

Farmers Perception towards Livestock Extension Service : A Case Study

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ABSTRACT

A study was conducted in Western Maharashtra region to know the perception of farmers towards livestock extension services delivered by dairy cooperatives with regards to timely availability, amount paid and satisfaction level of the farmers towards the services. The study revealed that 56.0 per cent of the farmers perceived that extension services were available in time. With regards to amount paid for the services, 58.66 per cent of the respondents perceived that extension services were delivered free of cost. In the study area, 37.33 per cent respondents were satisfied with the extension service delivery. The variables age, education, occupation, knowledge level, annual income and information seeking behaviour were found to be positively correlated with timely availability of services. The factors education, social participation, decision making ability, and knowledge level were positively correlated with amount paid for extension services. The relationship between satisfaction level and the independent variables revealed that, education, occupation, knowledge level, land holding, annual income, livestock possession and innovativeness were positively correlated in the study area. The study concluded that, there is an urgent need to improve upon the quality of extension services so that farmers would be more content and satisfied with the services of dairy cooperatives.

Key words: Livestock extension service; Dairy cooperatives; Perception;

The delivery of livestock services is emerging as an important priority area for enhancing and optimizing livestock production and management of the livestock. Recent advances in the animal husbandry sector have increased the demand for various livestock services like animal breeding, health care, feed and fodder production, marketing, livestock extension etc. which are provided by multifarious agencies in India. Among all the services, livestock extension services play an important role to empower farmers with appropriate technological knowledge and skills through various extension education and training programmes. The major agencies dealing with livestock extension service in India are Directorate of Extension (Ministry of Agriculture), Indian Council of Agricultural Research, National Dairy Development Board, Krishi Vigyan Kendra, State Agricultural and Veterinary Universities and State Department of Animal Husbandry. In addition, national and regional level extension services are also provided by private agencies, Dairy Cooperatives and NGO (GOI, 2006).

Dairy cooperatives play an instrumental role in delivering livestock extension services to enhance efficiency in dairying, due to which they are getting attention from the past decade in developing countries. Presently, 1.44 lakh village dairy cooperatives are federated into about 170 district milk unions which are subsequently federated into 22 state cooperative dairy federations (GOI, 2012). But, due to competitive market players, these cooperatives are able to handle only about 17 per cent of the marketable milk surplus. However, the ability of the cooperative to attain its full productive potential is influenced by the availability and quality of extension services being delivered to the rural masses apart from its resource mobilization and economic growth. Hence, fulfilling the members' demand by timely satisfactory service delivery in cost effective manner is very important for the success of any dairy cooperative. A significant impact of the livestock extension service delivery can be evaluated by studying the farmers' perception towards the extension services delivered by Dairy Cooperatives.

METHODOLOGY

Out of the six regions in Maharashtra, Western Maharashtra (Pune region) was selected for study due to the presence of highest livestock population, maximum milk production and procurement as compared to other divisions (*Government of Maharashtra, 2009*). Gokul Dairy cooperative is considered to be the biggest and advanced dairy cooperative in this region, both in terms of number of members and volume of production. The Dairy Cooperative namely “Kolhapur Zilla Dudh Utapadak Sangh Limited, Kolhapur” functioning in the brand name “Gokul” was being purposively selected due to its landmarks in milk procurement, extension, animal health care, breeding, milk processing, product making and Marketing. The Cooperative presently can handle 11.25 Lakh litres of milk per day. This milk union covers 3788 village level dairy cooperatives on 238 milk routes for milk procurement every day.

Following multistage random sampling, 15 farmers were selected from each of the 10 villages to make the final sample of 150 farmers. A pretested structured interview schedule was used to study the perception of farmers towards livestock extension services through personal interview method during April to June, 2010. Totally, 24 extension services were selected based on discussion with experts and various review of literatures. The perception was studied on 3 point continuum for timely availability, amount paid and satisfaction level towards the services. An earnest effort was made to study the perception of farmers about the benefits of dairy cooperative Extension services in four point continuum which included ‘strongly agree’, ‘agree’, ‘disagree’ and ‘strongly disagree’. Following the completion of data collection, the collected data were coded, tabulated, classified and further categorized using frequency, percentage, mean and standard deviation. Correlation coefficient was used to study the relationship between dairy farmers and the perception towards livestock extension services.

RESULTS AND DISCUSSION

Personal and socio-economic characteristics of dairy farmers: The study of personal and socio-economic characteristics was carried with reference to age, education, occupation, knowledge level, land holding, annual income, social participation, livestock possession, innovativeness, information seeking behaviour, decision making ability, scientific orientation and economic orientation (Table 1).

Table 1. Distribution of dairy farmers based on personal and socio-economic profile

Variables	Intervals	No.	%
Age	Young (22-33)	24	16.00
Mean-46.50	Middle (34-60)	106	70.66
SD-13.05	Old (61-84)	20	13.34
Education	Illiterate	31	20.67
	Primary	19	12.67
	High School	56	37.33
	College	44	29.33
Occupation	Agriculture	125	83.33
	Animal Husbandry	08	5.33
	Business	06	04.00
	Government Service	05	3.33
	Laborers	06	04.00
Knowledge Level	Low (60-61.77)	06	04.00
Mean-64.96	Medium (61.78-68.15)	120	80.00
SD-3.19	High (68.16-73)	24	16.00
Landholding (Acres)	Small (0.25-0.39)	19	12.67
Mean-2.61	Medium (0.40-5.61)	115	76.67
SD-3.0	Large (5.62-21)	16	10.66
Annual Income	Low (6000-10730)	31	20.33
Mean-58.96	Medium (10731-128650)	103	69.34
SD-69.69	High (128651-500000)	16	10.33
Social participation	One organization	102	68.00
	More than one	46	30.33
	Office bearer	00	00
	Wide public leader	01	0.67
	Nil	01	01.00
Livestock Unit	Small (0-0.38)	00	00
Mean-2.9	Medium (0.38-5.42)	131	87.4
SD-2.52	Large (5.42-25)	19	12.6
Innovativeness	Low (21-30.76)	17	11.33
Mean-34.68	Medium (30.77-38.60)	113	75.34
SD-3.92	High (38.61-52)	20	13.33
Information Seeking	Low (27-33.08)	35	23.33
Mean-35.4	Medium (33.09-37.88)	85	56.67
SD-2.40	High (37.89-40)	30	20.00
Decision making ability	Low (15-21.05)	18	12.00
Mean-22.84	Medium (21.06-24.63)	123	82.00
SD-1.79	High (24.64-27)	09	06.00
Scientific Orientation	Low (12-15.20)	28	18.66
Mean-16.12	Medium (15.21-17.04)	120	80.00
SD-0.92	High (17.05-18)	02	1.34
Economic Orientation	Low (12-14.56)	18	12.00
Mean-15.54	Medium (14.57-16.52)	108	72.00
SD-0.98	High (16.53-189)	24	16.00

The study revealed that about 71 per cent respondents belong to middle age group followed by 16

per cent belonging to young and about 13 per cent in the old age category. With regards to education, 37.33 per cent respondents possessed higher schooling followed by 29.33 per cent in the college level category and 20.67 per cent were illiterate. The study reported that 83.3 per cent of the farmers had agriculture as their main occupation followed by 5.3 per cent of the respondents being involved in animal husbandry as major occupation. The study indicated that 80 per cent farmers possessed medium knowledge followed by high (16 %) and low (04 %) knowledge level categories. The findings of the study revealed that 76.67 per cent respondents were medium farmers followed by small (12.67 %) and larger land holding (10.66 %) farmers. The study pointed out that 69.34 per cent respondents were under medium income category followed by 20.33 per cent in low income and 10.33 per cent in higher annual income category. The study depicted that 68 per cent were members of one organization followed by 30.33 per cent farmers having membership in more than one organization while 1 per cent did not participate in any social activities. The study found that 87.4 per cent farmers maintained medium livestock units followed by 12.6 per cent possessing the larger livestock units.

The report revealed that 75.34 per cent dairy farmers belong to medium level of innovativeness followed by 13.33 per cent in high level and 11.33 per cent in low level category of innovativeness. The study found that 56.67 per cent of the farmers had medium information seeking behavior followed by low (23.33 %) and high (20 %) categories of information seeking behavior. The study found that 82 per cent farmers belong to medium level of decision making followed by 12 per cent respondents in the low level. The report depicted that 80 per cent farmers had medium scientific orientation followed by low (18.66%) and high scientific orientation (1.34%) categories. The study revealed that 72 per cent of the farmers had medium economic orientation followed by 16 per cent farmers in high economic orientation category.

Delivery of livestock extension services: The interview and survey with group members of the cooperative revealed that cooperative played a significant role in disseminating dairy related information to its members in the form of various extension activities. The study showed that significant number of competent and reliable human resource team delivered extension services in the form of training, advisory service, farmers educational tour, farm visits, exhibitions etc. The cooperative staff provided proper dairy related

advisory services and undertook proper quantity and quality control of members supply. The cooperative provided continuous training on improved animal husbandry practices at primary society level and district level. Apart from the above services, Gokul union had implemented women empowerment programmes. Refresher training programmes were also conducted for staff members at the societies and district level. Similar findings were also reported by *Alderman. et. al (1987)* and *Tefera (2008)* that cooperatives addressed their role in sharing knowledge and information in dairy innovation.

Perception of farmers towards livestock extension services : The study depicted in Table 2 revealed that 56.0 per cent of the farmers perceived that extension services were timely available while 38.67 per cent of farmers answered that the union provided the extension services very late. The study also reported that 5.33 per cent of the respondents perceived that extension services were totally unavailable. This may be due to lack of information about the various programmes undertaken by the union. Though union conducted training programmes and educational tours, they were not on regular basis and were only theoretically oriented. Similar findings were also reported by *Morton and Miheso (2000)* and *Tefera (2008)*.

Table 2. Perception of farmers towards livestock extension services

On Time Availability		Delayed Availability		Not Available	
No.	%	No.	%	No.	%
84	56.0	58	38.67	8	5.33

Perception of farmers towards amount paid for extension services

Free		Nominal		Costly	
No.	%	No.	%	No.	%
88	58.66	57	38.0	5	3.34

Satisfaction level of farmers towards extension services

Satisfied		Partly Satisfied		Not Satisfied	
No.	%	No.	%	No.	%
56	37.33	79	52.66	15	10.00

The study revealed that 58.66 per cent of the respondents perceived that extension services were freely available and 38.0 per cent farmers answered that union provided the extension services at nominal rates. This was noticed since very few farmers participated in extension activities. The study also reported that 3.34 per cent of the respondents perceived

that extension services were costly. This was due to irregular and lack of extension services which is similar to findings of *Ranganekar (1997)* who further reported that extension and training has been grossly neglected.

The interview about extension services pointed out that 37.33 per cent respondents were satisfied and 52.66 per cent of the farmers were partly satisfied (Table 2). This was observed due to effective extension services which included training programmes, advisory services and educational tours organized by the union for the farmers. The study also reported that 10.0 per cent of the farmers perceived that extension services delivered by Gokul union were unsatisfactory. In a study, *Dakurah et. al (2005)* and *Tefera (2008)* also reported similar findings.

Correlation coefficient between independent variables and livestock extension services: To study the relationship between the timely availability of services and the independent variables, correlation coefficient (r) was computed and the results are presented in the Table 3. The variables age, education, occupation, knowledge level, annual income and information seeking behaviour were found to be positively correlated, whereas parameters like land holding, social participation, livestock possession, innovativeness, decision making ability, scientific orientation and economic orientation were found to be negatively correlated with availability of the services. The variables age, land holding, social participation, livestock possession and information seeking behaviour were significant at 5 per cent level of significance.

With regards to amount paid for the services and the independent variables, the variables education, knowledge level, social participation, and decision making ability were found to be positively correlated, whereas variables like age, occupation, land holding, annual income, livestock possession, innovativeness, information seeking behaviour, scientific orientation and economic orientation were found to be negatively correlated. The variables education, occupation, annual income, scientific orientation and economic orientation were significant at 5 per cent level of significance.

The relationship between the satisfaction level of dairy farmers and independent variables presented in Table 3 revealed that, variables education, occupation, knowledge level, land holding, annual income, livestock possession and innovativeness were found to be positively correlated, whereas parameters like age, social

participation, information seeking behaviour, decision making ability, scientific orientation and economic orientation were found to be negatively correlated with the satisfaction level of the respondents. The variables education, annual income, livestock possession, innovativeness and information seeking behaviour were significant at 5 per cent level of significance.

Table 3. Correlation coefficient between independent variables and livestock extension services

Independent Variables	Availability 'r'	Amount paid 'r'	Satisfaction 'r'
Age	+0.024*	-0.045	-0.09
Education	+0.058	+0.0031*	+0.20*
Occupation	+0.061	-0.046*	+0.13
Knowledge level	+0.003	+0.021	+0.089
Landholding	-0.067*	-0.042	+0.039
Annual income	+0.053	-0.0389*	+0.162*
Social participation	-0.076*	+0.046	-0.079
Livestock/cattle unit	-0.085*	-0.032	+0.031*
Innovativeness	-0.091	-0.00540	+0.0479*
Information seeking behaviour	+0.00041*	-0.07122	-0.060*
Decision making ability	-0.0383	+0.1832	-0.074
Scientific orientation	-0.0789	-0.118*	-0.0425
Economic orientation	-0.1538	-0.128*	-0.0425

* Significant at 0.05 level of significance.

Perception of farmers about the benefits of cooperative Extension services: Sample respondents were asked about their perception on the actual benefits they got from cooperative Extension services and the results are indicated in Table 4.

The results indicated that, about 77 per cent of the sample respondents had acquired knowledge and skills in improved dairy management while about 83 per cent of the farmers had improved knowledge about heat detection and time of insemination and 91 per cent of the respondents had better access to production and management information through their cooperative.

Almost 88 per cent farmers improved knowledge about health care and disease management while about 84 per cent farmers improved knowledge about selection of breeds and 89 per cent farmers improved knowledge about vaccination and deworming of livestock. The study depicted that about 86 per cent farmers had better access to dairy products preparation information while about 87 per cent of the respondents had better access to

Table 4. Perception of farmers about benefits of cooperative extension services

Benefits	Strongly agree		Agree		Disagree		Strongly disagree	
	No.	%	No.	%	No.	%	No.	%
Acquired knowledge and skills in improved dairy management	11	7.3	104	69.3	32	21.3	3	2.0
Improved knowledge about heat detection and time of insemination	13	8.6	112	74.6	18	12.0	7	4.6
Better access to production and management information	14	9.3	122	81.3	10	6.6	4	2.6
Improved knowledge about health care and disease management	13	8.6	119	79.3	14	9.34	4	2.6
Improved knowledge about selection of breeds	8	5.3	118	78.6	21	14	3	2.0
Improved knowledge vaccination and deworming of livestock	17	11.3	117	78	13	8.6	3	2.0
Better access to dairy products preparation information	21	14	108	72	14	9.3	4	2.6
Better access to market and marketing information	25	16.6	105	70	14	9.3	6	4.0
Exposure to advanced green fodder production practices	8	5.3	114	76	19	12.6	9	6.0
Better access to advisory services in production and management	11	7.3	121	80.6	11	7.3	7	4.6
Educational tours have improved the knowledge and skill	11	7.3	105	70	26	17.3	8	5.3
Knowledge about record maintenance	9	6	122	81.3	11	7.3	8	5.3

market and marketing information and 81 per cent of the farmers were exposed to advanced green fodder production practices after joining the cooperative. In the study, 88 per cent farmers had better access to advisory services in production and management while about 77 per cent of the respondents perceived that educational tours had improved the knowledge and 87 per cent farmers were benefited due to record maintenance at farm. The study conducted by *Tefera (2008)* also depicted similar findings.

CONCLUSION

The study concluded that Gokul Dairy Cooperative provided various livestock extension services for the farmers mostly on time at free or nominal rates. Since majority of the farmers were partly satisfied with extension services, there is an urgent need to improve upon the quality of extension services to make the farmers more content and satisfied with the services of dairy cooperatives.

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REFERENCES

- Alderman H., G. Mergos and R. Slade. (1987) Cooperatives and the commercialization of milk production in India: a literature review. International Food Policy Research Institute (IFPRI) Working Papers on the Commercialization of Agriculture and Nutrition, No. 2. IFPRI, Washington, DC, 90 pp.
- Dakurah, Henry., Goddard, Ellen and Osuteye Nicholas. (2005). Attitudes towards and satisfaction with cooperatives in Alberta: A survey analysis. Paper presented at the American Agricultural Economics Association Annual Meeting, Providence, Rhode Island, July 24-27, 2005. (Department of Rural Economy, University of Alberta).
- Government of India. (2006). Planning commission working papers of Eleventh Five year plan 2007-2011, New Delhi.
- Government of India. 2012. Annual Report 2011-12 of Department of Animal Husbandry, Dairying and Fisheries, New Delhi.
- Government of Maharashtra. (2009). Economic survey of Maharashtra for 2008-09.
- Morton John and Miheso V (2000) Perceptions of livestock service delivery among smallholder dairy producers: case studies from Central Kenya Livestock Research for Rural Development. Vol.12 (2).
- Rangnekar, D. V. (1997). BAIF's Experience in Developing Delivery System to Provide Services at the Door Steps of Smallholders.
- Tefera Eshetu (2008). The Role of Dairy Cooperatives in Stimulating Innovation and Market Oriented Smallholders Development: The Case of Ada'a Dairy Cooperative, Central Ethiopia. Thesis Submitted To the Department of Rural Development And Agricultural Extension, School of Graduate Studies, Haramaya University, Ethiopia.

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