

Marketing Analysis of Elephant Ginger in Hatinggian Village, Lumban Julu District, Toba Regency

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Received: 2024-06-15

Accepted: 2024-07-08

Publication: 2024-07-08

Abstract

Ginger is a medicinal plant that is often used as a pain reliever. Demand for ginger increases along with the development of human knowledge. So to meet consumer needs, a marketing institution is needed, such as the Gajah ginger farmers in Hatinggian village. The aim of the research is to find out how the marketing channels for Gajah ginger are, to find out the marketing margin and marketing efficiency of Gajah ginger. The research sample was 22 Gajah ginger farmers, 3 collectors and 3 retailers. Data analysis uses descriptive analysis and formula equations for marketing costs, marketing margin, Farmer share, marketing efficiency. The research results show that there are two marketing channels for Gajah ginger in Hatinggian village, Lumban Julu subdistrict, namely; 1). Marketing channel I from farmers to retailers then consumers and 2). Marketing channel II from farmers to collectors then to retailers and then consumers. The market share of marketing channel I is greater than marketing channel II so that marketing channel I (6.14%) is more efficient than marketing channel II (6.89%).

Keywords— Ginger Elephant, Marketing Efficiency, Marketing Margin, Marketing Channels.

Introduction

The ginger plant (*Zingiber officinale* Rosc) is included in the ginger family (Zingiberaceae) such as ginger (*Curcuma* Ginger is a medicinal plant that is often used as a pain reliever, anti-inflammatory, joint pain reliever and gout (Purnamasari & Listyarini, 2015). Ginger rhizomes have high nutritional value, containing 58% starch, 8% protein, 3-5% oleoresin, and 1-3% essential oil (Rukmana, 2000).

Demand for ginger increases along with the development of human knowledge. Widiarti (2010) stated that to meet the demand for ginger, efforts to increase development, cultivation and marketing are needed. Kotler (2010) describes marketing as a human effort to satisfy desires through an exchange process. Furthermore, Kotler (2002) and Pranatagama (2015), describe marketing channels as a series of institutions that carry out all the functions involved in product distribution. Swastha (2002) stated that marketing is a business system in which there is planning, pricing, promotion and distribution of goods and services to meet customer needs.

The availability of markets to market farmers' agricultural products is very important in rural development (Turukay, 2023). Marketing channels that help the process of distributing farmers' harvests will determine marketing costs, profits, marketing margins and farmer income (Kinding & Suwali, 2021). As Hartati (2018) stated that marketing of agricultural products tends to be complex marketing and involves several marketing institutions. Apart from marketing institutions in the village, the Agribusiness Sub Terminal (STA) is one of the places to market farmers' crops. As the results of research by Harahap et al. (2021) show that 63% of farmers have

a positive perception of the existence of STA Sukadame because it provides benefits in facilitating marketing and increasing marketing efficiency of farmers' crops.

Hatinggian Village, Lumban Julu District, is one of the ginger farming centers in Toba Regency. Toba Regency's ginger production in 2021 will reach 140,000 Kg (BPS. Karo Regency). Hatinggian village Gajah ginger farmers market their harvest using marketing institutions available in the village. The existing marketing institutions are collectors and retailers. The involvement of marketing institutions in the distribution of elephant ginger to consumers causes different price levels received by farmers when marketing their harvest. How farmers market Gajah ginger results in different marketing institutions' channels (Lestari, 2024). Determination of price levels from each marketing institution causes the income of ginger farmers to also differ. from farmers to final consumers. Based on this phenomenon, the research problem formulation is; What are the marketing channels and marketing efficiency of Gajah Ginger in Hatinggian Village, Lumban Julu District, Toba Regency.

Literature Review

Marketing is a very important activity for companies achieve its goals This is because marketing is a company process of creating value for customers and building strong relationships with customers so that the company can capture the value provided to customers again to obtain company profits (Kotler & Armstrong, 2016). As Tjiptono & Diana (2020) explain, in marketing there is a process of creating, distributing, promoting and setting prices for goods, services and ideas to facilitate satisfying exchange relationships with consumers and to build and maintain positive relationships with stakeholders in dynamic environment. Apart from that, in marketing there is a process of identifying consumer needs to fulfill consumer satisfaction so that a transaction process occurs which results in company revenue to obtain company profits (Harahap et al., 2021).

Marketing functions will connect producers to final consumers and marketing also provides added value which is quite relevant in the economy (Oksalia et al., 2023). As Asmarantaka (2014) states that agribusiness marketing can be said to be efficient if there is the creation or increase of high added value, resulting in profits for each marketing institution involved in accordance with the costs incurred, marketing margins occurs relatively in accordance with the function of increasing final consumers and providing farmers with a share that will relatively stimulate farmers to produce at the farming level. According to Anindita & Baladina (2017), appropriate market information will provide facilities.

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with the function of increasing final consumers and providing farmers with a share that will relatively stimulate farmers to produce at the farming level. According to Anindita & Baladina (2017), appropriate market information will facilitate marketing decisions, managing market competition processes, and streamlining marketing. As Nurhayati et al. (2020) stated that consideration of marketing channels is a necessity in distributing agricultural products produced by farmers to consumers great added value in the economy.

According to Kotler & Keller (2009), marketing channel levels are divided into several types, namely:

1. Level 0 (Zero Level Channel); Namely sales, also called direct marketing channels, consist of producers who sell directly to end customers.
2. Level 1 (One Level Channel) Namely sales that contain one sales intermediary, such as a retailer.
3. Level 2 (Two Level Channel) Namely sales that contain two intermediaries. In consumer markets, these intermediaries are usually wholesalers and retailers.
4. Level 3 (Three Level Channel) Namely sales that have three intermediaries, namely wholesalers, wholesalers and retailers. Where large traders sell to wholesalers and wholesalers sell to small traders.

Research Method

Location Determination Method

The determination of the research location was carried out deliberately or purposively with the consideration that Hatinggian village is one of the ginger farming center villages in Lumban Julu District, Toba Regency.

Sampling Method

The research population was Gajah ginger farmers in Hatinggian Village, Lumban Julu District, Toba Regency. The population of ginger farmers in the village is 22 people. The number of collecting traders is 3 people and 5 retail traders. The sampling method is a saturated sample technique or census. So the sample for this study was 30, consisting of 22 Gajah ginger farmers, 3 collectors and 5 retailers.

Method of collecting data

The information collected in this research is primary data and secondary data. Primary data was collected through direct interviews with research respondents using a research questionnaire guide that was designed to obtain research objectives. The secondary data was obtained from references and data sources from various agencies related to the research.

Data Analysis Methods

Research data analysis was carried out using quantitative descriptive. To determine the marketing channels for Gajah ginger in Hatinggian Village, Lumban Julu District, this was done descriptively. Meanwhile, to determine the marketing effectiveness of Gajah ginger, the analysis stages are carried out as follows;

Analysis of marketing costs for Gajah ginger

Marketing costs are costs incurred to distribute ginger from producers to consumers. The formula used is;

$$BP = BP1 + BP2 + BP3 + BPn$$

Information:

BP = Marketing Costs

BP1 = Marketing Costs on channel 1

BP2 = Marketing Costs on channel 2

BP3 = Marketing Costs on channel 3

BPn = Marketing Costs on channel n

Marketing Margin Analysis

Marketing margin is the difference between costs incurred by consumers and costs incurred by farmers (Lutfi & Baladina, 2018) with the formula;

$$M = Pr - Pf$$

Information:

M = Marketing margin (%)

Pf = Price at farmer (producer) level (Rp/Kw)

Pr = Final consumer price (Rp/Kw)

Farmer's share analysis is used to compare the price levels received by farmers with the prices paid by final consumers.

Farmer's share analysis

$$F's = (Pf/Pr) \times 100\%$$

Where:

F's: Percentage of share received by producers (farmers)

Pf: Price at producer (farmer) level

Pr: Prices at the consumer level (retail)

Ginger Marketing Efficiency Analysis formula:

$$\text{Marketing efficiency} = \frac{\text{Total cost}}{\text{total product value}} \times 100 \%$$

Marketing efficiency decision rules are:

1. 0 - 33% = Efficient
2. 34 - 67% = Less efficient
3. 68 - 100% = Inefficient

If the efficiency value is smaller then the marketing of Gajah ginger will be efficient.

Results and Discussion

Characteristics of Research Respondents

Characteristics of elephant ginger farmers

The research respondents were 22 Gajah ginger farmers in Lumban Julu village. The research results show that the characteristics of the Gajah ginger farmer respondents are as in Table 1.

Table 1. Characteristics of Gajah ginger farmers

No	Description	Information
1	Age	44,5 (year)
2	Education	11 (year)
3	Farming experience	3,5 (year)
4	Ginger production	707 (Kg)
5	Land area	0,15 (Ha)

Source: *Processed Primary Data, 2023.*

In table 1, it is known that the average age of respondent farmers is 44.5 years. Thus, it can be said that the age of the research respondents is in the productive age category. The average education level of respondent farmers is 11 years. Thus, it can be said that the average level of education of respondents has not yet completed high school because they only have 11 years of education. Meanwhile, if you graduate from high school, the education level is 12 years. There are still 2 respondent farmers who have completed elementary school and 1 person has completed secondary school.

The respondent's farming experience in elephant ginger farming is 3.5 years. Elephant ginger farmers have recently been cultivating elephant ginger in Hatinggian village. Respondents became interested in cultivating Gajah ginger after there was high demand for ginger during the Covid 19 pandemic. Henceforth, respondents will continue to carry out ginger farming activities continuously. Elephant ginger farming activities in Hatinggian village produce 701 kg of production with an average land area of 0.15 Ha. As for land ownership, all respondent farmers have their own land. This means that none of the respondent farmers carry out farming by renting land.

Marketing channel

Marketing is an activity through an identification process to meet the needs of consumers and producers so as to produce transactions that provide producer acceptance (Utomo et al., 2024). The farming process carried out by Gajah ginger farmers in Hatinggian village, Lumban Julu subdistrict after harvesting the ginger is to market the ginger. Ginger is marketed as a primary commodity. Farmers market ginger directly on their agricultural land. Based on research results, it is known that there are two different marketing channels for Gajah Ginger in Hatinggian Village, Toba District. The first marketing channel for farmers is selling their crops to retailers. The second marketing channel is for farmers to sell their crops to collectors, then collectors sell to retailers.

Marketing channels I.

In marketing channel I, one marketing institution is used, namely 3 retailers. The number of farmers who sell their crops to retailers is 15 people. Gajah ginger marketing activities start with Gajah ginger farmers as producers who market their harvest directly to retailers. Retailers come directly to farmers' land. The elephant ginger that has been harvested is put in a sack. Next, the ginger that has been harvested is marketed by retail marketing institutions. The ginger that has

been purchased is directly taken by the retailer to the traditional market in Lumban Julu District to then be offered to consumers at the traditional market.

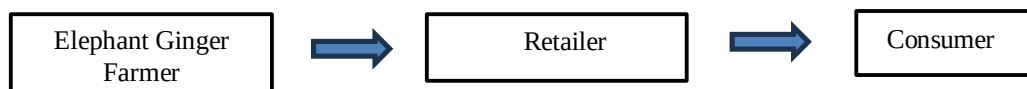


Figure 1. Marketing channels I

Marketing channels II.

Marketing channel II uses two marketing institutions, namely 3 collectors and 2 retailers. Marketing channel II starts with farmers as producers of Gajah ginger selling the harvest directly to collectors at the farmer's land. There are 7 farmers who market their crops to collectors. The elephant ginger that has been harvested by farmers is packed into sacks and then loaded into pick-up trucks and marketed to retailers at traditional markets in Lumban Julu District. Retailers then sell Gajah ginger to consumers in traditional markets.



Figure 2. Marketing channels II

Marketing Costs and Margin Share in Marketing Channels I

In the first marketing channel, farmers market their harvest (elephant ginger) to retailers. Retailers make purchases directly from farmers, with an average weekly purchase of 76 kg. There are 15 farmers who sell their crops to retailers. The price of Gajah ginger sold to retailers is Rp. 16,000/kg. The costs incurred by retailers are transportation costs, Rp. 26,000, rental fee of Rp. 30,000. /week or Rp. 395/kilogram, plastic bag cost 132/kg, 1% risk fee, namely IDR 160/kg. For more information regarding the various marketing costs associated with each marketing organization, see the table below:

Table 1. Average Cost and Marketing Margin Share of elephant ginger in Marketing channels I

No	Information	Value (Rp/Kg)	Share Margin %
1	Farmer's selling price	16.000	80
2	a. Retailer selling Price	20.000	1,81
	Transportation costs	362	1,96
	Venue rental costs	395	0,66
	Retribution	132	0,97
	Packing	197	1
	Risk 1%	160	20
	a. Marketing margin	4.000	13,67
	b. Profit margin	2.773	
3	Harga konsumen akhir	20.000	100

Source: Processed Primary Data, 2023

The table above shows that the market share from farmers to retailers is 80%. The share margin is IDR 4000.00. The profit margin obtained by the retailer after deducting the retailer's costs is Rp. 2,733.00 per kilogram of Gajah ginger. Marketing Costs and Margin Share in Marketing Channels II

In marketing channel I, the selling price of farmers to the first marketing institution, namely collectors, is Rp. 15,000/Kg. Next, the collectors sell Gajah ginger to retailers for Rp. 17,000/Kg.

From retailers to consumers in traditional markets, the price of Gajah ginger is IDR. 20,000/Kg. In marketing channel II, farmers do not incur marketing costs, while collectors and retailers incur marketing costs. The marketing costs for collectors are labor costs IDR 50,000/232kg, transportation costs IDR 50,000/232kg, and sack costs @ IDR. 2,000 with an average use of 6 sacks so the cost of a sack is Rp. 2,000/217 kg with details of IDR 52/kg, 1% marketing risk fee, namely IDR 32,550 or the same as 150/kg.

The elephant ginger that has been purchased by collectors is then taken to the traditional market in Lumban Julu District to be marketed to retailers. The costs incurred by retailers are labor costs for marketing in the market Rp. 50,000 /232kg, rental fee of Rp. 30,000/week is the same as Rp. 139/kg, site fee Rp. 10,000/week or Rp. 46/kg, plastic bag cost Rp. 25,000 or Rp. 116/kg, and the cost of selling risk in the form of rot is 1%, namely Rp. 36,890 or the same as Rp. 178/kg.

Table. 2. Marketing Channels II

No	Information	Value (Rp/Kg)	Share Margin %
1	Farmer's selling price	15.000	75
2	a.Selling price by collecting traders	17.000	
	b. Freight and Labor Costs	232	1,16
	Transportation	52	0,32
	Packaging	150	0,75
	Risk	2.000	10
	a.Marketing margin	1.334	6,67
	b.Profit margin		
3	a.Retailer selling price	20.000	
	b. Labor costs	232	1,16
	Rent	139	0,7
	Venue levy	46	0,23
	Packing	116	0,26
	Sales risk 1%	178	0,89
	a. Marketing margin	3.000	15
	b. Profit margin	2.289	11,45
4	Final consumer purchase price	20.000	100,00

Source: Processed Primary Data, 2023.

The marketing margin from collectors to retailers is IDR. 3000.00 while the marketing margin from farmers to collectors is IDR. 2000.00. The market share from farmers to collectors is 75%. The profit margin obtained by retailers is IDR. 2,289.00, while the profit margin obtained by retailers in marketing channel I is IDR. 2,773. Thus, the profits of retailers in channel I are more than in channel II.

Efficiency of Elephant Ginger Marketing Channels

To determine the monetary efficiency of each method of marketing elephant ginger in Hatinggian Village, the following equation can be used:

This means that the lower the marketing efficiency (EP) of a marketing channel, the more effective the channel is, and if the marketing efficiency (EP) is higher, the less effective the channel is. To find out how high the marketing efficiency of elephant ginger is in the research area, as in Table.

Table 3. Efficiency Level of Elephant Ginger Marketing Channels

Marketing channel	Marketing Efficiency (EP)
Channel I	$(1227 : 20.000) \times 100\%$ 0,0614x 100% 6,14% (efficient)
Channel II	$(1.377 : 20.000) \times 100\%$ 0,0689 x 100% 6,89% (efficient)

Source: Processed Primary Data, 2023.

In marketing channel I, there is only one marketing agency. All costs are shared between retailers and consumers amounting to IDR 440.8/Kg and the marketing efficiency value is 6.14%. For marketing channel II marketing costs Rp. 1393/Kg and an efficiency value of 6.89%. From the calculations it is known that the efficiency value in marketing channels I and II is <33%, this shows that marketing channels I and II are efficient. Marketing channel I is more efficient than marketing channel II. The research results of Kusnadi et al. (2020) show that the most efficient marketing institution is the marketing channel from farmers to collectors and then to consumers. Meanwhile, Sitorus (2022) found that marketing efficiency in the farmer - trader - final consumer marketing channel was 6.6%.

Conclusion

There are two marketing channels for Gajah ginger in Hatinggian village, Lumban Julu district, namely; 1). Marketing channel I from farmers to retailers then consumers and 2). Marketing channel II from farmers to collectors then to retailers and then consumers. The market share of marketing channel I is greater than marketing channel II so that marketing channel I (6.14%) is more efficient than marketing channel II (6.89%).

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