Distribution of Garlic Marketing Margin in West Miomaffo District, North Central Timor Regency, East Nusa Tenggara

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ABSTRACT

Garlic farming is the livelihood of the community in Fatuneno village, North Central Timor Regency, East Nusa Tenggara Province, to meet the needs of children's life and education. The income of garlic farmers is the marketing margin obtained by garlic postharvest actors. The purpose of this study is to find out 1). How much is the marketing margin receipt of postharvest actors? 2). Is there a marketing margin distribution gap between garlic postharvest actors? This research method is a survey, and data collected randomly stratified; respondents consist of 46 farmers, eight collecting traders and three intermediary traders. Analysis tools used:1). To determine the marketing margin received by postharvest actors, the Marketing Margin equation is used. 2) For marketing margin distribution, use Gini Coefficient. There are three postharvest actors in garlic marketing distribution: producer farmers, collecting traders, and intermediary traders. In all three garlic marketing channel models, a short marketing channel benefits all three garlic postharvest actors. The distribution of marketing margins in the first and second marketing channels is at moderate evenness, and the third marketing channel is at high evenness.

Keywords: Garlic, Distribution, Margin, Marketing.

INTRODUCTION

The Indonesian people's views about areas with high poverty levels in the people of East Nusa Tenggara (NTT) encourage local governments to empower resources owned by the regions. Poverty is one of the main problems in development in Indonesia. Poverty itself is a problem that involves many aspects because it is related to low income, illiteracy, low health degrees and inequality between the sexes, and poor living environment (Mahpudin, 2020; Nalle & Pangastuti, 2022). Furthermore, Hill (2021) stated that a significant poverty reduction did not accompany high economic growth; this could also be caused by very broad geographical factors so that economic equality did not run well so that people who live far from the city center or even in the interior will not feel the impact of economic growth. Agriculture, as one of the natural resources and a source of income for the people of NTT, causes the local government to strive to

empower the land owned. The geographical conditions in each district, sub-district, and rural area in NTT are different; some are fertile and infertile; however, most people make a living (FAO Indonesia, 2019).

One of the areas that have the potential to be developed is Fatuneno village in West Miomaffo District, North Central Timor Regency (TTU) which has the potential for garlic commodities. Most people in Fatuneno village try to farm garlic, which is managed traditionally (Badan Pusat Statistik Provinsi Nusa Tenggara Timur, 2022). Horticultural products, including vegetables, fruit, medicinal, and ornamental plants, majorly contribute to humans and the environment. Of the three types of horticultural products, vegetables greatly benefit human life, including as a source of food and nutrition, family income, and state income (Boruah et al., 2023).

Garlic farming is the main source of income for most people in Fatuneno village, with planting

and harvesting season only once a year. Agricultural science, according to Jin et al. (2023) and Liu et al. (2021) science that studies how a person allocates existing resources effectively and efficiently to obtain high profits at a given time. Furthermore, farming is an organizational unity between land, labor, capital, and management production factors that aims to produce agricultural commodities. Farming is a form of interaction between humans and nature with a mutual influence between humans and the surrounding nature (Partoyo, 2020; Syukur & Awaru, 2019). Thus, farming is an organizational unit of production factors that humans can manage effectively and efficiently to obtain high profits. Farming families work production factors to receive income to build a family economy and a prosperous life.

Farm income or profit is the difference between revenue and all costs, where farm revenue is obtained from the multiplication between production volume and selling price (Aisyah et al., 2023; Amare et al., 2019). Garlic farming income in the West Miomaffo District is received from the sale of garlic crops after deducting production and postharvest costs. Farmer income is obtained from its marketing margin, where marketing margin is the difference in prices received by farmers with fees paid by consumers (Bayrakli & Gul, 2018; Sojitra & Ardeshna, 2021).

Postharvest is an activity of handling agricultural products after harvesting, including drying, cleaning, sorting, storage, packaging, and marketing. Garlic is a commodity that requires postharvest handling before being marketed, such as withering, cutting leaves and roots, drying, sorting, packaging, and storage. The term postharvest is scientifically more appropriately called post-Production, which can be divided into 2 parts or stages: postharvest and processing. Postharvest handling, often called primary processing, is used for all treatments from harvest until commodities can be consumed fresh or for preparation for subsequent processing (Strano et al., 2022; Winarno et al., 2021).

In postharvest handling, garlic farmers in Fatuneno village, West Miomaffo District, also carry out collection, withering, sorting, and storage for marketing. Berti & Mulligan (2016) suggests that marketing agricultural products aims to analyze various business activities in rural commodities after primary producers reach the final consumer. Marketing institutions that sell horticultural agricultural items may include farmers, gathering traders, intermediaries/wholesalers, and retailers (Malini et al., 2023). Marketing of garlic commodities through several marketing chains, including village collectors, intermediary traders, and inter-district traders. The goal of a market chain is to gain a more detailed understanding of the actors, activities, costs, and opportunities associated with the flow of specific and service-related products, starting with farmers, and ending with targeted buyers or consumers. Market chain analysis also helps identify the best market chain for a particular client and the location of key market chain participants who will purchase products (Yakubnekov, 2020).

In the analysis of the agricultural commodity market chain, there is an analysis of prices and value addition from a complete sequence of activities from raw materials to the final process to consumers, as well as showing all relevant actors and activities that have a direct influence in determining the final product (International Center for Applied Finance and Economics (InterCAFE), 2018). This study aims to determine the amount of margin received by each marketer and how the distribution of marketing margin is income between garlic marketers in West Miomaffo District, North Central Timor Regency.

METHOD

This research was conducted in Fatuneno Village, West Miomaffo District, North Central Timor Regency, East Nusa Tenggara Province. This research uses a survey method; the data collected are primary and secondary. Preliminary data can be collected from farmers, producers, and other marketing activity actors according to the circumstances encountered at the research site. Primary data was collected by stratified random sampling by distributing questionnaires and direct interviews with respondents.

Under the objectives to be achieved from this study, the analytical model used as a tool to measure the distribution of marketing margin or income between garlic postharvest actors is as follows:

1. Marketing Margin Analysis
   According to Annisa & Syam (2023), marketing margin shows price differences between the level of institutions and marketing systems. B Aswar Leo, (2015) & Kenyon (2020) state that commerce is a term used to express the difference in the price paid to the first seller (Hp) and the price paid by the last buyer (He), which is written in the formula:
   M = He – Hp
   Where:
   M = Marketing Margin (Tataniaga)
   HP = Price paid to the first Sales (Rp/kg)
   He = Price paid to the last purchase (Rp/ kg)

2. Gini Ratio Analysis Model (Gini Coefficient)
   The Gini Coefficient analysis model is used to measure the equitable distribution and the inequality of distribution of marketing margins among garlic marketers in the North Central Timor District. Mathematically the Gini Coefficient model is as follows (Amalia et al., 2019).
   $$G_c = 1 - \sum_1^n f_i(Y_i + 1) + (Y_i)(K)$$
   .... (1)

   Where:
   G_c= Gini number coefficient
   f_i= proportion of the number of first-year postharvest actors
   Y_i= proportion of cumulative postharvest actors' total marketing margin in class i

K = correction factor or activity weight.

The evenness of marketing margin distribution can be measured based on the Gini Ratio (Asmayanti, Annisa, et al., 2023; Moervitasari et al., 2018).
a. 0.20 – 0.35 High Evenness
b. 0.36 – 0.49 Moderate Evenness
c. 0.50 – 0.70 Low Evenness
The Gini index is a coefficient ranging from 0 – 1, explaining the degree of equity (inequality) of land distribution and income. The smaller (closer to 0) the coefficient, the better or more evenly distributed the income level in a region.

RESULT and DICUSSION

Garlic is then marketed after being harvested and managed through several processes, including gathering, withering, sorting, and storing. Some garlic is sold directly after being harvested, and some are sold after the postharvest process. According to Asmayanti, Annisa, et al., (2023), marketing channels consist of a series of intermediary institutions that will facilitate marketing activities from the producer to the consumer level.

Marketing channels or chains are groups of institutions that exist among various institutions that work together to achieve a goal. The goal of a marketing channel is to reach certain markets. Marketing channels can be simple and complicated, depending on the type of commodity, marketing agency, and marketing system (Juslin, 2018). The marketing channel of garlic products in Fatuneno Village, West Miomaffo District, North Central Timor Regency, can be seen in the following picture.
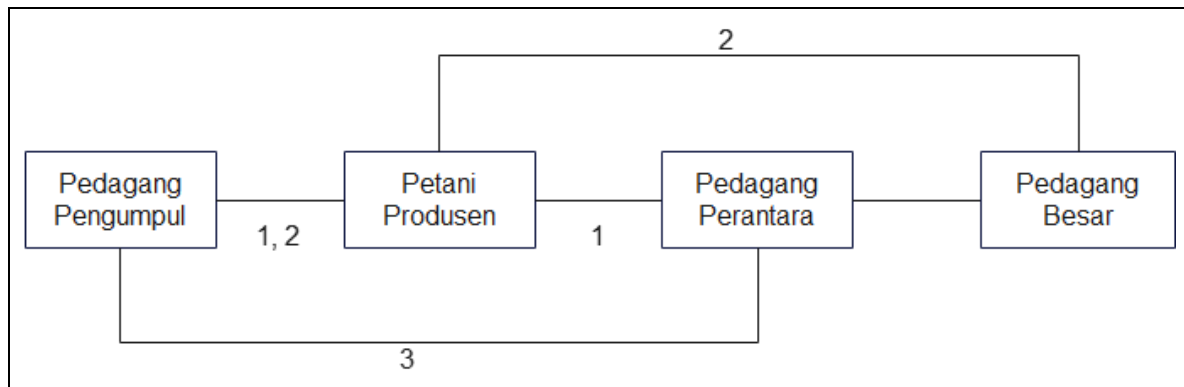
Figure 1. Garlic Commodity Marketing Channel in West Miomaffo District,
North Central Timor Regency

Garlic Marketing Margin Analysis

The length of the marketing channel can affect the size of the price and marketing margin received by each marketer. For producer farmers, using a direct channel to wholesalers will be more profitable than going through collecting traders. However, the existing marketing distribution channel scheme shows no direct marketing channel from producer farmers to wholesalers. Producer farmers can only sell their products to intermediary traders, and the amount is relatively small compared to those who market to collecting traders. This aligns with the opinion (Husna et al., 2020; Sudana, 2020) that the length of the marketing distribution process affects the Price of goods to the last consumer.

The results of data collection through interviews show that most producer farmers sell their products through collecting traders, and only a small percentage sell their products to intermediary traders. Likewise, collectors who buy from producer farmers sell more to intermediary traders.

The high percentage of producer farmers who sell their products through collecting traders is due to collecting traders buying garlic directly to the homes of producer farmers. Thus, farmers do not need to incur transportation costs and relatively quickly get money from sales, especially for producer farmers whose farming businesses are small-scale. Producer farmers who sell directly to intermediary traders have to bear the cost of transportation and, of course, require considerable capital and are quite difficult to reach by most producer farmers, especially small-scale ones.

The average prices received by each garlic postharvest per kilogram during the 2022 harvest season are as follows: the Price received by farmers is IDR 16,000 / kg, collecting traders IDR 18,000 / kg, and intermediary traders IDR 23,000,-. From this data, the marketing margin of producer farmers can be analyzed for both distribution channels taken by identifying the components of costs incurred by farmers, both production or maintenance costs and postharvest costs. The marketing margin received by garlic postharvest actors is presented in the following table.

Table 1. Garlic Commodity Marketing Margin Analysis on Every Marketing Channel

Producer Farmers who sell to Collecting Traders		
Description	Purchase Value, costs, and sales (Rp/Kg)	
Sales		16.000,00
Total maintenance cost	6.694,80	
Total postharvest costs	7.831,20	
Total cost		14.526,00
Net Margin		1.474,00
Farmer Producer who sells to intermediary traders		

Sales		18.000,00	
Total maintenance cost	6.694,80		
Total postharvest costs	9.057,70		
Total cost		15.752,50	
Net Margin			2.247,50

Collecting merchants who buy from farmers and sell to intermediary traders

Purchase	16.000,00		
Total cost		1.488,80	
Cost of goods sold		17.488,80	
Selling Price		18.500,00	
Gross margin			2.500,00
Net Margin			1.011,20

Collecting Merchants buy from Producer Farmers and sell to wholesalers.

Purchase	16.000,00		
Total cost		4.097,20	
Cost of goods sold		20.097,20	
Selling Price		23.000,00	
Gross margin			7.000,00
Net Margin			2.902,80

Intermediary Traders buy from Producer Farmers and sell to Wholesalers.

Purchase	16.000,00		
Total cost		3.623,90	
Cost of goods sold		19.623,90	
Selling Price		23,000,00	
Gross margin			7.000,00
Net Margin			3.376,10

An Intermediary Trader who buys from a collecting merchant and sells to a wholesaler

Purchase	18.500,00		
Total cost		2.903,90	
Cost of goods sold		21.403,90	
Selling Price		23.000,00	
Gross margin			4.500,00
Net Margin			1.596,10

Based on the data in Table 1, the marketing margin of each garlic postharvest actor in West Miomaffo District following the marketing channel can be presented in the following table.

Table 2. Marketing Margin Gain for each Marketing Channel

Marketing Margin Gain for the First Marketing channel		
Postharvest Perpetrator Group	Net Margin per Group of Actors (Rp/kg)	Gross Margin per Group of Actors (Rp/kg)
Producer Farmer	1.474,00	-
Collecting Merchants	1.011,20	2.500,00
Intermediary Trader	1.596,10	4.500,00
Wholesalers	1.596,10	4.500,00
Total	4.081,30	7.000,00
Marketing Margin Gain for the second Marketing channel		
Producer Farmer	1.474,00	-
Collecting Merchants	2.902,80	7.000,00
Total	4.376,80	7.000,00
Marketing Margin Gain for the third Marketing channel		
Producer Farmer	2.247,50	-
Intermediary Trader	3.376,10	7.000,00
Total	5.623,60	7.000,00

Table 2 data can be explained as follows:

1. The First Marketing Channel
   Producer farmers who sell their products to collecting traders earn a net marketing margin of IDR 1,474.00, then collecting traders who buy from producer farmers and sell to intermediary traders receive a net marketing margin of IDR 1,011.20 and intermediary traders who buy from collecting traders then sell to wholesalers obtain a net marketing margin of IDR 1,596.10. In the first marketing channel, the collecting trader receives the smallest margin, while the intermediary trader receives the largest marketing margin.

2. Second Marketing Channel
   Producer farmers who sell to collecting traders get a net margin of Rp. 1,474.00, collecting traders who sell to wholesalers get a net margin of Rp. 2902.80. It can be concluded that in the second marketing channel model, collecting traders obtain a greater marketing margin than that received by producer farmers.

3. Third Marketing Channel
   Producer farmers who sell their products to intermediary traders get a net marketing margin of Rp. 2,247.50 intermediary traders sell to wholesalers and get a net marketing margin of Rp. 3,376.10. The purchase price of intermediary traders from farmers is assumed to be a farm gate price of Rp.16,000/kg, which is the difference in the Price paid by intermediary traders, there is a part that is a new cost for farmers, and there is also a part that is a profit for farmers as presented in table 2. Farm gate price is the price level received by farmers when they sell their agricultural products or the Price received by farmers at the place of business. It can be concluded that in the third model of marketing channels, intermediary traders obtain larger marketing margins than producer farmers.

The marketing margin received by each postharvest garlic actor varies

Based on the type of marketing distribution channel. In these three marketing channel models, the short marketing channel benefits the three garlic postharvest actors because the prices obtained are better, and the postharvest costs incurred are more profitable for garlic postharvest actors in West Miomaffo village. This is supported by research conducted by Hasan & Khalequzzaman (2017); their study found that the shorter the marketing channel, the greater the farmer's share.

Marketing Margin Distribution Analysis

The proportion of marketing margin of Garlic Postharvest Actors in West Miomaffo District, North Central Timor Regency, can be seen in the following table.

Table 4. Marketing Margin Distribution for every First Marketing channel

Postharvest Prepetrator Group	Respondent Activity	Respon-dent Margin	Group Margin (%)	Activity Weights (%)	Cumulative Margin (%)	f (%)
Marketing Margin Distribution for the First Marketing channel						
Producer Farmer Collecting	66.4491,00	27.913,40	68,72	96,88	68,72	80,70
Merchants Intermediary	11.903,00	8.074,50	19,88	1,74	88,60	14,04
Trader	9.464,50	4.632,00	11,40	1,38	100,00	5,26
Marketing Margin Distribution for the Second Marketing channel						
Producer Farmer Collecting	66.4491,00	27.913,40	84,61	98,88	84,61	90,20
Merchants	7.510,50	5.077,50	15,39	1,12	100,00	9,80
Marketing Margin Distribution for Third Marketing Channels						
Producer Farmer Intermediary	275.352,00	8.090,75	63,59	96,68	63,59	86,36
Trader	9.464,50	4.632,00	36,41	3,32	100,00	13,64

The data in Table 3 provide information on the proportion of the income of garlic postharvest actors for marketing channel one. This data is then processed using the Gini Coefficient equation and obtained a GC number of 0.4576. It can be concluded that the distribution of marketing margin in the first channel is at moderate evenness.

In the second distribution channel, the proportion of the income of garlic postharvest actors obtained a GC figure of 0.3949, and it can be concluded that the distribution of marketing margins in the second channel is at average equity.

The third distribution channel illustrates the proportion of the income of garlic postharvest actors obtained a GC figure of 0.2443. It can be concluded that the income distribution in the third marketing channel is at high equity.

CONCLUSION

The marketing margin received by each garlic postharvest actor in West Miomaffo District, North Central Timor Regency, is not evenly distributed on each channel. The shortest marketing channel receives a larger marketing margin, namely marketing channels II and III. The overall marketing margin distribution of garlic postharvest actors is moderate evenness because the average Gini Coefficient is above the index number of 0.3. This is because the farmer group is more numerous and bears the burden of more and higher activities than other actors. At the same time, the marketing margin obtained by each actor is relatively not too different.

Based on the results of this study, it is recommended that garlic marketers in West Miomaffo District choose a short marketing channel because it can benefit each actor. By carrying out marketing activities through short distribution channels, the gap between actors is also not low, meaning that the gap in obtaining

marketing margins between actors is not large. It is also recommended that stakeholders pay attention to infrastructure facilities in helping farmers market their products to help the welfare of garlic farming families in West Miomaffo Regency.

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REFERENCES

Aisyah, S., Faqih, A., Komala, R., Aini, N., Dewi, R. M., & Alamsyah, R. (2023). Field Agricultural Extension Workers' Influence as Mediators on The Success of Strategic Irrigation Modernization and Urgent Rehabilitation Project (SIMURP) program. *Devotion : Journal of Research and Community Service*, *4*(7), Article 7. https://doi.org/10.59188/devotion.v4i7.511

Amalia, D. N., Jurusan, D., Fakultas, A., & Universitas, P. (2019). *DISTRIBUSI PENDAPATAN PETANI KARET DI KECAMATAN BAJUBANG KABUPATEN BATANGHARI Dwi*. *1*, 28–40.

Amare, M., Mariara, J., Oostendorp, R., & Pradhan, M. (2019). The impact of smallholder farmers' participation in avocado export markets on the labor market, farm yields, sales prices, and incomes in Kenya. *Land Use Policy*, *88*, 104168. https://doi.org/10.1016/j.landusepol.2019.104168

Asmayanti, Annisa, A., Azrul, Marhawati, & Syam, A. (2023). Marketing Channel Analysis of Chicken Eggs in Pannampu Market, Tallo District, Makassar City. *Pinisi (Journal of Entrepreneurship Review)*, *1*(1), 54–59.

B Aswar Leo. (2015). Analisa Keuntungan Lembaga Pemasaran Ternak Kambing di Kecamatan Binamu Kabupaten Jeneponto. *Донну*, *5*(December), 118–138.

Badan Pusat Statistik Provinsi Nusa Tenggara Timur. (2022). *Statistik Pertanian Provinsi Nusa Tenggara Timur 2021*. Badan Pusat Statistik Provinsi Nusa Tenggara Timur. https://ntt.bps.go.id/publication/2022/09/28/9616c86ea35747335d2da8cb/statistik-pertanian-nusa-tenggara-timur-2021.html

Bayrakli, B., & Gul, M. (2018). *Analysis of Marketing Structure and Problems in Garlic Production: The Case of Kastamonu Province*. https://doi.org/10.81043/aperta.34047

Berti, G., & Mulligan, C. (2016). Competitiveness of Small Farms and Innovative Food Supply Chains: The Role of Food Hubs in Creating Sustainable Regional and Local Food Systems. *Sustainability*, *8*(7), 616. https://doi.org/10.3390/su8070616

Boruah, P., Jamja, T., & Dhar, S. (2023). Socio-Economic Impact of Horticulture: Empowering Communities. In *New Horizons in Horticulture Revolutionizing Agricultural Practices* (1st ed., Vol. 1, pp. 82–93). Elite Publishing House. https://www.researchgate.net/publication/375379727_Socio-Economic_Impact_of_Horticulture_Empowering_Communities

FAO Indonesia. (2019, February 7). *Smallholders in five provinces benefit from conservation agriculture* [News]. Food and Agriculture Organization of The United Nation. https://www.fao.org/indonesia/news/detail-events/en/c/1179445/

Hasan, M. K., & Khalequzzaman, K. M. (2017). Marketing Efficiency and Value Chain Analysis: The Case of Garlic Crop in Bangladesh. *American Journal of Trade and Policy*, *4*(1), Article 1. https://doi.org/10.18034/ajtp.v4i1.411

Hill, H. (2021). What's Happened to Poverty and Inequality in Indonesia over Half a Century? *Asian Development Review*,

38(1), 68–97. https://doi.org/10.1162/adev_a_00158

Husna, A. M., Subantoro, R., & Istanto, I. (2020). ANALISIS PEMASARAN KUBIS (Brassica oleracea L.) (Studi Kasus Di Kelompok Tani Bumi Jaya 01 Desa Kaponan Kecamatan Pakis Kabupaten Magelang). *MEDIAGRO*, *16*(1), Article 1. https://doi.org/10.31942/mediagro.v16i1.3388

International Center for Applied Finance and Economics (InterCAFE). (2018). *Market Study On Food Sector In Indonesia*. Institut Pertanian Bogor.

Jin, W., Wu, S., Zhang, Y., Zhou, G., Xu, L., & Xu, Y. (2023). Review on Chinese agricultural science and technology research from a low-carbon economy perspective: Hotspots, evolution, and frontiers. *Frontiers in Environmental Science*, *11*. https://www.frontiersin.org/articles/10.3389/fenvs.2023.1268432

Juslin, E. H. & H. (2018). *Chapter 5: Marketing Structures*. https://open.oregonstate.education/strategicmarketing/chapter/chapter-5-marketing-structures/

Kenyon, M. (2020, December 16). *Using retail price formula for pricing—Linnworks*. https://www.linnworks.com/blog/how-to-use-the-retail-price-formula-to-calculate-pricing/

Liu, Y., Ji, D., Zhang, L., An, J., & Sun, W. (2021). Rural Financial Development Impacts on Agricultural Technology Innovation: Evidence from China. *International Journal of Environmental Research and Public Health*, *18*(3), Article 3. https://doi.org/10.3390/ijerph18031110

Mahpudin, E. (2020). Poverty Reduction through Local Financial Performance: Case Study in East Nusa Tenggara Province, Indonesia. *Ekuilibrium : Jurnal Ilmiah Bidang Ilmu Ekonomi*, *15*(2), Article 2. https://doi.org/10.24269/ekuilibrium.v15i2.2020.pp151-160

Malini, H., Purbiyanti, E., & Syaiful, F. (2023). Marketing Channels and Marketing Margins of Citronella Oil in Ogan Ilir District. *JIA (Jurnal Ilmiah Agribisnis) : Jurnal Agribisnis Dan Ilmu Sosial Ekonomi Pertanian*, *8*(3), 220–229. https://doi.org/10.37149/jia.v8i3.625

Moervitasari, E. K., Rahayu, E. S., & Rahayu, W. (2018). Analisis Distribusi Pendapatan Petani Kedelai Di Kabupaten Wonogiri. *Jurnal Pamator*, *11*(1), 75–82.

Nalle, F. W., & Pangastuti, M. D. (2022). Poverty level analysis in East Nusa Tenggara Province. *Inovasi : Jurnal Ekonomi, Keuangan, Dan Manajemen*, *18*(4), Article 4. https://doi.org/10.30872/jinv.v18i4.11748

Partoyo. (2020). Farming in the Era of Industrial Revolution 4.0: The Environmental Challenges. *Proceeding International Conference on Green Agro-Industry*, *4*, 27–38. http://eprints.upnyk.ac.id/22872/1/4.%20Partoyo.pdf

Sojitra, H. P., & Ardeshna, D. N. (2021). Price spread in different marketing channels of garlic in Saurashtra region of Gujarat, India. *Journal of Pharmacognosy and Phytochemistry*, *10*(4S), 46–51.

Strano, M. C., Altieri, G., Allegra, M., Di Renzo, G. C., Paterna, G., Matera, A., & Genovese, F. (2022). Postharvest Technologies of Fresh Citrus Fruit: Advances and Recent Developments for the Loss Reduction during Handling and Storage. *Horticulturae*, *8*(7), 612. https://doi.org/10.3390/horticulturae8070612

Sudana, I. W. (2020). Analysis of Income And Marketing Efficiency Of Gouramy In Yeh Embang Kangin Jembrana Village. *SEAS (Sustainable Environment Agricultural Science)*, *4*(2), 111–119. https://doi.org/10.22225/seas.4.2.2616.111-119

Syukur, M., & Awaru, A. O. T. (2019). *Opportunities and Challenges of Organic Agriculture in the Era of Industrial*

Revolution 4.0 (A Case Study at Bulukumba Regency; South Sulawesi Province). 91–95. https://doi.org/10.2991/icss-19.2019.231

Winarno, A., Agustina, Y., Narmaditya, B. S., & Wahyuni, W. (2021). Strengthening the Icon Management of Kampung Kopi Village in Malang of Indonesia by Improving the Quality of Production and Marketing for Farmers. *Technium Social Sciences Journal*, *23*, 557–567.

Yakubnekov, O. (2020, February 21). How to find new markets through value chain analysis. *Medium*. https://oleg-81036.medium.com/how-to-find-new-markets-through-value-chain-analysis-ff8b9d74c065