# Analyze the Marketing of Chicken Eggs in the Traditional Market of Tebing Tinggi Municipality

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**Absract.** The marketing for egg is the final process of a chicken breeding business where farmers or producers deliver their products to consumers with the help of marketing institutions that have one or more marketing agencies involved, where each marketing agency will connect with other marketing institutions.This study aims to identify the characteristics of ras chicken egg marketing institutions, and ras chicken egg marketing channels, analyze marketing margins, farmer share, profit ratio, and cost of chicken egg, as well as analyze the marketing efficiency of chicken eggs in Tebing Tinggi  Municipality. This research was conducted in June 2018 - August 2018. The method used in data collection is the delivery of retailer's sample by using the Slovin formula, while the sample of breeders and other marketing institutions with snowball sampling. Data collection was carried out using interview questionnaire techniques.

Data analysis includes marketing costs, marketing margins, farmer share and cost benefit ratio of each marketing channel. The results of this study indicate that there are two marketing channels. The smallest marketing marketing margin is obtained by marketing channel I, therefore marketing channel I has the largest ratio of profit to cost. Farmer's biggest share is obtained in marketing channel I. So it can be concluded that the first channel is the most efficient channel because it has the smallest cost and a large profit.

## 1. Introduction

The average yield of chicken per capita per year in Indonesia in 2015 was 97,398 items and in 2016 there were 99,796 items [1].

Community demand for fluctuating chicken eggs, but at certain times the public demand for chicken eggs is very high, for example for the purposes of celebration, holidays and so on, because of the culture in our society make eggs as mandatory side dishes every event [2].

Important things that can affect the efficiency or failure of a marketing is the determinant of the price that receives a price that can be interpreted that the person is an important actor in the market that can affect the price of chicken eggs, if an investor only acts alone then still cannot determine the price of a security so that the marketing margin has a high value [3].

## 2. Research Methods

### 2.1. Time and place of research

This research was conducted in the traditional market of Tebing Tinggi Municipality, North Sumatra province. This research was conducted from June to August 2018.

### 2.2. Methods

The method used in this study is the census method with retailers who sell chicken eggs in traditional markets, while the collectors and breeders are determined by snowball sampling by following the marketing flow based on information obtained from previous egg retailers.

2.3. Methods for determining research areas
The research location was determined purposively (intentionally) in several traditional markets in the Tebing Tinggi Municipality. The traditional markets chosen as research locations are Gambir Market in Padang Hulu Subdistrict, Sakti Market in Bajenis District, and Inpres Market in Tebing Tinggi Kota District. The reason for choosing these three traditional markets is the research location because the three traditional markets sell the commodities to be studied and are a large market in the Tebing Tinggi Municipality.

| Traditional Market | Area |
| --- | --- |
| Inpres Market | Sub-District Tebing Tinggi Kota |
| Gambir Market | Sub-District Tebing Padang Hulu |
| Kain Market | Sub-District Tebing Padang Hulu |
| Sakti Market | Sub-District Tebing Bajenis |
| Baru Market | Sub-District Tebing Bajenis |

Tebing Tinggi Municipality has 5 traditional markets, namely the Inpres market, Gambir market, Kain market, Sakti market, and Baru market. Among the five traditional markets there are only 3 traditional markets that sell the commodities under study, while the other 2 markets only sell various types of textile goods such as fabrics and clothing.

2.4. Method of collecting data
Data collection conducted in this study, namely:
Observation, collecting through systematic observation and recording.
The interview was conducted by asking questions face to face with the respondents by filling out the questionnaire. Questionnaire is a number of questions submitted to respondents to obtain primary.
Literature study, carried out by studying and retrieving data from literature and other sources that are considered able to provide information about this research such as books, previous research, journals and the internet.

2.5. Analysis data
The data obtained in this study are processed qualitatively and quantitatively, and are presented in the form of a description and tabulation of numbers. Data processing is done by descriptive method.

Marketing margin is formulated by calculating the difference between the price at the consumer level and the price at the producer level. According to Soekartawi [4], marketing margins are formulated as follows:

$$Mp = Pr - Pf$$

Information:
MP: Marketing margin (Rp/Item)
Pr: Price at the consumer level (Rp/Item)
Pf: Prices at farmer level (Rp/Item)

Analysis of Farmer's Share received by the manufacturer. To calculate the farmer's share (the portion received by the farmer) according to Sudiyono [5] the formula is used:

$$Fs = \frac{Pf}{Pr} \times 100\%$$

Information :
Fs: Farmer's Share (%)

Pr: Price at the consumer level (Rp/Item)
Pf: Prices at farmer level (Rp/Item)

Profit to Cost Ratio

Rasio Keuntungan terhadap Biaya = Total Keuntungan/Biaya Pemasaran

Marketing Efficiency

$$\text{Efisiensi Pemasaran} = \frac{\text{Total Biaya Pemasaran}}{\text{Total Harga Produk}} \times 100\%$$

According to Downey [6] and Erickson [7] that marketing systems are said to be efficient if the value of marketing efficiency is <1.

The benchmark used to measure marketing efficiency is to look at a comparison of the profit share of each marketing agency involved in the marketing process compared to the marketing costs of each marketing institution involved with the following criteria:
1. Marketing margins
   Marketing is said to be efficient if the farmer's marketing margin is greater than the marketing margin received by the marketing agency as a whole and vice versa.
2. Based on farmer's share
   It's said to be efficient if farmer's share is> 50%. The farmer's share has a negative relationship with marketing margins, which means that the higher the marketing margin, the lower the farmer's share.
3. Cost benefit ratio
   It is said to be efficient if the cost benefit ratio is> 1 and vice versa

## 3. Results and Discussion
3.1. Marketing channel
In marketing activities there are marketing institutions that are intermediary institutions that connect producers to consumers in delivering production results:
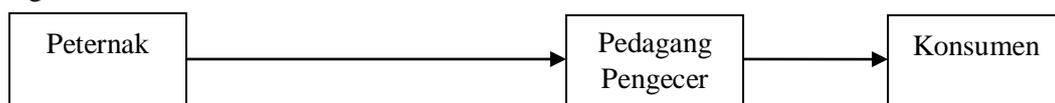
Marketing channel I



Figure 1. Marketing Channel I

Based on the picture above is the type of marketing which includes a one-level marketing channel because this channel only uses one intermediary institution, namely retailers. Raised chicken breeders on this channel come from Pantai Labu Subdistrict which produces eggs on a small scale and sells them directly to retailers on the market using pick up.

Marketing channel II



Figure 2. Marketing Channel II

Based on the picture above, the second marketing channel is a two-level marketing channel because of the marketing of eggs from farmers to consumers through 2 marketing institutions, namely traders or agents and retailers. Breeders come from Pantai Labu District and sell chicken eggs to agents who come to farmers. Agents transport eggs using pick ups and sell them directly to retailers on the market. In marketing channel II this is divided into marketing IIa and IIb. Both marketing are distinguished because there are two traditional markets that are in this one channel so the marketing costs will be very different later.

## 3.2. Marketing Margin

The biggest marketing margin is in the marketing channel II, which is Rp. 350 because lane II is the longest chain of marketing lanes, this is because in the marketing lane II there are differences in higher selling prices from agents to retailers, and final consumers on lane II not only for direct consumption but mostly chicken eggs races are resold in the form of processed foods in large quantities.

The smallest marketing margin is in the marketing channel I, which is Rp. 178 where in this path the farmer sells chicken eggs directly to the retailer. In addition, retailers sell only chicken eggs in small quantities and the average consumer who buys chicken eggs is consumed directly. In this path there is a very close relationship and mutual trust so that farmers always maintain the quality of their eggs sold. On lines I and II, the marketing margin is determined by the distribution distance and the short length of the marketing chain as well as the high and low selling price of broiler eggs at each marketing institution.

In both marketing routes for chicken eggs, the biggest cost is borne by the marketing path II, which is Rp. 49.72 per item. This is because the marketing chain through two marketing institutions and the number of people being traded is very much. While the smallest costs are in marketing I, while the costs borne by the marketing channel I are Rp. 32.87 which is the shortest marketing chain.

| Description | Marketing channel | |
| --- | --- | --- |
| | 1 | 2 |
| | Value (Rp/item) | Value (Rp/item) |
| **Breeder** | | |
| Selling price | 1.150 | 1.000 |
| Marketing Costs | 26,16 | 20,15 |
| **Agent** | | |
| Purchase price | | 1.000 |
| Marketing Costs | | 24,89 |
| Revenue | | 175,11 |
| Selling price | | 1.200 |
| Margin | | 200 |
| **Retailers** | | |
| Purchase price | 1.150 | 1.200 |
| Marketing Costs | 6,71 | 4,68 |
| Revenue | 171,29 | 145,32 |
| Selling price | 1.328 | 1.350 |
| Margin | 178 | 150 |
| Total Marketing Costs | 32,87 | 49,72 |
| Total profit | 172,29 | 320,43 |
| Total Margin | 178 | 350 |

The biggest marketing advantage is in the marketing channel II, which is Rp. 320.43 because it is the longest marketing chain and consumers who buy most of the chicken eggs are sold in the form of processed food in large quantities. The smallest profit is in the marketing channel I, which is Rp. 172.29, this is because there are only a few eggs distributed in this line, even though the selling price given to consumers is quite high.

## 3.3. Farmer's Share

| Marketing channel | Prices at the Farmer Level (Rp/item) | Price at the Consumer Level (Rp/item) | Farmer's Share (%) |
|---|---|---|---|
| I | 1.150 | 1.328 | 86,59 |
| IIa | 1.000 | 1.350 | 77,07 |

Farmer 's share is a comparison between prices received by farmers and prices paid by consumers, and is generally expressed as a percentage. Farmer's share is inversely related to marketing margins, meaning that the higher the marketing margin, the lower the farmer's share.

Farmer's highest share on marketing channel I is 86.59%, meaning that farmers receive a price of 86.59% of the price paid by consumers. In addition, the marketing channel II obtained the lowest farmer share value of 77.07%.

## 3.4. Profit and Cost Ratio

Marketing costs are costs incurred by marketing agencies in distributing chicken eggs from breeders to end consumers expressed in rupiah per item. While the benefits of marketing institutions are the difference between marketing margins and costs incurred during the marketing process. Cost-benefit ratio analysis per cost can be used to determine whether the marketing activities carried out provide benefits to the marketing actors.

In channel I the total cost incurred by retailers is Rp. 6.71 per item while profits are Rp. 171.29 per item. Then the cost benefit ratio is Rp. 25.52 per item.

In channel II the total cost spent per egg is Rp. 29.57. The biggest cost is borne by the agent, amounting to Rp. 24.89 per item, the lowest marketing cost borne by the retailer is Rp. 4.68 per item. The biggest advantage obtained by the agent is Rp. 175.11 per item, while the lowest profit is obtained by retailers, namely Rp. 145.32 per item.

| Marketing Institute | Profit (Rp/Item) | Cost (Rp/Item) | $\pi/C$ |
|---|---|---|---|
| Channel I | | | |
| Breeder | 1.150 | | |
| Retailers | 171,29 | 6,71 | 25,52 |
| Total | 171,29 | 6,71 | 25,52 |
| Channel II | | | |
| Breeder | 1.000 | | |
| Agent | 175,11 | 24,89 | 7,03 |
| Retailers | 145,32 | 4,68 | 31,05 |
| Total | 320,43 | 29,57 | 10,83 |

## 3.5. Marketing Efficiency

Based on the formula of Downey and Erickson (1992) the marketing system can be said to be efficient if the value of marketing efficiency is <1, by looking at the results of analysis in table 23, that the efficiency of all marketing institutions involved in marketing chicken eggs in traditional markets in the Municipality Tebing Tinggi is <1 which means efficient. So from the two marketing institutions, the most efficient marketing institution compared to other institutions is retailers. This is indicated by the small marketing costs, while the value of the products being marketed is the largest.

| Marketing Institute | Cost (Rp/Item) | Product Value (Rp/Item) | Efficiency Value (Rp/Item) |
|---|---|---|---|
| Channel I | | | |
| Breeder | 26,16 | 1.150 | 0,022 |
| Retailers | 6,71 | 1.328 | 0,005 |
| Channel II | | | |
| Breeder | 20,15 | 1.000 | 0,020 |
| Agent | 24,89 | 1.200 | 0,020 |
| Retailers | 4,68 | 1.350 | 0,003 |

## 4. Conclusions

Marketing chicken eggs in the traditional market of Tebing Tinggi Municipality consists of 2 marketing channels, namely marketing channels involving one marketing agency and marketing channel involving two marketing institutions. The marketing institutions involved are farmers as egg producers, agents or collectors, and retailers.

Based on the analysis of marketing margins, farmer's share, and profit to cost ratio, the following conclusions are obtained: The smallest marketing margin is obtained by channel I, which is Rp. 178, - per item. The biggest cost benefit ratio is marketing channel I, in terms of farmer's share, channel I occupies the highest value of 86.59%, and from the marketing efficiency, each marketing channel is efficient with a value of <1.

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