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Analysis of Marketing Efficiency of Garlic from Nagari Salayo Tanang Bukik Sileh, Lembang Jaya Sub-district, Solok Regency

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Abstract

The study aimed to describe the marketing channel of garlic from Nagari Salayo Tanang Bukik Sileh and to analyze the efficiency of the marketing channel. The study used a survey method, and data were gathered from 30 peoples who chose randomly from 103 farmers and intermediary traders. The research found that there are four types of marketing channels of garlic in the area. The market channels were as follows: 1) Farmers → Breeders → Farmers, 2) Farmers → Wholesalers → Retailers → Consumers, 3) Farmers → Retailers (in the form of dried onions) → Consumers, 4) Farmers → Retailers → Consumers. Moreover, there was no proportional shared profit among the four marketing channels. The farmers received lower earnings than their proportionate profits, but on the other hand, the benefits received by breeders, wholesalers, and retailers were higher than their proportional profits, so that the marketing channels were inefficient.

Keywords: Garlic, Marketing Channel, Profit, Wholesalers, Retailers

1. Introduction

Garlic (Allium sativum) is one of the most popular species of Onion genus (Allium) in the world and has an essential role in creating a healthy and robust nation through a portion of good food. Garlic is not only known as a food seasoning, but also as an antidote to various diseases (Wibowo, 2009).

Marketing is a process of delivering goods or services from a producer to consumers. Meanwhile, agricultural marketing is an exchange process that includes a series of activities to provide products or services from farmers to consumers (Hamid, 1994). The marketing system of agricultural products has a significant position because it will largely determine the success and sustainability of the farm in the future. The marketing process needs to be examined because it will affect the farmers' welfare through the income received from the selling of their products. The lousy marketing will get the farmers to suffer from losses because the price received by farmers would be less than the costs they incurred for their farming (Soekartawi, 2002). There is an opinion that farmers get less profit than traders. Farmers should get a more significant benefit than traders because they have a long process of producing the products. It should be a fair advantage, which is the profit received by each marketing institution is equal to their sacrifice in delivering and transporting goods to consumers. This condition is called the efficiency of trading based on profit. Mubyarto (1989) stated that the efficiency of the marketing system is the ability to make a fair share of the overall price paid by end consumers to all parties participating in the production and marketing activities. The fair means the compensation from production and marketing activities is suited to their respective contributions.

Solok District is the largest producer of garlic in West Sumatera with a total production of 1,701.40 tons in 2019 (BPS, 2019). The reason is that its climate is suitable for growing garlic, which is the highland climate. There are 14 sub-districts in Solok Regency and only the farmers in Lembang Jaya sub-district and Danau Kembar sub-district that cultivate garlic. The planting area of garlic in the Lembang Jaya sub-district is 27 ha, while in the Danau Kembar sub-district is 15 ha. Moreover, the village in the Lembang Jaya sub-district that has the largest planting area of garlic is Nagari Salayo Tanang Bukik Sileh, with the total planting area of 13 ha (Direktorat Jenderal Perkebunan Provinsi Sumatera Barat, 2011).

A garlic variety grown in Nagari Salayo Tanang is Lumbu Hijau from Batu, Malang, East Java (Ulfa, 2018). Lumbu Hijau varieties can properly grow at an altitude of 900-1,100 m above sea level. This variety is not flowering, and plant height reaches 75 cm and can be harvested at age 95 - 125 days depending on soil fertility and maintenance. Under normal conditions, farmers can harvest their crops in 112-120 days after planting (Wibowo, 2009).

The preliminary interview with farmers in the research area found that the garlic market destinations from Nagari Salayo Tanang Bukik Sileh are Bukittinggi, Solok, Padang, and other regions in West Sumatera. Besides, the farmers also sell their garlic to the Titian Batu Farmers Group, which is a farmer group in cooperation with PT Pertani for local garlic nurseries.

The preliminary survey also found that the marketing margin of garlic in this area is high. The price of garlic at the consumers' level at Alahan Panjang Market was Rp 14,000/kg. In contrast, the prices at farmers in Nagari Salayo Tanang Bukik Sileh were only Rp 10,000/kg and the distance between Nagari Salayo Tanang Bukik Sileh and the Alahan Panjang Market is not far. This condition raises the question do the farmers in Nagari Salayo Tanang Bukik Sileh getting a proportionate and fair profit in the marketing activity. Based on these issues, the objectives of this study are to describe the marketing channels of garlic from Nagari Salayo Tanang Bukik Sileh and to analyze the marketing efficiency of garlic.

2. Materials and Methods

This research used a survey method to gather data from all related marketing agencies, which consists of 30 farmers who chose randomly from 103 farmers and intermediary traders. Later on, the data were analyzed both qualitatively and quantitatively to answer the research objectives. The study applied a qualitative research method to get a clearer picture of the garlic's marketing channel from Nagari Salayo Tanang Bukik Sileh. Meanwhile, the quantitative research method was used to analyze the marketing efficiency of garlic from the research site. This study uses marketing efficiency formula as formulated by Soekartawi (2002) and the formula can be seen as follows:

Marketing Efficiency of Farmers

E=Kt-Ktb
E = Efficiency
Kt = the profit received by farmers
Ktp = Proportionate profit should be received by farmers

Marketing Efficiency of Traders

E=Kd-Kdp
E = Efficiency
Kd = the profit received by farmers
Kdp = Proportionated profit should be received by farmers.

3. Results and Discussion

A. Marketing Channel of Garlic from Nagari Salayo Tanang Bukik Sileh

The research finds that there are four types of marketing channel of garlic from Nagari Salayo Tanang Bukik Sileh, which are:

a. Farmers → Breeders → Farmers
b. Farmers → Wholesalers → Retailers → Consumers
c. Farmers → Retailers (in form of dried onions) → Consumers
d. Farmers → Retailers → Consumers

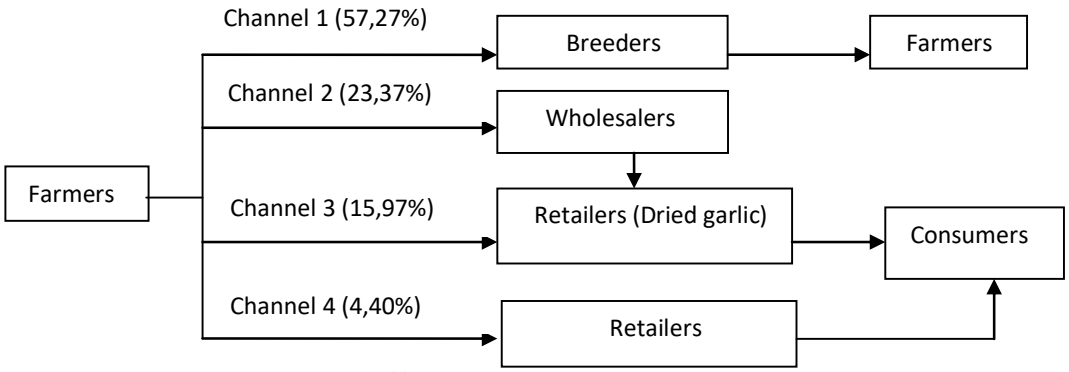

Figure 1. Marketing Channel of Garlic in Nagari Salayo Tanang Bukik Sileh

The pattern of marketing channels can be seen in Figure 1. From Figure 1, more than half of the respondent farmers (57%) sell their crops to breeders, while only 43% of garlic reaches the final consumers. Farmers prefer to sell their crops to the breeder because of the certainty that their products will be purchased. Later on, the breeder will sell their nurseries to farmers, not only in West Sumatra but also in other regions in Indonesia. Moreover, the limited number of traders and processors of garlic in the area also causes farmers to prefer selling their crops to breeders.

Marketing Cost, Revenue and Profit

Total marketing cost incurred by each marketing institutions in each channel, as well as revenue and profit they earned, can be seen in Table 1.

Table 1. Marketing costs, revenue, and profit in each marketing channel of garlic

No.	Description	Per Kg			
		Channel 1	**Channel 2**	**Channel 3**	**Channel 4**
1	**Farmers**				
	a. Production (Kg)	1,736.79	953.89	1,293.75	633.33
	b. Farming costs (Rp)	6,788.91	8.527,52	9,574.71	10,129.37
	c. Revenue (Rp)	11,000.00	15,580.65	17,826.09	11,000.00
	d. Profit (Rp)	4,223.40	5,967.64	8,415.63	870.69
2	**Wholesalers/ Breeders**				
	a. Total Purchased (kg)	24,315.00	4,545.00	-	-
	b. Net price received (Rp)	11,000.00	16,000.00	-	-
	c. Marketing costs (Rp)	3,449.81	433.51	-	-
	1). Loading/unloading cost (Rp)	100.14	100.68	-	-
	2). Seed cleaning cost (Rp)	1,000.00	-	-	-
	3). Transportation cost (Rp)	-	117.82	-	-
	4). Labour cost (Rp)	1,480.51	176.73	-	-
	5). Depreciation cost (Rp)	80.93	0.44	-	-
	6). Electricity cost (Rp)	46.35	-	-	-
	7). Interest cost (Rp)	741.88	37.84	-	-
	d. Total selling (kg)	12,158.00	4,545.00	-	-
	e. Selling price (Rp)	60,000.00	20,000.00	-	-
	f. Profit (Rp)	45,550.19	3,566.49	-	-
3	**Retailers**				
	a. Total purchased (kg)		742.92	5,175.00	1,900.00
	b. Net price received (Rp)		20,000.00	20,000.00	11,000.00
	c. Marketing costs (Rp)		3,106.07	1,251.62	1,547.71
	1). Packaging cost (Rp)		41.8	19.32	52.63
	2). Stall rent cost (Rp)		18.09	4.83	13.16
	3). Labor cost (Rp)		970.22	231.88	631.58
	4). Cleanliness contribution (Rp)		48.51	11.59	31.58
	5). Unsold risk (Rp)		1679.17	637	473.68
	6). Depreciation cost (Rp)		86.71	10.02	27.3
	7). Transportation cost (Rp)			96.62	131.58
	8). Interest cost (Rp)		261.57	239.68	118.88
	d. Total selling (kg)		631.58	4,399.00	1,710.00
	e. Selling price (Rp)		33,641.03	34,000.00	15,000.00
	f. Profit (Rp)		10,534.96	12,748.38	2,452.29
4	**Total marketing cost (Rp)**	**3,449.81**	**3,539.58**	**1,251.62**	**1,547.71**
5	**Total marketing cost + Farming cost (Rp)**	**10,238.72**	**12,067.10**	**10,826.33**	**11,677.08**
6	**Total Profit (Rp)**	**49,773.59**	**20,669.09**	**16,314.82**	**3,322.98**

Table 2. Marketing Efficiency of Garlic

No	Marketing Channel	Cost	% cost	Profit received (Rp/kg)	% Profit received	Proportioned profit (Rp/kg)	Proportionality
1	Channel 1						
	1. Farmers	6,788.91	66,31	4,223.40	8.49	33,004.87	dispropotionate
	2. Breeders	3,449.81	33.69	45,550.19	91.51	16,768.72	
	Total	**10,238.72**	**100**	**49,773.59**	**100**	**49,773.59**	
2	Channel 2						
	1. Farmers	8,27.52	70.67	5,967.64	28.87	14,606.85	
	2. Wholesalers	433.1	3.59	3,539.07	17,12	742,02	dispropotionate
	3. Retailers	3,106.07	25.74	10,534.96	50.97	5,320.22	
	Total	**20,069.09**	**100**	**20,69.09**	**100**	**20,669.09**	
3	Channel 3						
	1. Farmers	9,574.71	88.44	8,415.63	51.58	14,428.83	dispropotionate
	2. Retailers	1,251.62	11.56	12,748.38	78.14	1,885.99	
	Total	**12,067.10**	**100**	**16,314.82**	**100**	**16,314.82**	
4	Channel 4						
	1. Farmers	10,129.37	86.75	870.69	26.2	2,882.68	dispropotionate
	2. Retailers	1,547.71	13.25	2,452.29	73.8	440.29	
	Total	**1,547.71**	**100**	**3,322.98**	**100**	**3,322.98**	

Marketing Efficiency

The marketing efficiency from all marketing channels of garlic in Nagari Salayo Tanang Bukik Sileh in Table 2.

Marketing Channel 1

Marketing institutions involved in channel 1 are farmers and breeders. The research finds that, in this pattern, the profit received by farmers was less than their proportioned benefit, which is Rp 4,223.40/kg and Rp 33,004.87/kg respectively, whereas breeders received the higher profit than their proportioned profit which are Rp 45,550.19/kg and Rp 16,748.81/kg respectively. Additionally, the percentage of benefits received by farmers is smaller than the portion of costs they have incurred in the production process, in contrast to breeders. It seems that the profits earned by farmers and breeders are disproportionate and unfair, so this marketing channel is inefficient.

Marketing Channel 2

As can be seen in Table 2, there are three marketing institutions involved in channel two, which are farmers, wholesalers, and retailers. Similar to channel 1, in marketing channel 2, the profit received by farmers is also smaller than the proportioned benefit that they should receive. On the other hand, wholesalers and retailers

received a higher profit than the proportioned profit. At the same time, the percentage of benefits received by farmers (28.87%) is smaller than the portion of costs incurred (70.67%). Meanwhile, For wholesalers, the rate of profits earned (17.12%) is higher than the percentage of the marketing costs (3.59%), whereas the percentage of benefits received by retailers (50.97%) is also higher than the rate of expenses they have incurred (25.74%). The finding indicates that the profits gained by farmers, wholesalers, and retailers are disproportionate and unfair, so this marketing channel is inefficient.

Marketing Channel 3

Table 2 shows that in marketing channel 3, the profit received by farmers (Rp. 8,415.63/kg) is smaller than the proportionated profit (Rp. 14,428.83/kg) that they should receive. On the contrary, the retailers received a higher benefit (Rp. 12,748.38/kg) than the proportionated profit that they should have earned (Rp. 1,885.99/kg). Additionally, the percentage of the benefit received by farmers (39.76%) is also smaller than the portion of the cost they sacrificed (88.44%). Meanwhile, the percentage of the profit received by retailers (60.34%) is higher than the rate of the price they sacrificed (11.56%). The finding reveals that the benefits received by farmers and retailers are disproportionate and unfair, so this marketing channel is inefficient.

Marketing Channel 4

The research finds that in marketing channel 4, the profit received by the farmer (Rp. 870.69/kg) is smaller than the proportionated benefit (Rp. 2,882.68/kg). Meanwhile, retailers received a higher profit(Rp.2,452.29/kg) than the proportionated profit that they should have earned (Rp.44.29/kg). Additionally, the percentage of benefits received by farmers (26.20%) is smaller than the rate of their farming costs (86.75%). Contrarily, the percentage of profits earned by retailers (73.80%) is higher than the portion of the expenses they sacrifice (13.25%). In this pattern of marketing channels, the profits received by farmers and retailers are disproportionate or unfair, so this marketing channel is inefficient.

There are several reasons why farmers received a lower profit than the proportionated profit:

1. The market structure is an oligopsony market, where there are many garlic farmers in the research area. However, there are only a few wholesalers, breeders, and retailers who are willing to purchase the garlic. Consequently, the farmers have no power in setting the price,
2. The farmers have no information about the market price of garlic, so they cannot determine the selling price of their products.
3. The farmers do not have a piece of proper knowledge about economic analysis of their farm. Consequently, they do not sufficiently know whether their farming is in a profit or loss condition.

4. Wholesalers easily influence the farmers because the farmers in the research area do not band together to set the selling price.
5. The farmers and the buyers (wholesalers, breeders, and retailers) know each other, thus the farmers reluctant not to accept the price offered by buyers

4. Conclusions

The research found that there are four schemes of marketing channels of garlic from the research site, which are 1) Farmers → Breeders → Farmers, 2) Farmers → Wholesalers → Retailers → Consumers, 3) Farmers → Retailers (in the form of dried onions) → Consumers, and 4) Farmers → Retailers → Consumers. Moreover, there was no proportional shared profit among the four marketing channels, where the benefits received by farmers were lower than its proportionate profits, and on the other hand, the earnings of breeders, wholesalers, and retailers were higher than their proportional benefits, so that the marketing channels were inefficient.

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