

ASSESSMENT OF FUNCTIONING OF PRIMARY MILK COOPERATIVES IN HARYANA

PINKY YADAV, S.S. SANGWAN*, S.P. SINGH and GAUTAM
Department of Veterinary and Animal Husbandry Extension Education
College of Veterinary Sciences

Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar - 125 004, India

Received: 29.06.2016; Accepted: 02.11.2016

ABSTRACT

The present study was conducted on 120 members of Village Dairy Cooperative Societies (VDCS) selected from Hisar and Mahendergarh districts. A pre-tested interview schedule was developed and the data were collected by holding interview with the respondents during November, 2015- January, 2016. Functioning of these cooperative societies was assessed keeping social, economical and educational aspects in view. The results revealed that majority of the respondents from both the districts fell in moderate level of opinion about functioning of VDCS in term of social as well as economic aspects. Item-wise analysis revealed that in both the districts, open and voluntary membership pattern, irregularly holding of meetings as well as elections of the society, negligible women participation, no participation of members in any decision making process, no social control but representative had control on societies, awareness about the name of the office bearer of the society but ignorance among members about the name of office bearers of respective milk union. In both the district, there was open pattern of membership, open and honest dealing criteria, record keeping/maintenance as well as transparent record assess-ability and hence the members were satisfied with the functioning of these societies. However, majority of them were not aware about the bank account of the society. Correlation and regression analysis further revealed that education, mass media exposure, economic motivation and land holding were the most important predictors influencing the functioning of these VDCS. It is suggested that women participation as well as participation of members in decision making process should be encouraged. There should be regular meeting of these societies and regular election in these societies should be held.

Key words: Dairy cooperative societies, functioning, social and economic aspects

The Haryana Dairy Development Cooperative Federation Ltd. was registered under the Haryana Cooperative Societies Act in 1977. The main objective of the federation is to promote economic interest of the Milk Producers of the Haryana State, particularly those belonging to the economically weaker sections of society.

The Haryana Dairy Development Cooperative Federation Ltd., in order to fulfill its aim has set up milk plants and it markets its milk products under the brand name Vita. The organization of the dairy co-operative in Haryana is based on the three tier system. Societies at village level: Milk producers in a village level join together to form village Dairy cooperatives societies. The society is managed by producers themselves. It buys milk from producers and then sells it to milk unions. The profit earned by the societies is distributed amongst producer members. Although, Haryana and Punjab are leading states as per per-capita availability of milk but Gujarat is the leading state in milk collection and processing through the AMUL pattern of dairy cooperative system. Considering milk cooperatives as an important instrument of society's transformation, a study was conducted to assess their functioning in systematic manner in Haryana.

*Corresponding author: sumer.sangwan@gmail.com

MATERIALS AND METHODS

The present study was conducted on dairy cooperatives working under Haryana Dairy Development Cooperative Federation, Haryana. Out of six milk unions, two milk unions i.e., Hisar-Jind and Rohtak were selected randomly. Out of these unions, Hisar district from Hisar-Jind Milk Union and Mahendergarh district from Rohtak Milk Union were selected randomly. Further, four Village Dairy Cooperative Societies (VDCS) namely Talwandi, Bhiwani Rohilal, Sirsana, Kuleri from Hisar district and four VDCS namely God Aadarsh, Balawa Aadarsh, Seka and Rasulpur Dhani from Mahendergarh district were selected on the basis of higher milk collection. Fifteen members (who sell milk to these societies) from each VDCS were chosen randomly. Therefore, the total sample size was 120 members from all 8VDCS. A pre-tested interview schedule was developed and the data were collected by holding interview with the respondents during 2015- 2016.

The assessment of functioning of these VDCS was considered as dependent variable. In all, 15 items related to functioning of these VDCS were identified and these items were grouped into three broad categories i.e. social, economic and educational aspects. In social, economic

Table 1
Functional aspects of primary cooperative society (n=120)

Aspects	Category	Mahendergarh	Hisar	Total	'z' value
		Frequency (%)	Frequency (%)	Frequency (%)	
Social	Low (0-5)	0 (0)	0 (0)	0 (0)	4.06**
	Medium (6-7)	59 (98.33)	47 (78.33)	106 (88.33)	
	High (>7)	01 (1.67)	13 (21.67)	14 (11.67)	
	Mean±SD	6.23±1.19	6.9±0.46	6.57±0.96	
Economical	Low (0-10)	0 (0)	01 (1.67)	01 (0.83)	0.38
	Medium (11-12)	60 (100)	59 (98.33)	119 (99.17)	
	High (>12)	0 (0)	00 (00)	0 (0)	
	Mean±SD	11.15±0.36	11.18±0.5	11.17±0.43	
Overall functioning of VDCS	Low (0-16)	0 (0)	01 (1.67)	01 (0.83)	3.68**
	Medium (17-19)	59 (98.33)	51 (85)	110 (91.67)	
	High (>19)	01 (1.67)	08 (13.33)	09 (7.5)	
	Mean±SD	17.38±0.66	18.08±1.32	17.73±1.10	

*P<0.05; **P<0.01

and educational aspects, there was 8, 6 and one item, respectively. The responses from the members were obtained on these items and then the respondents were divided into three categories i.e. low, medium and high level of functioning on the basis of mean score and SD in social and economic aspects. In case of educational aspects there was only one item and the responses from the respondents were zero, hence this aspect was excluded from the analysis. The overall functioning of cooperative societies was then calculated by adding up all the scores obtained under both aspects. The qualitative variables studied were assigned quantitative values systematically. These assigned values (quantitative for each aspect) were then used to calculate statistical significance and correlation and regression.

RESULTS AND DISCUSSION

Level of Functional Aspect of Primary Cooperative Society

Social Aspects: Majority (98%) of the respondents of Mahendergarh district had moderate level of functioning of VDCS on social aspect (Table 1). In case of Hisar district, majority (78.33%) members had moderate opinion. The difference may be due to background variables like education, occupation, extension contact, economic motivation etc. The 'Z' value indicated that on social aspects the condition of Mahendergarh district societies was better as compared to Hisar district.

Economic Aspects: All the respondents of Mahendergarh district were found to have moderate level opinion about functioning of cooperatives on economic aspect. In Hisar district 98.33% members of the cooperative societies rated them at moderate level. Overall, majority (99.17%) of the respondents had moderate level while 0.83% members had high opinion

about VDCS which reflects that dairy cooperative societies are working as like marketing points for milk sale. These findings are contrary to those reported by Chaudhary and Upadhyaya (2013) and Shah (2011).

Overall Functioning of VDCS: There were differences of perception between respondents from two districts. Only 1.67% of respondents of Mahendergarh district had high opinion about functioning of cooperative societies whereas the number was significantly higher in Hisar district (13.33%). On the whole, the opinion was generally moderate (91.67%). The reasons for differences lie with the background characteristics of respondents. For example, respondents from Hisar were less educated and their dependence on agriculture animal husbandry is more.

Aspect-wise Functioning of Dairy Cooperative Societies

Social Aspects: Eight items which reflected social role in the functioning of cooperative societies were included in this aspect (Table 2).

Membership Pattern: All the respondents of both districts were of the opinion that there was open and volunteer pattern for selection of members. This was a healthy sign and there was no discrimination for membership of VDCS. Free membership was one of the important aspects that underlined cooperative principles.

Women Members: Women are the main workforce in animal husbandry sector but surprisingly in Mahendergarh district, all the members of dairy cooperative societies were men. On the other hand, in Hisar district, 46.67% members were women. The difference may be attributed to low educational status of women. Overall analysis depicted that there were one fourth women members in the cooperative societies. Similar results were also reported by Carla (2014) and Bala and Namita (2015).

Table 2
Item-wise analysis of social aspect of VDACS

Aspects	Category	Mahendergarh	Hisar	Total	'z' value
		Frequency (%)	Frequency (%)	Frequency (%)	
Membership pattern	Open and voluntary (4)	60 (100)	60 (100)	60 (100)	0
	Social and racial status (3)	0 (0)	0 (0)	0 (0)	
	Gender basis (2)	0 (0)	0 (0)	0 (0)	
	Mean±SD	4.0±0	4.0±0	4.0±0	
Women members	Yes (1)	0 (0)	28 (46.67)	28 (23.33)	7.83**
	No (0)	60 (100)	32 (53.33)	92 (76.67)	
	Mean±SD	0±0	0.47±0.50	0.23±0.42	
Meetings	Never (0)	49 (81.67)	48 (80)	97 (80.83)	1.58
	Fortnightly (3)	0 (0)	04 (6.67)	04 (3.33)	
	Monthly (2)	0 (0)	02 (3.33)	02 (1.67)	
	Occasionally (1)	11 (18.33)	06 (10)	17 (14.17)	
	Mean±SD	0.18±0.39	0.37±0.84	0.28±0.66	
Elections	Yes (1)	0 (0)	0 (0)	0 (0)	0
	No (0)	60 (100)	60 (100)	120 (100)	
	Mean±SD	0±0	0±0	0±0	
Decision making	Yes (1)	0 (0)	0 (0)	0 (0)	0
	No (0)	60 (100)	60 (100)	120 (100)	
	Mean±SD	0±0	0±0	0±0	
Society control	Member (3)	0 (0)	0 (0)	0 (0)	0
	Government (2)	0 (0)	0 (0)	0 (0)	
	Representatives (1)	60 (100)	60 (100)	120 (100)	
	Mean±SD	1.0±0	1.0±0	1.0±0	
	Office bearer of VDACS	Yes (1)	60 (100)	60 (100)	
Office bearer at district level	No (0)	0 (0)	0 (0)	0 (0)	1.00
	Mean±SD	1.0±0	1.0±0	1.0±0	
	Yes (1)	03 (5)	04 (6.67)	07 (5.83)	
Office bearer at district level	No (0)	57 (95)	56 (93.33)	113 (94.16)	1.00
	Mean±SD	0.03±0.18	0.07±0.25	0.05±0.22	

*P<0.05; **P<0.01

Meetings: Regular meeting is one of the important principles in any cooperative organization but the situation was found quite different in the research area. Majority of the members expressed that there was not such practice and meetings of society members were never held. However, few members to the tune of 14.17, 3.33 and 1.67% responded that meetings were held occasionally, fortnightly and monthly, respectively.

Elections: Regular elections are essential in any cooperative system. Surprisingly, all the members of both the districts reported that election was never held in VDACS. It reflected that the societies were working as milk marketing shops rather than dairy cooperative societies.

Decision Making: All the respondents of both districts stated that all decisions of society were taken single handily. There was no participation of members in decision making process. The societies were largely ignoring the underlying principles of cooperatives.

Society Control: It is evident from the responses that societies were controlled by a single person and that

person was responsible for all actions and decisions. Members have nothing to do in affairs of dairy cooperative societies except their payments.

Office Bearer of VDACS: All the members of both the districts were aware about office bearers of VDACS. Surprisingly, in the name of office bearers a single person handled all the activities of society. They also know the staff involved in milk collection and its transportation to milk union.

Office Bearer at District Level: It is apparent from the data (Table 2) that merely 5% members were aware about office bearer of district milk union

Economic Aspects: Six items were included which reflect economic aspects of dairy cooperatives and the findings have been in Table 3.

Basis of Membership: The criterion of membership enrolment in dairy cooperative society was quite fair, open and transparent. All the members from both districts expressed that basis of membership in cooperative society was open and voluntary i.e anyone can become a member of society who wants to sale milk through the society.

Table 3
Item-wise analysis of economic aspects of primary cooperative society

Aspects	Category	Mahendergarh	Hisar	Total	'z' value
		Frequency (%)	Frequency (%)	Frequency (%)	
Basis of membership	Don't know (1)	0 (0)	0 (0)	0 (0)	00
	Choice of office bearer (2)	0 (0)	0 (0)	0 (0)	
	Open (3)	60 (100)	60 (100)	120 (100)	
	Mean±SD	3.0±0	3.0±0	3.0±0	
Dealing criteria	Open and honest (3)	60 (100)	60 (100)	120 (100)	00
	Biasness for dear ones (2)	0 (0)	0 (0)	0 (0)	
	Basis of caste (1)	0 (0)	0 (0)	0 (0)	
	Mean±SD	3.0±00	3.0±00	3.0±0	
Record maintenance	Yes (1)	60 (100)	60 (100)	120 (100)	00
	No (0)	0 (0)	0 (0)	0 (0)	
	Mean±SD	1.0±0	1.0±0	0±0	
Record accessibility	Yes (1)	60 (100)	60 (100)	120 (100)	00
	No (0)	0 (0)	0 (0)	0 (0)	
	Mean±SD	1.0±0	1.0±0	1.0±0	
Bank account	Yes (1)	09 (15)	13 (21.67)	22 (18.33)	1.00
	No (0)	51 (85)	47 (78.33)	98 (81.67)	
	Mean±SD	0.15±0.36	0.22±0.41	0.18±0.39	
Satisfaction with VDCS	Not satisfied (1)	0 (0)	01 (1.67)	01 (0.83)	1.00
	Neutral (2)	0 (0)	0 (0)	0 (0)	
	Satisfied (3)	60 (100)	59 (98.33)	119 (99.17)	
	Highly satisfied (4)	0 (0)	0 (0)	0 (0)	
	Mean±SD	3.0±0	2.97±0.26	2.98±0.18	

*P<0.05; **P<0.01

Dealing Criteria: The dealing criterion of staff was quite open and transparent. All the members of both districts reported that a fair dealing is followed in the societies' proceedings. Not even a single biasness was noticed in these cooperative societies.

Record Maintenance: The milk collection from individual members was recorded in a register. It was reported by all the members of both districts that record was properly maintained in these VDCS.

Record Accessibility: All members of both districts opined that all records were accessible to members of their societies.

Bank Account: Majority of members were not aware about bank account of cooperative society and only 15% knew society's bank account, name of bank and its location.

Satisfaction with VDCS: It was evident from the data that nearly all members were satisfied with society. Timely payment may be the reason for their satisfaction. Overall less than one percent members reported dissatisfaction with the functioning of VDCS. These findings are in accordance with the findings reported by Shah (2011) who analyzed the effectiveness of a Dairy Cooperative/ cost of Milk Production in Gujarat and found that Amul provides a lot of great services to its members including timely payment of milk, credit of

payment in the bank account, maintenance of milk record and the beneficiaries were highly satisfied by the milk cooperative societies.

Educational Programs: The dairy cooperative societies do facilitate its members with input supply and educate them on other issues of Animal husbandry development programmes. However, members of both the districts expressed that no educational program is ever organized by cooperative society for their benefit.

Relationship between Personal Attributes of Members with Functional Aspect of Primary Cooperative Society

Social Aspect: The data as shown in Table 4 indicated that in Mahendergarh district, none of the variables were found significant with social aspect of primary cooperative society. In Hisar district, only education ($r=-0.317$) was found to be negatively and significantly correlated, and total income ($r=0.291$) and economic motivation ($r=0.259$) had positive and significant correlation with social aspect of primary cooperative society ($P<0.05$). Overall analysis revealed that among all the 12 independent variables, education ($r=-0.243$) was found to have negative and significant correlation, and caste ($r=0.291$) was found to have positive and significant correlation with social aspect of primary cooperative society ($P<0.01$). Total income ($r=0.227$) was found to have positive and significant

Table 4
Correlation between independent variables and social aspects of VDACS

Independent variables	Mahendergarh members	Hisar members	Overall
Age (X ¹)	0.044	-0.058	-0.108
Education (X ²)	0.219	-0.317*	-0.243**
Land holding (X ³)	0.061	-0.108	0.010
Total income (X ⁴)	0.160	0.291*	0.227*
Caste (X ⁵)	0.066	0.131	0.291**
Herd size (X ⁶)	-0.142	0.123	0.143
Farming experience (X ⁷)	0.059	-0.131	-0.093
Occupation (X ⁸)	-0.053	-0.044	0.057
Extension contact (X ⁹)	0.199	0.071	0.113
Economic motivation (X ¹⁰)	-0.107	0.259*	-0.014
Mass media exposure (X ¹¹)	0.011	-0.137	-0.005
Attitude towards PDCS (X ¹²)	0.194	0.067	0.080

*P<0.05; **P<0.01

correlation with social aspect of primary cooperative society (P<0.05).

Economic Aspects: The data given in Table 5 indicated that in Mahendergarh district, education (r=0.371) and mass media exposure (r=0.429) were found to have positive and highly significant correlation with economic aspect of primary cooperative (P<0.01) while the rest of the variables were found non-significant. In Hisar district, variables namely age and farming experience were found to have negative and significant correlation with economic aspect of primary cooperative society (P<0.05) and education, land holding, total income, extension contact and mass media exposure had positive and highly significant correlation with economic aspect of primary cooperative (P<0.01). Overall analysis revealed that among all the 12 independent variables, education, total income and mass media exposure were found to have positive and highly significant correlation with economic aspect of primary

Table 5
Correlation between independent variables and economic aspect of VDACS

Independent variables	Mahendergarh members	Hisar members	Overall
Age (X ¹)	0.085	-0.294*	-0.157
Education (X ²)	0.371**	0.406**	0.366**
Land holding (X ³)	0.104	0.288*	0.231*
Total income (X ⁴)	0.221	0.304*	0.275**
Caste (X ⁵)	-0.128	0.231	0.141
Herd size (X ⁶)	-0.037	0.239	0.190*
Farming experience (X ⁷)	0.008	-0.276*	-0.162
Occupation (X ⁸)	-0.206	0.082	-0.059
Extension contact (X ⁹)	-0.247	0.282*	0.153
Economic motivation (X ¹⁰)	0.039	0.220	0.114
Mass media exposure (X ¹¹)	0.429**	0.421**	0.416**
Attitude towards PDCS (X ¹²)	0.011	0.090	0.069

*P<0.05; **P<0.01

cooperative society (P<0.01). Land holding and herd size had positive and significant correlation with economic aspect of primary cooperative society (P<0.05). These results are in accordance with the results reported by Debele and Verschuur (2014) while conducting similar study in Shawa zone of Oromia regional state, Ethiopia and reported that educational qualification, mass media exposure and economic motivation of the farmer members were important underlying factors influencing dairy cooperative in procurement of raw milk from the target farmers and to improve the position of dairy cooperative in milk value chain.

Contribution of Personal Attributes towards Functional Aspect of Primary Cooperative Society (Regression Analysis): The contribution or variation explained by all personal attributes (antecedent/independent variables) towards functional aspect of primary dairy cooperative society was estimated (Tables 6, 7).

Table 6
Regression between personal attributes and financial aspect of MCC

Personal attributes	Mahendergarh members		Hisar members		Overall	
	'b'	't'	'b'	't'	'b'	't'
Age (X ¹)	-0.013	-1.382	-0.005	-0.187	0.012	0.652
Education (X ²)	0.025	0.744	-0.071	-0.456	0.031	0.451
Land holding (X ³)	0.063	1.317	-0.192	-0.740	-0.136	-1.116
Total income (X ⁴)	-0.003	-0.867	0.024	1.473	0.024	2.865**
Caste (X ⁵)	-0.026	-0.247	0.571	1.502	0.149	0.811
Herd size (X ⁶)	0.026	1.191	-0.021	-0.654	-0.024	-1.148
Farming experience (X ⁷)	0.021	1.899	0.021	0.534	0.006	0.266
Occupation (X ⁸)	0.027	0.710	0.442	1.331	0.157	1.364
Extension contact (X ⁹)	-0.023	-0.306	0.340	1.508	0.203	1.447
Economic motivation (X ¹⁰)	0.016	0.505	-0.208	-0.939	-0.041	-0.433
Mass media exposure (X ¹¹)	0.021	0.895	0.032	0.254	-0.008	-0.134
Attitude towards PDCS(X ¹²)	-0.079	-1.250	-0.035	-0.200	-0.102	-0.933
R ²		0.414		0.499		0.360
F		0.811		1.298		1.329

*P<0.05; **P<0.01

Table 7
Regression between personal attributes and social aspect of VDCCS

Personal attributes	Mahendergarh members		Hisar members		Overall	
	'b'	't'	'b'	't'	'b'	't'
Age (X ¹)	-0.001	-0.046	-0.003	-0.129	-0.009	-0.461
Education (X ²)	0.189	2.264*	-0.407	-3.031**	-0.242	-3.382**
Land holding (X ³)	0.037	0.316	-0.444	-1.990	-0.319	-2.533*
Total income (X ⁴)	0.002	0.179	0.016	1.168	0.027	3.157**
Caste (X ⁵)	0.154	0.593	0.998	3.048**	0.587	3.093**
Herd size (X ⁶)	-0.059	-1.091	-0.020	-0.743	-0.028	-1.271
Farming experience (X ⁷)	0.015	0.547	-0.057	-1.63	-0.022	-0.906
Occupation (X ⁸)	0.072	0.771	0.216	0.757	-0.006	-0.054
Extension contact (X ⁹)	0.222	1.194	0.059	0.302	0.158	1.092
Economic motivation(X ¹⁰)	-0.046	-0.584	0.485	2.540*	0.043	0.449
Mass media exposure (X ¹¹)	-0.109	-1.834	-0.095	-0.868	-0.029	-0.445
Attitude towards PDCS (X ¹²)	0.125	0.794	0.179	1.177	0.102	0.900
R ²	0.478	0.695	0.550			
F		1.163		3.656**		3.853**

*P<0.05; **P<0.01

Social Aspect: Education of respondents had negative and significant value of 't' for 'b' (Table 6). Total income and caste exhibited positive and highly significant value. Land holding showed negative and significant value while other variables were found non-significant. All the 12 variables had jointly contributed 55% variation towards social aspect of primary cooperative society.

Economic Aspect: The data presented in Table 7 that education and mass media exposure exhibited positive and significant value of 't' for 'b' (P<0.05) while other variables were found non-significant. The R² value implies that all the twelve variables jointly explained 51.5% variation towards economic aspect of primary cooperative society. These findings get support from the findings of Pandey (2005) who conducted a study on empowerment of women through women dairy co-operatives in Gujarat and reported that 48% of the beneficiaries were highly satisfied with dairy cooperatives. Extension contact, motivation and educational qualification were strongly

associated with social and economic aspects of milk producers.

REFERENCES

- Bala, A. and Namita, C. (2015). The empirical study on strengthening endeavors for social and political empowerment of women in dairy cooperatives. *Int. J. Sci. Res. Rev.* **4** (1): 01-06.
- Carla, D. (2014). The impact of dairy cooperatives on the economic empowerment of rural women in Karnataka. M.Sc. thesis, Ghent University, Belgium.
- Chaudhary, B. and Upadhyay, M. (2013). Socio-economic impacts of dairy cooperative. *Econ. J. Dev.* **15&16** (1-2): 15-23.
- Debele, G. and Verschuur, M. (2014). Analysis of milk value chain: the case of Ada'a dairy cooperative in Ada'a district, East Shawa zone of Oromia regional state, Ethiopia. *Wudpecker J. Agri. Res.* **3**(1): 16-25.
- Pandey, R. (2005). Empowerment of women through women dairy cooperatives. Ph.D. thesis, CCS Haryana Agricultural University, Hisar.
- Shah, P. (2011). Analyzing the effectiveness of a dairy cooperative/ the cost of milk production. *Soc. Impact Res. Experience (SIRE)*. Available at <http://repository.upenn.edu/sire/9>