

Analysis of Milk Value Chain: In Case of Burie Town West Gojjam Zone of Amhara National Regional Stat, Ethiopia

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Abstract

Milk is an important cash dairy product for its contribution to income generating, employment opportunity and improvement of food security to majority of the rural household. However, enhancing milk producers to reach market and actively engage in the milk value chain is a key issue needed in the study area. Analysis of milk value chain in small scale dairy farmers was conducted in Burie town to assess the position of small scale dairy farmers in milk value chain. Purposive and simple random sampling was used as sampling techniques to select two Keble and 61 respondents respectively. From thos respondents 33 from Keble 03 and 28 from 04 Keble to collect the required information. The data was collected through semi-structured questionnaire survey, unstructured interview and observation as well as analyzed by using mean, percentage and tabular. The study was used to show both primary and secondary data collected during the study period. The dairy value chain is not well organized in Burie town. The roles and functions of all the actors in the value chain are not clear and there is a weak link between milk producers, traders and other stakeholder. Different factors affecting milk value chain in small scale dairy farmers were identified. Among these factors reduction in volume of milk produced, high cost of different inputs (animal feeds, improved breeds), high barging power of trader, weak relationship of dairy cooperative(no members), long fasting period of Ethiopia Orthodox Church are identified as the major factors affecting milk value chain in small scale dairy farmers. Out of the total interviewed farmers about 50% of the respondents produced 5.8 L of milk per day per cow from cross breed cow. On the other hand, small scale dairy farmers produce 1.5 L of milk per day per cow from local cow. Hence, to improve the position of small scale dairy farmers in milk value chain there were a strong relationship between dairy cooperative and small scale farmers in order to get economic benefit and to secure market access from dairy cooperative. Thus, in order to develop Burie dairy farm, all the factors identified in this study need to be carefully considered and addressed. Moreover, coordination and intervention strategies should be designed and applied across the entire value chain in order to develop the dairy sector.

Keywords: Value chain, Milk, Value chain actors, Burie, factors

Introduction

Background of the study

Milk is a pale liquid produced by mammary glands of mammals. It is primary source of nutrition for infant mammals before they are able to digest other types of food. Early lactation milk contains colostrums, which carries the mothers' antibody to its young and can reduce the risk of many diseases. The Ethiopian economy is highly dependent on agriculture, which in the last 2004/2005 fiscal years. It contributed about 48 percent of the gross domestic product (GDP) followed by 39 percent from the service sector and 13 percent from the industrial sector. Dairy production, among the sector of livestock production system is a critical issue. In Ethiopia where livestock and its products are important source of food and income and dairy has not been fully exploited and promoted in the country. Despite its huge numbers, the livestock subsectors in Ethiopia are low in production in general and compared to its potential the direct contribution of its makes to the national economy is limited, constrained by several factors that can be classified as: technical or biological, socio-economic and institutional factories (Fekadu, 1998).

Ethiopia has the largest livestock population in Africa, estimated at 45,054,969 cattle, 20,562,832 sheep, 20,191,099 goats (MOARD, 2007) and 2.4 million camels (FAOSTAT, 2009). Recent figures indicate that the livestock sector contributes about 12-16% of national GDP, 30-35% of agricultural GDP (MORD, 2007), 15% of export earnings and 30% of agricultural employment (SNV, 2008). Livestock contributes to the livelihoods of 60-70% of the population (Aklilu, 2002). In Ethiopia milk production and marketing is one of the major means of providing an additional source of employee and income generation for the whole society producers and consumers leads to beneficiary. The urban and rural area of the milk and milk production systems involve production processing and marketing of milk and milk products that are channeled to centers. Therefore the objective of the study was to assess the factories affecting milk value chain in Burie town and identifies the actors, activities and relationships between actors in the red pepper value chain and identify key determinants of market supply and market outlet choices.

Statements of the problem

Milk value chain in Ethiopia is constrained in several factories that can be classified as: technical or biological, socio-economic and institutional factors (Fekadu, 1998).The study was to identify the overall factors affecting

milk value chain in Burie town small scale dairy farms. Furthermore, milk value chain and their characteristics have not yet been studied and analyzed for different parts of our study area. This is because there were very few researches done on milk value chain. There were limited knowledge of dairy production processing and marketing systems in the country (Fekadu, 1998). In our study area there were different problems of milk value chain like lack of proper milking, milking environment and frequency of milking marketing affects total yielding on the study area which has significant effect on the overall productions. However, other researchers are not studied on milk value chain in the study area in order to assess factors affecting milk value chain in Burie town small scale dairy farm, value chain actors and their role, marketing margin across the channel, factor influencing market supply of milk and factor affecting market outlet choices in particular. Since there is no research conducted so far to address existing problems in study area, the motivation behind this study was to provide information for intervention that would be useful to milk producer, traders, GO, NGOs, researchers and other stakeholders. Therefore milk value chain analysis is an imperative process that has not been investigated in the study area.

Objectives of the study

The study was initiated with the following general and specific objectives.

General objective of the study

To analysis milk value chain of small scale dairy farm in Burie town.

Specific objectives

1. To identify factors affecting milk production in the study area
2. To identify the actors of milk value chain in the study area
3. To assess current milk production potential of small scale dairy farm in the study area

Research question

1. What are the different factors affecting milk value chain in the study area?
2. What are the major actors of milk value chain in the study area?
3. What is the current milk production potential of small scale dairy farm in the study area?

Significant of the study

The study gives insight and serves as a document for the other researcher and for the next generation students interested to study in this topic to stimulate further investigation of the problem in this specific study area. It also expect that the information were considerably improved the planning of development activity. Furthermore this study was important to identify factors affecting milk value chain in the study area and find the solution to the problem faced.

Scope and limitation of the study

The study was conducted in Burie town through collect information from farmers who are participating in small scale dairy farm milk production in the study area. Thus the research was limited spatially narrow down to concentrate on Burie town because of shortage of time, budget and other materials. This study being the first in Burie town lack many detail investigations which could have reinforced understanding of the whole system especially in relation to milk production and value chain studies. The time limit as a factor squeezed the chance to exclude other areas of milk production and marketing away from Burie town. However the study was focused on only major derivatives which are factors affecting milk value chain.

Research Methodology

Description of the study area

Burie district is one of the 15 districts of West Gojjam Administrative Zone of the ANRS. It is one of the consistently surplus producer districts of ANRS (Yigazaw and Kansas, 2007). The capital of the district, Burie town, is located 400 km north west of Addis Ababa and 148 km south west of the AMHARA Regional State capital, Bahir Dar. The district has 15 km asphalt road, 84 km all weather gravel road and 103 km dry weather road. It is proxy to and connected by all weather roads to east Wollega Zone of Oromia Regional State and Medical Zone of Benishangul Gumuz Regional State. This has provided Burie district the opportunity to market its agricultural products to different regional states. The availability of relatively higher road density (68.5 km/1000 km) has enabled the district to easily access agricultural products and inputs from and into the various peasant associations and market points.

According to Yigzaw and Kahsay (2007), the number of agricultural households, 21, 793, is about eight times higher than the households in the urban areas. This indicates that the livelihoods of most of the district population are dependent on agriculture. In this regard, Burie district is one of the potential agricultural (livestock and crops) areas of the ANRS. The total area coverage of the district is 72,739 ha of which 46.6% is cultivated. Average cultivated area per household is 1.6 ha. Currently, the district is subdivided into 22 rural peasant associations and four urban Keble's.

Agro-ecologically, it is classified into moist and wet kola (low-land) (10%), wet Woina Dega (mid altitude) (82%) and Wet Dega (highland) (8%). The altitude drops from 2,604 to 713 meters above sea level as one travels

from north to south part (Abbay Gorge) of the district, while the opposite holds true for the ambient temperature. The minimum and maximum temperature of the area is 17°C and 25°C, respectively, while, the minimum and the maximum rainfall is, 1386 mm and 1757 mm, respectively. The diverse, agro ecology of the area has provided the opportunity to grow diverse crop types and raise different livestock species (Yigzaw and Kahsay, 2007).

Sampling Techniques and Sample Size

Sampling techniques for producer and retailer

In the first stage by consulting the agricultural office expert in Burie town agricultural office based on production potential and availability of small scale dairy farmers 03 and 04 Keble's are selected purposively as well as in the second stage by used random sampling to select 23 producers in 04 Keble from 75 producers and 38 producers in 03 Keble from 125 producers while in 04 Keble select 6 retailers from 20 retailers and in 03 Keble select 3 retailers from 10 retailers. The representative sample size determine by using formula simplified sample size calculation according to (Yemane. T, 1967).

$$n = \frac{N}{(1 + N(e)^2)}$$

Where N =total population (producer and retailer, n= sample size
e= 10% standard error

$$N = 125+10+75+20= 230$$

$$N = \frac{230}{(1 + 230(0.1)^2)} = 70$$

sampling techniques for consumer

In addition to producer and retailers to use non-random (referral) sampling in order to select the proportional size of 20 consumers which are 10 from Keble 03 and 10 from Keble 04. Because difficult to know the number of consumer they live in each Keble. From 20 consumers 10 are in Keble 03 and 10 are in Keble 04. From the two Keble I would select only 20 consumers because of shortage of time and money.

Types of data and methods of data collection

In this study both the primary and secondary data were used. The primary data were collected in producer, consumer and retailer through semi-structured questionnaire surveys, unstructured interview and observation. The secondary data were collected from agricultural office, internet and other reference books.

Method of Data Analysis

For this study descriptive statistical techniques are used to analysis the data obtained from different source such as: primary and secondary data. Data were analyzed by percentage, mean and tabular in the process of comparing demographic and socio economic characteristics of analysis milk value chain in the study area.

Result and Discussion

Demographic characteristics

First, the studied demographic characteristics of respondents which selected were 61 number of respondent and asked each number of respondents, age, sex, education level and religion are shown in the table 3 below.

As indicated the table the proportion of the sampled respondent whose age fell between age group 15-65 years old. So that milk is highly produced and traded by producers and traders whose age is fell to 15-65, this implies they are mature and they are ready for meet out any responsibility on the farm and market as well as that milk is highly purchased by the respondent whose age fell from 15-65. This implies they bought the product for their children and their families.

Milk Production in Burie town

A random selection of 32 farmers from the two Keble's encompassing 8 female and 24 male respondents were taken. The numbers of milk producers were 12 in 04 Keble's and in 03 Keble's were 20. Most of the interviewed small scale dairy producers in the study area produce on average 5.8 and 1.5 l of milk/ day/ cow from crossbreed and local cow, respectively. The survey result revealed that average lactation length of cross breed and local cows in the study area was found to be 240 and 255 days, respectively. This is because of the fact that some of dairy farmers reported that they have milked their cow even during the whole pregnancy period. According to Holloway et al. (2002) the average lactation length of cross bred was 279 days. This difference in lactation length of cross breed dairy cow is because of the effect of the availability of animal feeds during rainy and dry season which prolonged or shorted the heat period. Small scale dairy farmers in the study area have 1-2 crossbreed and the other have 3 local milking cows and they produced high and low amount of milk during rainy and dry season, respectively

Quantity of milk produced, and consumed in Burie town

The interviewed made with small scale dairy farmers indicated that milk yield is highest during the first five months of lactation and declines then up to the end of the lactation period. However its production depends on

the month of calving and availability of feed during the summer season of the year when there is an excess amount of animal feeds. Milk production is high during June to December since feed supply is adequate. The mean milk yield produced per day by small scale dairy farmers during the rainy season or in summer was 8 L and 3 L per day in cross breeding and local cow respectively. Milk sold during dry season is relatively similar milk sold during summer season because of similar demand of milk during dry season and rainy season.

On average 50% of the interviewed small scale dairy farmers in the study area had 3 milking local cows and 1-2 cross breed cow in the past 3 years. Out of the total 50% of the interviewed farmers were produced 5.8 l of milk per day per cow from cross breed cow. On the other hand, small scale dairy farmers to produce 1.5 l of milk per day per cow from local cow.

Most of the interviewed small scale farmers in study area indicated that, the average lactation length of cross breed and local cow were 240 and 255 days, respectively. The interviewed made with rural dairy farmers indicated that large portion of milk produced in this area was directly sold to local consumers where the producers can earn high price per liters of milk. About 63% of the interviewed farmers in the study district reported that the trend of their milk production was decreased because of the herd size is reduced as a result of shortage of animal feeds. Out of the total interviewed farmers 61% of the respondents farmers indicated that their average herd size decreased as compare to the previous year. Out of the total interviewed, 68% of the respondents indicated that dairy derived income was decreased due to reduction in volume of milk produced as a result of limited number of herd size and shortage of availability of animal feeds.

Seasonal Variability of milk production

Milk production and productivity is affected by the seasons of the year. There is more milk is produced with high productivity (liter/cow) during summer or wet season and mehire or short rainy season (September and October) and productivity is fluctuated over season and years. Seasonal variability of milk production in Burie town is basically managed by amount and distribution of rainfall, and availability of forager and water. Based on these events milk production is fluctuated in the four seasons of year and from year to year. Thus the value chain includes direct actors who are commercially involved in the chain (producers, traders, retailers, and consumers) and indirect actors who provide services or support for the functioning of value chain

Utilization of milk

In the study, district the interviewed farmers indicate that milk produced in each Keble undergo different process after the milk was produced. The dairy farmers 'also used the milk produced for different purposes. Some farmers directly sell their milk to the neighboring consumers without processing of the milk whereas other farmers locally process their milk in to different products such as butter and cheese to sell to local market.

Dairy activities and source of animals feeds

Dairy activities

The survey result revealed that about 67% of the respondents in the study district were used family labor for dairy production and dairy related activities. Whereas only 33% of the interviewed farmers were used hired labor for their dairy business. Out of the total interviewed farmers 55 and 12% of respondents live in 03 and 04 used family labor to carry out their dairy activities respectively. But only 27 and 6% of the respondents found in 03 and 04 did not use family labor for dairy production.

Source of animals feeds

The survey result revealed that most of the interviewed dairy farmers live in urban area do not have any grazing land where as small scale dairy farmers found in 04 Keble have on average 0.5 ha of crop land and they use crop residues for feeding of milking cow especially during the dry season of the year at critical shortage of animal feeds. The survey result indicated that most of the respondents in the study district were used purchased feeds such as enough cake, wheat bran, mixed feeds, grass hay and crop residues for feeding of their animals and they provide on average 2.5 kg of concentrate feeds per day per milking cow. However, if they want to get high volume of milk from their cow they slightly increase the amount of concentrate given for their cow.

Factors affecting milk value chain in the study area

During the data collection period there is reduction in volume of milk produced by small scale dairy farmers due to low availability of animals feeds, high cost of animal feeds, high barging power of private milk collectors, weak relationship of dairy cooperative and its members were identified as the major factors affecting milk value chain in the study area.

Factors affecting the milk production in the study area

In Burie, the livestock sector in general and the dairy sub-sector in particular do not make a substantial contribution to the national income, despite their large size, due to numerous socio-environmental factors. The poor performance of the dairy sub-sector is attributed to socio-economic, and technical factors, inadequate research and extension activities, and lack of policies relevant to the development of the dairy industry. Among others, land tenure policies, feed availability, lack of adequate dairy services, lack of marketing outlets, and poor roads and transportation systems are the major factors of the dairy sector in the study area.

One of the major factors that the urban milk producers of Burie town are encountered is lack of access to land for establishment of a dairy farm and for forage production. Large proportion (57%) of the respondents indicated that it is very difficult to get land for establishment of dairy farms in Burie. Reports indicate that the greatest institutional and socio-economic factors that the dairy farm faces today arises out of socio-economic rather than technical problems; i.e., lack of access to land for expansion of the dairy enterprises and feed production. Thus, all concerned bodies should work hard to solve this policy (land tenure) related problem and encourage potential investors interested to engage in the dairy sector.

Factors at milk production stage

High investment cost to start dairy farms and the limited number of commercial farms, very high and ever increasing feed prices, low productivity of the local dairy cattle and the problem of accessing improved bull services and poor dairy management skill of small scale dairy farmers, were found to be the most important factors hindering the development in dairy production in the study areas. Moreover, farmers indicated that they need training on dairy production and management to improve their skills.

Factors at feed production and supply stage

Low productivity of pasture mainly associated with lack of forage production skill and inefficient feed harvesting, collection and storage practices are the major factors hindering improvements in feed production in the study area. Moreover, production of concentrates and major agro-industrial byproducts are constrained by inadequate supply and high cost of raw materials (grains & seeds). Land shortage for fodder production, supply shortage for seed and other forage planting materials, shortage of raw materials for agro-industries and feed processing plants were the main factors mentioned by the farmers and producers. The extension service that lacks regular training on feed production and processing was also criticized by many actors in the feed value chain. The government seed agency is not involved in forage seed production and distribution and it focuses only on food grains.

Marketing

Milk and milk products are perishable which need demand efficient marketing system. The efficiency could be in the speed with which the produce reached the ultimate consumer, the prices, and qualities.

Actors in the milk value chain

The major actors in the milk value chain in the study areas are input suppliers, producers (farmers), traders, hotels and individual consumers. The characteristics of each of the actors are as follows:

Input suppliers: This segment of the value chain consists of the actors in the value chain that provides the starting materials for the proper functioning of the subsequent milk value chain. The actors under consideration include: feed suppliers, veterinary service providers, etc.

Small scale producers: The small scale producers in Burie area are the major suppliers of milk and milk product for domestic consumption for the towns. The producers of these areas have a strong tradition in which 1-2 head of milk cattle are tethered and managed by stall feeding.

Collectors: Major milk value chain actors in the district are retailers (small retailers), traditional processors operating in and around Burie town. Collection is done twice a day after quality tests using lactometer and alcohol tests. Milk production reaches a peak during the main rainy season which extends from mid-June to early-October. As far as milk price setting is concerned there is some negotiation and legal agreement in most cases.

Retailers: In Burie town there are a few small capacity emerging supermarkets (not more than five), cafés and restaurants where a limited range of dairy products (powdered milk and hard cheeses) are sold. Fluid raw milk and yogurt are accessed from small tea houses and some hotels. Traditional butter is found in almost all shops. Fluid milk is not widely consumed by the general population on a regular basis. Most people use the majority of milk in tea/coffee and for feeding infants, the elderly and/or the infirm. The most widely consumed dairy products are butter, cheese and fermented milk. Close to 70% of the milk produced is sold in the market.

Consumers: A semi-structured questionnaires were held among 20 randomly selected urban consumers found in the district. In almost all urban households, respondents indicated that they buy raw unpasteurized milk on a daily basis from collectors or urban smallholders, mainly for their kids. It is common to substitute human breast milk with cow milk when the breast dries up and mothers are back to work. Because of price, sustainable supply and the perception that pasteurized milk has certain fats extracted, most household buyers are inclined to unpasteurized raw milk. There are a large number of cafes and restaurants in the towns. Hot milk and macchiato (mix of coffee and milk) are the popular drinks which trigger demand for milk by cafes and restaurants. Butter, cheese and yoghurts are solely sold at shop. More market promotion work has to be done since public awareness about the use of powdered milk is still in its infancy in the district in particular and in the country in general.

Mapping core functions of actors in milk value chain

The core functions in a milk value chain are input supply, production, trade (marketing), collecting and consumption. These core functions involve different activities as indicated in the figure 1 below.

Value share of each actors in the study area

The survey result as indicated in chart below farmers in milk market chain share 55% of share profit of the market and the remaining share profit is 45% of profit shared by other market chain actors, even though it needs a detailed work in the marketing chain of milk in order to satisfy both satisfaction of producers and consumers.

Marketing margin can be defined as the difference between price paid by consumers and that obtained by production. It measures the share of final selling price that is captured by a particular actors in the marketing chain

Profit = TR - TC, where TR is total revenue and TC is total cost

Profit margin = $\frac{SP - TC}{SP}$, where SP is selling price

percentage share of profit can be calculated as $\frac{\text{profit margin of the actor} \times 100\%}{\text{total profit}}$

Market margin = SP - PC (for producer) where pc is production cost

market margin = sp - pp (retailer) where , pp is purchasing price

Percentage share of market margin can be calculated as : $\frac{\text{the market margin of the actor} \times 100\%}{\text{total market margin of the actors}}$

CONCLUSION AND RECOMMENDATIONS

Conclusion

The study was under taken with the objective of analysis milk value chain in Bury town small scale dairy farmers, west Gojjam, Ethiopia. Currently Burie town small scale dairy farmers have weak relations among dairy cooperative, hotels and current internal consumers. Many factors affect milk value chain in the study area. Among these factors, shortage of animal feeds which leads to reduction of volume of milk produced by small scale dairy farmers is identified as one of the major factors which affect milk value chain of the study area. High cost of inputs especially feed cost negatively affects expansion of dairy farming activities as farmers do not use feeds by producing due to lack of land to improve their milk production. This consequently affects overall reduction of volume of milk produced by small scale dairy farmers to deliver enough volume of milk to the contract consumers and to local market. In addition to this long fasting period of Ethiopian Orthodox religion church create a problem on milk marketing of small scale dairy farmers during this time because majority of Orthodox believers abstain from eating of animal origin food.

Recommendation

In light of the finding of this study the following recommendations have forwarded;

- ❖ Most of milk producers are not members of dairy cooperative. Therefore the producers should be organized into dairy cooperative in order to delivered volume of milk they produced to dairy cooperative in order to get equal economic benefit from the organization as well as for better marketing of milk and milk products.
- ❖ To strengthen the position of small scale dairy farmers in milk value chain adequate inputs should be provided for small scale dairy farmers in the study areas.
- ❖ The other is absence of market information in the producers. So in the ne future Burie town small scale dairy farmers milk and milk product producers should have search for market information labels unless and otherwise the milk that can lead to loss more money, that is a bad deviation from the predetermined goal of Burie town small scale dairy farmers.
- ❖ The producers are not adopted value chain approach. So value chain approach should be adopted during planning and execution of development activities related to liquid milk and feed production.
- ❖ There is a weak relationship between actors. Hence, to improve the position of small scale dairy farmers in milk value chain there were a strong relationship between dairy cooperative and small scale farmers in order to get economic benefit and to secure market access from dairy cooperative.
- ❖ Thus, in order to develop Burie dairy farm, all the factors identified in this study area need to be carefully considered and addressed.
- ❖ Moreover, coordination and intervention strategies should be designed and applied across the entire value chain in order to develop the dairy sector.
- ❖ In general , the government and other concerned bodies should pay due attention to promote intensive milk production systems and develop formal milk and milk product marketing systems in Burie district. To be specific, further works are needed in areas of nutrition, health, milk and milk product marketing, input delivery & services and scaling up the feeding package developed in this study considering the respective milk production systems to capitalize market oriented milk industry in the district.

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TABLE 1. PROPORTIONAL SAMPLING OF EACH RESPONDENTS FROM SELECETED KEBELES

Name of Keble	Total population	Proportion	Proportional Sample
04	95	95/230= 0.41	29
03	135	135/230=0.59	41
N	230	1	70

TABLE 2 PROPORTIONAL SIZE OF PRODUCER AND RETAILER IN EACH KEBLE

Name of Keble	Types of population	Number of population	Proportion	Sample
04	Producer	75	0.79	23
	Retailer	20	0.21	6
	Sub total	95	1	29
03	Producer	125	0.93	38
	Retailer	10	0.074	3
	Sub total	135	1	41
	Total	230	1	70

From the Table 2 in above 61 samples of producers I would take 32 producers because of due to shortage of time and money.

TABLE 3. DEMOGRAPHIC CHARACTERISTICS OF RESPONDENT.

Description	Number of respondent												
	Producer				Retailers				Consumer				
	M	F	Total	%	M	F	Total	%	M	F	Total	%	
Age group	< 15	0	0	0	0	0	0	0	0	0	0	0	
	15-65	24	8	32	100	6	3	9	100	14	6	20	100
	>65	0	0	0	0	0	0	0	0	0	0	0	
	Total	24	8	32	100	6	3	100	100	14	6	20	100
Marital status	Single	3	1	4	12.5	2	2	4	44.4	9	1	10	50
	Married	21	7	28	87.5	4	1	5	55.6	5	5	10	50
	Divorced	0	0	0	0	0	0	0	0	0	0	0	
	Windowed	0	0	0	0	0	0	0	0	0	0	0	
Total	24	8	32	100	6	3	9	100	14	6	20	100	
Education level	Illiterate	7	2	9	28.1	1	0	1	11.1	0	1	1	5
	Primary education	8	4	12	37.5	2	0	2	22.2	5	2	7	35
	2 nd ry education and above	9	2	11	34.4	3	3	6	66.7	9	3	12	60
Total	24	6	32	100	6	3	9	100	14	6	20	100	
Religion	orthodox	24	8	32	100	6	3	9	100	12	5	17	85
	Protestant	0	0	0	0	0	0	0	0	1	1	2	10
	Muslim	0	0	0	0	0	0	0	0	1	0	1	5
	Total	24	8	32	100	6	3	9	100	14	6	20	100

As indicated the table above the proportion of the sampled respondent whose age fell between age group 15-65 years old. So that milk is highly produced and traded by producers and traders whose age is fell to 15-65, this implies they are mature and they are ready for meet out any responsibility on the farm and market as well as that milk is highly purchased by the respondent whose age fell from 15-65. This implies they bought the product for their children and their families.

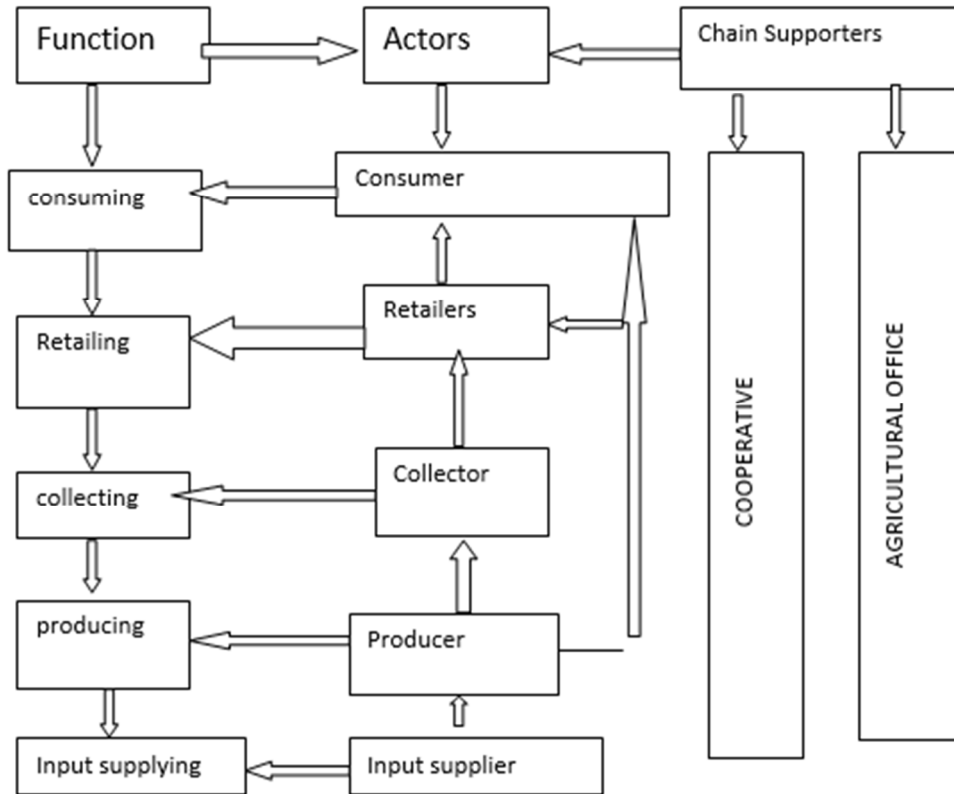


FIGURE 1. THE MAP OF EACH ACTORS ACTIVITIES.

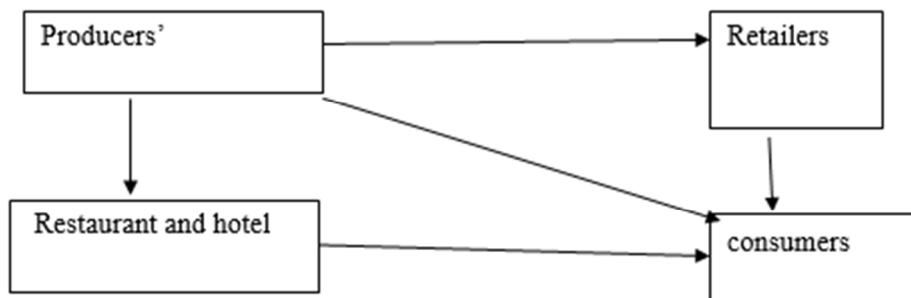


FIGURE 2. MILK MARKETING CHAIN MAP IN THE STUDY AREA

Producer → Consumer: This channel accounts for 70% of total milk marketed per day in Burie town. This channel is predominant at both Keble in Bure town.

Producer → trader (hotels, restaurant); this channel account 6.8% of the total milk Marketed in the town.

Producer → Retailer → Consumer: This channel is exercised at Bure Saturday markets. In this channel retailers buy milk from the market and sell in the same market to make some profit

As figure 2 show that this all are the major chain actors which involved milk marketing chain in the study area. Here the consumers get the product directly from producers and from other chain actors such as small call traders(retailers), restaurant, and hotels.

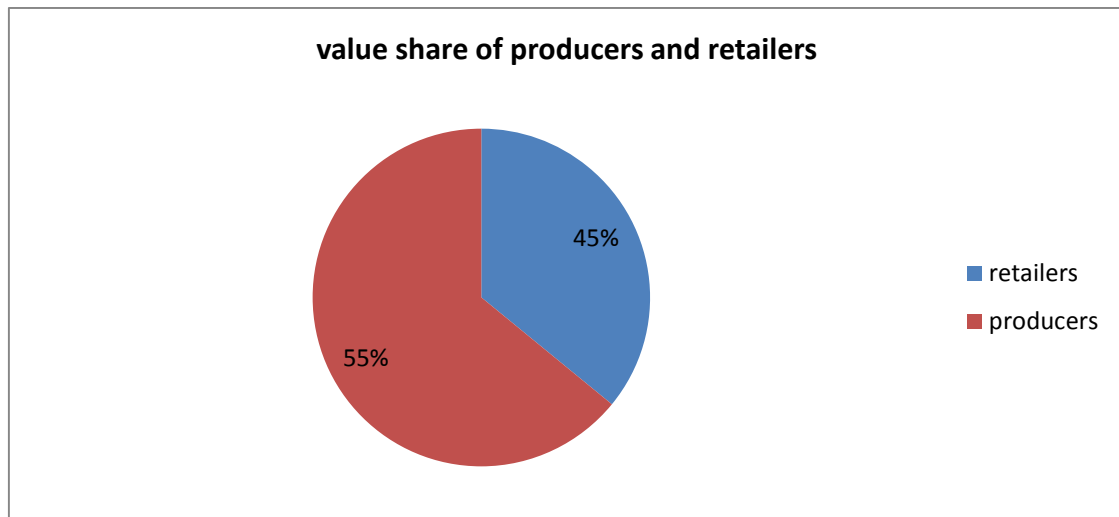


FIGURE 3. VALUE SHARE OF PRODUCERS AND RETAILERS

The survey result as indicated in chart below farmers in milk market chain share 55% of share profit of the market and the remaining share profit is 45% of profit shared by other market chain actors, even though it needs a detailed work in the marketing chain of milk in order to satisfy both satisfaction of producers and consumers.