

Pricing Policy of Milk Rajasthan Co-operative Dairy Federation Limited

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ABSTRACT

Dairy farmers are under severe price pressure due to rapid increase in milk demand due to lower production costs in India, as well as the market control of retailers. Agricultural officials and legislative bodies in India are aware of these stresses and have responded in an effort to counter potential excess retail margins for liquid milk with emergency milk farm assistance, following a very low milk price, and with state legislation. We argue in this paper that the demand relationship will explain the asymmetric transition of fluid milk rates, high-low pricing, and the formation of a broad retail margin (chain surplus) frequently observed for fluid milk. It is also suggested that a sigmoid demand partnership creates an incentive for state policymakers to assist Indian dairy farmers across several policy choices to gain a greater share of the market dollar. Therefore, 5 regulatory frameworks of the milk supply channel (status quo, price gouging, and regulation of stocks, fair share strategy, and chain surplus return) are addressed and contrasted. In redistributing the chain surplus associated with the sigmoid demand relationship for fluid milk to dairy farmers, the supply control mechanism was found to be the most successful.

Keywords: Dairy, milk, price discrimination, Co-operative

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1. Introduction

As we all know that we have already deeply involved in market economy. The dairy sector or even cooperative dairying also market driven. The purchase price of milk of any kind is wholly driven by market forces. But a good pricing policy must involve following features: -

- The procurement prices of milk must be well remunerative to member milk producer of the primary dairy co-operative.
- The procurement prices offered by the milk union must be well competitive to the local market.
- The procurement prices offered by the milk union must be based on FAT and SNF.
- The procurement prices must encourage the quality assurances and discourage adulteration and should not be compromised the quality milk products to be available to the consumers.
- Prices should consider the range of quantitative variation in above constituents of milk.

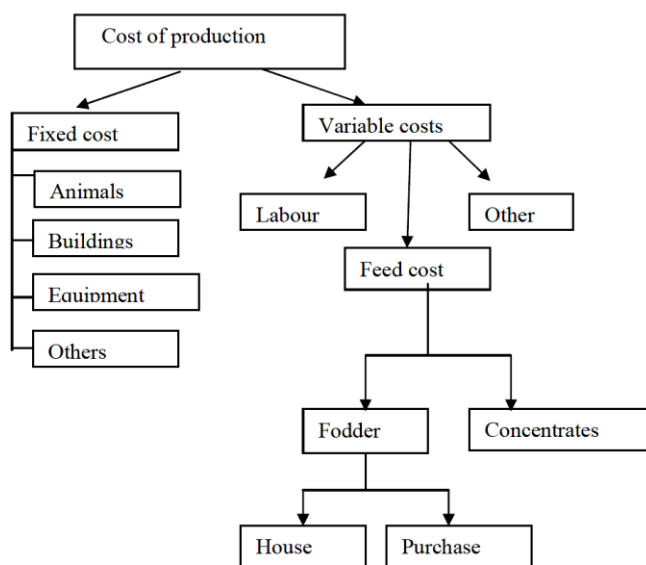
The other matter of pricing such as cost-plus pricing not even introduced in study area.

2. Cost involved in milk pricing:

In this context, we must understand first that the economics of prices involved in dairy industry or even in cooperative industry. Needless to say that various cost factor and margin of milk producer must be the key factor for determination of price of the milk. But it was seen during the study that these factors of pricing and costing is totally ignored even in cooperative dairy industry.

Cost factor involved for milk:-

The various cost factors involve for milk producers consists of following:



- A. **Fixed cost factor:** - These factors have a specific character that these costs do not change the magnitude with the change in output. Fixed cost occurs evenly even then production does not take place. Even in cooperative dairy industry it is seen during the study that huge amount of fixed cost involved for producing the raw milk.
- B. **Variable cost factors:** - Variable cost is the cost which changes proportionately as changes in level of production. We can say that there is a direct relationship in the level of production and total variable cost of milk. Even in cooperative dairy industry it is seen during the study that huge amount of variable cost involved for producing the raw milk.
- C. **Appreciation:** - The appreciation is a most important factor while deciding the cost of production. It represents the value of animals increased. Otherwise it represent the amount by which the total value of farm (dairy) increases its value both in terms of animals and land etc.. so these factors of appreciations may be classified:-
1. Value increased in terms of animals
 2. Value increased in land used for producing milk

These appreciations must be reduced from total gross cost of production as far as cost accounting principle is concern. But it is a debatable question that how the appreciation in all the variables is segregate where land and animals used in several other farm activities. Even above, the appreciation in number of animals must be calculated for deciding the cost of milk.

D. **Profit margin for milk producer as a member of dairy cooperative:-**

An adequate or sufficient margin on cost must be added as a profit margin to the milk producer. It has been seen during the study that under cooperative style of dairying the term “adequate” or “sufficient” is over power by the market forces involved in the sector. During the study it was seen that :-

- i. Cost plus pricing model is not used by dairy union
- ii. There is no role of members in deciding the price of the milk
- iii. Only market forces decides the price of the milk

3. Market forces and pricing policy:

The determination price of milk is always based on cost price and the price paid by the consumer. The cost price of the milk relates to milk producer while price paid by the customer/consumer relates to market forces. This way, the cost of milk to milk producer, and cost of milk to consumer, always a complex issue. Hence, the pricing structure should have some basic following principles:-

- i. Pricing policy must be remunerative to milk producers.
- ii. Pricing policy must be competitive in local milk markets.
- iii. Pricing policy must promote quality assurance.
- iv. Pricing policy must concern about value for money to the consumers/customers.
- v. Pricing policy should be growth oriented to the milk producer.

- vi. Pricing policy should address overall growth of milk markets and further address the government policies.

Thus, it is important to understand that at one hand, pricing policy should look after the milk producer and on the other hand, provide value for money to consumers/customer of milk products. In this context the role of market forces become very important and vital. In India, even in cooperative style of dairying the procurement price of the milk from the milk producer is not decided by the members of primary dairy cooperatives but the same is ultimately based on market parameter rather than costing principles.

4. Variables in milk pricing:-

In this context, two major components of milk considered key variable for determination of milk procurement price, namely:-

- FAT
- SNF (Solid not Fat)

On the basis of two above variables, the following three methods for pricing milk are widely used in Indian milk industry:-

i. Pro-rata Fat Basis of pricing milk:-

In this method of pricing milk is based on pre fixed per kg fat rate. This rate is fixed by milk procurement agency (Milk Unions) on the basis of market situations. The most important feature of this method is involvement of market forces. The cost considerations of producing milk are totally ignored.

The following formula may be used for calculating the price of the milk (procurement price):-

ii. Two-axis Basis of pricing milk:-

The pro rata basis of pricing milk as discussed above does not consider SNF (solid-not-fat) contain of milk. In this context two-axis criteria of pricing milk is widely used. In this method both the two key components of the milk e.g. Fat and SNF are considered for pricing milk. The procurement price of the milk offered by the Milk Unions to the milk producer is based on Fat and SNF both. That's why this method is called Two Axes pricing method.

The following formula may be used for calculating the price of the milk (procurement price):-

$$\text{Price of Kg. Milk} = \text{Kg Fat Rate} \times \text{Fat \%} + \text{Kg SNF Rate} \times \text{SNF \%}$$

iii. Equivalent Fat Unit (EFU) basis of pricing milk:-

This method is widely used for determining the price of milk produced from two different milking animals. In other words base price of buffalo milk on kg Fat percentage basis is declared first and then on this basis the price of the cow milk may be determine.

EFU method is also based on two-axes formula but it has arrived after some little changes. The common factor between two-axes formula and EFU formula of pricing milk is Fat and SNF both will be considered as a key variable for pricing milk.

5. Review of literature

Kumar, S. (2006) Significant development in the livestock sector has been envisaged in recent years, and could be a driving force for the agricultural sector's growth in the coming decades. In addition to its enormous and increasing contribution to the gross domestic product of agriculture and food and nutritional welfare, livestock has the potential to minimize interpersonal economic inequalities, as there is substantial scope to expand its economic and job contributions.

Cunningham, K. (2009) It outlined the importance of flooding operations in India's milk production and noted that India has overcome many infrastructural, consumer and institutional challenges in transforming from a milk importing country to the world's largest producer of both buffalo and goat milk, as well as the sixth largest producer of cow milk.

Reddy, B.P. (2010) Presented the success and development of the Indian dairy sector over the years. The report is focused on secondary data obtained from multiple sources such as NDDB, Govt. Department of Animal Husbandry & Dairying. The study centered on the comparative growth of other countries in the Indian dairy market, GDP growth in the Indian livestock sector, livestock sector growth rate, milk production in India, etc.

Sheela, K.S. and Ramegowda, A. (2013) Women's empowerment by milk cooperatives was evaluated and found that most rural women are engaged in agriculture, animal husbandry, and other ancillary activities. Agricultural revenue has been as unpredictable as the monsoon. Hence, rural citizens were compelled to dream about raising extra income.

6. Objective of the study

The basic intent of the study is to have an overview of Indian Dairy Industry. To understand the problems faced by the dairy sector units, the pros and cons of various issues. The study is carried out to understand the magnitude of the research work carried out in the field and understand the unresolved issues if any that can pave the path for further research in the field.

7. Conclusion

Under the cooperative style of business, the decision making ability vested in members of the cooperative. But it was seen during the study that the government's suggestive letters to milk unions become executive order in respect of pricing of milk. We have asked several questions to our respondents regarding fixing the price of the milk during the study. The same will be discussed in detail in chapter followed but key result remains that the government has the final say in deciding the procurement price of the milk.

The cost considerations involved in producing milk are also ignored by the governments so many times for deciding the procurement price of the milk. It can be said that market driven prices are fixed/recommendation made by the governments for dairy co-operatives.

It was also seen during the study that quite often the Ministers of various department including agriculture, co-operative and dairy department recommended the price hike to the milk unions and federation and after obtaining such recommendations the milk unions and federation reacted positive and further price was changed in the favor of farmer or milk producers. It must be considered as absolute violation of co-operative form of business. It would have been better that resolutions of the dairy co-operative society and milk unions would get full respect and it should be a proper business decision.

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