

# **An Analysis of the Degree of Satisfaction by the Cooperative Dairy Farmers in Odisha**

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## **Abstract**

The present study has examined the dairy farmers' satisfaction with the cooperative services in Odisha by using primary data collected through a multistage random sampling technique in 2022. The study considers 120 dairy cooperative society (DCS) members from the Cuttack Cooperative Milk Producers Union Ltd, Odisha. Tabular representations along with averages, percentages etc. are employed for data analysis. The results show that the majority of DCS farmers are highly satisfied with the various parameters of feeding services including timely availability, quality, and quantity of feeds. In terms of milk procurement, the farmers are highly satisfied with the payment system but only moderately satisfied with the milk price. The study also found that 74.5% of DCS members were highly satisfied with the mode of payment whereas only 29.1% of DCS members were highly satisfied with the prices of milk. Therefore, it is suggested that improving feed prices and reducing milk price variability could improve overall satisfaction.

## **JEL Code:**

**Key words:** Dairy farming, Cooperative, satisfaction, constraints, Odisha

## **1. Introduction**

Cooperatives provide better and more equitable rates of growth even in competitive economic environments and the cooperatives that deal with agriculture have a strategic role in the development of rural economies (Rosyad, Satriani and Astuti, 2019). One of the best ways to increase a farmer's revenue and create jobs in rural areas is through dairying (Mohapatra and Das 2024). Dairy cooperatives play an important role in the promotion of dairy development in rural economies. It provides a better market and delivers necessary services for dairy farmers. They can assist the development of remote rural economies; thereby raising the standard of living of the poor. For millions of Indians, dairy products are an affordable and nutritious source of food. Additionally, for the country's vast vegetarian community, which includes landless, small-scale, and marginal farmers as well as women, dairy products constitute the sole acceptable supply of animal protein. Since small, marginal, landless farmers and rural women produce the bulk of the milk, dairying has been perceived as one of the activities aiming at lowering unemployment and poverty, especially among the rural communities in rain-fed and drought-prone areas. It has been noted that the dairy cooperative movement has not only enhanced the lives of rural residents but has also helped the country's economy tremendously and created employment opportunities for nearly 13.9 million farm households.

Nevertheless, a large number of cooperatives are known to fail to deliver benefits to their members (Rosyad, Satriani and Astuti, 2019). Issues with the dairy farmer cooperatives stem from the nature of dairy products, milk marketing and cow rearing which make farmers highly dependent on other parties. With these considerations, this paper makes an attempt to study dairy farmers' satisfaction with the services provided by the dairy cooperative societies with the help of an empirical study conducted in Odisha. The structure of the current paper is outlined as follows. The literature review, study objectives, data and methods, results and discussion, conclusion, and policy recommendations are covered in the section that follows.

## **Review of Literature**

### **Dairy farmer's satisfaction with dairy cooperative societies**

The growth of the dairy sector had a positive impact on milk production and per capita availability of milk (Dash et al., 2020). West Bengal, Himachal Pradesh, Bihar, Madhya Pradesh, and Odisha were the least progressive states in India in milk production due to resource and infrastructural disparities in India (Kale et al., 2015). Consequent to the white revolution there is a significant change in the Indian dairy sector in the composition of herd size, the role of the private sector and the expansion of dairy cooperative societies (Rajendra & Mohanty, 2004). However, a recent study on dairy cooperative societies said that the dairy cooperative societies were increasing but at a decreasing rate (Vijayan, 2021). The dairy cooperative services provided by DCs included milk marketing, artificial insemination services, nutritional cattle feed, education & training services, veterinary services, dividend payment services and advisory services (Rajendra & Mohanty, 2004; Das & Sarangi, 2017). Among all the services provided by dairy cooperatives milk marketing got a high position with 56.7% share whereas veterinary services, credit services and insurance got a low position with 23.4%, 20.7% & 16.7% share respectively (Koyi, 2020). The majority of farmer members claimed that the cooperative services provided by dairy cooperatives were low in quality and these services were not available in time (Simranjit, 2017; Rosyad, 2019).

Dairy farmers' satisfaction was measured by various indicators. These indicators were correct weighting of milk, testing of milk samples, maintaining of individual accounts, dealing with the secretary and other painful employees and how the elections were held which helped in bringing transparency and improving the satisfaction level of dairy farmers (Nishi et al., 2011; Wani, 2016).

However, the majority of the member farmers had never participated in dairy cooperative societies and members' participation in dairy cooperative societies was very low as they believed that cooperatives were established only for milk collection and they were unaware of various facilities available to them (Wani, 2016). Most of the dairy farmers were moderately satisfied with the services provided by DCs whereas other members were low or highly satisfied (Nishi et al., 2011; Taleghani & Mehdizade, 2016). Dairy farmers were satisfied with the milk procurement system of milk-fed in respect of milk procurement, milk price and mode of payment (Nishi et al., 2011; Simranjit et al., 2017) whereas dairy services were not satisfactory in terms of fed services livestock health services, artificial insemination services as these services were not available in time and low-quality services were provided by DCs (Rosyad et al., 2019). Organizational participation, economic motivation and market potential (Nishi et al., 2011) and social participation (Wani, 2016) had a strong influence on the level of satisfaction of farmer members as participation in the society promotes a sense of belongingness, maintains transparency, a good feeling and satisfaction among farmers. Cooperative participation had a positive relation with education, experience and scale of farm size whereas household size and economic status had no relation with dairy farmers' participation (Kumar et al., 2013).

### **2. Objectives of the study**

- To analyse the degree of satisfaction members of dairy cooperative societies.

### **3. Data and methods**

#### **Sampling Design**

The study is based on the primary survey. A multistage random sampling method has been used for household surveys. In the first stage out of the nine milk unions operating in Odisha, two milk unions i.e. Cuttack and Ganjam Milk Unions have been selected. In the second stage, one district from each union has been chosen. In the third stage, one block has been chosen from each district. In the next stage, 2 functional cooperatives from each block have been selected. In the final stage, 30 dairy farmers were selected from each dairy cooperative society (DCS). Thus, 60 DCS member farmers are from each district. Thus, a total of 120 dairy farmers have been selected. This study considers both small and medium dairy farmers only. Small farmers are those who have less than three milch cows, whereas medium farmers have four to five milch cows. All the required information has been collected during 2022-23 with the help of a well-designed structured survey schedule.

4. Analytical Tools Used

Descriptive statistics such as tabular representation, average, percentage, etc. are used for data analysis.

5. Results and Discussion

5.1 Socio-economic profile of the dairy farmers

Table 1 displays the socio-economic profile of the dairy cooperative society farmers by gender. It is observed that in terms of education, a higher percentage of women (363.84%) have completed secondary education compared to men (28.57%). On the other hand, the womenfolk have lower representation at the higher education level, as no female farmers have post-graduation qualification compared to males (6.35%). The income distribution shows that most of the farmers fall within the range of ₹100,001-₹200,000 (38.33%). Most of the male (33.33%) and female (43.86%) farmers come under this category and a very few farmers earn above ₹300,001 (14.17%); a slightly higher percentage was contributed by males (15.87%) than females (12.28%). The years of farming experience range from 10-20 (25.83%) for most farmers (25.83%). A higher percentage of female farmers (15.79%) have 1-5 years of experience compared to the male respondents (12.70%). The opposite trend is noted at the extreme end, with over 25 years of experience, where more males (11.11%) are found than females (5.26%).

**Table 1 Socio-Economic Profile of the Dairy Cooperative Farmers**

		Male	Female	Total
Educational level	Illiterate	4.76	3.51	4.17
	Primary	14.29	19.30	16.67
	Upper Primary	20.63	22.81	21.67
	Secondary	28.57	36.84	32.50
	Higher secondary	17.46	12.28	15.00
	UG	7.94	5.26	6.67
	PG and Above	6.35	0.00	3.33
Income (in Rs)	50000-100000	17.46	17.54	17.50
	100001-200000	33.33	43.86	38.33
	200001-300000	33.33	26.32	30.00
	above 300001	15.87	12.28	14.17
Experience (in Years)	1-5	12.70	15.79	14.17
	5-10	14.29	17.54	15.83
	10-15	20.63	22.81	21.67
	15-20	25.40	26.32	25.83
	20-25	15.87	12.28	14.17
	above 25	11.11	5.26	8.33

Source: Primary survey, 2022-23

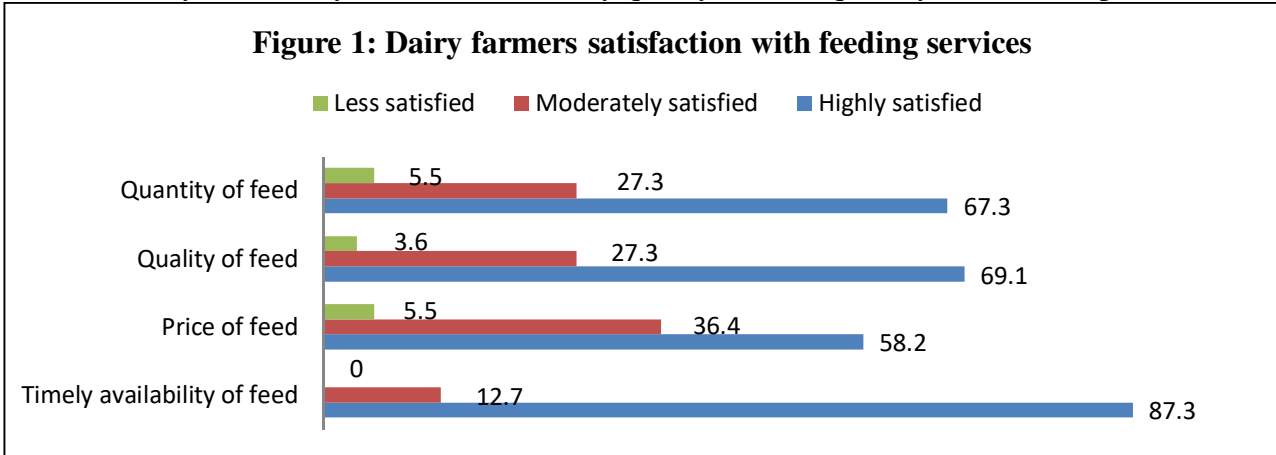
5.2 Dairy farmers' satisfaction with the services provided by dairy cooperatives

The members of dairy cooperative societies are getting various facilities related to dairy farming such as procurement of milk, feeding services, veterinary services, and artificial insemination services by the opening of artificial insemination centres. In the study area, the farmers reported that all the services like veterinary and artificial insemination services are not available to them other than procurement of milk and feeding services. So, it only covers dairy farmer's satisfaction with the procurement of milk systems and feeding services.

Dairy farmers' satisfaction with feed services provided by dairy cooperatives

Figure 1 demonstrates the dairy farmer's satisfaction with feeding-related services like timely availability of feed, price of feed, quality of feed and quantity of feed. It is clearly shown that the percentage of farmers who are highly satisfied concerning the timely availability of feed, price of feed, quality and quantity of feed are 87.3%, 58.2%, 69.1% and 67.3% respectively. Similarly; the percentage

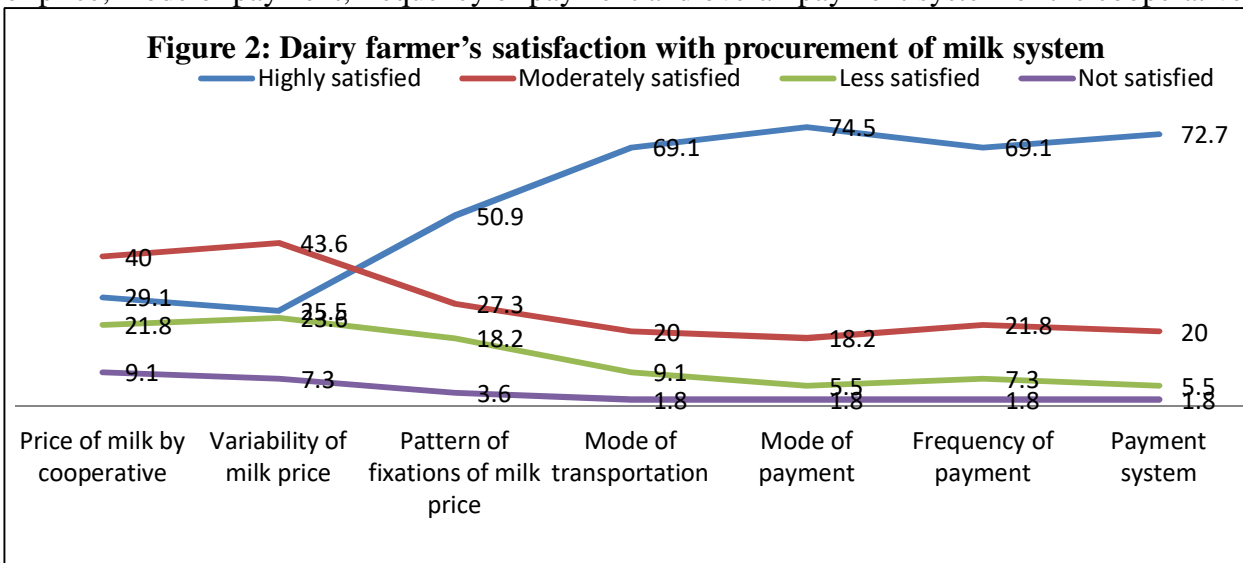
of farmers who are moderately satisfied with the timely availability of feed, price of feed, quality and quantity of feed are 36.4%, 27.3% and 27.3% respectively and the corresponding figures for those whose less satisfied are 0%, 5.5%, 3.6% and 5.5%. Thus, the majority of members are highly satisfied with the timely availability of feed, followed by quality of feed, quantity of feed, and price of feed.



Source: Primary survey, 2022

**Dairy farmer’s satisfaction with procurement of milk system**

Figure 2 shows the satisfaction level of dairy cooperative society members with the milk procurement system of the cooperative. It is shown that in terms of the price of milk by cooperative 29.1% of members are highly, 40% of members are moderately, 21.8% of members are less, and 9.1% of members are not satisfied with the price of milk by cooperatives. Similarly, dairy farmer’s satisfaction in terms of variability of milk price shows that 25.5%, 43.6%, 23.6%, and 7.3% are high, moderate, less and not satisfied, respectively. 50.9%, 27.3%, 18.2% and 3.6% dairy farmers are high, moderate, less and not satisfied with the cooperative in pattern of fixation of milk price by cooperative, respectively. Similarly, 69.1%, 20%, 9.1% and 1.8% members are highly, moderately, less and not satisfied with the mode of transportation to the society, respectively. Similarly, in the case of the mode of payment system, frequency of payment and overall payment system of cooperatives 74.5%, 69.1% and 72.7% of dairy farmers are highly satisfied, 18.2%, 21.8% and 20% of farmers are moderately satisfied, 5.5%, 7.3% and 5.5% members are less satisfied and 1.8% members are not satisfied with these services. Thus, most of the dairy farmers are moderately satisfied with the price of milk and the variability of milk price by the cooperative whereas, the majority of dairy farmers are highly satisfied with the pattern of fixation of price, mode of payment, frequency of payment and overall payment system of the cooperative.



Source: Primary survey, 2022

## 6. Summary and Conclusion

The satisfaction of dairy farmers with feeding services and the milk procurement system varies across several aspects. In the case of feed-related services, a huge majority of farmers were highly satisfied with the timely availability of feed, followed by its quality and quantity. However, satisfaction with the price of feed was slightly less. The level of moderate satisfaction is also very notable, especially on the price of feed, where 27.3 per cent of farmers indicated moderate contentment. Very few farmers are less satisfied with these services, particularly with the timeliness of feed availability. As far as the milk procurement system is concerned, the extent of satisfaction is rather varied. Only 29.1 per cent of farmers are highly satisfied with the price of milk offered by cooperatives, while a larger proportion was moderately satisfied at 40 per cent. Similar trends are seen in milk price variability. In areas like the pattern of milk price fixation, mode of transportation and overall payment system, most farmers have shown high satisfaction. In particular, 74.5% of farmers are highly satisfied with the mode of payment, reflecting very strong approval of the cooperative's payment practices. While farmers are moderately satisfied with the price received for milk, they are very highly satisfied with all other factors characterizing the milk procurement system. Thus, it is recommended that the cooperatives' current operational area be further strengthened and their scope expanded.

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