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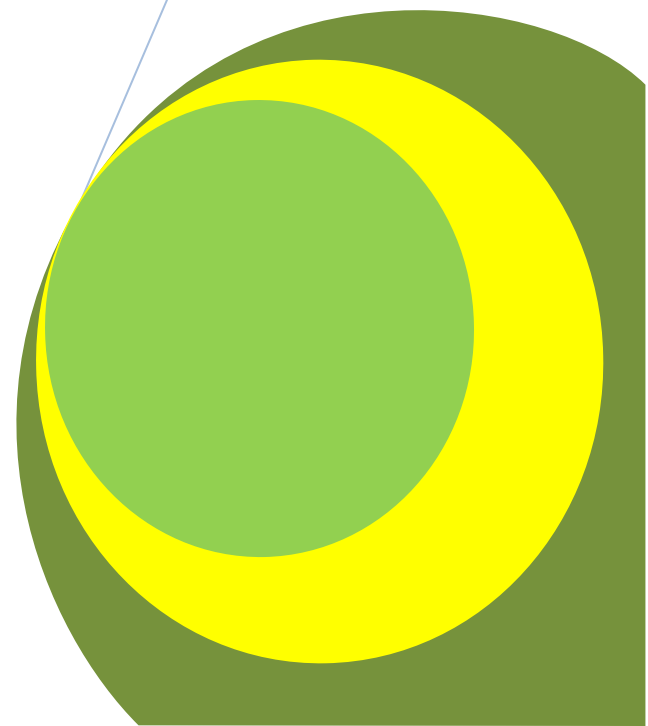
Research Article

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ABSTRACT

A structural analysis of honey trade flow into Ganye and Toungo local Government Areas of Adamawa State using total value of purchases index of measurement of market share was conducted in 2011. A total of 100 honey marketers were selected using a multi-stage sampling method. Structured questionnaire and interview schedule were used in the collection of marketing information from the marketers. Descriptive statistics and Gini coefficient were used in data analysis. Results revealed that majority (89%) of the honey marketers were male and 81% were married. Sixty-six percent of the marketers belong to the age range of 30 – 49 years. Most (74%) of the marketers were farmers. Results further revealed that Cameroon Republic contributed 81.97% of the volume of honey sold in the study area while only 18.03% was produced locally. The sellers' concentration was medium in the market with Gini coefficient of 0.62683. This implied that there was inequality in the concentration of sellers and sale revenue, and the honey market was imperfect. It was also revealed that most (95%) of the marketers sell their product immediately after purchase. The market performance was estimated to be 48.91% as indicated by the marketing margin. The honey market is monopolistically competitive and profitable.

Keywords: Structural analysis, Honey, Market, Trade flow, Adamawa State.

INTRODUCTION

Structure of a market consists of characteristics of the organization of the market which seem to influence strategically the nature of competition and pricing within the market (Olukosi *et al.,* 2007). It particularly relates to the degree of buyer and seller concentration, entry condition, the extent of agents and product differentiation (Harris, 1993). These structural characteristics are therefore used as a basis for classifying markets. Market may be perfectly competitive, monopolistic or oligopolistic. The ideal market structure for optimum efficiency is pure competition. A market is said to be competitive when there are many buyers and sellers, free entry condition, high degree of price competitions and perfect market knowledge (Bila and Bulama, 2004).

Market structure is a description of the number of and nature of participants in the market; these include the number and size distribution of buyers and sellers in the market, the degree of product differentiation and the barrier to potential entrants (Hill, 1997).

Imoudu and Afolabi (2002) posited that the market agricultural products in Nigeria are not perfectly competitive due to collusive tendencies of sellers who form associations for particular products. Market structure also influenced how profit is distributed within an agricultural market. Improvement of the food crop marketing system is a panacea for increased production, productivity, income and for satisfying consumers' utilities (Anuebunwa, 2002). According to Ikediobi and Obi (1985), of the estimated annual world consumption of honey, 90% is eaten directly as honey while the remaining 10% is used in various ways and for domestic products. In 2005, China, Argentina, Turkey and the United States were the top producers of natural honey (FAO, 2005). For many years, the functioning of the food markets in the developing countries was discussed at length (Anthonio, 1968; Jones, 1972; Whetham, 1972), and many researchers have criticized the performance. Marketing performance is the assessment of how well the

process of marketing is carried out and how successful its aim is accomplished. Olukosi and Isitor (1990) described market performance as the strategic end result of market adjustments engaged in by buyer and seller it also refers to the impact of the structure and conduct as measured in terms of variables such as prices, costs and volume of output (Bresser and King, 1970). Market structure, conduct and performance when applied, could help in shaping the marketing system (Adegeye and Dittoh, 1985). Market performance is a reflection of the impact of structure and conduct on product prices, costs and the volume and quantity of output (Hill, 1997). The dearth of knowledge and information on structural analysis of honey marketing in Ganye and Toungo Local Government Areas.

Objective of the Study

The broad objective of the study is a structural analysis of honey trade flow into Ganye and Toungo local Government Areas of Adamawa State; the specific objectives are to:

1. Describe the socio-economic characteristics of honey marketers in the study area;
2. Determine the volume of honey sold in the study area; and
3. Determine market structure, conduct and performance of honey marketing in the study area.

MATERIALS AND METHODS

Study Area: The study was conducted in Ganye and Toungo local government areas of Adamawa State, Nigeria. Ganye and Toungo local government were purposively selected because of their unique nature in honey marketing Ganye local government lies between latitude 9° 8'N and longitude 11° 5' East. It has a land mass of 2291.42km^2 and a population of 164,087, While Toungo local government lies between latitude 8° 7' and longitude 12° 3' East. It has a land mass of 5479.5km^2 and a population of 52,040 (Adebayo, 1999; NPC, 2007).
The mean annual temperature of the study area is 26.7^{o}C while the mean annual rainfall ranges between 1100mm and 1600mm with a distinct dry season which begins in November and ends April and the wet season begins in April and ends in October or sometimes in November. The areas are located within the Guinea Savannah zone of the Nigeria's vegetation zones (Adebayo, 1999).

Method of Data Collection: A multi stage sampling technique was used to select 100 honey sellers in the study area. The study area which comprises of Ganye and Toungo local government areas is made up of nine districts. Five districts namely Ganye, Sugu, Gurumpawo, Toungo and dawo districts were purposively selected for the study because they are notable in honey production and marketing. From each district, two villages namely Santasa and Sangasumi, Sanyigmi and Gamu, Dalebbi and Dimgam, Lainde-citta and Tipsan, Dawo and Gumti from Ganye, Sugu, Gurumpawo, Toungo and Dawo respectively were purposively selected because of their popularity in honey production and marketing from where 100 respondents were selected using a snow ball sampling technique for the study.

Analytical Technique: The tools used in analysing the data of this research include simple descriptive statistic which was used to describe the socio-economic characteristics of honey marketers as well as the problems militating against honey marketers in the study area. Marketing margin was used to determine the performance of the market. Gini coefficient was used to determine the degree of concentration of buyers and sellers in the market.

Descriptive Statistic: The simple descriptive statistics are frequency distributions and percentages. These were used to describe the socio-economic characteristics as well as the problems militating against marketing of honey in the study area.

Gini Coefficient: The Gini coefficient was used to determine the degree of market concentration of buyers and sellers in the market. The Gini coefficient was computed using the following formula after Okereke and Anthonio (1988); Bila and Bulama (2004), and Adinya *et al.* (2006).

G = I - $\sum$XY

Where:
        G = Gini Coefficient
        X = Percentage share of each class of seller
        Y = Cumulative percentage of their sales

The Gini coefficient ranges from zero to one. A low Gini coefficient indicates a more equal distribution, with zero corresponding to complete equality, while higher Gini coefficient indicates more unequal distribution, with one corresponding to complete inequality. Thus a perfect equality in concentration (low) of the buyers and sellers is expected if G tends towards zero. While perfect inequality in concentration (high) of sellers is expected if G tends towards one, if G = 1 market is imperfect and if G = 0 market is perfect and competitive.

Marketing Margin: The marketing margin was determined from the difference between retail prices and producers' price. This is used here to determine the market performance. The margin is thus expressed as;

$M_M = R_P - P_P$

M_M = Marketing margin in Naira

R_P = Retail prices in Naira

P_P = Purchase Price at the farm gate in Naira

Adekanye (1988); Okumadewa and Mafimisebi (2001) and Ehirim *et al.* (2007), independently emphasized that marketing margin is expressed as a percentage of the producers' price and this is expressed by;

Percentage $M_M = (R_P - P_P)/R_P$ x 100.

RESULTS AND DISCUSSIONS

Socio-Economic Characteristics of ohe Respondents: Data collected and presented in table 1 shows that majority (89%) of the honey marketers were male and 81% were married. Sixty-six percent of the marketers belong to the age range of 30 – 49 years. This implies that there is a predominance of male middle aged people who are honey marketers This age distribution can have a positive impact on the business aggressiveness of the respondents. It also agrees with Onyekuru *et al.* (2010) who posited that most of those involved in honey enterprise are of male folks. Also 49% of the marketers were not formally educated while the rest had between adult, primary, secondary and tertiary education. It also agrees with the study conducted by Onyekuru *et al.* (2010) which reveals that most of those involved in honey enterprise are of lower educational background according to him this trend will not favour the enterprise. Most (74%) the marketers are farmers. This implies that most of the respondents spend more time in farming activities and are professional farmers they took marketing of honey as a secondary occupation and had the mean family size of 8 persons. The mean honey marketing experience was 9.02 years, which indicates that the marketers have spent relatively long period in the business.

Table 1: Socio-Economic characteristics of Honey Marketers

Variables	Mean	Mode
Age (in years)	43.02	66%, 30 – 49 years
Sex	-	89% Male
Marital Status	-	81% Married
Educational Level	-	49% no formal education
Household Size	8	36% 1 – 5 Persons
Occupation	-	74% Farmers
Marketing Experience	9.02	55% 6 – 10 years

Source: Field Survey, 2011

Volume of Honey Sold Per Month

The study revealed that out of the total quantity of honey sold per month in the study area, 81.97% of the volume sold was imported from Cameroon while only 18.03% was locally produced (Table 2). This implies that honey production in the study area is traditional practiced and is being produced in small-scale. However, honey produced in the study area is reduced drastically, may be due to indiscriminate cutting down of trees for timber and firewood.

Table 2: Volume of Honey Sold per Month in the Study Area

Parameter	Volume of Honey Sold per Month in Litres	Percentage
Locally produced	1,093	18.03
Imported from Cameroon	4,970	81.97
Total	6,063	100

Source: Field survey, 2011

Category of Sellers Interviewed

The result in table 3 reveals that 2% of the respondents were producers/seller while 12% were wholesalers. About 14% were wholesalers/retailers while 72% were retailers. The dominance of honey marketing in the study area by retailers may be due to small capital outlay required to start the business. The implication of this is that marketing may tend to continue at subsistence level.

Table 3: Distribution of Respondents According to Category of Sellers in the Study Area

Parameter	Frequency	Percentage
Producer/sellers	2	2
Wholesaler	12	12
Wholesaler/Retailer	14	14
Retailer	72	72
Total	100	100

Source: Field survey 2011

Market Structure: The Gini coefficient of 0.62683 obtained in the study tends towards unity than zero indicating a medium degree of inequality in sales revenue of respondents and hence medium level of sellers' concentration. This is a reflection of inefficiency in the market structure for honey in the study area (Table 4).

Table 4:   Computation of Gini Coefficient

Income (sales) (₦)	Frequency	% of sellers (X)	Cumulative frequency	Cumulative percentage of sellers	Total sales (₦)	% of Total sales (Y)	XY
1,000-20,000	36	36	36	36	1,252,500	30.84	0.111018
20,001-40,000	52	52	88	88	1,942,000	47.82	0.248637
40,001-60,000	5	5	93	93	290,000	7.14	0.003570
60,001-80,000	7	7	100	100	577,000	14.20	0.009945

Source: Field Survey, 2011

Mean value of monthly sales = ₦40, 615.00

Gini Coefficient = 1- $\sum XY$
               = 1 – 0.37317
               = 0.62683

Market Conduct

In the study area most (95%) of the respondents buy and sell honey immediately when it is available, they do not hold the product but they usually sell it as they buy it from the producers/sources (Table 5). This is because the little amount they invested they cannot hold it. Honey is usually cheap when it is readily available and expensive when it is not readily available.

Table 5: Distribution of Whether Respondents Sell Honey Immediately After Purchase

Sell Immediately	Frequency	Percentages
Yes	95	95
No	5	5
Total	100	100

Source: Field Survey, 2011

Market Performance: The marketing performance was estimated to be 48.91% as indicated by the marketing margin. This is the reflection of the impact of the market structure and market conduct on product prices, costs and the volume and quantity of output.

CONCLUSION

Ganye and Toungo is a honey consuming area in Adamawa State with a trade flows mainly from Cameroon. Some degrees of seller concentration exist in honey market. These features imply that the honey market is monopolistically competitive and tend to expose the market towards higher profit and higher scope for middlemen exploitation.

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