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Marketing Analysis of Quail Eggs in 3 Different Traditional Markets in Medan City

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Abstract. The demand for quail eggs in several regions of Indonesia is quite high. This study aims to determine the shape of marketing channels, marketing margins, farmer's share, marketing mix and marketing efficiency of quail eggs at three different traditional markets in Medan City. The research method used is observation and interviews with respondents using a questionnaire. Sampling was done by snowball sampling technique. The results showed that the form of marketing channels for quail eggs at three different traditional markets in Medan City, there are three channels, namely: channel 1 (Farmers - Consumers), channel 2 (Farmers - Retailers - Consumers), channel 3 (Farmers - Collectors - Retailers - Consumers). Marketing margin for quail eggs in three traditional markets, the smallest on channel 1 is Rp.0 and the largest on channel 3 is Rp.64. The highest farmer's share is on channel 1 of 100% and the lowest on marketing channel 3 is 83.91%. The product marketing mix offered is quail eggs. Prices are set by retailers. Promotion uses direct promotion. Locations for trading are spread. Distribution channels directly to consumers and through intermediaries. Supporting facilities not only sell quail eggs but other products. The most efficient marketing efficient channel 1 with a value of 0%. The most efficient forms of marketing channels, marketing margins, farmer's share and marketing efficiency are in marketing channel 1. Marketing channel 1 is free of charge and marketing institutions are involved and marketing channel 1 is found in the three traditional markets in Medan City.

Keyword*: Farmers,Marketing Analysis, Quail Eggs, Retailers,Traditional Market*

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1 Introduction

Quail egg production in Indonesia reached 25,862 tons in 2019, 24,648 tons in 2020, and 25,281 tons in 2021 [1]. The types of processed food in Indonesia that use quail eggs are very diverse and varied. The demand for quail eggs in several regions of Indonesia is quite high. Quail egg production is not enough to meet the huge demand for quail eggs. The daily supply of quail eggs was only able to fulfill 20% of market demand in 2017, according to Slamet Wuryadi, Chairman of the Indonesian Quail Farmers Association (APPI). The government does not have an institution

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to fulfill the availability of seedlings. The scarcity of quail seedlings is one of the factors that make it difficult to meet the demand for quail eggs. Only about 3.5 million can be supplied each week by the three main production areas, such as West Java, Banten and DKI Jakarta.

Animal protein has many benefits and is high in nutrients and quail eggs are one of the good sources of protein. Quail eggs contain 13.1% protein, 11.1% low fat, 1% carbohydrate, and 1.1% ash. Chicken eggs have a protein content of 12.7%, fat content of 11.3%, carbohydrate content of 0.9% and ash content of 1%. Duck eggs have a protein content of 13.3%, fat content of 14.5%, carbohydrate content of 0.7% and ash content of 1.1%. Free-range chicken eggs have a protein content of 13.4%, fat content of 10.3%, carbohydrate content of 0.9% and ash content of 1% [2].

The quail egg marketing channel has several marketing institutions such as collecting traders, wholesalers, and retailers. Marketing channels that are too long can also increase the selling price of eggs to consumers, causing the market to be unstable and affecting the marketing of quail eggs. The longer the marketing channel, the greater the price paid by consumers and the more inefficient. Based on this background, the researcher wants to analyze quail egg marketing in three different traditional markets in Medan City by analyzing the form of marketing channels, marketing margins, farmer's share, marketing mix and marketing efficiency.

2 Meterial and Method

2.1 Sampling Method

The sampling method chosen was snowball sampling, following the marketing channel from farmers, intermediary traders and retailers, to final consumers. Respondents from each market were selected by accidental sampling, the respondents from each market who were present during market visits and open to being interviewed and had appropriate information [3].

2.2 Method of Determining the Research Area

The research area was determined purposively. The research area was purposively selected at Sei Sikambing Market, Central Market and Simpang Limun Market because these three markets are among the largest traditional markets in Medan City.

2.3 Data Collection Methods

The data collected in this study consisted of primary data and secondary data. Primary data was collected using direct observation techniques, questionnaire-based interviews with respondents. Secondary data used as a source of information to complement primary data during the research, was collected through various literatures and journals.

2.3 Methods of Data Analysis

Data collected from interviews with respondents were then recapitulated to facilitate calculations, and finally analyzed for the presentation of results and discussion. To determine marketing

channels, marketing margins, farmer's share, marketing mix, and marketing efficiency, calculations were carried out :

2.4.1 Marketing Channels

The marketing channels of several markets are analyzed descriptively by finding the distribution channels to the consumers.

2.4.2 Marketing Margin

The value of the price difference at the consumer level and the producer level is known as the marketing margin. The calculation of marketing margins uses the formula :

$$\mathbf{MP = Pr – Pf}$$

Description:

MP = Marketing margin (Rp / egg)
Pr = Consumer level price (Rp / egg)
Pf = Producer level price (Rp / egg)

2.4.3 Farmer’s Share

Farmer's Share is used to compare how much in percentage terms the farmer receives from the price paid by the final consumer. Systematically the farmer's share formula is [4]:

$$\mathbf{FS = (Pf/Pr) \times 100\%}$$

Description:

FS = Farmer's share (%)

Pf = Producer level price (Rp / egg) Pr = Consumer level price (Rp / egg) If:

FS value > 50% is said to be efficient

FS value < 50% is said to be inefficientFS value < 50% is said to be inefficient.

2.4.4 Marketing Mix dan Marketing Efficiency

To find out the application of the 7P marketing mix.

Calculating marketing margins and the share of farmers obtained by each marketing channel is actually one way to measure indicators of marketing channel efficiency. The following formula is used to determine the effectiveness of marketing in the research location [5] :

$$\mathbf{Market\ Efficiency = (Marketing\ Cost)/(Final\ Product\ Value) \times 100\%}$$

If:

EP value > 5 is inefficient

EP value < 5 is efficient

3 Result and Discussions

3.1 Marketing Channel

The marketing channels involved in quail egg marketing in Sei Sikambing market, Central Market and Simpang Limun market are farmers, intermediary traders, retailers and end consumers. The figure above shows the recapitulation in three different traditional markets in Medan City (Figures 1, 2 and 3).

Level 1 Channel

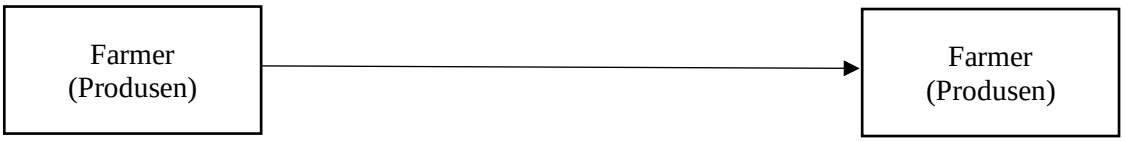

Figure 1. Quail egg marketing channels in the three different markets in channel level 1

Level 2 Channel

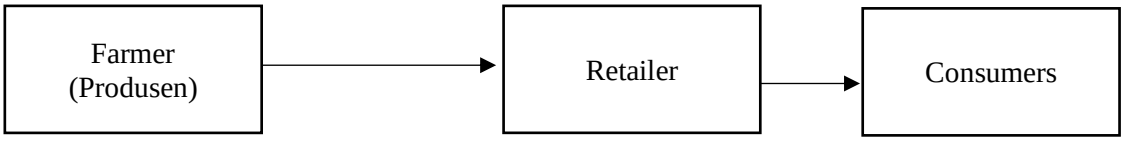

Figure 2. Quail egg marketing channels in the three different markets at channel level 2

Level 3 Channel

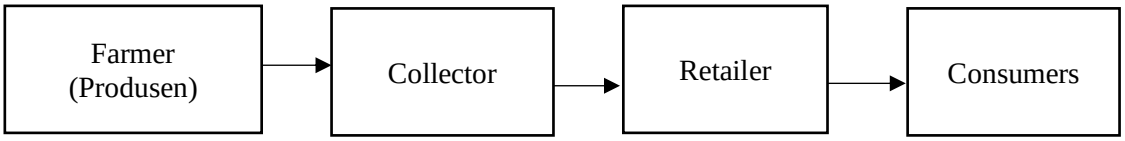

Figure 3. Quail egg marketing channels in the three different markets at channel level 3

In the level 1 channel, quail egg farmers do not have direct contact with intermediary traders or retailers, as consumers come directly to the farmers. The majority of consumers are local residents who live close to the farm and buy as much as they need themselves. However, locals who live close to the farmers usually only buy quail eggs for one meal a day, meaning they do not buy as much as the intermediary traders or retailers do.

The level 2 channel consists of farmers, retailers and consumers. The systematics in this channel is that retailer traders buy quail eggs from farmers directly and then retailer traders sell directly to end consumers.

In level 3 channels, the mechanism in this channel is not direct because farmers sell quail eggs to intermediary traders by means of intermediary traders coming directly to farmers. What is meant by collecting traders is traders who collect quail eggs and then market them back to retail traders and from retail traders marketed to end consumers.

3.2 Marketing Margin

Table 1. Margin of quail egg marketing channel in Sei Sikambing market

Channel	Status	Average Selling Price (IDR/egg)	Average Purchase Price (IDR/egg)	Margin
1	Farmer	340	-	-
1	Consumers	-	340	0
Total				
2	Farmer	340	-	-
2	Retailer	384	340	44
2	Consumers	-	384	44
Total				44
3	Farmer	340	-	-
3	Collector	360	340	20
3	Retailer	395	360	55
3	Consumers	-	395	55
Total				55

Table 2 shows how the margins earned in the different marketing channels of Sei Sikambing market vary. The marketing channel that has the highest margin is marketing channel 3 Rp. 55/egg, while marketing channel 1 Rp. 0/egg has the smallest margin because there are no marketing institutions involved and no marketing costs incurred. This is supported by the statement of [6] that marketing margins in various marketing channels fluctuate based on the length of the channel and the costs incurred.

Table 2. Marketing channel margin of quail eggs in the Market Center

Channel	Status	Average Selling Price (IDR/egg)	Average Purchase Price (IDR/egg)	Margin
1	Farmer	350	-	-
1	Consumers	-	350	0
Total				0
2	Farmer	350	-	
2	Retailer	380	350	30
2	Consumers	-	380	30
Total				30
3	Farmer	350	-	-
3	Collector	360	350	10
3	Retailer	400	360	50
3	Consumers	-	400	50
Total				50

Marketing costs incurred and revenues realized by each marketing institution have an impact on the value of marketing margins. In Table 3, the marketing margin value at the Market. Marketing costs incurred and revenues realized by each marketing institution have an impact on the value of marketing margins. In Table 3, the marketing margin value at the Market Center is the lowest, namely marketing channel 1 Rp.0 / egg. Farmers do not incur marketing costs because consumers come directly.

Table 3. Marketing channel margin of quail eggs in Simpang Limun market

Channel	Status	Average Selling Price (IDR/egg)	Average Purchase Price (IDR/egg)	Margin
1	Farmer	340	-	-
1	Consumers	-	340	0
Total				0
2	Farmer	340	-	
2	Retailer	380	340	40
2	Consumers	-	380	40
Total				40
3	Farmer	340	-	-
3	Collector	355	340	15
3	Retailer	400	355	60
3	Consumers	-	400	60
Total				60

Table 4 shows how the margins achieved in the Simpang Limun market vary depending on the marketing channel. For the marketing channel that has the highest marketing margin is marketing channel 3 Rp. 60/egg, while the marketing channel that has the smallest marketing margin is marketing channel 1 Rp. 0/egg. marketing channel 1 is Rp. 0/egg. Marketing channel 1 is lower, because in channel 1 there are no marketing costs incurred and there are no marketing institutions involved.

Table 4. Recapitulation of quail egg marketing channel margins in Medan City

Channel	Status	Average Selling Price (IDR/egg)	Average Purchase Price (IDR/egg)	Margin
1	Farmer	346	-	-
1	Consumers	-	346	0
Total				0
2	Farmer	346	-	
2	Retailer	388,8	346	42,8
2	Consumers	-	388,8	42,8
Total				42,8
3	Farmer	334	-	-
3	Collector	358	334	24

3	Retailer	398	358	64
3	Consumers	-	398	
Total				64

From Table 5, it can be seen that the marketing margin for quail eggs in the three traditional markets differs, with the smallest marketing channel 1 being Rp. 0/egg. This channel has no margin because farmers market directly to consumers and there are no marketing costs.

Marketing channel 2 has a margin value of Rp. 42.8 / egg. Compared to marketing channel 1, marketing channel 2 has a higher margin value. This is because it involves retailers in the distribution of quail eggs and there are marketing costs incurred by retailers, namely transportation costs and market levies.

Then in marketing channel 3 has a margin value of Rp. 64 / egg. When compared to marketing channels 1 and 2, the value is the highest. This is because the quail eggs have traveled a longer distance. In addition, there are marketing costs, namely transportation costs and market levies, which result in a greater marketing margin value. High marketing costs can have an impact on the high selling price of quail eggs, resulting in increased marketing margins. This is supported by the statement of [7] which states that the longer the marketing channel, the greater the margin. Therefore, longer marketing channels will result in higher prices at the consumer level.

3.3 Farmer's Share

Table 5. Farmer's share of quail eggs at Medan City

Place	Channel	Price at Farmer Level (IDR/egg)	Price at Consumer Level (IDR/egg)	Farmer's share (100%) at Farmer Level
Sei Kambing Market	1	340	340	100 %
	2	340	384	88,54 %
	3	340	395	86,07 %
Market Center	1	350	350	100 %
	2	350	380	92,10 %
	3	350	400	87,5 %
Simpang Limun Market	1	340	340	100 %
	2	340	380	89,47 %
	3	340	400	85 %

Based on the Table 5, it can be stated that each quail egg marketing channel in Sei Sikambing market has an efficient farmer's share because all of them have a value > 50%. because they all

have a value > 50%. As it has the highest 100% farmer's share value among the three marketing channels, marketing channel 1 is the most effective and recommended.

Based on the table above, marketing channel 1 at the market center has the largest farmer's share value of 100%, which is the most effective and recommended channel among the three marketing channels. This is in accordance with the formula of [8] which states that farmer's share is said to be efficient if the value is > 50%, and inefficient if the value is < 50%.

Based on the data above, it can be concluded that each quail egg marketing channel in the Simpang Limun market gets an efficient farmer's share because all of them have a farmer's share value >50%. Because it has the highest 100% farmer's share value among the three marketing channels, marketing channel 1 is the most effective.

3.4 Marketing Mix

3.4.1 Product.

The product offered by retailers to consumers is quail eggs. Consumers can see quail eggs in terms of appearance whether or not there are cracks and quail eggs have a white base color with black spots. When compared to purebred chicken eggs, the product can be seen in the color of the egg, the shape of the egg is round / oval, and the variety of large and small eggs.

3.4.2 Price

The price of quail eggs is set by retailers. Retailers sell quail eggs at Rp350-400 per egg and Rp36,000-Rp40,000 per board and some charge Rp8,000 for a plastic bag containing 20 eggs. Meanwhile, purebred chicken eggs sell for Rp. 1,500 - 2,000 per egg and Rp. 46,000 - Rp. 55,000 per board.

3.4.3 Promotion

Promotion used is direct promotion from traders to buyers. Direct promotion is where retailers can communicate directly with consumers to get reactions or transactions.

3.4.4 Place

Location is a place where consumers can consume quail egg products. The empirical indicators are that the location of the three traditional markets is easily accessible, strategic for consumers to buy eggs, and the trading places are spread out.

3.4.5 People

People here are people who have a hand in providing or showing the services provided to consumers during product purchases. Those who take part in marketing products to consumers are collectors and retailers. Collecting traders resell to retailers after buying from breeders. Retailers then sell directly to consumers.

3.4.6 Process

There is convenience when making payments, as consumers can pay for quail eggs by cash. Retailers will then pack the quail eggs carefully and neatly when customers buy quail eggs in large quantities, making it easier for customers to transport them. This is in accordance with [9] statement that process is an action that produces the value of a product. The speed of a process and the skills of service providers are the basis for consumer satisfaction with their purchases.

3.4.7 Physical Evidence

Retailers have the added advantage of selling more than just quail eggs as one of their supporting services. Make it easy for customers to buy other items in the same place. This is in accordance with the statement [10] which states that customers will better understand the services provided if there is a real supporting infrastructure.

3.5 Marketing Efficiency

By examining the percentage of marketing costs incurred and the selling price of the product, the effectiveness of the quail egg marketing channel is determined. When compared to other distribution channels, a distribution channel is more efficient if the percentage figure is lower. The following table shows the marketing efficiency of the three different traditional markets in Medan City :

Tabel 6. Efisiensi pemasaran telur puyuh di pasar Sei Sikambing

Place	Channel	Marketing Cost (Rp/Butir)	Product Selling Value (Rp/Butir)	Marketing Efficiency
Sei Kambing Market	1	0	340	0 %
	2	8,76	384	2,21 %
	3	17,50	395	4,55 %
Market Center	1	0	350	0 %
	2	12,01	380	3 %
	3	18,26	400	4,80 %
Simpamg Limun Market	1	0	340	0 %
	2	8,52	380	2,13 %
	3	13,26	400	3,48 %

Table 6 shows that marketing channel 1 of quail eggs in Sei Sikambing market has the lowest marketing efficiency value at 0% and the highest marketing efficiency value is channel 3 at 4.55%. Based on this, it can be said that marketing channel 1 and marketing channel 3 are both effective, but marketing channel 1 is more effective because there is no marketing chain and it costs less than marketing channel 3.

Table 11 shows that quail egg marketing channel 1 in the Market Center has the lowest marketing efficiency value of 0% and the highest marketing efficiency value is channel 3 at 4.80%. Based on this, it can be said that marketing channel 1 and marketing channel 3 are both effective, but marketing channel 1 is more effective because there is no marketing chain and no marketing costs.

Based on Table 12, marketing channel 1 of quail eggs in Simpang Limun market has the lowest marketing efficiency value of 0% and marketing channel 3 has the highest value of 3.48%. Based on this, it can be Based on this, it can be said that marketing channel 1 and marketing channel 3 are both effective, but marketing channel 1 is more effective because there is no marketing chain and no marketing costs incurred.

4 Conclusions

The most efficient marketing efficiency of the three traditional markets in Medan City is marketing channel 1. Because the costs incurred are small compared to marketing channel 3 and there is no marketing chain.

Marketing channel 1 is considered the most efficient and has the lowest margin value of Rp. 0/egg and has the highest farmer's share value of 100% and the lowest marketing efficiency of 0% which means marketing channel 1 has the best level of efficiency with the lowest margin value and the highest farmer's share value.

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