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Socio-Economic Impact of Dairy Co-operatives on Dairy Farmers in Maharashtra State

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Abstract

The study was carried out to investigate the socio-economic status of the dairy farmers of the south and west part in Maharashtra with connection to dairy co-operatives. Village dairy co-operatives successfully supporting the socioeconomic status of village farmers after agriculture. Hence the present study was conducted in the major milk producing four districts in Maharashtra. It was based on primary data collected from 330 farmers from the four districts of Maharashtra. Responses from 330 milk producing farmers were randomly collected, tabulated and analyzed. From the analysis it was observed that majority (89%) of the respondents belong to middle age group(26 to 60 Years) and 22 per cent respondents had medium family size(5 to 7 No.) and 33 per cent respondents had large family size(> 7 No.). 67 per cent respondents had high school education(9th to 10th std) category. 89 per cent respondents had large herd size(> 4) .22 per cent respondents had more than 25 years of experience in dairy farming and 44 per cent respondents had more than 17 years of experience in dairying.. About 26.66 per cent had medium level of income from dairy. 72.72 per cent respondents had high level of income from dairy. 79.00 per cent respondents had crop farming as their primary occupation. 90.30% respondents had dairy farming as their secondary occupation. About 56 per cent dairy farmers had 1.1 to 2 hectare(Small Farmer) of land and 22 per cent respondents had 4.1 to 10.0 hectare(Medium Farmer) of land. In case of milk production 48.79 per cent respondents had fall in medium category (5 to 9 Lit.). About 100 per cent respondents had high level of personal localities contact (>7), 100 per cent had high level of personal cosmopolite contact (>4) and 100 per cent had high level of mass media exposure (>8).

Keywords: Dairy co-operatives, socio-economic impact, annual income, net income, social participation, mass media exposure.

Introduction

India contributes a significant portion to worlds milk production represents roughly 24.76 per cent of the global milk output. (2025).The diary sector contributes about 4% to India's GDP (2025). In the 2023-24 fiscal year, India's total milk production reached 239.30 million tonnes, marking a 3.78 per cent increase from the year 2022-23.(AI source)In this context, the dairy industry as an allied agricultural sector had a crucial role in the Indian Economy as milk is the second largest agriculture allied products and contributes significantly to GNP. Besides this, dairy farming provides farmer with not only off season employment but also a consistent flow of money throughout the year. (Sarkar and Ghosh,2008) Dairy co-operatives are now one of the most professionally managed agri-allied business in the Indian economy as

a result of the The establishment of co-operative dairy farms has improved the rural economic position in the states of Maharashtra, Gujarat, Tamilnadu and Karnataka (Benni, 2005). By 2010, over time, dairy cooperatives have successfully boosted the self-confidence of farmers who have been active in the industry. The goal of the current study was to examine the socioeconomic status and communication contacts in the Maharashtra State.

Objectives of the Study:

➢ To evaluate the socio-economic impact of dairy co-operatives on dairy farmers in Maharashtra State.

Methodology

Selection of Milk Producers

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From the four districts of Maharashtra Pune, Ahilyanagar, Solapur and Sangali were selected randomly and from the each district two blocks were selected randomly. Two villages from each block were selected randomly. 10 per cent of dairy farmers were selected proportionate randomly sampling from the total household of each village. We selected 330 dairy farmers. Therefore, the population might be justified by the probability proportion of these milk producers.

Collection of Data
For the purpose of the current study, information relating to different study objectives was gathered from both primary and secondary sources.

Primary data
Primary data includes information on socio-economic status of dairy farmers like age, family size, education, occupation, herd size, experience in dairy, operational land holding annual income, milk production, consumption, sale, personal localities and cosmopolite contact were also gathered.

Secondary data
The secondary data were acquired from different published bulletins, office records, and the headquarters of the Milk Producers Cooperative Societies and Dairy Co-operative Union and also e-source use. For statistical analysis frequency percentage was calculated.

Results and Discussion
Socio-economic impact of dairy cooperatives on dairy farmers.

Age:
The information regarding the age group of the respondents is important in getting an insight about the age-related differences and trends are crucial for developing targeted interventions and policies. According to Table 1, it was observed that majority of the respondents (88.79 %) were from the age group of 26-60 years followed by the 11.21 per cent of the respondents, who belonged to 18-25 years age group .No any farmer under the category of below 18 years and above 60. It was observed that in case of member dairy farmers the majority of respondents (88.79%) were observed in middle age group.

Table 1: Age Percentage of Dairy Farmers

Sr. No.	Characteristics	Frequency	Percentage
1	Below 18 years	0	0
2	18-25	37	11.21
3	26-60	293	88.79
4	61 and above	0	0

Family Size:
The information regarding the family size of the respondents is important in getting an insight about the how societal changes, demographic shift and individual preferences influence family dynamics. According to Table No. 2, 44.55 per cent of the respondents under small sized family comprising less than 5 members, followed by 33.33 per cent of the respondents had large family size with more than 7 members and 22.12 per cent of the respondents had medium family size with 5 to 7 members. Prashad *et al.,* (2019) observed that majority (44 %) of dairy farmers had medium size families that is 5-7 members.

Table 2: Percentage of Family Size of Dairy Farmers

Sr. No.	Characteristics	Frequency	Percentage
1	Small (< 5)	147	44.55
2	Medium (5 to 7)	73	22.12
3	Large (>7)	110	33.33

Education:
Educational status of the dairy farmers is an important aspect while assessing their knowledge level and adaptability of good dairy farming practices and it is directly link to numerous socio-economic outcomes. According to Table No. 3 ,it was observed that majority of the respondents (66.66%) had high school level of schooling, followed by 11.21 per cent of the respondents who had illiterate, 11.21 per cent of the respondents who had middle level of schooling and 11.21 per cent of the respondents who had graduation and above. More than 50 percent of the respondents (66.66 %) had high school educational level. Prasad et al., (2019) from the study it was indicated that majority of dairy farmers had high school level of education followed by graduation and middle school.

Table 3: Education Percentage of Dairy Farmers

Sr. No.	Characteristics	Frequency	Percentage
1	Illiterate	37	11.21
2	Primary	0	0
3	Middle	37	11.21
4	High School	220	66.66
5	Graduation and above	37	11.21

Occupation:
The information regarding the occupation of the respondents is important in getting an insight about the understand and categorize peoples work, which is essential for understanding socio-economic pattern. According to Table No. 4,it was observed that the

majority of the respondents (71.82%) had Agriculture as their primary occupation. 18.18 per cent of the respondents practiced Dairying as their major occupation followed by Industry 10 per cent. None of the respondents choose service sector as their major occupation. On the other hand, majority of the respondents (90.30 %) choose Dairying as their secondary occupation, followed by 12.00 per cent of the respondents who had agriculture as their secondary occupation. Whereas, very few respondents i.e. 6.06 per cent respondents had Industry as their secondary occupation. Similar finding of Prasad *et al.,* (2019) observed that majority (80.00%) of respondents had crop farming as their main occupation.

Table 4: Occupation Percentage of Dairy Farmers

Sr. No.	Characteristics	Primary Occupation		Secondary Occupation	
		Frequency	*Percentage*	*Frequency*	*Percentage*
1	Agriculture	237	71.82	12	3.64
2	Dairy	60	18.18	298	90.30
3	Industry/Business	33	10	20	6.06
4	Service	0	0	0	0
5	Any other	0	0	0	0

Herd Size:

The information regarding the herd size of the respondents is important in getting an insight about to understand its influence on factors like Foraging or resource behavior, diseases transmission, management and economic implications. According to Table No. 5, it was observed that about 82.73 per cent of the respondents were in large herd size category i.e. (> 4), followed by 14.24 per cent fall under medium category of herd size (3 to 4) and only 3.03 per cent fall in small category of herd size (<3). In olden days, farmers reared dairy animals generally for their self-consumption and remaining milk were sold to customer or dairy but now days it is best and surety source of income with increasing number of herd size. Large herd size impact positively on production levels, resource use efficiency, adoption of new technologies.

Table 5: Herd Size Percentage

Sr. No.	Characteristics	Frequency	Percentage
1	Small (< 3)	10	3.03
2	Medium (3 to 4)	47	14.24
3	Large (>4)	273	82.73

Experience in Dairy farming:

Experience in dairy farming is very important for the dairy farmers in managing milch animals properly and also directly impacts various aspects of dairy farm productivity, profitability and sustainability. According to Table No. 6, it was observed that, majority (44.55 %) of the respondents had 17 to 25 years of experience in dairy farming followed by 33.33 per cent and 22.12 per cent of the respondents had low (Less than 17 years) and large (> 25 years) of experience in dairy farming respectively. Thankachan and Joseph (2019) reported that 35.00 per cent of the respondents are those who have dairying experience ranging from 16 to 25 years.

Table 6: Percentage of experience in dairy farming

Sr. No.	Characteristics	Frequency	Percentage
1	Low (< 17)	110	33.33
2	Medium (17 to 25)	147	44.55
3	Large (>25)	73	22.12

Operational Land Holding (OLH):

The information regarding the operational Land Holding of the respondents is important in getting an insight about the farming practices, productivity, and livelihood of farmers. According to Table No. 7, it was observed that majority of the respondents (48.78%) were small land holders which were followed by 22.42 percent, 22.12 and 6.68 percent of the respondents who were semi-medium, medium and marginal land holders respectively. None of the respondents had large and landless land holding.

Table 7: Percentage of Operational land Holding

Sr. No.	Characteristics	Frequency	Percentage
1	Landless(0 ha)	0	0
2	Marginal (1 or <1ha)	22	6.68
3	Small (1.1 – 2ha)	161	48.78
4	Semi-medium (2.1 – 4)	74	22.42
5	Medium(4.1 to 10 ha)	73	22.12
6	Large(>10)	0	0

Annual Income:

The information regarding the annual income of the respondents is important in the farmer's lives and decision making processes relation to their economic wellbeing. According to Table No. 8, it was majority (72.72 %) of the respondents had high income level ranging from greater than 1.5 lakhs followed by 26.66 per cent of the respondents had medium income level of 0.75 to 1.5 lakhs and 0.62 per cent of the respondents had low income level of less than 0.75 lakh.

Table 8: Percentage of Annual Income of Dairy Farmers

Sr. No.	Characteristics	Frequency	Percentage
1	Low (<0.75 lakh)	2	0.62
2	Medium (0.75 to 1.5 lakh)	88	26.66
3	High (> 1.15)	240	72.72

Milk Production:

The information regarding the milk production of the respondents is important in the economic impact, technological advancement, challenges faced. According to Table No. 9, it was observed that about 49.69 per cent of the respondents were in high milk production category i.e. greater than 9 liter followed by 48.79 per cent fall under medium milk production category of milk production (5 to 9 Liter) and only 1.52 per cent fall in low milk production category of less than 5 liter.

Table 9: Percentage of Milk Production

Sr. No.	Characteristics	Frequency	Percentage
1	Low (< 5)	5	1.52
2	Medium (5 to 9)	161	48.79
3	High(> 9)	164	49.69

Personal Localize Contact:

The information regarding the personal localize contact of the respondents is important about the source of information, adoption of new practices; identify strategies for more effective outreach and knowledge dissemination. According to Table 10 it was observed that, about all of the respondents were high personal localize contact category i.e. greater than 7 none of the respondent under low and medium category. It shows that there was good personal localize contact which increase efficiency of the dairy farmer.

Table 10: Percentage of Personal Localize Contact of Dairy Farmers

Sr. No.	Characteristics	Frequency	Percentage
1	Low(< 6)	0	0
2	Medium(6 to 7)	0	0
3	High(> 7)	330	100

Personal Cosmopolite Contact:

The information regarding the personal cosmopolite contact of the respondents is to understand how individual interaction with people outside immediate social circle and local community ,influence their behavior, attitude and knowledge .This type of contact can reveal how exposure to diverse perspective and experiences shapes individual cosmopolitanism, which oneself beyond one's own community. According to Table No. 11, it was observed that about all of the respondents were high personal cosmopolite contact categories i.e. greater than 4 none of the respondent under low and medium category. It shows that there was good personal cosmopolite contact.

Table 11: Percentage of Personal Cosmopolite Contact

Sr. No.	Characteristics	Frequency	Percentage
1	Low(< 3)	0	0
2	Medium(3 to 4)	0	0
3	High(> 4)	330	100

Mass Media Exposure:

The information regarding the mass media exposure of the respondents is important in getting an insight about how media shapes audience beliefs, attitudes and behavior. It gets insight into the potential impacts of different forms of media on individual ad society. According to Table No. 12, it was observed that about all of the respondents were high mass media exposure categories i.e. greater than 8 none of the respondent under low and medium category. It shows that there was good mass media exposure.

Table 12: Percentage of Mass Media Exposure

Sr. No.	Characteristics	Frequency	Percentage
1	Low(< 7)	0	0
2	Medium(7 to 8)	0	0
3	High(> 8)	330	100

Conclusion

The above study concluded that, there was good socio-economic impact of dairy cooperatives on dairy farmer. Dairy cooperatives play an important role in the development of villages; they contribute positively and

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significantly to the income and employment of rural farming households. The good personal and cosmopolite contact provided the opportunity for mutual harmony and sharing their socio-economic impact. Dairy co-operative providing them livelihoods and sustenance. The low educational background underscores the growth in this sector. The lining up of our results with previous research improves the credibility of our findings, holding significant implications for dairy sector policies and interventions. Dairy Co-operatives with their basic motto of self-help through mutual help can help the dairy farmers and also can strengthen the dairy business and it helps in overall development of Indian Economy.

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