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Original Research Article

SHENO BUTTER MARKET CHAINS ANALYSIS, THE CASE OF KIMBIBIT DISTRICT IN NORTH SHOWA ZONE OF OROMIA REGION, ETHIOPIA

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Abstract: This study was carried out to assess the structure, conduct and performance as well as major production and marketing constraints of Sheno butter market in Kimbibit District. The study took a random sample of 128 butter producer households and 31 butter traders using multi-stage sampling procedure and employed a probability proportional to sample size sampling technique. Both primary and secondary data were used for the study. Descriptive and test statistics were computed to describe demographic, socioeconomic and institutional characteristics and livelihoods of sample households and traders. Following the market structure criteria of concentration ratio (CR), Sheno butter market showed competitive nature in the Aso, Sheno and Addis Ababa market with CR of 18.44%, 22% and 32.41%, respectively. The maximum total gross marketing margin in the chain was 42.71% and Producer's share of the consumer's price was found to be highest along producers – consumers' market channel (channel I).

Key words: Structure; conduct; performance; concentration ratio; market; constraints

Introduction: Background of the Study

Ethiopia has one of the largest livestock inventories in Africa with a national herd estimated of 52.13 million cattle, 50.8 million sheep and goats, 9.92 million pack animals and 44.89 million poultry. All livestock currently support and sustain livelihoods for 80% of all

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diriba.ast@gmail.com, Received on: June 2016 Accepted after revision: July 2016 Downloaded from: www.johronline.com rural poor. Of these resources, 20% of cattle and 25% of sheep are found in the lowland pastoral areas of the country. The estimated annual growth rates are 1.2% for cattle, 1% for sheep and 0.5% for goats. The percentage of total livestock population found in highlands of Ethiopia including per-urban and urban areas are 70-80% of the cattle, 48%-75% of sheep and 27%-55% of goats (CSA, 2012). Market-oriented development of smallholder dairying has a potential to spur economic growth and alleviate poverty (Bennett *et al.*, 2006). Livestock sector has been contributing

Livestock sector has been contributing considerable portion to the economy of the

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country, and still promising to rally round the economic development of the country. It is eminent that livestock products and by-products in the form of meat, milk, eggs, cheese, and butter supply provide the needed animal protein that contributes to the improvement of the nutritional status of the people. Livestock also plays an important role in providing export commodities, such as live animals, hides and skins to earn foreign exchanges to the country. Livestock as well confer a certain degree of security in times of crop failure, as they are a "near-cash" capital stock (Dawit, 2005). Furthermore, livestock provides farmyard manure that is commonly applied to improve soil fertility and also used as a source of energy such as dung cake as a fuel for fires and as bio gas energy. Most rural households are also used manure to make plaster for walls and floors.

The major species used for milk production in Ethiopia are cattle, camel and goats. Cattle produce 83% of the total milk and 97 % of the cow milk comes from indigenous cattle breeds. The total population of animals used for milk production is 13,632,161 TLU. Although milk production is increasing by 1.2% per annum, the demand-supply variance for fresh milk is ever widening and the per capita consumption is diminishing (CSA, 2012). The key development issues in dairy are low milk production complicated by widespread food insecurity, growing gap between supply and demand in urban areas, and low average milk productivity (MOARD, 2004).

Butter is an important source of food (cooking oil), cosmetics and common marketable form of dairy product for per- urban and rural community. Butter produced from whole milk is estimated to have 65% fat and is the most widely consumed milk product in Ethiopia. Of the total milk produced, around 40 percent is allocated for butter while only 9% is for cheese (Mohamed *et al.*, 2003). This study was, therefore, carried out to assess the structure, conduct and performance of Sheno butter market in Kimbibit District.

Statement of the Problem: Despite its huge numbers, the livestock subsector in Ethiopia is low in production in general, and compared to

its potential, the direct contribution it makes to the national economy is limited. A number of fundamental constraints underlie these outcomes, including traditional technologies, high disease prevalence, poor marketing infrastructure, lack of marketing support services and market information, limited credit services, absence of effective producers' organizations at the grass roots levels, and natural resources degradation (Berhanu *et al.*, 2007).

Moreover, there is no milk transaction due to absence of milk market in the rural areas of the study area. Therefore, Sheno butter is found to be a sole marketable commodity of dairy products and investigation of Sheno butter market chain needs to be carried out, as there was not done such research in this area. Therefore, in line with the market-oriented production strategy of the country's policy, the study is intended at bridging the information gap with regard to Sheno butter production and marketing in Kimbibit District of Oromia region.

Research Questions

The study has attempted to answer the following research question

1. Which market channel is most important in the study area?

2. What are the major production and marketing constraints of butter in study area?

Objectives of the Study

The general objective of this study is to analyze sheno butter market chain in Kembibit District, Oromia Region. The specific objectives of the study were:

1. To analyze the structure, conduct and performance of butter market,

2. To identify major production and marketing constraints of butter in study area.

Significance of the Study: This study is important as it tries to verify nature of Sheno butter market and determinants of participation decision and level of participation. Therefore, the findings of this study would be useful to help policy makers in designing appropriate policies for private investment and nongovernmental organizations that are engaged in the development of livestock sub-sector. The studies

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also indicate the direction for further research work in the area.

Scope and Limitations of the Study: This research study was carried out only in Kimbibit District; hence its scope is limited. Moreover, the study was not including the whole Rural Kebele Administrations (RKAs) of the District but only four representative RKAs were covered. The study used cross sectional data that was obtained through a single survey (interview), for the year 2012/13. Therefore, the result of this study was interpreted in light of these couple of limitations. Research Methodology: Description of the Study Area: Kembibit District is located in North Showa Zone, Oromia National Regional State at distance of 78km from Addis Ababa on the way to Dessie. There are 29 rural kebele administrations and dwellers two-town association in the District (Figure 1). Agriculture is the main source of income of the population in the District. The total population living in the District is estimated to be 83,817 of which 41,729 male and 42,088 were female (CSA, 2011). The District has a total area of about 752 square Kilometers and the population density was 123.3 per km². The total cultivated land is estimated to be 34,503 ha and cultivated through rain-fed. The area is characterized by bimodal rainfall pattern with the main rainy season extending from June to September and erratic and unreliable short rainy season that stretches from February to March (CSA, 2012).

Kimbibit District is bordered on the South by <u>Berehna Aleltu</u>, on the West by <u>Wuchalena Jido</u>, on the North by <u>Abichuna Gnea</u> and on the East by the <u>Amhara Region</u>. The administrative center of this District is <u>Sheno</u> town. Kimbibit District is well known by production of nature (organic) Sheno butter. Sheno is the name of District town and butter produced in this area was named within the name of town. The District annual mean of butter marketed was about 864,000kg. Because of its preferable accepted, vegetables butter producer named their product as "Sheno butter or Sheno Lega".



Figure 1. Location of study Area

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Data type and source: Data on production and marketing of butter exchange arrangements, system of storage, transport facilities and supporting institutions were collected from sample respondents using questionnaire and thoroughly through rapid market appraisal. Data on quantity of butter marketed, price of butter, and total volume of butter produced, expenditure on inputs of production, and households socio-economic, demographic and spatial settings was collected from sample informants using questionnaire. In addition to primary data, secondary data on number of licensed and unlicensed traders, marketing agents and their role, were collected from secondary sources.

Methods of data collection: The data used for this study were collected from primary and sources. Secondary data were secondary collected from different institutions. organizations and offices as well as through reviewing documents and publications. Primary data on the production and marketing system were collected from the producer farmer up to the end consumer through structured questionnaires. Ten data collectors with education level of diploma (6) and degree (4) were hired and those enumerators were well skilled with the subject, area and also understood local language and social set up. In addition, the enumerators were imparted for three days in data collection techniques and how to maintain its quality and reliability.

Sampling procedures and sample size: Out of the 18 District found in North Showa Zone. Kimbibit District was selected based on their Sheno butter production potential and high demand of the product. A multi-stage technique was used to draw an appropriate sample size. In the first stage, among 29 rural kebele administrations (RKAs) found in the District 8 kebeles were selected based on their potential of Sheno butter production and have market access. Finally by using simple random sampling technique 4 RKAs (Gara chatu, Golelcha, Tuka Abdola and Moyona qumdingay) were selected. In the second stage, list of households involved in Sheno butter production was obtained from District Livestock Development and Livestock

Health Office as well as from RKAs. Thirdly, at present time 2,315 households involved in Sheno butter production were identified from the list they belong in each RKA. Finally, the totals of 128 sample producers were selected for interview by Yamane (1967) approaches.

Market, trader, retailers and assemblers sampling techniques and sample size: To have the possible level of representative prior to formal traders' survey and to get the overall picture of butter market chain in the Districts, a Rapid Market Appraisal (RMA) was conducted and two District markets and Addis Ababa market were selected based on numbers of market actors in the institution. After butter market actors list were obtain from trade and industry office of the District 10, 5, 8 and 7 retailers, assemblers, traders and wholesaler were selected by using simple random sampling techniques and interviewed at market place (Addis Ababa and District markets). Data collected from market actors were mainly focus on the characteristics of market structure, conduct and performance of the market.

Methods of Data Analysis: Descriptive statistics: The descriptive statistics such as percentages, ratios, means, minimum, maximum, variances and standard deviations were applied to describe the socio-demographic and socioeconomic situation of the households, marketing functions, role of intermediaries and traders characteristics. Moreover, to compare and test the mean difference range of selected characteristics, test statistic methods such as t-test and x^2 (chi-square) test were employed.

Analysis of structure conduct and performance (S-C-P): The S-C-P model examines the fundamental relationships among market structure, conduct and performance. Wolday (1994), Hakobyan (2004), Gizachew (2005), Rehima (2006), Bosena (2008), Ayelech (2011) and Embaye (2010) also used this model to evaluate food grain, dairy, pepper, cotton, mango and avocado and butter market studies respectively. Therefore this study used S-C-P model to evaluate butter market.

Structure of market: Market structure indicates all the firms engaged in a particular marketing channel, number and relative size of

the firms involved and interdependent or interlinked in ownership and management (Scott, 1995).

Concentration: is defined as the number and size distribution of sellers and buyers in the market. The greater the degree of concentration, the greater is the possibility of non competitive behavior, such as collusion, existing in the market. For an efficient market, there should be sufficient number of firms (buyers and sellers). This method was used to study the structure of the market based on the results of concentration ratio (Schere, 1980).

The concentration ratio (market ratio) was calculated as:

$$S_i = \frac{Vi}{\sum Vi} \tag{2}$$

Where S_i = market share of buyer i V_i = amount of product handled by buyer i ΣV_i = Total amount of product handled by buyers

$$C = \sum_{i=1}^{m} S_i$$
 $i = 1, 2..... m......(3)$

Where C - concentration ratio

 S_i - percentage share of the ith firm

m - Number of largest firms for which the ratio is going to be calculated

Market conduct: For this particular product the existence of formal and informal producing and marketing groups the availability of price

information and its impact on prevailing prices; and the feasibility of utilizing alternative market outlets pricing, buying and selling practices were assessed.

Market performance: The methods employed for analysis of performance were channel comparison and marketing margin. Following to Mendoza (1995), marketing channel is the sequence of intermediaries through which whole butter passes from farmers to consumers.

Marketing margin: The cost and price information obtained from the survey was used to evaluate the gross marketing margin. Total Gross Marketing Margin (TGMM) is always related to the final price paid by the end buyer and is expressed as percentage (Mendoza, 1995). The method of analysis of marketing margin is as follows,

Results and Discussion:

Demographic Characteristics of Sample Households

Age of sample households head: Age of the sample households ranged from 20 to 80 years with the mean of 41.47 years. About 71.4% of the respondents' were ranged under the age category of 31-50 years and 16.8% and 12.8% were under the age category of 51-80 and 20-30 years, respectively (Table 1).

| | Sample households ($n = 126$) | | | | |
|-------------------------|---------------------------------|------|--------------|--|--|
| Characteristics | Category | % | Mean (STD) | | |
| Age of household heads | 20-30 | 16.8 | 41.47(11.28) | | |
| | 31-50 | 71.4 | | | |
| | 51-80 | 12.8 | | | |
| Family size | 2-5 | 45.2 | 5.98(2.15) | | |
| | 6-8 | 34.6 | | | |
| | 9-15 | 20.2 | | | |
| Informal | | 74.6 | | | |
| Education(Grade) Formal | 1-6 | 16.8 | 1.35(2.87) | | |
| | 7-10 | 4 | | | |
| | 11 and above | 4.8 | | | |

Table 1. Distribution of the households by age, marital status, family size and education level

Source: survey result (2013), number in parenthesis indicates standard deviation.

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Family size of sample households: The result revealed that, the average family size of the total sample households in persons was 5.98 persons, with 2 and 15 being the minimum and the maximum, respectively (Table 1).

Education levels and sex of sample households: The result revealed that 74.6% of butter producers where not attend formal education and about 20.8% and 4.8% were elementary completed and high school educated households, respectively (Table 1)

Characteristics of market actors'

Age and experiences of sample traders: Age of the sample traders were ranged from 20 to 45 years with the mean of 29.13 years and standard deviation of 7.5. About 59.5% of the respondents' were ranges under the age

category of 20-30 years and 40.5% were under the age category of 31-45 years. In terms of butter trading experiences, the mean traders stayed in butter trading was 8.03 years, with the minimum and maximum of 1 year and 31 years, respectively and standard deviation of 7.9 years (Table 2).

Education level and Sex of sample traders: The result revealed that 9.7% of butter traders where attend basic education and about 58.1% and 32.3% sample traders were elementary school completed and high educated. respectively (Table 2). Regard to sex of sample traders 87.1% were male traders and the rest 12.9% were female traders. The difference implies that male traders dominated butter trading the study (Table in 2).

| Characteristics | | SampleCharacteristics(%)(%)mean(STD) | | | |
|---------------------------------|-----------------|--------------------------------------|-------------|--|--|
| Age | 20-30 | 59.5 | 29.13 (7.5) | | |
| | 31-45 | 40.5 | | | |
| Education level | Basic education | 9.7 | 4.9 (3.7) | | |
| | Grade 1-6 | 58.1 | | | |
| | Grade 7-10 | 32.3 | | | |
| Butter trading experience | | | 8.03(7.9) | | |

Table 2. Distribution of sample traders by age, education level and their occupation

Source: own computation (2013), number in parenthesis shows standard deviation.

*** = 1% significance level.

Structure, Conduct and Performance of Sheno Butter Markets

Market structure: The structure of the butter market system was evaluated in terms of the degree of market concentration ratio (CR) and barrier to entry (licensing procedure, business experience and lack of capital) and the degree of transparency.

Market concentration: Concentration ratio for butter market was carried out in Addis Ababa, *Aso and* Sheno market centers and calculated by taking the annual purchased volume of butter by market actors. It was measured by the percentage of butter handled by the largest four traders in kilograms. Here, concentration ratio for four traders was meant for all type of butter traders with largest upper volume of the respectively marketed commodity in general. This was because of the fact that butter market actors were found to purchase from different sources in different marketing channels and sale to different agents in different channels. Butter markets in the District are characterized by the prevalence of unconcentrated supplies. Butter is supplied by a very large number of producers from different areas, whereby no producer affects the function of the other producers. Market in the next level, at buyers' level, is also unconcentrated for the product. Therefore, this market resembles the

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|---|--|--|--|--|--|--|--|
| characteristic of a competitive behavior (Table, | market were estimated to competitive nature in | | | | | | |
| 3). | Aso, kidame or Sheno and Addis Ababa butter | | | | | | |
| Following the market structure criteria | market center with concentration ration of | | | | | | |
| suggested by (Kohls and Uhl, 1985) butter | 18.44%, 22% and 32.41%, respectively. | | | | | | |
| Table 3. Distribution of market concentration ratio for sample markets | | | | | | | |
| Market center | Concentration index for four firms (%) | | | | | | |
| Aso market-whole saler | 18.44 | | | | | | |

| Aso market-whole saler | 18.44 | |
|--|-------|--|
| Sheno market-whole saler | 22.00 | |
| Addis Ababa(Marketo)-kioks or small shop | 32.41 | |
| Sources: own computation (2013) | | |

Market conduct: Market conduct refers to the patterns of behavior of the firms. This implies that analyses of human behavioral patterns are readily identifiable, obtainable, not or quantifiable (Pomeroy and Trinidad, 1995). There are no agreed upon procedures for analyzing the elements of market conduct. Rather, some points are put to detect unfair price setting practices and the conditions under which such practices prevail. In this study conduct of butter market is analyzed in terms of the traders' price setting, purchasing and selling strategies.

Buying strategy: The result indicated that 90.3% of the sample traders pay for the product during exchange of the commodity and only 9.7% of sample whole seller sold butter on

advices. Regard to market price 38.7% of sample traders are purchased butter at above market price to attract more suppliers and only 3.2% of them were purchase butter above market price to get quality of butter. This might indicate that traders in study area have considered different factors to set butter price (Table 4).

About 64% of the sample traders purchase butter from producers directly. Traders are more informed than farmers regarding price of butter in local and Addis Ababa markets. In this study, respondents were asked to comment on who decided buying price. About 58.1% and 35.2% believed traders and by market as a tool for price decision, respectively (Table 4).

| | Sample traders (n=31) | | | | | | |
|------------------------------|--------------------------|--------|-------------|--|--|--|--|
| Activities | Market actors | Number | Percent (%) | | | | |
| Butter price setting | Traders | 18 | 58.1 | | | | |
| | Negotiation | 2 | 6.4 | | | | |
| | By market | 11 | 35.2 | | | | |
| | | | | | | | |
| Supplier of butter | Producers | 20 | 64 | | | | |
| | Collectors and retailers | 11 | 36 | | | | |
| Butter marketed below market | | 18 | 58.1 | | | | |
| | | | | | | | |
| Mode of payment | Cash | 28 | 90.3 | | | | |
| | On advance | 3 | 9.7 | | | | |

Sources: own computation (2013) **Performance of Sheno butter marke:** The Sheno butter market channel (Fig 2) was identified based on sample of three market and producers'. Accordingly, six butter market channels were identified. The entire channel had a complete market chain linking producers to consumers. Channels comparison was made based on quantity of butter that passed through each channel per year. Accordingly, the

producer \rightarrow whole seller \rightarrow Addis Ababa retail, market channel carried the largest volume of butter (36.6%) of the total volume followed by producer \rightarrow local collector \rightarrow semi-wholesaler \rightarrow Addis Ababa retailer market channel which carried a total volume of 26.9% of the total marketed volume.



Sources: survey result (2013)



Marketing margins

The overall marketing margin is simply the difference between the farm gate price and the price received at retail sale. The total gross marketing margin (TGMM) was highest in Channel II which was 42.71% followed by channel III and V accounted for each 33.33% of the consumers' price. The producers' share of consumer's price was found to be the highest along channel-I followed by channel-IV and channel-VI that was 83.33% for each. Congruently, among different actors, producers and Addis Ababa retailers obtained remarkably highest net margin marketing (NMM) of consumer's price in channel I and II which accounted to 43.98 birr and 42.90 birr of consumers' price (Table 5).

Marketing cost and profit

Return of small and medium size of local and cross breed farms and market actors were estimated by considering butter sale, sales of cattle, appreciation of cattle (i.e., calves heifers and young bull), sold and used cow dung and manure. On average butter price received by sample households was 92.25 birr/Kg. The profits households receive from butter sale were on an average 43.98 birr/Kg (Table 6).

| Market actors | Marketing units | Sheno butter market channels | | | | | |
|--------------------------------------|--------------------------------------|------------------------------|-------|-------|-------|--------------|-----------|
| | | Ι | II | III | IV | V | VI |
| Producer | Selling price/kg | 92.24 | 92.24 | 100 | 100 | 100 | 100 |
| | Production cost/kg | 31.87 | | | | | |
| | Gross margin | 60.37 | | | | | |
| | Marketing cost/kg | 16.39 | | | | | |
| | | 43.98 | | | | | |
| | Net marketing margin | | | | | | |
| Collector | Selling price/kg | | | | | 115 | 115 |
| | Gross margin/kg | | | | | 15 | 15 |
| | Marketing cost/kg | | | | | 4.73 | 4.73 |
| 0 1 1 1 | Net marketing margin | | | | | 10.27 | 10.27 |
| Semi-whole | Selling price/kg | | | | | 120 5 | 120 |
| seller | Gross margin/kg Marketing cost/kg | | | | | 5 173 | 3 1 73 |
| | Net marketing margin | | | | | 4.73 0.27 | 4.73 |
| whole seller | Selling price/kg | | 110 | 120 | | 0.27 | 0.27 |
| whole seller | Gross margin/kg | | 17.76 | 20 | | | |
| | Marketing cost/kg | | 4.73 | 4.73 | | | |
| | Net marketing margin | | 13.03 | 15.27 | | | |
| District level | Selling price/kg | | | | 120 | | |
| retailers | Gross margin/kg | | | | 20 | | |
| | Marketing cost/kg | | | | 4.73 | | |
| | Net marketing margin | | | | 15.27 | | |
| Addis Ababa | Selling price/kg | | 161 | | | | |
| retailers | Gross margin/kg | | 51 | | | | |
| | Marketing cost/kg | | 8.1 | | | | |
| | Net marketing margin | | 42.9 | | | | |
| Addis Ababa | Selling price/kg | | | 150 | | 150 | |
| hotels | Gross margin/kg | | | 30 | | 30 | |
| restaurant and | Marketing cost/kg | | | /.1 | | /.1 | |
| super market | Net marketing margin | | | 22.9 | | 22.9 | |
| Total gross mark | eting margin (%) | 0 | 42.71 | 33.33 | 16.67 | 33.33 | 16.67 |
| Producers shares | (%) | 100 | 57.29 | 66.67 | 83.33 | 66.67 | 83.33 |
| Rank of channels by producers' share | | 1 | 6 | 4 | 2 | 4 | 2 |

| | - | | | | | | | | 11.00 | |
|----------|--------|--------|----------|-----|-----------|--------|---------|-------|-------------|--------|
| Table 3 | Ruttor | markat | channale | and | markating | margin | analyza | among | different (| actore |
| Table 5. | Dutter | mainet | Chaimers | anu | maincung | margm | | among | uniterent | aciors |
| | | | | | 0 | 0 | 2 | 0 | | |

Sources: own computation (2013)

| Table 4. Structure of butter production costs and profitability of butter production. | | | | |
|---|---------------------------------|--|--|--|
| Details | Total average birr per kg/month | | | |
| Feed cost | 5 | | | |
| Labor cost | 8 | | | |
| Veterinary service cost | 1 | | | |
| Transport cost | 8.39 | | | |
| Total variable cost | 22.39 | | | |
| Depreciation of cows shed | 3 | | | |
| Depreciation of lactating cows | 3.48 | | | |
| Depreciation of butter equipment | 3 | | | |
| Total depreciation | 9.48 | | | |
| Total cost of production | 31.87 | | | |
| Return from sale of butter | 92.24 | | | |
| Net return/profit | 43.98 | | | |

Idahe D. *et al.,* J. Harmoniz. Res. Appl. Sci. 2016, 4(3), 98-111 Table 4. Structure of butter production costs and profitability of butter production.

Sources; own computation (2013)

Among market actors, Addis Ababa retailers were receiving the highest profit (42.90birr/Kg) in channel I. This profit was made possible because of the sale directly to consumers at Addis Ababa market followed by Addis Ababa hotels, restaurants and super markets were earn next highest profit (22.90 birr/Kg) in channel III and V. Local collectors are benefited in channel V and VI because of direct purchase from producers. In general, all marketing channels were profitable (Table 7).

| Table 5 | Butter | traders | profit | analysi | s |
|----------|--------|---------|--------|---------|---|
| radic J. | Dutter | uaucis | prom | anarysi | 0 |

| Market actors | Marketing units | Sheno butter market channels | | | | |
|---|--|-------------------------------|-----------------------------|---------------------------|-----------------------------|----------------------------|
| | | II | III | IV | V | VI |
| Collector | Purchasing price Marketing cost/kg Selling price/kg Market profit | | | | 100 4.73 115 10.27 | 100 4.73 15 10.27 |
| Semi-whole seller | Purchasing price Marketing cost/kg Selling price/kg Market profit | | | | 115 4.73 120 0.27 | 115 4.73 120 0.27 |
| whole seller | Purchasing price Marketing cost/kg Selling price/kg Market profit | 92.24 4.73 110 17.76 | 100 4.73 120 15.27 | | | |
| District level retailers | Purchasing price Marketing cost/kg Selling price/kg Market profit | | | 100 4.7 120 15.3 | | |
| Addis Ababa retailers | Purchasing price Marketing cost/kg Selling price/kg Market profit | 110 8.1 161 42.9 | | | | |
| Addis Ababa hotels, restaurant and super market | Purchasing price Marketing cost/kg Selling price/kg Market profit | | 120 7.1 150 22.9 | | 120 7.1 150 22.9 | |

Sources; own computation (2013)

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Major Constraints of Sheno Butter Production and Marketing: The empirical revealed that about, 23%, 47.6%, 19.8% and 100% of sample households faced disease prevalence and improved dairy cows, improved cows and access to pasture, no enough pasture, capital and livestock disease and no- churner technology, respectively. The study result also indicated that, about 55.6% of sample households faced inconsistency of market

information, seasonality of market price and transportation problem, about 5.6% sample households faced only seasonality of market price, about 13.5% of sample households faced seasonality of market price, transportation and low price of butter and 13.5% of producers faced transportation problem in the study area. Absolutely absence of dairy processing plants (churner) in the study area were problem currently prevailing in the study area (Table 3) Table 3. Distribution of sample households by butter production and marketing constraints

| | Sample households ($n = 126$) |
|--|---------------------------------|
| Description | (%) |
| Production problems | |
| Disease prevalence and improved dairy cows | 23 |
| Improved cows and access to pasture | 47.6 |
| No enough pasture, capital and livestock disease | 19.8 |
| No problem | 9.5 |
| Non- churner users | 100 |
| Marketing problem | |
| Inconsistency of market information, seasonality of market | |
| price and transportation | 55.6 |
| Seasonality of market price | 5.6 |
| Seasonality of market price, transportation and low price of | |
| butter | 13.5 |
| Inconsistency of market information | 4 |
| Transportation | 13.5 |
| Did not know | 7.9 |

Sources: survey result (2013)

Summary and conclusion: The study focused on assessing Sheno butter market chain of smallholder farmers in Kimbibit District. A multi-stage sampling technique was employed to select the rural kebele administrations (RKAs). Accordingly, a total of 128 households were selected by sample size determination formulae of (Yamane, 1967). Descriptive statistics was employed to analysis the data. The result of descriptive statistics revealed that 66% of sample households are male-headed and the rest 34% are female-headed households. About 71.4% of the households' ages are range under the age category of 31-50 years and 16.8%, 12.8% are under the age category of 51-80 years and 20-30 years, respectively. The average family size is 5.98 in persons. With respect to educational level of the sample households, about 74.6% of butter producers are not attends formal education. About 20.8% and 4.8% are elementary completed and high school educated households, respectively.

Six market channels are identified and three of them go out of the District. The channel comparison is made based on quantity of butter that passed through each channel. Accordingly, the producer – wholesaler - Addis Ababa retail market channel carried the largest volume of product, about 36.6% of the total volume, followed by producer-Local collector-Semiwholesaler-retailer market channel which carried a total volume of 26.9% of the total marketed. Butter market in the Districts is characterized by the prevalence of unconcentrated supplies and

market resembles the characteristic of a competitive behavior. The highest total gross marketing margins (TGMM) in the market chain is 42.71% and Producers' market share of the consumer's price is found to be highest along producers-consumers (channel-I) market channel. Among butter market actors next to producers, butter retailers in Addis Ababa (channel III) received relatively the highest market profit.

Recommendations: The problems associated with market information seem lead to low awareness of butter transaction. Hence, market information is the important component for improving the whole marketing system. The availability of timely information to farmers can increase farmers' bargaining capacity and participation. Therefore, market information service has to keep on aiming to provide information for all farmers involving in butter production and has to inform them how to reduce cost of production and marketing. Thus, policy efforts should give due attention to broadcasting information and enhance the production capacity and producers' market share of the consumer's price

The highest TGMM in the market chain is 42.71% and Producers' market share of the consumer's price is found to be highest along producers-consumers market channel. Therefore, different shading area for butter selling place should be available to increase more the market share of producers.

In general, government, researchers and development experts should give due attention towards improving the existing level of production and marketing problems through;

Sufficient market related studies

Efficient information broadcasting techniques

Providing advice and training

• Providing credit with reasonable interest rate and payment duration.

Overall, the study area is agro ecologically suitable for livestock raring, specially milking cows. Therefore, by using this piece of insight information any interested private, local government, individual and non government organization can take part in Sheno butter production.

Finally, future research should focus on chemical components and nutrient contents of sheno butter and long term dairy development in *kimbibit* district.

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