GINGER MARKETING EFFICIENCY THROUGH 
PRODUCT INNOVATION IN IMPROVING FARMERS' 
ECONOMY IN SIDENRENG RAPPANG REGENCY

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Abstract This study aims to determine the marketing channel model of ginger, analyze the marketing efficiency of ginger and analyze the added value resulting from the innovation of ginger products into ginger powder in Sidenreng Rappang Regency. This goal is based on several problems encountered when conducting the initial survey, such as ginger farmers only getting a small profit because they only market their products in the form of raw or unprocessed ginger so there is a significant difference in selling prices at the farmer level. This research's data analysis method consists of qualitative and quantitative analysis. Qualitative analysis was used to identify marketing channels for ginger in Sidenreng Rappang Regency. In contrast, quantitative analysis was used to determine marketing efficiency and the amount of added value resulting from the innovation of ginger products into ginger powder using the Hayami method. The results showed that the marketing channel for ginger in Panca Lautang District, Sidenreng Rappang Regency consisted of Farmers - Collectors - Retailers - Consumers. From these results, there are two marketing institutions in the ginger marketing channel, namely collectors and retailers. The value of the marketing margin obtained through the ginger marketing channel which is the difference between the price paid by consumers and the price received by farmers is Rp. 8,500. The value of a farmer's share in the ginger marketing channel is based on the price received by farmers from the final consumer price of 66% with a profit ratio of 6.9 which indicates that the ginger marketing channel in Panca Lautang District, Sidenreng Rappang Regency can be said to be efficient. The added value of processing ginger into powdered ginger is Rp. 79,000/kg with a value-added ratio of 39.50% and a profit of Rp. 74,000 or 37%. The large percentage of processing profits indicates that selling powdered ginger processing products is more profitable than selling fresh products.

Keywords: Marketing Efficiency, Added Value, Marketing Channel, Ginger Plant

INTRODUCTION

Agriculture plays an essential role in economic development in Indonesia. Agricultural development also aims to increase income and improve farmers' welfare. In the agricultural sector, there is a development issue, namely "Back to Nature" which has an impact on the existence of medicinal plants, one of which is ginger (Saputra et al., 2017). Ginger is a medicinal plant known by the public as a spice and medicinal plant that has great potential to be developed commercially and from an agribusiness perspective. Ginger also has a very high potential to be cultivated in Indonesia
because its demand is in great demand both domestically and abroad (Dewati et al., 2021). In addition, the ginger commodity occupies a very important position in the Indonesian economy because it has many benefits (Hutauruk, 2021). To meet the needs of ginger, it is necessary to increase efforts in the marketing aspect.

In Sidenreng Rappang Regency, most of the people work as rice farmers who also develop family medicinal plants (TOGA). This is because some of the rice farming communities have large areas of land so their use is also used to meet household needs, including as a source of livelihood. One of the TOGA plants developed by the community in Sidenreng Rappang Regency is ginger. However, there are several problems faced in the cultivation of ginger plants.

The problem faced is the marketing aspect. Conditions in the field indicate that ginger farmers only get a small profit because they only market their products in the form of raw or unprocessed ginger so there is a significant difference in selling prices at the farmer level. This indicates that business actors involved in marketing channels are taking too much profit. The longer the marketing channel and the number of marketing institutions involved, the greater the profit farmers receive as producers (Hidayat, 2019). In addition, the level of knowledge of farmers on ginger processing is still low so it has an impact on the marketability of ginger plants. The product innovation approach is an alternative to increasing the bargaining position of farmers so that the selling price of the product received can increase.

Ginger product innovation in the form of powdered ginger can provide added value for farmers, especially in increasing income, and obtaining solutions to problems encountered in the field. Ginger product innovation is important because it can expand the market, provide alternative products for consumers, and increase product prices to be better and more competitive. The power of innovation will have a very real impact on better agricultural businesses. Therefore, the purpose of this study was designed to find innovations for fresh ginger products and how the level of marketing efficiency through product innovation.

**RESEARCH METHODS**

This research will be conducted in Panca Lautang District, Sidenreng Rappang Regency. This study uses primary data obtained from direct observations and conducting interviews directly with informants at the research location based on questionnaires that have been made and secondary data obtained from data that has been researched or searched first and can be used as a researcher’s reference.

The sampling method in this study used snowball sampling, which is a method that obtains samples through information received from the parties previously involved. The sample that fits the research needs is 1 farmer group totaling 30 people and the marketing institutions involved in bringing ginger into the hands of the final consumer. Some of the marketing agencies involved are 2 collectors and 2 retailers.

Data analysis methods consist of qualitative analysis and quantitative analysis. Qualitative analysis is used to identify marketing channels for ginger in Panca Lautang District, Sidenreng Rappang Regency by analyzing the market structure formed, marketing channels, marketing functions, and market behavior that occurs in each marketing agency. The quantitative analysis includes:

**Marketing Efficiency Analysis**

Efficiency analysis in this research uses marketing margin analysis, farmer’s share, and profit-to-cost ratio.

**Marketing Margin Analysis**

Mathematically, marketing margin analysis can be written as follows:

\[ MT = Pr - Pf = \sum \Delta m_i \]

**Description:**
- \( Mi \) : marketing margin at the agency level
- \( Mi = Pji - Pbi \)
- \( MT \) : margin total
- \( Pji \) : selling price at the marketing agency level
- \( Pbi \) : the purchase price at the marketing agency level
- \( Pr \) : selling price at retailer level or received by consumers
- \( Pf \) : selling price at farmer level

**Farmer’s Share Analysis**

Mathematically, the farmer’s share is calculated as follows:

\[ Fs = \frac{Pf}{Pr} \times 100\% \]
Description:
Fs : the percentage received by farmers from the final consumer
Pf : price at farm level
Pr : prices at the final consumer level

Profit to Cost
Ratio Analysis Profit to cost ratio can be calculated by the following formula:

\[ \frac{\pi_i}{c_i} \]

Description:
\( \pi_i \) : benefits of commercial
\( c_i \) : institutions costs of commercial institutions

Value Added Analysis
Analysis Value-added analysis is used to determine the amount of added value resulting from the innovation of ginger products into ginger powder using the Hayami method.

RESULTS AND DISCUSSION
Ginger Marketing Channel, Panca Lautang District, Sidenreng Rappang Regency
The marketing channel is the path of the marketing agency through which goods are distributed from producers to consumers. In the process of flowing goods from producers to consumers, activities, actions, or treatments are needed to facilitate the transfer of property rights to goods which are termed marketing functions. The marketing function is part of the main activity that is specifically carried out to complete the marketing process by involving the role of institutions. According to (Hartati, 2018) the marketing flow of ginger is an illustration of several marketing channels involving several marketing institutions (intermediary agents, collectors, district traders, retailers, and exporter traders) who distribute ginger from the village to be delivered to domestic consumers as well as for export.

Based on the results of the research that has been carried out, it can be described the patterns and institutions of ginger marketing channels in Panca Lautang District, Sidenreng Rappang Regency. Collecting data to find out the various marketing results of ginger used, obtained by tracing the marketing channels of ginger from farmers to consumers. The marketing channels for ginger in Panca Lautang District, Sidenreng Rappang Regency are Farmers - Collectors - Retailers - Consumers. From these results, there are two marketing institutions in the ginger marketing channel in Panca Lautang District, Sidenreng Rappang Regency, namely collectors and retailers. Collectors buy ginger from farmers for remarketing. When the crops have been harvested, the farmers directly contact the collectors who are generally also farmers who are members of the farmer group. After the collectors buy the ginger harvest from the farmers, then the ginger is distributed or sold to retailers. Usually, collectors sell ginger to retailers because they have an emotional bond that has become a subscriber. In this case, retailers who buy ginger from collectors are retailers who are in the market or grocery store and then market it to consumers who are the last party in the marketing flow of ginger in Panca Lautang District, Sidenreng Rappang Regency.

Marketing Efficiency Analysis
Efficiency in the process of moving agricultural products from the hands of producers to the hands of consumers needs to be an important concern. The marketing channel will be better if the level of efficiency of the marketing channel is getting better. One of the marketing channel indicators is said to be more efficient if the marketing channel is shorter, has the lowest total marketing margin value, and has the highest farmer's share value. Efficient agribusiness marketing if there are indicators, including creating or increasing high value added to agribusiness products, generating profits for each marketing agency (company) involved in accordance with the costs incurred, marking margin (costs and profits) that occur are relatively in accordance with business functions or activities that increase final consumer satisfaction and provide a share received by producer farmers (farmer's share) which will relatively stimulate farmers to produce at the farm level (Putri et al., 2018). In addition, marketing efficiency can be seen based on marketing margins, farmer's share value, and marketing costs (Purwawangsa et al., 2021). The results of the analysis of ginger marketing efficiency in Panca Lautang District, Sidenreng Rappang Regency are presented in the following table 1.

Table 1. Analysis of Ginger Marketing Efficiency, Panca Lautang District, Sidenreng Rappang Regency

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Price (Rp/Kg)</th>
<th>Farmer Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Farmer Selling Price</td>
<td>16.500</td>
<td>66</td>
</tr>
<tr>
<td>2</td>
<td>Collecting Traders</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Purchase Price</td>
<td>16.500</td>
<td></td>
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</table>
Based on table 2, it can be seen that the marketing margin value obtained for each kilogram of ginger marketed through the ginger marketing channel in Panca Lautang District, Sidenreng Rappang Regency is Rp. 8,500. The value of the marketing margin explains the difference between the price paid by consumers and the price received by ginger farmers. According to (Wuryantoro & Ayu, 2021) marketing margin is the difference between the price paid by consumers and the price received by farmers or the cost of marketing services needed as a result of demand and marketing services. In addition, (Wahyuni et al., 2021) stated that each business actor will get different margins depending on the bargaining position and business efficiency of each market player. Business marketing margin from farmers to consumers, consisting of traders, retailers, and finally consumers. From these results, the marketing margin received by collectors in marketing ginger is Rp. 2,500 taking into account the transportation costs incurred of Rp. 500 using a small pick-up car. This is in accordance with the opinion (Mursalat et al., 2020) which explains that marketing agency actors will take advantage by considering transportation costs from one place to another in distributing their products. Furthermore, the marketing margin received by retailers in marketing ginger is Rp. 6,000 with the costs to be incurred including labor costs of Rp. 500 and a marketing risk of Rp. 600. According to (Yusri et al., 2021) explain the distribution pattern and product flow between marketing actors to form marketing costs in accordance with the marketing functions carried out by each marketing agency. Furthermore, (Mursalat et al., 2022) states that margin variations in marketing channels can differ depending on the length of the marketing channel, the activities carried out, and the planned and expected profits of the marketing agencies involved.

Farmer's Share is a comparison of the price at the farmer level with the price paid by the final consumer (Widyaningisih & Novindra, 2021). The results of the farmer's share analysis on the marketing channel of ginger in Panca Lautang District, Sidenreng Rappang Regency, based on the price received by farmers from the final consumer price of 66%. These results prove that the marketing channel for ginger in Panca Lautang District, Sidenreng Rappang Regency can be said to be efficient. This is in accordance with the opinion (Bimantara et al., 2021) which suggests that marketing is said to be efficient if the percentage of farmer's share is more than 50 percent and the larger the percentage indicates the more efficient the marketing process.

In addition to marketing margin and farmer's share, profit ratio analysis can be used as an indicator to determine efficient marketing channels. According to (Aditama et al., 2021) a marketing channel is said to be efficient if the value of the distribution of the profit to cost ratio obtained in each marketing agency is spread evenly. The results of the profit ratio analysis show that the marketing channel of ginger in Panca Lautang District, Sidenreng Rappang Regency produces a cost-benefit ratio of 6.9. In the marketing channel of ginger in the sub-district, there are two institutions, where the costs incurred by collectors are Rp. 500 and the retailer cost Rp. 1,100 with each institution's profit of Rp. 2000 for collectors and Rp. 4,900 for retailers. The profit ratio on the ginger marketing channel for collectors is Rp. 1 expenses incurred generate a profit of Rp. 4 and for
retailers, each Rp. 1 expense incurred generates a profit of Rp. 9.8. From the results, it shows that the marketing channel has a positive ratio and a value of more than one so all marketing channels provide benefits. This is in accordance with the opinion (B, 2021) that if the value of \( \pi/C > 1 \) then the marketing activity is profitable, otherwise, if the value of \( \pi/C < 1 \) then the activity does not provide an advantage.

**Value Added Analysis**

Product innovation is an effort to make new products that are carried out to improve, improve, and develop products that have been produced so far. Product innovation provides added value to the product so that it can increase the selling price (Mesiyani & Suprehatin, 2020). Product innovation has the potential to increase product value which is higher than the previous product, thereby affecting the added value of the resulting product. In this case, processing ginger into ginger powder is one of the product innovations to obtain added value in increasing farmers' income in Panca Lautang District, Sidenreng Regency. According to (Hayami, 1987) added value is obtained by calculating the variables of output, input, output price, raw material price, input contribution, and remuneration from each factor of production. The results of the analysis of the added value of processed ginger in Panca Lautang District, Sidenreng Rappang Regency using the Hayami method are presented in the following table 2.

<table>
<thead>
<tr>
<th>Table 2. Added Value of Processing Ginger into Ginger Powder</th>
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<tr>
<td>No</td>
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<tr>
<td>I. Output, Input, and Price</td>
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<td>II. Revenues and Profits</td>
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<td>III. Retribution for Owners of Factors of Production</td>
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Source: Primary Data After Processing, 2022

Based on table 2, it can be seen that the output value resulting from ginger processing is Rp. 200,000/kg. Based on this value, if the output value is reduced by the cost of purchasing raw materials and other inputs, it will be known that the added value generated from ginger processing is Rp. 79,000/kg. Based on this value, the ratio of the added value of ginger processing is 39.50% so every Rp. 1 value of ginger processing product contains Rp. 39.50 added value. The income received by workers to produce 1 kg of ginger processing is Rp. 5000/kg or 6.33% of the income received. In addition, the profit obtained due to the added value in ginger processing is Rp. 74,000 or 37%. When compared between ginger processing products and the sale of fresh ingredients, it can be seen that ginger processing products have a higher value than fresh ingredients of Rp. 175,000/kg. The amount of margin obtained is 2.86% for labor income, 54.86% for other inputs, and 42.29% for profit. The large percentage of profit from the
margin due to processing indicates that the sale of powdered ginger processing products is more profitable than selling fresh products. According to (Nuzuliyah, 2018) agricultural product processing activities can increase added value, increase profits and extend shelf life considering that agricultural commodities are perishable or easily damaged. Furthermore (Santi & Wahyudi, 2021) suggests that processing ginger into powder will make it easier for consumers to consume ginger.

CONCLUSION

Based on the results and discussion, it can be concluded that the marketing channel for ginger in Panca Lautang District, Sidenreng Rappang Regency consists of Farmers - Collectors - Retailers - Consumers. From these results, there are two marketing institutions in the ginger marketing channel, namely collectors and retailers. The value of the marketing margin obtained through the ginger marketing channel which is the difference between the price paid by consumers and the price received by farmers is Rp. 8,500. The value of a farmer's share in the ginger marketing channel is based on the price received by farmers from the final consumer price of 66% with a profit ratio of 6.9 which indicates that the ginger marketing channel in Panca Lautang District, Sidenreng Rappang Regency can be said to be efficient. The added value of processing ginger into powdered ginger is Rp. 79,000/kg with a value-added ratio of 39.50% and a profit of Rp. 74,000 or 37%. The large percentage of profits from the processing indicates that the sale of powdered ginger processing products is more profitable than selling fresh products.

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