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Full Length Research Paper

Training needs of members in cooperative dairy marketing in Ethiopia

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Cooperative education and training are the most significant pillars of a strong and self-reliant co-operative movement. Realizing the importance of the Co-operative education and training needs, this research paper attempted to determine the training needs of members with the specific objectives of determining their level of awareness, to identify their training needs, to examine the association between training needs and socio-psychological characteristics, and to ascertain the constraints faced in cooperative dairy marketing by members in Arsi Zone, Oromia region, Ethiopia. This study adopted survey method. Three-stage sampling was used in which random sampling procedures were followed to select 176 respondents from the population. Structured interview schedule and FGD (Focus group discussion) were used to collect the data from the sampled respondents. The data were analyzed through descriptive statistical tools, X2- test, Cramer's V, Person's correlation coefficient, and multiple linear regression. In addition, awareness levels of stakeholders were evaluated by means of awareness index. Training need of members and officials were identified using TNS and prioritized via TNI. The constraints in dairy marketing were ranked using preference index. According to the results of the study, awareness index indicates that the majority of members (55.7%) have low level of awareness in dairy marketing. Due to the presence of many development interventionists, only 24.4% of the members perceived high level of training need, while 46% of the members had perceived medium level of training need in dairy marketing. The research findings highlighted that there is demand for upgrading the awareness of members in dairy marketing as well as organization of effective training programs to the needy group. The preference of members regarding type, method, duration, season, frequency, place, and language of training was:- peripatetic, group discussion, three to six days, winter, once in a year, FTC's and Afaan Oromoo respectively. About 50 to 75% of the training was perceived to be more practical as vital part in the training program. As per the model analysis output, indebtedness and economic motivation positively influenced the perception of members' training need; whereas, knowledge and training undergone in dairy marketing was found to negatively influence training needs at 1% level of significance. Irregular supply of milk, long fasting days, lack of transport facilities, absence of training, lack of credit access from the dairy coops(co-operatives) were found to be the basic constraints in dairy marketing among members. The findings suggest that co-operative policy makers and practitioners should stress in the adoption of participatory co-operative training approach and it should be implemented to increase the motivation, sense of ownership and shared responsibility among all co-operative stakeholders.

Key words: Dairy marketing, training need, dairy co-operatives, members.

INTRODUCTION

Background of the study

Co-operatives, which are commonly defined as "an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through jointly owned democratically controlled enterprise"(ICA,1995) play key role in the poverty reduction and sustainable development of a nation (FCA, 2008). In a subsistence agriculture, where

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smallholders are engaged in uneconomic and fragmented production, the role of co-operatives in improving the agricultural marketing system has been fully recognized. Based on the fundamental principle of "the future belongs to the organized" expanding and strengthening co-operatives is the underlying approach of the government in improving the marketing system (NEPAD, 2005).

Co-operatives in Ethiopia remained to be passive in changing the livelihood of most Ethiopians despite the fact that the legal framework was found back in 1960. Ethiopian co-operative movement has undergone drastic changes and transformation in the past. With all its demerits, it paved the way to the foundation of the modern co-operatives. According to report by FCA (2008), there are 23,167 primary co-operatives with Birr 835 million capitals, 4.66 million individual memberships. In order to strengthen the bargaining power of primary co-operative societies, 143 co-operative unions having Birr 143.6 million capitals have been established (FCA, 2008). In Oromia region, there are 3011 primary co-operatives with a capital more than Birr 126 million. On top of this, there are 96 primary dairy co-operatives in the region, out of which 21(20%) of them are found in six woredas[2] of Arsi Zone with a capital of Birr 324, 437 and membership of 856 individual members (OCC, 2007).

The dairy sector

For many people, dairy production is the most important income generator. Dairying provides a regular income to farmers in different parts of Ethiopia. Different authors confirmed that the smallholders' dairy package production system is a powerful means of raising farm incomes and welfare (Ahmed et al., 2003). The marketing and management of dairy, knowledge and awareness are vital. Given the considerable potential for smallholder income and employment generation from high-value dairy products (Staal, 2001), development of the dairy sector in Ethiopia can contribute significantly to poverty alleviation (Mohamed et al., 2004). Per capita consumption of milk in Ethiopia is as low as 17 kg per head while the average figure for Africa is 26 kg per head (Gebre wold et al., 1998). In fact, the existing excess demand for dairy products in the country is expected to induce rapid growth in the dairy sector. Factors contributing to this excess demand include the rapid population growth, increased urbanization and expected growth in incomes (Mohamed et al., 2004).

According to Staal (2001), dairy co-operatives have typically been formed in response to a fundamental farmer problem: The inconvenience of small quantities of milk to market. Milk is perishable which requires special handling to insure quality and shelf life. Holding milk where infrastructure may be lacking can be costly and risky. Conversely, the rapid delivery of small quantities of milk to market may not be practical or economic; some smallholder producers may market no more than 1 to 2 L of milk in a given day. The practical collection and transport of milk to market therefore usually requires some bulking, and the need for speed and reliability requires good organization of that bulking. Consequently, there is strong incentive for smallholder producers to try to form collective organizations to meet these needs, which are dairy cooperatives.

Concept of cooperative education and training

'Education and training' have been considered as essential parts of co-operative activities from the time the first society was found. One of the principles laid down by the ICA is that co-operatives should make provisions for the education and training of all stakeholders, which includes members, leaders, employees and the public. In many countries, setting aside part of the net surplus for education and training has become a statutory obligation. This money is unfortunately not always used as productively as it might be. Nevertheless whatever the situations, the education and training program should be considered with as much seriousness, as is any other programs to extend business operations. While the general principle of providing training program may be readily accepted, what is important is how to translate the principle into constructive action. 'How to determine the training need? Who is to be trained for what? Who is to do the training? How is the training to be done?'

Since the environment in which dairy co-operative exist continually changes, there is continually a need to learn new skills and techniques. While this is always true to some extent, at present there is greater than usual need for training as dairy co-operatives learn to adjust themselves to a market-oriented environment. The purpose of all training is to develop skills and encourage behavioral and attitudinal changes in participants (stakeholders). Not all problems however, can be solved by training. Training needs arise when the knowledge or skills needed are lacking, or when new activities are to be started, new products are to be introduced etc (FAO, 2000). Training needs may exist at various levels namely, for the whole organization/co-operative; for administrative staff or groups with specific tasks; for individuals (members). Training of members should above all aim at developing an active body of members who are able to participate effectively in the running of their societies. Direct involvement of members in all these aspects of the running of a co-operative is the only self-reliant way to ensure long-term survival for the organizations (FAO, 2000). This study focused on training needs of members in the dairy co-operatives who have a key stake.

Even though the potential of dairy co-operatives in contributing to the improvement of the small holders'

[2] Woredas are the third level of administration, in Ethiopian Governance system, are also called district.

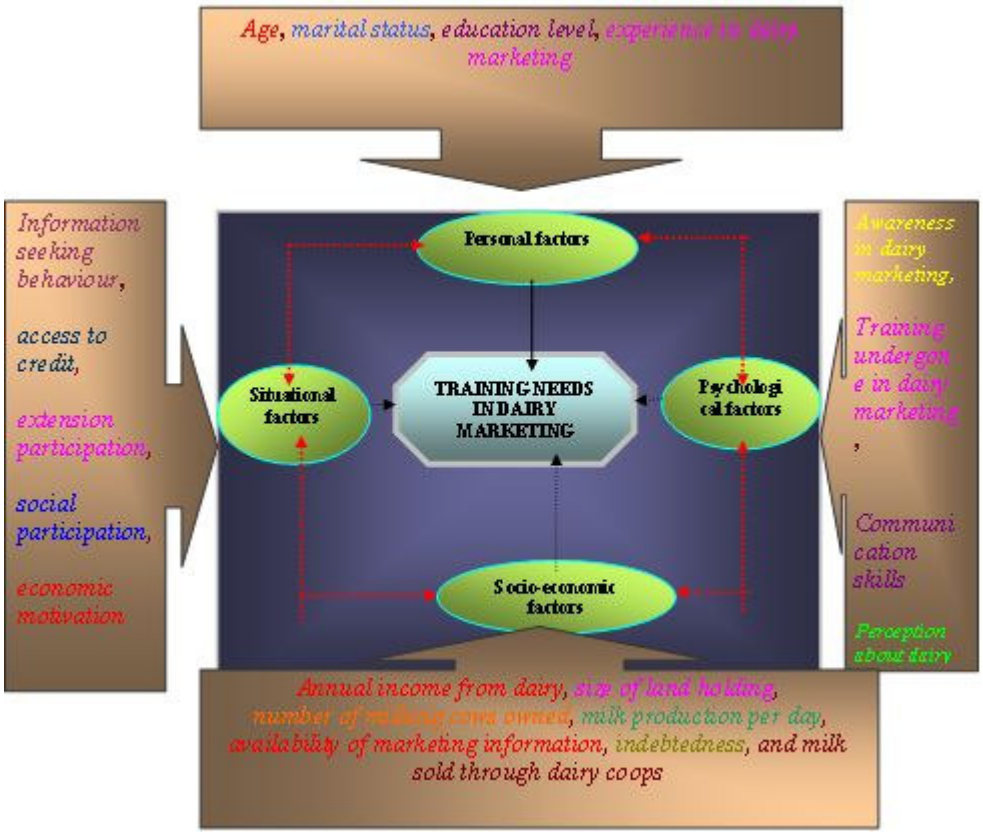

Figure 1. Conceptual frame work of the study.

dairy farmer-member is immense, it found out that due to lack of knowledge, awareness, and training in marketing dairy products, they were not able to drive the required benefit from their dairy co-operatives (IPMS, 2005). So far, there is no in-depth study on the knowledge, awareness, and training needs of dairy co-operatives' stakeholders. The study was conducted in Arsi Zone, where two potential dairy producers' *woredas* were selected. This study exposed the gap in awareness, knowledge and training among the dairy cooperative stakeholders' in dairy marketing.

General objectives

The general objective of the study was to determine the training needs of co-operative leaders on co-operative dairy marketing in Arsi Zone of Oromia Regional State, Ethiopia.

Specific objectives

1. To determine the awareness level of members of co-operatives in dairy marketing;
2. To identify the training needs of members of dairy co-operatives in dairy marketing;
3. To examine the association between the training needs and the socio-psychological characteristics of members of dairy co-operatives;
4. To ascertain the constraints experienced by members in dairy marketing, and
5. To suggest strategies for providing effective training to members of dairy cooperatives.

METHODOLOGY

This study employed survey method with field orientation. In essence, precision of facts is better from a census. However, due to financial and time constraints, total coverage of the entire population is not practical and not necessary. Sampling allows the researcher to study a relatively small number of units representing the whole population (Sarantakos, 1998). For this study, probability-sampling technique was used.

Sampling method

One of the potential dairy producer's Zone in Oromia regional state (Figure 1) is Arsi, where the first dairy development project was launched and preceded by North Shoa. So, Arsi zone was purposively selected for the study. In the Arsi zone, there are 21 dairy co-operatives. In this study, three stage random sampling method was adopted for the selection of the respondents. In the first stage, from 21 woredas, two woredas (Tiyo and 'Limu and

Table 1. Sample size of the study.

Name of selected woreda	Total no. of dairy co-perativess	Name of sampled dairy co-operatives	Individual members			Sample size of the study**
			Male	Female	Total	Individual members
Limu and Bilbilo	6	Lemu Dima	24	7	31	16
		Bokoji	50	5	55	27
		Lemu Mikael	47	8	55	27
Tiyo	8	Wagi Bilalo	5	84	89	45
		Dosha	42	6	48	24
		Gara Chillalo	41	11	52	26
		Gora Fana	22	-	22	11
Total	14	7	231	121	352	176
Grand total sample size						176

Source: AZCPB: ** From secondary data, 2009.

Bilbilo') were selected at random. These woredas have high concentration of co-operatives; Performance of dairy co-operatives, membership size, dairy production per year and market access is high in these woredas. There are 14 dairy co-operatives in the two selected woredas. In the second stage, from the 14 dairy co-operatives, seven dairy co-operatives were selected at random for the study. In the third stage, using random sampling procedure and probability proportionate to size of the population (PPS), 176 members of dairy co-operatives were selected as respondents for this study.

Sample size

The respondents for the study were selected using probability proportionate to size of the population (PPS). A total sample size of 211 respondents was included in the study, which consists of 176 members' respondents, and 35 officials and employees (Table 1).

Method of data collection

This study used both primary and secondary data to gather the required data for achieving the stipulated objectives. The study used structured interview schedule to collect information from member respondents and a questionnaire to collect data from officials and employees in the sampled dairy co-operatives. In addition, Focus Group Discussion (FGD) was conducted with key communicators for getting in-depth information about their situations and issues with respect to dairy marketing. Focus group discussions (FGD) were conducted on specific topics with small groups of people (that consists 7 to 8 experts) who have intimate knowledge about the topic under consideration. The interview schedule prepared in English was translated to Afaan Oromoo before final administration.

Method of data analysis

In this study, descriptive statistical tools were used to analyze the quantitative data. The descriptive statistical tools that were adopted are means, percentage, frequencies, and standard deviations, as well as Chi-square test, (goodness of fit) test were employed. For this study, Karl Pearson's coefficient of correlation(r) was applied to analyze the data. The degree of association or correlation between the variables was tested by the use of correlation analysis (Gomez, 1984; Kothari, 2003).

On the other side, multiple linear regression (MLR) analysis was another statistical technique used to analyze the influence among variables with the object of using the independent variables whose values are known to predict the single dependent value (Hair et al., 1998). .

Training need index and training need score were calculated using the model set by Kanaga (1988). Based on the difficulty index, item analysis was done for knowledge test. Moreover, training need index was employed to prioritize the training needs of the stakeholders. The training need index was obtained by dividing the total scores obtained by a respondent by the maximum possible score that could be obtained by a respondent. The respondents was divided into three groups with low, medium and high level of training needs based on the procedure used by Kanaga (1988).

For training need analysis, the important subject areas identified and finalized after discussions with experts from zonal cooperative promotion bureau. For officials, it includes general concepts on cooperatives, milk procurement, milk collection, pricing methods, book keeping and accounting system, distribution system, new product development, managing seasonality, grading and standardizing, quality control, credit and finance, selling skills and sales management. For members, general concepts on cooperatives, techniques of clean milk production, milk production plan, quality control, milk processing, milk transportation, milk collection, grading, input procurement, and market orientation. Prior to estimating the models, it is essential to verify if 'multicollinearity' exists among the explanatory variables. If multicollinearity turns out to be significant, the simultaneous presence of the two variables will underpin the individual effects of these variables. For this particular study, variance inflation factor (VIF) was used for continuous variables.

RESULTS AND DISCUSSION

It is visualized from Table 2 that the age of members of the dairy co-operatives ranged from 15 to 65. The mean age of the members in this study was 46.98. The study revealed that most of the members of dairy cooperatives were economically active (15 to 41 age group). Among the members, 46.6% of them were below grade 4, 35.2% between grade 5 to 8 and 18.2% lies between grade 9 to 12. Out of 176 members, 89.2% of them were male and

Table 2. Distribution of Personal characteristics of members.

Personal characteristics of members	Attributes: N=176	Frequency	Percent
Age	(15-29)Younger	7	4.0
Mean: 46.98	(30-49 Middle	99	56.3
Std: 11.30	(50-65) Older	59	33.5
Min: 15	Total		
Max: 65 $\chi 2$ = 77.38***			
	< Grade 4	82	46.6
	Grade 5 - 8	62	35.2
	Grade 9- 12	32	18.2
Education level	Diploma	-	-
$\chi 2$ = 21.59***	Degree	-	-
	Total	176	100
	Male	157	89.2
Sex	Female	19	10.8
	Total	176	100
	Single	7	4.0
Marital status	Married	164	93.2
	Divorced	3	1.7
$\chi 2$ = 436.82***	Widowed	2	1.1
	Total		
	1-3 person	19	10.8
Family Size	4-6 person	89	50.6
Mean: 6.73	7-9 person	50	28.4
Std: 3.03	>9 person	18	10.2
$\chi 2$ = 55.17 ***	Total	176	100
	< 2	65	36.9
Experience in	3-5	111	63.1
dairy marketing (years)	>5	0	0
$\chi 2$ = 12.02 ***	Total	176	100

Source: From own survey data, 2009.*** Significant at less than1% significance level.

10.8% were females.

Accordingly, 169 (93.2%) of the members were married, followed by seven single (4%), three divorced (1.7%), two widowed (1.1%) members of the dairy co-operatives. In this study, members experience in dairy marketing was measured as duration of membership that was spent in transacting with the dairy co-operatives. The members experience in dairy marketing was placed in three categories, that is, with < 2, 3 to 5 and > 5 years with 36.9, 63.1 and 0% of members, respectively.

It is observed from Table 3 that, the average of milking cows owned was found as 2.19 Tropical Livestock Unit (TLU). Hence, it was assumed that the higher the land size, the higher will be their training need in dairy marketing. Out of 176 members, 25.6% of them having land holding from 0.04 to 1.75 ha followed by, 1.76 to 3.44 ha (49.4%), and 3.45 to 7 ha (25.0%). The average land size of the members of dairy cooperatives was 2.56 ha, with the minimum of 0.04 ha and a maximum of 7 ha. The annual income of the members from dairy can significantly influence their training need in dairy marketing. Members' annual income from dairy activities was classified into five categories. Based on this 36.9, 22.2, 13.6, 6.3 and 21% of the members annual income fall within a range of ≤ 1000, 1001 to 2000, 2001 to 3000 and 3001 to 4000 ETB, respectively (Table 3).

The mean milk production of the members were found to be 7.30 L of milk per day in full lactation period with minimum of 0.5 L and maximum of 24 L per day. The mean milk sold to the dairy cooperative was 4.66 L per day with minimum of 0.5 L and maximum of 12 L of milk per day.

The relationship between milk produced by the members, milk consumed by the members and milk sold to the cooperatives was illustrated in Figure 3.

It is visible from the Table 3 that 42.61% of the

Table 3. Distribution of socio- economic characteristics of members.

Socio-economic characteristics	Attributes	Frequency	Percent
Size of land holding in hectare Mean: 2.56; Max: 7 ; Min: 0.04 $\chi 2$ = 20.53 ***	0.04-1.75	45	25.6
	1.76-3.44	87	49.4
	3.45-7	44	25.0
	Total	176	100
Total annual income from dairy activities (Birr) $\chi 2$ = 45.93 ***	< =1000	65	36.9
	1001-2000	39	22.2
	2001-3000	24	13.6
	3001-4000	11	6.3
	> 4000	37	21.0
	Total	176	100.0
Milk production in liters Mean:7.30 ; Max:0.5; Min: 24 $\chi 2$ = 49.23 ***	0.5- 5	58	33.0
	6 -10	97	55.1
	11-24	21	11.9
	Total	176	100.0
Milk sold through coops in liters per day Mean:4.66; Max:12; Min:0.5 $\chi 2$ = 57.51 ***	0.5-3	44	25.0
	4 -6	104	59.1
	7-12	26	14.8
	Total	174	98.9
Indebtedness (Birr) $\chi 2$ = 135.31 ***	No debt	75	42.6
	>500	24	13.6
	500-1500	52	29.5
	1501-2500	11	6.3
	2501-3500	5	2.8
	< 3500	9	5.1
	Total	176	100.0
	Mean	SD	
Milking cows owned	2.19 TLU	1.51	
TLU for livestock ownership	16.32	13.56	

Source: Computed from survey data, 2009 *** Significant at less than 1% significance level.1 USD = 11 ETB, 2009.

respondents had no debt and only 5.11% of the respondents had a debt greater the ETB 5000.

As shown in Table 5, out of 176 members of dairy cooperatives, 175 (99.4%) of the members participated in different type and forms of formal and informal organization.

Table 4 shows that the type of organization in which members participated indicates that majority of the 'members (Score = 285) participate' in informal associations like 'ekub', 'edir', etc, which is in agreement with the studies of Zerihun (2002).

Table 5 shows that, 27.8% of the members share available information to a lower extent and 48.9% of the members was found to have medium information seeking behaviour respectively. As evident, from the findings of the study, 86.9% of the members had access to credit where as 13.1% of the members had no access to credit during 2008 production year from different sources.

The major constraints to access credit were lack of collateral and high interest rate of the lenders. The majority of the members resort to microfinance institution and a few credit co-operatives to access loan. Among176 members, 52.8% borrow with the purpose of purchasing hybrid cows, for improving their dairy development at the farm level, followed by 14.2, 9.7 and 6.3%, for procuring milking equipments, marketing finance, and construction of cattle barn, respectively.

It was assumed that members' extension participation in dairying can improve their knowledge and skills in due time. Majority (99.4%) of the members of dairy

Table 4. Participation of members in types of organizations.

S/N	Organization	Never(0)		Sometimes(1)		Whenever conducted(2)		Total	
		N	%	N	%	N	%	Score	Rank
1	Peasant association	4	2.3	105	59.7	67	38.1	239	3rd
2	Farmers cooperatives	97	55.1	49	27.8	30	17.0	109	5th
3	Informal associations	8	4.5	51	29.0	117	66.5	285	1st
4	Religious organization	5	2.8	95	54.0	76	43.2	247	2nd
4	School committee	81	46.0	58	33.0	37	21.0	132	4th
5	HIV club	152	86.4	20	11.4	4	2.3	28	6th

Source: From own survey data, 2009.

Table 5. Distribution of situational characteristics of members of dairy cooperatives.

Situational characteristics of members	Attributes	Frequency	Percent
Social Participation ***	Yes	175	99.4
	No	1	0.6
	Total	176	100
Sharing of available information with others $\chi 2$ =18.14 ***	Share to low extent	49	27.8
	Share to medium extent	85	48.3
	Share to high extent	42	23.9
	Total	176	100.0
Information seeking behaviour X^2 =19.4 ***	Low score	48	27.3
	Medium score	86	48.9
	High score	42	23.9
	Total	176	100.0
Extension participation ***	Yes	169	99.4
	No	1	0.6
	Total	176	100.0
Access to credit X^2 =11 ***	Yes	153	86.9
	No	23	13.1
	Total	176	100
Purpose of borrowing	Construction of houses for the cattle	11	6.3
	For procuring milking equipments	25	14.2
	For procuring hybrid cows	93	52.8
	Marketing finance	17	9.7
	Total	176	100.0
Frequency of contact with DA's	Once in a week	113	64.2
	Once in two weeks	33	18.8
	Once in three weeks	13	7.4
	Once in four weeks	8	4.5
	Once in five weeks	9	5.1
	Total	176	100.0

Source: Computed from own survey data, 2009. *** Significant at 1% level of significance.

Table 6. Distribution of psychological characteristics of members of dairy cooperatives.

Psychological characteristics	Attributes	Frequency	Percent
Economic Motivation X^2=67.13***	Low score	46	26.1
	Medium score	108	61.4
	High score	22	12.5
	Total	176	100.0
Level of awareness X^2=7.36***	Low level	98	55.7
	High Level	78	44.3
	Total	176	100.0
Perception about dairy cooperatives χ^2=10.78***	Low level	78	44.3
	Medium level	55	31.3
	High level	43	24.4
	Total	176	100.0
Communication skills X^2=31.17***	Low	47	26.7
	Medium	93	52.8
	High	36	20.5
	Total	176	100.0
Training undergone in dairy marketing NS	Yes	82	46.6
	No	94	53.4
	Total	176	100.0

Source: From own survey data, 2009. *** Significant at 1% level of significance: NS: non significant.

cooperatives participate in extension activities, while only 0.6% of the members did not participate in any extension activities in the previous production plan. Conversely, 64.2, 18.8, 7.4, 4.5 and 5.1% of the members had contact with DA's once in a week, once in two weeks, once in three weeks, once in four weeks, and once in five weeks, respectively. This is in concurrence with the findings of Deribe (2007). As per the perception of the members, the majority of the extension service provided by DA's concentrates on technical aspect of dairy farming and input supply.

It is evident from Table 6 that majority (61.4%) of the members had medium score of economic motivation to undertake dairy activities (Table 6). It is also apparent from the table that 55.7% of members had low level of awareness while 44.3 % of the members had high level of awareness in dairy marketing.

It is clear from Table 6 that, 44.3, 31.3 and 24.4% of members had low, medium, and high level of perception in dairy marketing respectively. 60% of officials had low level of perception about dairy co-operatives, while 40% of officials had high level of perception. The communication skills o the respondents were categorized into three-communication skill levels. Accordingly, 26.7, 52.8 and 20.5% of the sample member respondents were categorized into low, medium, high level of communication skills respectively. As a matter of fact, training increases the knowledge of participants about farm practices (Rao, 1969). The majority of the members 53.4% had no exposure to training in dairy, while 46.6% of the members had undergone training in dairy.

Relationship between dependent and independent variables

In this study, out of 20 explanatory variables only 11 of them explain training need of members in dairy marketing As a matter of fact, out of three categorical independent variables, no variable was found to be statistically correlated. Both sex and marital status was positively correlated but they were not statically significant with training needs of members in dairy marketing. In addition, there was no significant relationship (p = 0.891) and weaker one (Cramer's V = 0.435) between perception of training needs and education level of members in dairy marketing. This study concurs with Deribe (2007) and Rao (1969).

Apparently, experience in dairy marketing was positively and significantly (at 0.01 level) associated with the knowledge of members in dairy marketing. On the

Table 7. Relationship of training need in dairy marketing with independent variables.

S/N	Continuous independent variables for members	Pearson correlation analysis	
		Training need score (r)	p
	Personal factor characteristics		
1	Age of the members	-0.171(*)	0.023
2	Family size	-0.073	0.336
3	Experience in dairy marketing	-0.139	0.065
	Socio-economic characteristics		
4	Land Size	-0.041	0.588
5	Number of milking cows	-0.062	0.412
6	Total annual income	0.206(**)	0.006
7	Milk produced by the members	0.159(*)	0.035
8	Milk sold to cooperatives	0.062	0.416
9	Indebtedness of the members	0.166(*)	0.028
10	Availability of marketing information	0.341**	0.000
	Situational characteristics		
11	Social Participation	0.095	0.210
12	Information seeking behaviour	-0.199(**)	0.008
13	Extension participation	0.042	0.580
14	Economic motivation	0.535(**)	0.000
15	Access to credit	0.068	.372
	Psychological characteristics		
16	Awareness in dairy marketing	-0.366(**)	0.000
17	Perception about dairy coops	-.083	0.275
18	Communication skills	-0.447(**)	0.000
19	Training undergone in dairy marketing	-0.747(**)	0.000
20	Knowledge score in dairy marketing	-0.804(**)	0.000

* Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed). Source: Computed from own survey data, 2009.

the training needs of members in dairy marketing (Table 7).

In this study, the positive and significant relationship between experience and knowledge in dairy marketing, revealed that, the higher the experience of members in transacting with the dairy cooperatives, the higher will be their knowledge in dairy marketing. The prime reason for this is that knowledge is the sum of experience that a farmer gets through out life.

Conversely, there was negative and significant relationship between the age of the members and their training needs in dairy marketing. In other words, as the age of the members increase its training need decreases. The major reason for such relationship might be due to the fact that, members do not seek new idea and knowledge as their age increase in which they tend to conform to their previous practices performed for long period of time in their life. This finding concurs with Sangeetha (2004) and Deribe (2007).

Association between socio-economic characteristics and the dependent variable

Milk produced availability of marketing information and indebtedness of the members was positively and significantly (at 0.05 level) associated with the training needs of the members. Moreover, total annual income from dairy activities was positively and significantly (at 0.01 level) associated with the training needs of the members in dairy marketing (Table 7). This study is in conformity with Reijo (1998).

It is evident from Table 7 that the negative and significant relationship between total annual income from dairy activities and knowledge of members in dairy marketing entail that the higher the annual income of the members, the lower will be their knowledge in dairy

marketing. This probably because, when members' annual income increases, they tend to switch on to other business by letting the latter to seize where, their knowledge in dairy marketing tend to fade.

In this study, there was positive and significant association between members' daily milk production and their training need in dairy marketing. In other words, the higher milk produced by the members, the higher will be their training need in dairy marketing. This indicated that marketed surplus from milk will remind the members to set off for selling the milk beyond subsistence level of household consumption, in which they need to acquire the appropriate skills and knowledge in the marketing aspect through the existing channels. Birhanu and Workneh (2003) study confirms with the above finding.

The positive and significant association between indebtedness and training need in dairy marketing entail that, the higher the indebtedness the higher will be the training needs of members in dairy marketing. This is due to the fact that, their deteriorated economic situation ignites the need to change the situation by acquiring knowledge and skills through training.

On the other side, total annual income from dairy activities was positively and significantly ($r = 0.206$, $p= 0.006$) associated with the training needs of members in dairy marketing. In other words, when the members annual income from dairy increases, the members need for training increases as well. Income from dairy, serve as an incentive and economic motivation to acquire more knowledge and skill to expand dairy activities. Many studies confirm this (Deribe, 2007; Kanaga, 1988). Thus, training increases with increase in annual income especially from dairy activities.

Association between situational characteristics and the dependent variables

It is clear from Table 7 that information seeking behavior of members was negatively and significantly (at 0.01 level) associated with the training needs of the members in dairy marketing where as economic motivation of members was positively and significantly (at 0.01 level) correlated with the training needs of members in dairy marketing

As a matter of fact, information seeking behaviour of members was negatively and significantly associated with the training needs of members in dairy marketing. This pointed out that, when the desire of the members to get new knowledge and skill increases, their training need decreases. This was because the more the members seek information about dairy marketing the less they need training on that area. This study is in conformity with Kanaga (1988).

Pearson correlation of field data explain that, economic motivation is positively and significantly related with the training needs of the members in dairy marketing. This implies that, the more members are economically motivated, the more training they require getting into action. Kanaga (1988) findings are in conformity with the above result.

Association between psychological characteristics and the dependent variables

Table 7 shows that, awareness in dairy marketing, communication skills, training undergone in dairy marketing, knowledge in dairy marketing was negatively and significantly (at 0.01 level) associated with the training needs of members in dairy marketing.

In contrast, awareness of members in dairy marketing was negatively and significantly ($r = -0.366$, $p = 0.000$) associated with training need in dairy marketing. This means, when members' awareness increases, their training need in dairy marketing decreases. This was due to the fact that, being conscious of something amount to an increase in knowledge of members gradually, where members tend to reveal low training need. Communication skill of members was negatively and significantly associated with training need of members in dairy marketing. As members' communication skill increases, their need for training decreases. This might be due to the reason that, the more members tend to listen and understand each other, the more knowledge they get, since knowledge come from understanding. Hence, as members posses more knowledge their need for training decreases.

Training undergone by members in dairy marketing was negatively and significantly associated with the training needs of members in dairy marketing. This implies that, as members undergo more training, their need for extra training decreases. Since, training can ease more of their problems caused due to lack of knowledge and skills. For this particular study, knowledge of members was negatively and significantly ($r = 0.804$, $= 0.000$) correlated with the training needs of members in dairy marketing. This entails that, as members' knowledge increases their training needs decreases in dairy marketing. As a matter of fact, members' knowledge amounts to lessen some of constraints hindering their dairy development.

The influence of independent variables on dependent variables

Here, the analysis of important variables, (Figure 2) that are expected to have influence on knowledge and training need of members were discussed. For this purpose, the independent variables were entered into multiple linear regression (MLR) model so as to pick the factors influencing knowledge of members in dairy marketing. As a matter of fact, the model was fitted to estimate the influence of each independent variable through utilizing SPSS version 15 for the analysis.

Using bivariate analysis, in the preceding section, age, total annual income, milk produced by the members,

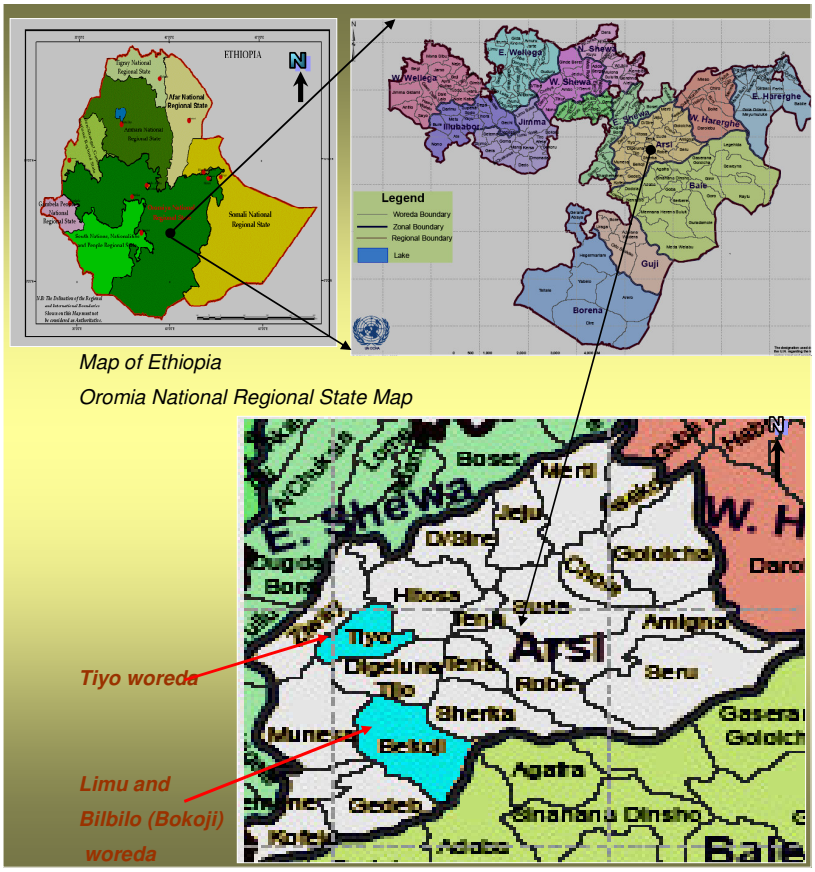

Figure 2. Map of the study area. Source: Accessed and modified from www. unocha.org on September 1, 2008.

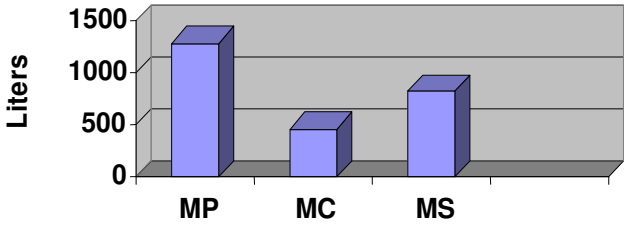

Figure 3. Comparison of milk produced, consumed and sold by members Source: Survey data, 2009. Where MP is Milk produced; MC is milk consumed, and MS is milk sold through cooperatives.

availability of marketing information and knowledge in dairy marketing were selected for assessing their influence on the training needs of members in dairy marketing.

Before estimating the model parameters for the study, it was checked for the existence of the problems of multicollinearity among some variables. For this purpose, VIF and 'contingency' coefficient were employed to test the existence of multicollinearity among continuous and discrete variables, respectively. According to Gujarati (1995), VIF is used to detect the problem of multicollinearity among continuous independent variables. As a rule of thumb, if the VIF of a variable exceeds 10 (this will happen if Ri 2 exceeds 0.95), that variable is said to be highly collinear (Gujarati, 1995). The

result for contingency coefficient is presented in Appendix 1.

Table 8 shows that, no serious problem of multicollinearity exists between continuous explanatory variables. In addition, using coefficient of contingency,

Table 8. Multicollinearity test for continuous independent variables.

Variable	VIF for KNODM	VIF for TRGND
AGE		1.058
EXPERDM	1.104	
TOTANINC		1.400
MILKRPDDY		1.184
INDEBTDNESS		1.116
INFOSEKB	1.184	1.257
ECOMOTV	1.094	1.135
AWADM	1.067	1.150
COMMSKL	1.153	1.107
TRGUDDM	1.046	1.094
KNOWDM		1.071

Source: Survey data, 2009.

Table 9. Coefficient of regression function for training needs of members.

Variable	Coefficients		t	Significance
	β	ε		
Constant	67.498	4.631	14.577	0.000
AGE	-0.038	0.030	-1.275	0.204
TOTANINC	-0.065	0.252	-0.256	0.798
MILKRPDDY	0.122	0.095	1.285	0.201
INDEBTDNESS	0.459***	0.243	1.888	0.061
AVAMINFO	-0.740	0.792	-0.934	0.352
INFOSEKB	-0.081	0.072	-1.128	0.261
ECOMOTV	0.462**	0.180	2.564	0.011
AWADM	0.060	0.235	0.255	0.799
COMMSKL	-0.078	0.134	-0.577	0.564
TRGUDDM	-5.970*	0.988	-6.044	0.000
KNOWDM	-1.449*	0.148	-9.817	0.000

Source: Computed from own survey data using SPSS, 2009. *Significant At 0.1 level: ** Significant at 0.05 level: *** Significant at 0.01 level. R = 0.874, R^2 = 0.764, Adj R^2 = 0.749, F= 48.378, P = 0.000.

availability of marketing information was found to have no serious problem of multicollinearity (Appendix 1). Hence, a set of eight and eleven independent variables were included in the model and used in MLR analysis for knowledge and training needs of members in dairy marketing respectively. In fact, all variables that were presumed to explain the dependent variables were selected based on national and international empirical studies. Therefore, to determine the factors that are best predictors of the dependent variables, multiple regression were estimated by adopting SPSS version 15.

As indicated in Table 9, among 11 independent variables entered in MLR analysis, only four independent variables were significantly influencing the training needs of members in dairy marketing. These variables include, economic motivation, training undergone in dairy marketing, knowledge in dairy marketing and indebtedness of members. The remaining eight independent variables do not have statistically significant influence on training needs of members. MLR analysis revealed that there was a positive and significant (R = 0.874) relationship between training need and independent variables. The value of coefficient of determination (R^2 = 0.749) indicates that 74.9% of variation in the training need of members in dairy marketing can be explained by the independent variables in the model.

As summarized in Table 10, the regression function is significant at 1% level. The independent variables presented in the model can be presented here under:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ldots\ldots\ldots + \beta_k X_k,$$

where Y= Training need in dairy marketing (TNGND), X_1 = Economic motivation (ECOMOTV), X_2 = Training undergone in dairy marketing (TRGUDDM), and X_3 = Knowledge in dairy marketing (KNOWDM).

Table 10. ANOVA of the regression function for training needs of members.

	Sum of squares	df	Mean square	F	Sig.
Regression	9878.211	11	898.019	48.378	0.000
Residual	3044.283	164	18.563		
Total	12922.494	175			

Source: Computed from own survey data.

Table 11. Level of training needs of members in cooperative dairy marketing.

S/N	Level of training needs of members of dairy cooperatives	Frequency	Percent
1	Low level	52	29.5
2	Medium level	81	46.0
3	High level	43	24.4
	Total	176	100.0

Source: computed from own survey data, 2009.

TRGND = 67.498 + 0.462 ECOMOTV – 5.970 TRGUDDM – 1.449 KNOWDM + 0.459 INDEBTDNESS

Economic motivation (ECOMOTV)

It is evident from the above model that, one unit increases in economic motivation of the members in dairy bring a 0.462 increase in the training needs of members in dairy marketing. As a matter of fact, the more the members are economically motivated to undertake dairy activities, the more knowledge and skills are required, which are actually expressed in training need.

Training undergone in dairy marketing (TRUDDM)

It is indicated in the above model that, one unit increase in training undergone by members reduced their training need by 5.970. In fact, continuous training enables the members to acquire more knowledge and skill, which can ultimately reduce their perception of future training need.

Knowledge in dairy marketing (KNOWDM)

As indicated in the above model, a unit increase in knowledge of members in dairy marketing carries 1.449 unit reductions in the perception of training need of members in dairy marketing. Naturally, the acquisition of more knowledge tends to reduce the perception of high training need.

Indebtedness of members (INDEBTDNESS)

As shown in the above model, a unit increase in the indebtedness of the members brings 0.459 increases in the perception of the training needs of the members. This implies that the more members become economically indebted, the more training they need, to get out of economically inferior situation.

Training need analysis

Level of training needs of members' in dairy marketing

Despite the fact that, members had low level of knowledge in dairy marketing, it was not reflected as a ground for the training needs of the members due to many reasons. Firstly, the study area was the pioneer area where Chilalo Agricultural Development Unit (CADU) has intensively implemented a top-down training approach, which is not consistent with the farmer's preconceived indigenous knowledge. Secondly, most of CADU's training is institutionally non- participative as well as methodologically faulty one to bring rapid change in the area, where this was reflected by boycott of most of the extension and training program.

It is evident that, out of 176 members only 24.4% of the members had perceived high level of training in dairy marketing while 29.5 and 46% of members had low and medium level of training needs respectively (Table 11). This tendency might be due to the fact that majority of the farmers were small farmers and had perceived medium experience in dairying, mass media exposure and contact with extension agency. This is in concurrence with the findings of Ramulu (1992) and Sangeetha (2004). Conversely, 54.3% of sample officials had perceived low level of training needs whilst, 28.6 and 17.1% of the

members had perceived medium and high level of training in dairy marketing respectively.

Statistics

It is obvious from Table 12 that benefits of dairy co-operatives had got the first rank, followed by legal system of co-operatives (2^{nd} rank) and transformation from conventional to market oriented dairying had got least rank (15^{th}) in the level of training need of members in dairy marketing.

Table 12. Distribution of members based on subject matter areas and degree of training needs.

Major areas	Subject matter areas	Degree of Training Need						TNS	OMS	Rank
		Not at all needed (1)		Somewhat needed (2)		Much needed (3)				
		N	%	N	%	N	%			
General Concept	Benefits of dairy coops	10	5.7	78	44.3	88	50	430	2.44	1st
	Importance of dairy coops	10	5.7	80	45.7	86	48.9	428	2.43	3rd
	Legal system of coops	12	6.8	75	42.6	89	50.6	429	2.44	2nd
Quality control	Techniques in quality control	15	8.5	77	43.8	84	47.7	421	2.39	4th
	Standards in quality control	19	10.8	75	42.6	82	46.6	415	2.35	6th
Milk production	Planning for dairy production	13	7.4	74	42.0	89	50.6	428	2.43	3rd
	Benefits and importance	15	8.5	77	43.8	83	47.2	418	2.38	5th
	Techniques of milk production	11	6.3	84	47.7	81	46.0	422	2.39	4th
Milk transport	Wastage, spoilage minimization	22	12.5	91	51.7	63	35.8	393	2.23	7th
	Timing of milk schedule	22	12.5	97	55.1	57	32.4	387	2.19	8th
Processing	Modern processing methods	24	13.6	93	52.8	59	33.5	387	2.19	8th
	Product conversion techniques	18	10.2	99	56.3	59	33.5	393	2.23	7th
Grading	Benefits of Grading	26	14.8	91	51.7	59	33.5	385	2.18	9th
	Methods of Grading	33	18.8	90	51.1	53	30.1	372	2.11	11th
Milk collection	Identifying collection center	33	18.8	95	54.0	48	27.3	367	2.08	12th
	Techniques in milk collection	40	22.7	94	53.4	42	23.9	354	2.01	14th
Input procurement	Basic inputs need in milk production	28	15.9	97	55.1	51	29.0	375	2.13	10th
	Time, price, place of procuring inputs	31	17.6	101	57.4	44	25.0	365	2.07	13th
Market-orientation	Why market-orientation?	36	20.5	102	58	38	21.6	354	2.01	14th
	How to shift to market-orientation?	44	25.0	96	54.5	36	20.5	344	1.95	15th

Source: computed from own survey data, 2009.

It was also evident that benefit of co-operatives, which were one of the general concepts of co-operatives, was ranked first. Most of the members grumbled that lack of awareness and training on the areas of the real benefits of cooperatives in general and dairy co-operatives

in particular has created a major problem in dairy development through their co-operatives. On many of the occasions, farmers were associating themselves to the nearby dairy co-operatives just to acquire the dairy processing machines that were given from woreda agricultural and rural development office on a group basis. A fact, that the Bureau itself cannot deny. As a matter of fact, most of the top down efforts made to develop the dairy sector was hampered because of disregard to members' level of commitment to dairy co-operatives, which emanates from their level of knowledge in dairy co-operatives.

The second training area was found out to be legal system of cooperatives as members thought that knowing the legal system of their cooperatives would enable them to know what should the leaders has to do and their part. Importance of dairy cooperatives and planning for dairy production was the next needed area. The establishment of dairy cooperatives is likened with the pre-assumption that they can offer services that other traders are not offering to up lift the small holders' dairy development. However, due to lack of knowledge among the members as to the real importance of dairy co-operatives, the commitment and loyalty of the members is limited to do what the authorities requested them to do. In other words, members attach themselves to dairy co-operatives to acquire some of the dairy processing equipments given on group basis. Members are the roots of the co-operatives. Unless members are aware of the legal framework under which dairy cooperatives function, it will be a great havoc for members to exercise their democratic right.

Techniques in quality control and milk production was the next training area preferred by members. Absence of standardized quality control and production techniques at the household level was playing a great havoc in quality control activities of the co-operatives and low-marketed surplus. It was found out that, rather than focusing on controlling the quality of milk at the gate of the cooperatives, which is not effective enough to maintain the enhancement of the marketed surplus, the founding of quality control mechanism at household level was found to be vital.

The members were rarely trained and unable to identify the standards in quality milk production. Subsequent to the latter, members preferred training on planning for dairy production. Members tend to produce dairy on traditional and conventional basis, which is subsistence and backward one. It is not based on the market need and standard that the members are producing, which require in-depth knowledge in the area.

Majority of the members in the study area have low awareness and knowledge regarding the benefits and importance of producing clean milk production, which is based on the need and demand of the market. Training in milk wastage and spoilage minimization is the next need of the members. The dairy production in the study area is characterized by wastage, high spoilage rate. The members of the co-operatives lack basic techniques in minimizing the wastage and spoilage either in production or during the transportation process. Dairy product conversion techniques are also mentioned as the next training needs. Most of the members in the study area tends to convert milk into various product based on traditional indigenous knowledge which is posed with different havoc to optimum utilization of the marketable surplus. Since dairy was processed in traditional and conventional manner, members of the dairy co-operatives felt high training needs in modern processing techniques, which fetches good return to member producers. For the most part, members have expressed a concern in milk timing schedule as basic training need priorities area because of loss of income due to timing of milk schedule.

As a matter of fact, benefits of grading, and inputs in dairy production was observed as major training area. Until today, the rational for classifying most dairy product is conventional and traditional (John, 2006), which is not free from misappropriation and adulteration in the market and in the procurement practices of the dairy cooperatives. As a matter of fact, the members are not aware of the methodology to employ to classify the dairy product based on standard, in which they expressed training need area. On the other side, farmers are not aware of inputs and utilization mechanisms are the vital part in enhancement of dairy production.

Members have expressed their training needs in identifying the collection center and milk collection. The current conventional practice of dairy production and marketing in the study area is lacking and impairing the development of the dairy sector. The members tend to follow the usual dairy production and marketing system due to low level of knowledge, they were not able to shift market oriented and demand based dairy sector.

Distribution of stakeholders based on their preferences to type, duration, frequency and method of training programmes

Type of training

It is evident from Table 13 that the majority (OMS 2.63) of the members' preferred peripatetic training, where as campus training (OMS 2.21), off campus training (2.00) were ranked as 2nd and 3rd, respectively. This might be because in in-campus training, the farmers have to stay away from their farm and home, and hence, they did not have the capacity to bear the expenditure to attend the campus training programmes. This finding is in line with the findings of Prasad (1990), Ramulu (1992) and Sangeetha (2004).

Methods of training

It is clear from Table 14 that the distribution of members according to their preference to method of training was in

Table 13. Distribution of members based on their preference to the type of training.

Type of training	Preference in type of training						Score	OMS	Rank
	Least preferred (1)		Some what preferred (2)		Most preferred (3)				
	N	%	N	%	N	%			
Campus training	49	27.8	41	23.3	86	48.9	389	2.21	2nd
Off campus training	40	22.7	96	54.5	40	22.7	352	2.00	3rd
Peripatetic training	14	8.0	36	20.5	126	71.6	464	2.63	1st

Source: From survey data, 2009.

Table 14. Distribution of members based on their preference on the method of training.

Method of training	Preference on method of training						Score	OMS	Rank
	Least preferred (1)		Somewhat preferred (2)		Most preferred (3)				
	N	%	N	%	N	%			
Lecture	68	38.6	50	28.4	58	33.0	342	1.94	5th
Group discussion	9	5.1	61	34.7	106	60.2	449	2.55	1st
Field trip	36	20.5	19	10.8	121	68.8	437	2.48	2nd
Study tour	41	23.3	37	21.0	98	55.7	409	2.32	4th
Brain storming	39	22.2	36	20.5	101	57.4	414	2.35	3rd

Source: From own survey data.

Table 15. Distribution of members based on their preference to the duration of training.

Duration of training	Preference in duration of training						Score	OMS	Rank
	Least preferred (1)		Some what preferred (2)		Most preferred (3)				
	N	%	N	%	N	%			
One day	130	73.9	34	19.3	12	6.8	234	1.32	4th
Two days	45	25.6	98	55.7	33	18.8	340	1.93	3rd
Three to six days	11	6.3	53	30.1	112	63.6	453	2.57	1st
One week	26	14.8	26	14.8	124	70.5	450	2.55	2nd

Source: From own survey, 2009.

the following rank order; group discussion (OMS 1.94), field trip (OM 2.48), brain storming (OMS 2.35), study tour (OMS 2.32) and lecture (OMS 1.94).

Duration of training

It is apparent that majority of the members preferred training programme of three to six days (OMS 2.57), followed by one week (2.55), two days (OMS 1.93), and one day (OMS 1.32) training (Table 15).

Season of training

It is obvious that majority of members preferred winter (OMS 0.53) as training season, followed by spring (OMS 0.34), summer (OMS 0.12), and autumn (OMS 0.03). They found winter season as most suitable because they have time to attend the training programmes and can cope up with any eventualities if they occur during the season (Table 16).

Frequency of training

As summarized in Table 17, the majority of the members preferred training once in a year (OMS 0.39), followed by once in three years (OMS 0.36) and once in two years (OMS 0.24).

Venue of training

It is evident that FTC (OMS 0.67), was ranked first as suitable place of training by members, and followed by dairy cooperatives society (OMS 0.26), and TVET (OMS 0.07) which is ranked 2nd and 3rd, respectively. In view of the fact that, it will save lot of time and money for them, hence, they preferred their village as place of training.

This finding is in line with the finding of Venkatesan

Table 16. Distribution of members based on their preference on season of training.

Season of training	Preference on season of training				Score	OMS	Rank
	Not preferred (0)		Most preferred (2)				
	N	%	N	%			
Summer	154	87.5	22	12.5	22	0.12	3rd
Winter	82	46.6	94	53.4	94	0.53	1st
Spring	116	65.9	60	34.1	60	0.34	2nd
Autumn	169	96.0	7	4.0	7	0.03	4th

Source: From own survey data, 2009.

Table 17. Distribution of members based on their preference on the frequency of training.

Frequency of training	Preference on frequency of training				Score	OMS	Rank
	Not preferred (0)		Most preferred (2)				
	N	%	N	%			
Once in a year	107	60.8	69	39.2	69	0.39	1st
Once in two years	133	75.6	43	24.4	43	0.24	3rd
Once in three years	112	63.6	64	36.4	64	0.36	2nd

Source: Computed from own survey data, 2009.

Table 18. Distribution of members based on their preference on venue of training.

Venue of training	Preference in venue of training				Score	OMS	Rank
	Not preferred (0)		Most preferred (2)				
	N	%	N	%			
Farmers Training Center(FTC)	58	33.0	118	67	118	0.67	1st
TVET	163	92.6	13	7.4	13	0.07	3rd
Dairy cooperative society	130	73.9	46	26.1	46	0.26	2nd

Source: Computed from own survey data, 2009.

Table 19. Distribution of members based on their preference on medium of instruction.

Medium of instruction for the training	Preference in medium of instruction				Score	OMS	Rank
	Not preferred (0)		Most preferred(2)				
	N	%	N	%			
Afaan Oromoo	11	6.3	165	93.8	165	0.93	1st
Amharic	164	93.2	12	6.8	12	0.06	2nd
Guraginya	-	-	-	-	-	-	-
English	-	-	-	-	-	-	-

Source: Computed from survey data, 2009.

(1997) and Sangeetha (2004) (Table 18).

Medium of instruction for training

The majority of the members preferred to be trained in 'Afaan Oromo' as opposed to other language. Only, 6.8% of the members preferred training in 'Amharic'. This was due to the fact that, the study area is mostly dominated by the Oromo's (Table 19).

Interaction sought during the training

The majority (OMS 0.89) of the members preferred interaction with all the trainers during the training subsequently, interaction with successful dairy producers (OMS 0.84), interaction with all the trainees (OMS 0.83), and interaction with successful dairy traders and with dairy experts (OMS 0.81) was sought during the training (Table 21).

Table 20. Distribution of members based on their preference on practical training.

Time needed for practical	Preference in practical training				Score	OMS	Rank
	Not preferred (0)		Most preferred(2)				
	N	%	N	%			
> 75%	104	59.1	72	40.9	72	0.40	2nd
50 - 75%	82	46.6	94	53.4	94	0.53	1st
< 50%	168	95.5	8	4.5	8	0.04	3rd

Source: Computed from survey data, 2009.

Table 21. Distribution of members based on their preference on interaction sought.

Interaction sought	Preference for venue of training				Score	OMS	Rank
	Not preferred (0)		Most preferred (2)				
	N	%	N	%			
With all the trainees	29	16.5	147	83.5	147	0.83	3rd
With all the trainers	18	10.2	158	89.8	158	0.89	1st
With successful dairy producers	27	15.3	149	84.7	149	0.84	2nd
With successful dairy traders	33	18.8	143	81.3	143	0.81	4th
With dairy experts	33	18.8	143	81.3	143	0.81	4th

Source: Computed from survey data, 2009.

Practical training aspect

Apparently, out of 176 members, 53.4% of them preferred practical training between 50 to 75%, followed by >75% (40.9%), and < 50% (4.5%). Therefore, it can be concluded that members preferred 50 to 75% practical training (Table 20).

Constraints in dairy marketing

In this study, constrains are those factors adversely influencing stakeholders in dairy marketing. Here many different constraints in dairy marketing will be covered.

One of the major constraints, hindering the members' regarding dairy marketing was irregular supply of milk. Mostly, due to the long fasting days, members were not able to supply milk regularly to the co-operatives (Table 22).

CONCLUSION AND RECOMMENDATIONS

Ethiopia adopted an Agricultural Development-Led Industrialization (ADLI) strategy, which highly emphasizes on the expansion and development of market-oriented co-operatives at great stake. Dairy co-operatives are among different type of co-operatives, which are entering the Ethiopian dairy market after prolonged dominance of the state owned DDE. Arsi Zone was the first to launch dairy development package through CADU, though has not achieved sustainable dairy development in the area due to many factors, it has made undeniable effort to transform the life of the dairy producers in the area. In this zone, dairy co-operatives were established based on the fundamental problems of the farmer; however, they were not able to adjust their operation with current market oriented environment. In fact, most of co-operatives operate with production concept, which neither satisfies members' and consumers' nor develop dairy co-operatives capacity with competitive edge. Apparently, the gap reveals the need for inculcating new skills and techniques to all stakeholders within dairy co-operatives fold. At present, there is greater necessity than usual 'need for training' as dairy co-operatives strive to lift-up their operation into market-oriented concept. The study was undertaken to expose the gap amid the knowledge, awareness and training needs of stakeholder in dairy marketing.

The results of the study revealed that the average members' age, family size, landholding, milk production, milk sold through co-operatives, milking cows owned were found to be 46.98 year, 6.73, 2.56 ha, 7.30 l, 4.66 l and 2.19 TLU respectively. Conversely, average age of officials was 40.97. Though most of the members share information to others on a medium extent, their information seeking behaviour was found to be medium too. Majority of the members have access to credit and participate once in a week in extension activities. Unfortunately, officials' information seeking behaviour

Table 22. Rank order of constraints obtained from members.

S/N	List of constraints	Sum	OMS	Rank
1	Very low quality of milk to the standard	79.00	0.4489	6th
2	Traditional and informal grading practices	71.00	0.4034	10th
3	No access to credit service from the dairy cooperatives	84.00	0.4773	5th
4	Low access to market information	79.00	0.4489	6th
5	Lack of storage and transportation	70.00	0.3977	11th
6	Inefficiency and lack of speedy operation in collection of milk	72.00	0.4091	9th
7	Unsatisfactory payment system	69.00	0.3920	12th
8	Long fasting days	107.00	0.6080	2nd
9	Long distance from the collection center	73.00	0.4148	8th
10	Low access to inputs	78.00	0.4432	7th
11	Absence of training in dairy	89.00	0.5057	4th
12	Unavailability of modern transport facility	93.00	0.5284	3rd
13	Cultural taboos	13.00	0.0739	13th
14	Irregular supply of milk	169.00	0.9602	1st

Source: Computed from own survey, 2009.

and extent of sharing information to other including members was found to be low. In effect, majority of the members participate in informal associations whenever it is conducted. Despite the fact that members get dairy supply information from local traders, for price and demand of dairy products still they tend to visit the local market.

In this study, members were found to have low awareness in dairy marketing. Even if members are economically motivated to a medium extent, they have low level of perception towards dairy co-operatives. Most of the members have undergone some sort of training in dairy marketing.

Correlation analysis between independent variables and training needs of members shows that the variables age, information seeking behaviour, awareness in dairy marketing, communication skills, training undergone, and knowledge in dairy marketing were found to be negatively and significantly associated with the training needs of members in dairy marketing, while total annual income, milk produced, indebtedness and economic motivation of the members were found to be positively and significantly correlated with the training needs of members. Moreover, awareness and communication skills were found to be correlated with the training needs of members, while only awareness were correlated with the knowledge of officials in dairy marketing.

The regression model of the study revealed that training need of members in dairy marketing was significantly influenced by indebtedness, economic motivation, training undergone and knowledge in dairy marketing. By using training need index, the member stakeholders were categorized into three levels. The majority (46%) of the members perceived medium level of training in dairy marketing. Only 29% of them perceived low level of training in dairy marketing. Twenty four percent of the members fall in high-level group. Only 17% of the members perceived high level of training needs. Though the members still practice the modern methods of marketing concept, majority of them have not perceived a high level of training need. Illiteracy, poor awareness about the training institutions, training programme and their poor knowledge about the benefits of training in dairy remain to be the reasons for their poor perception of training needs.

Dairy co-operative training should be performance based and things related with the actual dairy producers that are aimed at achievable learning objectives, the right method, the right duration, the right type, the right place of training, the right venue, the right time and length of training should be arranged based on empirical and participatory based research findings.

Studies indicate that, the gap between the contents of the trainings and the identified needs of farmers is very wide. In Arsi Zone, no TNA exercise has been undertaken in dairy co-operatives with participation of all concerned stakeholders especially members. Actually, this was the first reason for embarking on this research. Hence, co-operative policy makers should always stress in the inclusion of co-operative training system aimed to co-operative dairy marketing development.

Co-operative policy makers and practitioners should make sure that co-operative training need assessment not only puts forward the plan that meets the immediate training needs of members and officials but also increase the motivation, sense of ownership and shared responsibility among them. This in turn ignites the inclusion of indigenous practices and experiences of the members and officials with the existing scientific knowledge and strengthens the learning process.

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