.5) / N_j$$

Per cent Position = .....

Where

$R_{ij}$  = Rank given for the  $i$ 'th factor by the  $j$ 'th member/non-member

$N_j$  = Number of factors ranked by  $j$ 'th member/non-member.

The per cent position of each rank thus obtained was converted into scores by referring to the Table given by Garrett. For each factor, the scores of individual respondents were added together and divided by the total number of respondents for whom scores were added and finally based on mean scores ranks were given. These mean scores for all the factors were arranged in descending order and the most important reasons were determined.

**REASONS FOR SELECTING PARTICULAR DISTRIBUTION CHANNEL OF MILK:**

The American Marketing Association has defined, " Channels of distribution as a path traced in the direct or indirect transfer of the title to a product as it moves from a producer to ultimate consumer or industrial user". The marketing of milk from producer to consumer is carried through different channels in the study area. Four channels of distribution of milk by members of the societies have been identified which are explained as follows:

**Channel I**

Producer-> Primary Dairy Co-operative Society -> Pondicherry Co-operative Milk Producers' Union -> Consumers.

**Channel II**

Producer ->Primary Dairy Co-operative Society -> Consumers.

**Channel III**

Producer -> Private Dairy Agency -> Consumers

**Channel IV**

Producer -> Milk Vendor -> Consumers.

**Reasons for selecting the primary Dairy co-operative Society for the Distribution of Milk by Members.**

**Table – 1**  
**Showing the Reasons for Selecting the Primary Dairy Co-operative Society for the Distribution of Milk by Members:**

Sl.No.	Reasons	Mean Score	Rank
1.	Remunerative Price	66.15	I
2.	Loan Facility	60.72	II
3.	Ready Market	51.90	III
4.	Input Services	47.65	IV
			V
			VI
			VII

5.	Incentives for supplying more milk	40.62	VIII
6.	No Middlemen	36.61	
7.	Voting right in the society election	31.42	
8.	Anticipation of future benefits	30.05	

Source: Computed data

It is evident from the Table- 1 that ‘remunerative price’ is the major reason for selecting the society for distribution of milk. It has ranked first with a highest mean score 66.15. The reason like ‘Loan facility’ ranked second with 60.72 mean score. ‘Ready market’ with 51.90 mean score ranked third, ‘Input services’ with 47.65 mean score ranked fourth, ‘incentives for supplying more milk’ ranked fifth with 40.62 mean score, ‘no middlemen’ ranked sixth with 36.61 mean score, ‘voting right in the society election’ ranking seventh with 31.42 mean score and ‘anticipation of future benefits’ occupied the eighth rank with lowest mean score of 30.05.

**Reasons for selecting milk vendor**

The reasons for selecting the milk vendor as middlemen for the distribution of milk by members are shown in Table 2

**Table- 2**

**Showing the reasons selecting Milk Vendor for the distribution of Milk**

Sl.No.	Reasons	Mean Score	Rank
1.	Payment in advance	61.36	I
2.	Timely settlement	50.87	II
3.	Fair Price	49.34	III
4.	Doorstep procurement	48.67	IV
5.	Traditional Practice	47.64	V
6.	Fraudulent practices of other middlemen	45.36	VI

Source :Computed data.

Table -2 shows that among the reasons for selecting milk vendor by the respondents for the distribution of milk, the variable that ‘Payment in advance’ has ranked first with a minimum mean score of 61.36 followed by ‘Timely settlement’ ranking second with a mean score of 50.87, ‘Fair price’ ranking third with

a mean score of 49.34, ‘door step procurement’ ranking the fourth with a mean score of 48.67, ‘traditional practice’ ranking fifth with a mean score of 47.64, and ‘fraudulent practices’ of other middlemen ranking mean score with 45.36 a lowest mean score.

**Reasons for selecting Private Dairy Agency**

Table-3 reveals the reasons for selecting the private dairy agency as middlemen for the distribution of milk.

**Table- 3**

**Showing reasons for selecting Private Dairy Agency for the Distribution of Milk**

Sl.No.	Reasons	Mean Score	Rank
1.	Irregular Visit of societymen	67.72	I
2.	Advance Payment	54.70	II
3.	Only opportunity for distribution of milk	50.32	III
4.	Remote area	47.30	IV
5.	Loan facility	46.72	V
6.	Input Services	41.36	VI
7.	Fair Procurement Price	40.30	VII

Source : Computed data.

It has been observed from the Table-3 that among the reasons for selecting private dairy agency for distribution of milk, the reason namely, ‘Irregular visit of society men to collect milk’ has been ranked the first with a highest mean score of 67.72 followed by ‘Advance payment’ ranking second with a mean score of 54.70. The other reasons like ‘only opportunity for distribution of milk’, (50.32) ‘remote area’ (47.30), ‘loan facility’ (46.72) ‘input services’ (41.36) and ‘fair procurement price’ (40.30) are ranked third to seventh respectively.

**PROBLEMS ENCOUNTERED**

Problems exist in every venture whether they are external and internal. There are many problems encountered by the milk producers in marketing of milk through four different channels of distribution. In order to find out the most important problem of marketing in each channel of distribution, number of problems was identified with the help of the respective households. The respondents were asked

to assign ranks to different problems faced by them in respect of marketing of milk. Finally, the relative importance of each problem was identified in respective channel by using Garrett's ranking technique.

4. Feed related problems
5. Finance related problems
6. Milk-man related problems
7. Maintenance related problems
8. Marketing problems caused by milk vendors
9. Marketing problems caused by private dairy agencies.

The various problems encountered in respect of marketing of milk by the members of Primary Dairy Co-operatives are categorized as follows:

1. Market related problems
2. Distance related problems
3. Delivery related problems

The various problems encountered by the members of the Primary Dairy Co-operatives are categorized and rank given for each sub-issue on the basis of calculated mean score are listed in the following consolidated table:

Sl.No.	Factors	Mean Score	Rank
<b>A. Market Related Problems</b>			
1.	Belated payment	66.36	I
2.	Variations in Quality, Quantity	61.71	II
3.	Unethical practice of Procurement by Societies	58.30	III
4.	Return of procured milk by the society	54.18	IV
5.	Irregular procurement	42.19	V
<b>B. Distance Related Problems</b>			
1.	Change in Quality	68.15	I
2.	Distance between house and society	63.47	II
3.	Decrease in Price	51.92	III
4.	Cost of transportation	47.65	IV
<b>C. Delivery related Problems</b>			
1.	Time lag	68.19	I
2.	Distance	63.72	II
3.	Expenses	56.45	III
4.	Non availability of Society men	49.02	IV
<b>D. Feed Related Problems</b>			
1.	No Subsidy	63.64	I
2.	Cost of Feed	59.85	II
3.	Quality of Feed	53.72	III
4.	Non availability	48.69	IV
5.	Cost variation	41.65	V
<b>E. Finance Related Problems</b>			
1.	Price difference during procurement and payment	69.76	I
2.	Low price for milk	66.30	II
3.	Delayed payment	58.94	III
4.	Insurance Charges	51.82	IV
5.	Limited loan facility	48.91	V
6.	More Formalities	45.00	VI

	<b>F. Milkman related problems</b>		
1.	Cost of Labour	63.15	I
2.	Delayed visit for milking	58.42	II
3.	Irregular visit	49.72	III
4.	Lack of Milking man	41.10	IV
	<b>G. Maintenance Related Problems</b>		
1.	Meadows converted into house sites	70.32	I
2.	Failure of monsoons	65.48	II
3.	Lack of Meadows	61.52	III
4.	Cost of milking	58.39	IV
5.	Low price to cow	46.51	V
6.	Insurance to animals	40.67	VI
	<b>H. Marketing Problems by Milk Vendors</b>		
1.	Not buying the entire quantity of milk	58.70	I
2.	Fraudulent practices in procuring milk	54.34	II
3.	Inconvenient time	43.72	III
4.	No regular procurement	34.63	IV
	<b>I. Marketing Problems caused by Private Dairy</b>		
1.	Agency not buying the entire quantity of milk	62.32	I
2.	No regular procurement	58.86	II
3.	Inconvenient time	50.71	III
4.	Fraudulent practices	47.42	IV

**Source:** Computed Data

#### **PROBLEMS ENCOUNTERED BY MEMBERS OF DAIRY CO-OPERATIVES AND SUGGESTIONS:**

##### **1. Market related problems**

There are many factors which create marketing problems. While marketing the milk, the respondents have viewed that belated payments and variations in quantity and quality of milk, are responsible for price fluctuations (price spread) on most of the occasion, which not only causes inconvenience but also sustainable loss too.

As all the respondents are members of Primary Dairy Co-operative Societies( PDCS), they can even be provided with an advance for investments in cattle farming and reinforcements also in times of financial constraints.

##### **2. Distance related problems**

As the house of farm of the respondents and the society or the selling place are far away in most of the cases resulting in high cost of transportation causes difference in quality which consequently fetches less sales price to producers.

It is suggested that milk procurement from remote villages could be done by van service or any other mode of transportation at the right

time of production. The primary milk societies with the help of the local panchayats can create road access to the centres of milk production and thus help in this regard.

##### **3. Delivery related problems**

Undue delay in getting the milk sold to the users is the major delivery related problem. This delay creates capital loss to respondents in the study area.

In this regard it is suggested to establish small chilling plant units in villages which will help them to overcome this type of risk. The Pondicherry Co-operative Milk Producer's Union (PCMPU) can try to institute such facilities.

##### **4. Feed related problems**

Quality of the feed given to the respondents tells upon the output. The cost of the feed is so high, as far as small and landless members are concerned this results in low margin to them.

The Central and the Government of Pondicherry must take initiatives to manufacture cattle feed with high level of nutrition and hygiene at comparatively low prices to the members of the milk societies through public sector undertakings and proper channel of distribution.

##### **5. Finance related problems**

Every activity involves financial commitment. Among the various finance related factors, price difference during procurement and payment, and low price of milk top in the series of many other related factors.

It is suggested that the Government may take necessary step to fix up a standard price for milk subject to the periodical changes. Liberal loans and advances may be granted to the dairy farmers with a view to relieve them from the indebted as well as the clutches of middlemen.

#### 6. Milkmen and Maintenance related problems

The problems relating to milkmen and the cost of maintenance can be overcome by regularizing the services of these milkmen as monthly paid regular servants of the society. In addition the Government can also permit the cattle herd to pasture in unused public lands wherever it is possible.

7. Other Marketing problems faced by the members of Primary Dairy Co-operatives arise only when there is no regular purchase by the Union (PCMPU). If there is proper procurement of milk by the Union itself at the right time and at the right price without delay, the members will be rightly rewarded at any point of time.

#### General suggestions:

More than 70 per cent of the population inhabit in villages and ensuring financial independence and comfortable living for them is the bounden duty of the Governments as their urban counterparts. When the prospects for agriculture are becoming bleak, the allied agro based activities seem to show rays of hope in the tunnel of darkness. Cattle farming are one of the agro-based occupations which provide adequate income to maintain a family at least with minimum comforts.

Hence, the Government must encourage such activities by all possible means which will bring down the economic imbalance substantially in an egalitarian society. The following suggestions may be earnestly considered for strengthening these agro-based ventures like milk societies.

1. In spite of some developments in milk marketing, milk marketing in India remains grossly primitive compared to its western counterparts. It begins with the largely unregulated sector, which handles

the majority of the milk production, providing ample opportunity for malpractice. Some of the common form of malpractice includes false measurement in selling of milk and adulteration of milk. The Co-operative Societies Act continues to be restrictive rather than enabling, even though the Anand pattern milk Producers' Co-operatives have emerged as the most stunningly effective institutional model for milk marketing.

2. Though Dairy co-operatives provide inputs, animal health care, extension services, and also train the employees of the village and district level co-operative members, the major constraints in milk marketing is the involvement of the unorganized sector. Changing the dairy co-operatives laws and regulations can reduce the unorganized sectors role in milk marketing.

3. Raw milk handling needs to be upgraded in terms of physico-chemical and micro-biological attributes of the milk collected. Strengthening the infrastructure for milk collection, transportation, processing, packaging, pricing, and marketing through dairy co-operatives can also change the minds of the milk producers.

4. Another major impediment to an efficient marketing system is the presence of numerous intermediaries, which take advantage of producers' weakness, Producers bargaining power is also limited because of perishability and bulkiness of milk.

5. Political and bureaucratic interference, delayed payments to the primary producers, and the decision making power of the administrators over marketing of milk and milk products by the district level union and the state level federation also adversely affect the growth of dairy co-operatives.

6. Better operational efficiencies are needed to improve yield, reduce waste, minimize fat and proteins losses during processing, control production cost, save energy, and extend shelf-life.

7. Retrieving the Department of Animal husbandry's mandate from curative to preventive veterinary care, moving delivery of livestock services away from government, a nationwide programme for prevention and control of animal epidemics and creation of disease-free zones will all reduce avoidable production losses, investment risks, and the yield gap; improve output; and will facilitate India's entry into global products market, improving

the quality and viability of the entire Indian dairy industry.

8. Restructuring the Government's legal and regulatory frame work, thus liberating the co-operative movement, will enable milk producers to extensively adopt the proven Anand pattern Producers' co-operative model to manage their assets and business interests.

### CONCLUSION

The Government must initiate steps to manufacture various end products of milk like peadas, pannier, packed curd, quality butter milk which may become sometimes as alternative to other soft drinks in the market in hot countries like ours. Expansion of such industrial activities with milk as the basic ingredients will increase the demand thereby ensures a remunerative price to the milk producers. Milk societies will also come up with potential for generating employment to a large number of people of the villages. When the above said suggestions are carried on and implemented, the members of the milk co-operative societies may get improvement in their status and the standard of living of the general public may also increase in the rural regions.

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