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ASSESSMENT OF HONEY MARKETING IN LEMU AND BILBILO DISTRICT, ARSI ZONE OF OROMIA REGIONAL STATE, ETHIOPIA

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ABSTRACT

The study was initiated to assess honey marketing in Lemu and Bilbilo District, Arsi Zone of Oromia Regional State, Ethiopia. The focus of the study was identifying key actors involved in honey marketing in the study area and finding out market performance of honey along the market chain. A two stage sampling procedure was employed and in first stage, four representative potential honey producer kebeles were selected purposively. In the second stage, using the population list of households from sample farmer, the representative honey producer and traders was randomly selected using simple random sampling technique. Both primary and secondary data were utilized, selected farm households and actors involved in the market chain were used as a primary source through structured interview, focused group discussion and key informant interviews were employed. The honey market actors found in the study area were Producers, Collectors, Retailers and Consumers. The total gross margin added to honey supplied to market was 10.61% in which Collectors has a share of 6.36% and the rest 4.25% was share of honey retailers. The producer share of the final price was 93.64 from honey collectors and 89.39% from honey retailers at Bokoji town. The performance of the market for 2018 pointed out that all market participants of the commodity were advantageous through the channel and operated at profit.

Keywords: Actors, Performance, Honey, Market, Channel

1. INTRODUCTION

1.1. Background of the study

The honey sub sector is one of the strong sectors placed to address poverty reduction since it is rural in nature and the trading process employs many people (EIF, 2013).

In different parts of Ethiopia beekeeping is practiced for an income-generating and honey consumption activities because there is a concept of honey production and marketing are fit well for the small scale agricultural development (MoA and ILRI, 2013).

For those who engaged in honey production and marketing activity, honey can create substantial income (Tizazu *et al*., 2017). In Ethiopia, only about 10% of the honey produced in the country is used for consumption by the beekeeping households. The remaining 90% is sold for income generation and of this amount, it is estimated that 80% is used for *Teji* brewing (Gemechis, 2016). The existing income generation capacity of honey as compared to its huge potential is not encouraging, due to high

knowledge gap on honey production and marketing techniques (Fenet and Alemayehu, 2016).

The whole domestic honey market lacks proper structure and legality. The beekeepers complain the business as not rewarding and even lacking market for their product, while the consumers see the ever increasing price of honey as unfair. In many cases, adulteration of honey has been a frustrating factor for both the producers and legal buyers and sellers as the traceability and accountability is hardly possible (Gemechis, 2016).

Though great potential of honey production and high market demand exists in the study area there were no adequate and reliable information on the identified key actors involved in honey market and finding out market performance of honey, in the study area. Therefore, the study was conducted to asses' honey marketing in Lemu and Bilbilo district with the following specific objectives.

- Identifying actors involved in honey marketing in the study area.
- Finding out market performance of honey along the market chain.

1.2. *Description of the Study Area*

The study was conducted in Lemu and Bilbilo district, Arsi zone of Oromia Regional State. There are 25 Kebeles available in the district. The district is characterized as bimodal rainfall pattern with yearly average rainfall of 940 mm. The average annual temperature ranges from 6°c to 26°c, (Mesay, *et al*., 2017). The district is characterized by crop-livestock mixed farming system where crop production is dominant. The major crops grown are annual crops such as cereals, pulses, oilseed and vegetables (Samuel, *et al*., 2017).

1.3. *Sample Size and Method of Sampling*

The sampling frame of the study was the list of honey producer and traders households in selected kebeles, which are found in the district. A two stage sampling procedure has been employed to select the specific respondents. In first stage, four representative potential honey producer kebeles from the district have been selected purposively based on honey producing potentials. In the second stage, using the population list of honey producer farmers from sampled kebeles, the representative honey producer households were randomly selected using simple random sampling technique. The intended sample size had been determined by employing probability proportional to population size using formula given by (Yamane, 1967), at 5% level of precision: As a result, the survey was administered and data were collected and analyzed on 311 respondents of honey producers and traders.

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

Where: n = is the sample size,

N = is total size of honey producer households of selected kebeles, and

e = the level of precision it is 5%

n = $1406/1+1406(0.05)^2$ = $1406/1+1406(0.0025)$ = 311 respondents.

Data types, sources and methods of data collection

The study was used both primary and secondary data and selected honey producer households and actors involved in honey production and marketing were used as a source for collecting primary data through structured interviews. Independent questionnaires were designed for both honey producers and traders.

1.4. Method of data analysis

1.4.1. *Honey marketing channel*

Marketing channel shows the sequence through which the whole of honey passes from producers to consumers Mendoza (1995). The analysis of marketing channel is intended to provide a systematic knowledge of the flow of the goods and services from their origin (produce) to the final destination (consumer).

1.4.2. Market Performance

Market performance can be evaluated by analysis of costs and margins of marketing agents in different channels. A commonly used measure of performance is the marketing margin or price spread Muhammed (2011). Marketing costs are those costs incurred to perform various marketing activities (Heltberg and Tarp, 2001). A marketing margin is the percentage of the final weighted average selling price taken by each stage of the marketing chain. In other words it is the difference

between retail price and farm price (Cramers and Jensen, 1982).

Therefore in this study different market costs and benefits like producers costs and benefits, collector's costs and benefits, and retailers cost and benefits were calculated to identify market performance of honey in the study area. A higher marketing margin diminishes the producer's share and vice-versa. It also provides an indication of welfare distribution among production and marketing agents. The magnitude of marketing cost depends on factors such as time and place of marketing, market conditions, and the market channel involved.

2. RESULTS AND DISCUSSIONS

2.1. Honey marketing channel

The identified honey market participants were honey producers/farmers, honey collectors, retailers and final consumers of the product. The overall market chain in the study area shows the short route, in which whole seller and processors were not participated.

In the study area few local markets were found and the chain extends only to Asella consumers. Although two of the sampled kebeles, have their own local markets, (namely kubsa and meraro), the common and the largest market for Lemu and Bilbilo district is Bokoji Market.

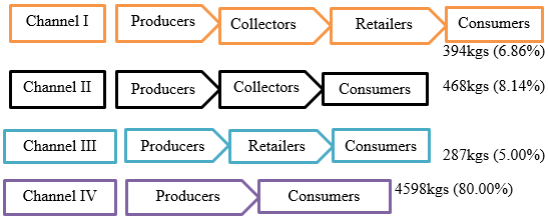

Figure 1: Honey marketing channels in the study area

Source; Survey result, 2018/19

Honey in this market come not from district only but also from the surrounding districts, rural kebeles and Bale Zone directly by producers, collectors and traders. From the total honey produced in 2017/18, 5747kgs of honey was supplied by sample respondents in Lemu and Bilbilo District to honey markets. The main honey marketing channels identified during the survey were as following. As indicated on figure1 and 2 among 5,747kgs of honey supplied to the market about 4598kgs (80.00%) of honey were supplied directly from producer to consumers. About 287kg (5.00%) of honey were supplied from producer through retailers to consumers. Some amount of honey 468kgs (8.14%) of honey were supplied from producer through collectors to consumers. Finally 394kgs (6.86%) of honey were supplied from producer to collectors through retailers to consumers.

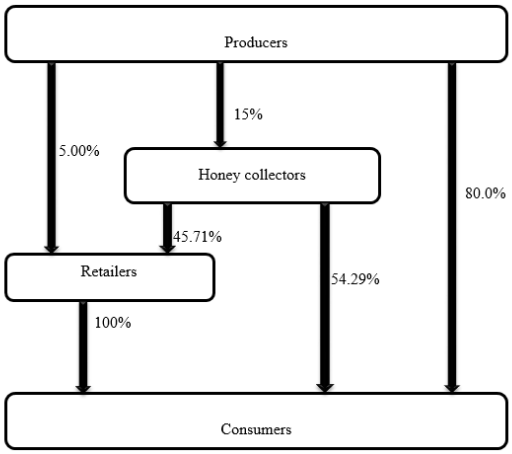

Fig 2: Honey market channel participants and their respective share in the study area

Source Own computation (2019)

2.2. Analysis of market performance

Methods employed for the analysis of honey market performance were marketing margins and profits within the chain by taking into account marketing costs for marketing actors. On the consideration of 2017/2018 production year, costs and purchase prices of the actors, margin at farmers, honey collectors' and retailers level were analyzed.

2.2.1. Cost and profit analysis of honey production and marketing

The cost structure and profitability of honey production and marketing, market performance and key actors in honey marketing analyzed as follows.

i) **Cost and profit analysis of honey for farmers.**

This section of the study focused on activities related to producing honey at farm household. This shows an indication about the performance of honey market. Table1 shows average costs and sales prices of one kg of honey in Ethiopian Birr (ETB) which obtained from average cost of one hive.

Table 1: Producers cost and profit analysis of 1kg of honey

FGD	Feed cost	labor cost	transport	hive cost	Accessories	Sum	Selling price
1	8.35	31.58	1.7	56:69	7.11	105.43	196.65
2	8.23	32.34	1.55	56:69	6.65	105.46	196.65
3	8.5	31.28	1.39	56:69	6.8	104.66	196.65
4	8.28	31.57	1.55	56:69	7.26	105.35	196.65
Average	8.34	31.69	1.55	56:69	6.95	105.22	196.65

Source: Own computation, 2019

Table 1 and 2 indicated, cost and profit analysis of honey production for 2017/2018 production year in the study area was calculated regarding its profitability. The average honey produced from the three types of hive was 11.57kgs per hive, with average market price of ETB 196.65per kg and average cost ETB 105.22 per kg would generate annual net return of ETB 1,057.85 per beehives.

Table 2: Average cost and yield per different hives

	Average cost per hive in birr	Average yield per hive in kg	Average cost per kg in birr.	Average selling price
Traditional hive	156.52	6.67	23.47	196.65
Transitional hive	262.58	11.08	23.70	196.65
Modern hive	1548.45	16.97	91.25	196.65
Average	655.85	11.57	56.69	196.65

Source: Own computation, 2019

For this study the total number of beehives for the entire sample respondents was 940 hives, the average holding size being 3.02 hives. If we consider the yield and the profit that is obtained from a given holding size, a farmer can be generated annual net profit of ETB 3,194.69 from the honey production subsector. With regarding to the cost items, hive cost shares were the highest and 53.88% followed by labor costs which has a share of 30.12%.

ii. Cost and profit analysis of honey for collectors

The average costs and sells prices of honey collectors were under taken in table 3.

Table 3: Cost and profit analysis of honey collectors in ETB

Collectors	Transport	Purchase	Storage	Labor	Container	Sum	Selling
1	0.36	196.65	0.44	0.55	0.70	198.70	210.00
2	0.38	196.65	0.48	0.58	0.60	198.69	210.00
3	0.40	196.65	0.46	0.55	0.70	198.76	210.00
Average	0.38	196.65	0.46	0.56	0.67	198.72	210.00

Source: Own computation, 2019

The result of table 3 shows the marketing cost per kilogram for honey collectors was ETB 2.07. The purchase price of one kg of honey is ETB 196.65 and selling price is ETB 210.This indicates that honey collectors of the study area during the survey period obtained a net profit of ETB 11.28 per kg of honey. This indicates that the performance of marketing of honey collectors for the specified 2017/2018 year was showing positive. The table also shows that other costs during the operation takes the largest proportion of operational costs was honey container (32.37%) followed by labor costs (27.05%).

iii. Cost and profit analysis for honey retailers

Cost and profit analysis for one kilogram of honey was summarized in table 4. Average costs and sales prices of retailers were under taken in the operation.

With regard to the cost and profit analysis of the sample honey retailer's found in the sample markets, as table 4 and 5 clearly shows collectors were found to be more profitable than retailers. The marketing cost of honey retailer was ETB 1.96 per kg. The purchase price of one kg of honey is ETB 210.00 per kg and selling price is ETB 220.00 per kg. This indicates that a retailer can obtain a net profit of ETB 8.04 per kg at retail level. Concerning cost of operation for retailers, retail shop rent is the highest (48.98%) followed by Container cost (26.02%).

Table 5: Cost and profit analysis of honey retailers in ETB

Retailers	Purchase	Retail shop rent	Labor cost	Honey Container	Sum of the cost	Selling
1	210.00	0.97	0.67	0.48	212.12	220.00
2	210.00	0.98	0.43	0.47	211.88	220.00
3	210.00	0.94	0.48	0.54	211.96	220.00
4	210.00	0.95	0.40	0.53	211.88	220.00
Average	210.00	0.96	0.49	0.51	211.96	220.00

Source: Own computation, 2019

Table 6: Summary of costs, price and net profit of one kg of honey

Items	Producers	Collectors	Retailers
Feed	8.34	0	0
Transportation cost	1.55	0.38	0
Storage	0	0.46	0.96
Labor	31.69	0.56	0.49
Hive	56.69	0	0
Accessories	6.95	0	0
Purchasing of honey	0	196.65	210.00
Container	0	0.67	0.51
Sum of costs	105.22	198.72	211.96
Selling prices	196.65	210.00	220.00
Profit	91.43	11.28	8.04

Source: Own computation, 2019

2.3. Marketing Margins

Marketing costs and margin analysis is especially comparison of prices at different levels of marketing over the same period and helps to measure market performances.

As indicated on table 7, by considering the average cost and sales prices of different market participants in the honey market channel Produces (farmers), Honey collectors and retailer) one can summarize the different indicators of marketing margins to measure market performances.

Table 7: Costs and margin of actors for one kg of honey

Costs and margins	Actors/participants		
	Producers	Collectors	Retailers
Selling price	196.65	210	220
Marketing/production cost	105.22	2.07	1.96
Marketing margin	89.39	6.36	4.25
Total cost	105.22	198.72	211.96
Profit	91.43	11.28	8.04
Producers' share of final price		93.64	89.39

Source: Own computation, 2019

TGMM (along marketing channels) = 10.61%
GMM (collectors) = 6.36%
NMM (collectors) = 4.29%
GMM (retailers) = 4.25%
NMM (retailers) = 2.29%
GMMP (producers participation) = 100% -TGMM = 100% - 10.61% = 89.39%

As presented in table 7, the total gross margin added to honey price when it passes through the marketing system was 10.61%. The farm retail or consumer price which are accumulated to each category of participants in return for the marketing services which they perform other than farmers in percentage terms of honey collectors and retailers, were, 6.36% and 4.25% respectively. The farmer's share of the price to end user was 89.39%. Honey retailers receive smaller percentage of the consumer price (4.25%). Honey collectors however, received relatively higher percentage of the consumer's price (6.36%). Farmers obtain about 93.64 and 89.39% of the final Honey price from collectors and retailers of Bokoji town respectively. This indicated that the proportion of the final price share that reaches to producers (farmers) is very good.

3. CONCLUSION

The average honeybee colony (hives) holding size per household during the survey time were about 3 hives with the average honey productivity of 6.67 kgs per traditional, 11.08 kgs per transitional and 16.97kgs per modern hive. The average honey harvested from single modern hive was by far (254.42%) higher than that of traditional hive.

The honey market actors found in the study area were Producers, Collectors, Retailers and Consumers. The amount of honey supplied to the market was 5,747 kgs which passed through different marketing actors.

The chain shows short rote, about 80% of the total honey supplied was directly channeled from producers to consumers.

The performance of the market for 2018 production year showed that average net profit per kg of honey: producer obtained net profit ETB 91.43, Collectors ETB 11.28 and that of honey Retailers was ETB 8.04 per kg.

About 10.61 percent of total gross marketing margin was added to honey price when it reaches to the final consumers. The producer share of the final price was 93.64 from honey collectors and 89.39% from honey retailers at Bokoji town.

The study pointed out that all market participants of the commodity were advantageous through the channel and operated at profit.

To maximize their profit they have to form cooperative in order to increase their bargaining power and to sell the product at distance to have form value. District and Arsi zone Cooperative offices should have to work on it

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