

Research Article

The Behavior and Market Efficiency of Aglaonema Ornamental Plants in Baubau, Indonesia

Wa Ode Al Zarlioni^{1*}, Wa Ode Dian Purnamasari¹, Nabila Gafur¹

¹Program Studi Agribisnis, Fakultas Pertanian, Universitas Muhammadiyah Buton, Indonesia

*Korespondensi: waodealzarliani@yahoo.com

ABSTRACT

This research aims to look at the behavior and market efficiency of Aglaonema ornamental plants in Baubau, Indonesia. Furthermore, each agency's marketing channels, margins, expenses, and benefits are analyzed for technical and economic efficiency. In addition, 40 farmers were sampled using the census technique, and an institutional approach was taken utilizing the snowball method. The findings demonstrate that the quantity of customer demand determines market pricing behavior. The cost of the ornamental plants is paid in cash at the time of purchase, and there has been cooperation between traders with communication to ensure the number of ornamental plants purchased and an agreement on the payment system that will be given after the plants are sold, resulting in good cooperation. Intertwined does not rely on dealers providing financing to farmers. Furthermore, channel patterns 1,2 and 3 have no Marketing Efficiency, whereas channel 4 patterns have 46 percent and channel 5 patterns have a ratio of 48 percent. As a result, channels 4 and 5 are deemed inefficient.

Keywords: Aglaonema, Marketing Margins, Marketing Channels

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1. Introduction

Ornamental plants are plants that have beauty and aesthetic value due to the shape of the plant, the color and shape of the leaves, the crown and shape of the tree/stem, the color and fragrance of the flowers, and are frequently used to decorate yards, gardens, or rooms in homes, office buildings, hotels, and restaurants (Dirgantari Putri 2019). Some individuals are now interested in having aesthetically pleasing plants, therefore it is not unexpected that many people are interested in having beautiful plants. Ornamental plants are classified as a commodity based on its role as an element or ornamental element. Ornamental plants have become a need for certain individuals, whether as a pastime, décor, or collecting (Anita and Fitri 2021).

Based on the data from Indonesian Statistics the harvested area in 2016 was 6873 m², with a total production of 6983 trees/stalk, according to the data in Table 1. In 2017, the harvested area was 7568 m², with a total yield of 3044 trees/stalk. This indicates that, over the course of two years, ornamental plants in Southeast Sulawesi Province increased in harvested area but decreased in output.

Baubau City is one of the cities in Southeast Sulawesi Province with a strategic location because it is a transit area for economic activities via the sea route connecting West Indonesia and East Indonesia, making it profitable for the city's growth and development, particularly in the trade and services sectors. Baubau City is located in Southeast Sulawesi Province's southern region, between 5.21' and 5.33' south latitude and 122.30' and 122.45' east longitude (Baubau City Portal, 2020).

Gonda Baru Village, Sorawolio District, is a commercial business site for decorative plants in Baubau City. Based on first observations, it appears that those attempting to produce decorative plants are still operating as a home business. Starting as a pastime of numerous persons caring for ornamental plants, this interest

eventually evolved to turn these attractive plants into commercial potential. This economic opportunity is then taken advantage of by considering the scenario and consumer preferences and a suitable climate and terrain for producing crops. As a result, it is one of the factors contributing to the growth of the decorative plant selling industry. People in Gonda Baru Village work as farmers and dealers, with varying quantities and varieties of ornamental plants on their business premises.

The residents of Gonda Baru Village sell and produce aglaonema, which is an attractive plant. As many as 40 households have cultivated and marketed Aglaonema decorative plants, according to information from the Head of Gonda Baru Village. However, in this study, the researcher only looks at the Aglaonema ornamental plant, whose most popular and widely sold variation is Aglaonema Big Roy.

Marketing determines the degree of income and profit obtained by any institution participating in the Aglaonema ornamental plant business. This is due to changes in the trading system's location and activity, resulting in different pricing for each trading system. Aglaonema decorative plants are sold not only in farmers' gardens but also in local markets and on the internet in buying and selling forums. These circumstances will almost likely have an impact on the effectiveness of the formed marketing.

The goals of this study are to 1) examine the marketing channels for Aglaonema ornamental plants, 2) analyze the costs, margins, and profits received by each institution involved in marketing Aglaonema ornamental plants, and 3) analyze the marketing efficiency of Aglaonema Ornamental Plants in Gonda Baru Village, Sorawolio District, Baubau City.

2. Research Method

This study was conducted on December 2020 to January 2021. Farmers and merchants of Aglaonema ornamental plants in Gonda Baru Village, Sorawolio District, Baubau City were included in this study. This survey included 40 growers and merchants of Aglaonema ornamental plants. The census technique was used for sampling, whereas the snowball method was used for institutional analysis. The data in this study are qualitative and quantitative; the data sources are primary and secondary. This study collected data by observation, questionnaires, and documentation.

The following factors were examined in this study: 1) Farmer characteristics; 2) Trader characteristics; 3) Purchase and Selling Prices (Rp/plant); 4) Purchase and Sales Volumes; 5) Marketing Costs; 6) Marketing Margin; 7) Marketing Advantage; and 8) Marketing Agencies Involved.

The data were collated, and then descriptively, qualitatively, and quantitatively evaluated. Qualitative study was performed in order to determine the pattern of marketing channels used in the marketing of Aglaonema ornamental plants. The distribution of Aglaonema decorative plants will reveal the length of the marketing chain and the number of dealers engaged. Quantitative analysis is used to determine efficiency using indications of marketing margins, expenses, and profits (Angipora, 2005). To determine the effectiveness of marketing channels, you can utilize Nurlan's formula in Wd Al Zarliani (2019).

3. Result and Discussion

Farmers and merchants of Aglaonema ornamental plants were surveyed in this study. In general, the residents of Gonda Baru Village make their living by growing and trading decorative plants, however some regard decorative plant cultivation as a side profession owing to other obligations.

3.1 Marketing Costs, Margins and Profits

The entire cost of Aglaonema ornamental plant business operations in one year is called cost. Costs incurred from the time Aglaonema ornamental plants are developed until they reach the end customer are referred to as marketing costs. Packaging, transportation, extortion, and location ticket prices are all included in this study's marketing expenses. See Table 2 below for the expenditures incurred by the marketing agencies participating in each channel pattern.

Tabel 2. Analysis of the costs incurred in each Marketing Channel Pattern in Gonda Baru Village, Sorawolio District, Baubau City

| Channel | Marketing Agency | Average Cost (Rp/pot) |
|---------------------------------|----------------------------|-----------------------|
| Pattern I | Farmer | - |
| Pattern II (Online) | Farmer | |
| | Marketing Fee | |
| | 1. Packing Cost | 3.125 |
| | 2. Transportation Fee | 7,500 |
| Total | | 10,625 |
| III (Wameo Market) | Farmer | |
| | Marketing Fee | |
| | 1. Extortion Fees | 1.411 |
| | 2. Transportation Fee | 3.340 |
| Total | | 4.751 |
| IV (Wameo Market) | Collecting Merchant | |
| | Marketing Fee | |
| | 1. Extortion Fees | 925 |
| | 2. Transportation Fee | 2.314 |
| Total | | 3.239 |
| V. (Work Market Nugraha) | Collecting Merchant | |
| | Marketing Fee | |
| | 1. Place Ticket Fee | 603 |
| | 2. Transportation Fee | 7,441 |
| Total | | 8044 |
| amount | | 26,659 |

According to Table 2, the marketing channels of patterns I, I, and III are zero level marketing channels, or so-called zero level channels, because they do not include an intermediate in the sales process. In this case, farmers as ornamental plant growers sell their decorative plants directly to ultimate customers, but the procedure and location of sale are distinct. Farmers pay minimal or little marketing expenditures in pattern I, as consumers come directly to the farms where the farmers produce the decorative plants. In marketing channel pattern II, the farmer sells the plants produced to the consumer online and instantly delivers or distributes the decorative plant to the client upon agreement between the two. Farmers use messengers to transport decorative plants to consumers in this circumstance. Farmers suffer marketing expenditures in the marketing channel pattern II, which include an average packing cost of Rp. 3,125 per pot and an average shipping cost of IDR 7,500 per pot.

Farmers provide the transportation role to the point of sale in the third marketing channel, which enables farmers to sell huge numbers of decorative plants. Because the farmer contacts the customer in the local market, the farmer incurs marketing costs, including an average extortion fee of Rp. 1,411 per pot and an average transport cost of Rp. 3,340 per pot.

Patterns IV and V marketing channels are one-level marketing channels in which collectors function as middlemen by directly interacting with farmers. However, the distinction between the two kinds of marketing channels created is the point of sale. The collecting traders suffer marketing expenses, which include an average extortion fee of Rp.925 per pot and an average transportation cost of Rp.2,314. While in marketing channel pattern V, collectors incur a variety of marketing expenditures, including an average cost of Rp. 603 per pot for a location ticket and an average cost of Rp. 7,441 per pot for transportation. This example demonstrates how changes in activity and location of sale have an effect on the amount of the costs borne by merchants. With lower expenses spent by traders, the effectiveness of a marketing system might be impacted. This argument is

consistent with Soekartawi's (2002) assertion that an efficient marketing system is attained when the least expensive marketing process.

Margin Marketing of ornamental plants *Aglaonema* is the difference between the selling price of ornamental plants *Aglaonema* at the level of marketing institutions with the purchase price at the level of producers farmers To know the purchase price, selling price and marketing margin of the marketing institutions involved in each pattern of marketing channels can be seen in Table 3 below.

Table 3. Marketing Margin Analysis of *Aglaonema* Ornamental Plants in each Pattern Channel Marketing in Gonda Baru Village, Sorawolio District Baubau City

| Channel | Marketing Agency | Average Selling Price (Rp/pot) | Average Purchase Price (Rp/pot) | Marketing Margin (Rp/pot) |
|--------------------------------|---------------------|--------------------------------|---------------------------------|---------------------------|
| I (Place) | Farmer | 93.214 | - | - |
| Total | | | | |
| II (Online) | Farmer | 80,000 | - | - |
| Total | | | | |
| (Wameo Market) | Farmer | 95,750 | - | - |
| Total | | | | |
| IV (Wameo Market) | Farmer | 60,000 | - | - |
| | Collecting Merchant | 130,000 | 60,000 | 70,000 |
| Total | | | | 70,000 |
| V (Pasar Karya Nugraha) | Farmer | 65,000 | - | - |
| | Collecting Merchant | 135,000 | 65,000 | 70,000 |
| Total | | | | 70,000 |
| amount | | | | 140,000 |

Source: Primary Data Processed, 2021

According to Table 3, there is no marketing margin in channel patterns I, II, and III. This is because farmers act as marketing institutions that sell directly to consumers in the three marketing channels, and there is no intermediary institution in the distribution of *Aglaonema* ornamental plants, so farmers receive the same price as consumers.

The pattern IV marketing channel has a per-pot profit margin of IDR 70,000. The margin is calculated by dividing the average price of *Aglaonema* ornamental plants purchased from farmers (Rp. 60,000 per pot) by the average price of *Aglaonema* ornamental plants sold by *Aglaonema* ornamental plant collectors (Rp. 130,000 per pot). The difference between the average purchase price of *Aglaonema* ornamental plants from farmers, which is Rp. 65,000 per pot, and the average price of *Aglaonema* ornamental plants sold by *Aglaonema* ornamental plant collectors to final consumers, which is Rp. 135,000 per pot, gives the marketing channel pattern V a margin of Rp. 70,000 per pot.

The distance factor that must be traveled to the consumer's location, the number of marketing institutions involved, and the number of marketing functions carried out by each marketing agency all influence the results of the analysis of the margins received by market participants, both farmers and traders, in the pattern I, II, III, IV, V marketing channels. The explanation in the findings of this study agrees with Herawati (2012), who believes that the distance between the point of sale, the length of the marketing marketing chain, and the existence of marketing functions performed by each marketing agency in each marketing channel pattern can all influence the size of the margin received. Suratiah (2016) adds to this explanation by stating that marketing functions, as

well as the role performed by each market player, can influence the magnitude of marketing expenses spent by each market participant in each transaction.

Profit is the difference between the selling price paid by consumers and the price paid by producer farmers after marketing expenditures are deducted. As Soekartawi said in Widyasindy (2010), profit is the difference between the price paid to the initial seller and the price paid by the final buyer (margin) after marketing expenditures are deducted. The following table details the volume of revenues earned by marketing agencies participating in each marketing channel.

Table 4. Marketing Advantages of Aglaonema Ornamental Plants in each Pattern Marketing Channels in Gonda Baru Village, Sorawolio District Baubau City

| Channel | Marketing Agency | Marketing Margin (Rp/pot) | Total Marketing Cost (Rp/pot) | Advantage |
|-------------------------|---------------------|---------------------------|-------------------------------|----------------|
| I (Place) | Farmer | - | - | - |
| Total | | | | |
| II (Online) | Farmer | - | 10,625 | - |
| Total | | | | |
| III (Wameo Market) | Farmer | - | 4.751 | - |
| Total | | | | |
| IV (Nameo Market) | Farmer | - | - | - |
| | Collecting Merchant | 70,000 | 3.239 | 66,761 |
| Total | | | | 66,761 |
| V (Pasar Karya Nugraha) | Farmer | - | - | - |
| | Collecting Merchant | 70,000 | 8044 | 61,956 |
| Total | | | | 61,956 |
| amount | | | | 128,717 |

Source: Primary Data Processed, 2021

As seen in Table 4, channel I has no total marketing cost and no marketing margin, implying that the profits earned by farmers in this channel are non-existent. In channel II, total costs per pot are Rp. 10,625 and there is no marketing margin, implying no profit; in channel III, total expenses per pot are Rp. 4,751 and there is no marketing margin, implying no profit. The total cost of the channel IV pattern is Rp. 3,239 per pot with a margin of Rp. 70,000 per pot, resulting in a profit of Rp. 66.761 per pot, while the total cost of the channel V pattern is Rp. 8044 per pot with a margin of Rp. 70,000 per pot, resulting in the smallest profit of Rp. 61,956 per pot.

3.2 Marketing Efficiency of Aglaonema Ornamental Plants

Marketing efficiency is a component of the price farmers (producers) get from the price ultimate consumers pay to merchants. Marketing can be deemed to be more efficient if farmers earn a larger proportion. The amount of the farmers' % share of the price obtained in a marketing system can be used as a benchmark for evaluating the efficiency of the farmers' marketing system. If farmers obtain a larger than 50% share of the price, the marketing system is efficient; otherwise, the marketing system is inefficient. According to Mubyarto in Wd Al Zarliani (2019), a trading system is efficient if it satisfies two (2) criteria: (1) it must provide results from farmers (producers) to consumers at the lowest feasible cost; and (2) it must provide a fair portion of all prices paid by end consumers. The following table illustrates the magnitude of the marketing efficiency across the five channels.

Table 5. Percentage of Marketing Efficiency in each Marketing Channel Pattern of Aglaonema Ornamental Plants in Gonda Baru Village, Sorawolio District, Baubau City

| Marketing channel | Margin (Rp/pot) | Merchant Selling Price (Rp/pot) | $Ep = 1-M/He \times 100\%$ |
|-------------------|-----------------|---------------------------------|----------------------------|
| I | - | - | - |
| II | - | - | - |
| III | - | - | - |
| IV | 70,000 | 130,000 | 46 |
| V | 70,000 | 135,000 | 48 |

Source: Primary Data Processed, 2021

According to the data in Table 5, there is no marketing efficiency in channels I, II, or III. This is because farmers sell Aglaonema ornamental plants directly to final consumers in these three channels, eliminating the need for a marketing margin and selling price for traders, whereas both channels IV and V patterns indicate an inefficient marketing system, with the lowest percentage in pattern IV marketing channels at 46% and the highest percentage in pattern V marketing channels at 100%. This is consistent with Nurlan's assertion in Wd Al Zarliani (2019) that if the difference in marketing efficiency between the two channels is smaller than 50% ($Ep 50\%$), then the marketing channel is inefficient. This circumstance demonstrates that the price obtained by Aglaonema decorative plant growers as a percentage of the price paid by the ultimate customer is not evenly distributed.

The low value of marketing efficiency obtained is owing to the high value of the margin obtained by collecting traders, as represented by the gap between farmer selling prices to traders and collectors' selling prices to consumers. The explanation in this study is consistent with Hanafiah and Saefuddin's view (1986), who said that marketing efficiency is inversely related to marketing margin, which indicates that the more the marketing margin obtained, the lower the value of marketing efficiency. Hasyim (2012) highlighted further, stating that the more the farmer's part of the price, the better and more efficient the producer's market performance.

3.3 Market Behavior

Market behavior refers to the actions and behaviors of traders during the process of selling ornamental plants to the ultimate customer. Market behavior is a description of traders' interactions with other market players in an attempt to maximize profit. Mikaela (2019). Market behavior is defined in this study as the process of establishing prices, the payment systems that operate when sellers and buyers transact, the activities of marketing functions that are performed, and the cooperation that exists between marketing institutions throughout the marketing process.

The study's findings indicate that traders are now deciding the price of decorative plants based on customer demand, targeted profit margins, availability of attractive plants, and the amount of expenditures paid by each marketing agency. This theory is consistent with Kotler's (1987) view that demand and the amount of market rivalry are two factors that impact market participants' judgments when deciding the selling price of a commodity. Furthermore, sShumeta et al. (2012) Al Zarliani et al. (2021) stress that when establishing the selling price of a product, one of the deciding variables is the condition of demand and supply for the commodity.

In the business sector, particularly in the payment system, the process of marketing a commodity involves a down payment, cash payment, debt payment, and subsequent payments in line with the agreement (Al Zarliani, 2019). The payment method used by collecting traders is cash (Meiska 2019). The study's findings show that traders' payment method for farmers is a cash payment system at the time of purchase, with further payments made when the plants are sold to the customer.

Market participants engaged in ornamental plant business activities have established cooperation through attachments and agreements, particularly those relating to the quantity of ornamental plants purchased, the provision of price information, and the time of purchase, but the cooperation does not take the form of providing capital to farmers as ornamental plant producers through the collection of traders. The collaboration between market players is not based on the supply of commissions; rather, these findings and explanations are consistent with the findings of Ayu Dessy et al. (2016), who found that farmers and collectors cooperate on the basis of an attachment. The agreement is established only for the purpose of the agreement, the collector traders are not capital suppliers to the farmers as producers, or there is an attachment to the results distribution to the farmers.

The marketing function is carried out by gathering traders. It consists of exchange functions such as buying and selling, physical functions such as transportation and storage, and facility services such as pricing information. The marketing function activities of market participants have an effect on the amount of costs incurred, which has an effect on the selling price of a product, thereby increasing the marketing margin received, and on the size of the marketing efficiency percentage, which has an effect on the ornamental plant marketing system's efficiency. These findings and explanations corroborate Siregar (2010)'s assertion in Herawati (2012) that farmers earn a lesser part of the price because of the length of the marketing chain through which a commodity goes. Additionally, it was emphasized that the amount of farmers' percentage share of the price does not necessarily correspond to the size of farmers' earnings in each transaction. According to Azzaini (1982), the more marketing institutions participating in the marketing process, the less the percentage of the price obtained by farmers.

4. Conclusion

Farmers sell *Aglaonema* decorative plants through five distinct marketing channel patterns, which are split into three zero-level and two single-level marketing channels with distinct end points of sale via internet marketing and direct sales on the spot and in the market (offline). Farmers-Consumers a) Farmers-Consumers b) Farmers-Gathering-Traders-Consumers According to the results of the marketing margin study provided today, there is no marketing margin in channel I, since there are no marketing expenditures and no profit generated. In channel II, there is no marketing margin due to marketing costs of Rp. 10,625 per pot; in channel III, there is no marketing margin due to marketing costs of Rp. 4,751 per pot; and in channel IV, there is a marketing margin of Rp. 70,000 per pot due to marketing costs of Rp. 3,239 per pot and profit received of Rp.66,761 per pot. While the marketing margin in channel V pattern is Rp. 70,000 per pot, with a marketing cost of Rp. 8,044 per pot and a profit of Rp. 61,956 per pot, the profit obtained is Rp. 61,956 per pot. Marketing efficiency is similar in both channels, with the IV channel achieving the lowest percentage of 46 percent and the V pattern marketing channel achieving the highest percentage of 48 percent. As a result, the marketing efficiency number calculated using the two marketing channels is inefficient. Market behavior is demonstrated by market players in terms of payments in the form of cash and later payments, as well as the process of setting pricing based on the volume of requests, associated expenses, and projected profit. While collaboration has been formed, it is not contractual.

This research makes the following recommendations: 1) In order to maximize marketing efficiency, ornamental plant merchants should collaborate with the market to streamline the marketing process. 2) The government should be able to offer financing to farmers for the growth of the *Aglaonema* decorative plant business, allowing farmers to maximize earnings as producers and dealers. 3) The government should be empowered to impose harsh punishments and find the appropriate remedy for any actor or individual that seeks extortion (illegal payments) from farmers or collectors who sell decorative plants at the Wameo Local Market.

References

Ayu, D., et.al., (2016). Analisis struktur,prilaku dan kinerja pasar cabai di Desa Bayung,Gede Kintammani Kabupaten Bungli. *Jurnal E-Jurnal Agribisnis- Agrowisata* ISSN 2301-6523. Vol.5 No1.2016.

- Azzaini, Z. (1982). *Pengantar Tataniaga pertanian*. Departemen Ilmu-ilmu Sosial Ekonomi Institut Pertanian Bogor. Bogor.
- Al Zarlioni, W. (2019). Analisis Tataniaga Kopra di Desa Bolabone Kecamatan Mawasangka Kabupaten Buton Tengah. *Jurnal Media Agribisnis*. Vol. 3, Issue 2, November 2019. P-ISSN:2527-8479 E-ISSN:2686-2174
- Al Zarlioni, W., et al. (2021). Prilaku dan Kinerja Pasar Jambu Mete di Kabupaten Buton Selatan, Indonesia. *Journal of sustainable Agriculture*. ISSN 2613-9456.,
- Al Zarlioni,W.(2019). *Disertasi Kajian Struktur Perilaku dan Kinerja Pasar jambu Mete dalam Membangun Rantai Pasok Jambu Mete di Sulawesi Tenggara*.
- Angipora, M. (2006). *Dasar-Dasar Pemasaran*. Edisi Kedua. Raja Grafindo Persada. Jakarta
- Anita, & Khairunisa, F. (2021). Sistem Pendukung Keputusan Untuk Menentukan Tingkat Minat Masyarakat Dalam Memilih Tanaman Hias Menggunakan Metode Saw. *RANG TEKNIK JOURNAL* Vol. 4 No.1 Januari 2021
<http://jurnal.umsb.ac.id/index.php/RANGTEKNIKJOURNAL>.DOI:<http://dx.doi.org/10.31869/rj.v4i1.2454>
- Badan Pusat Statistik. (2020). *Statistik Tanaman Holtikultura di Sulawesi Tenggara Tahun 2017*. BPS Provinsi Sulawesi Tenggara.
- Dirgantari, P. (2019). *Faktor – Faktor Yang Mempengaruhi Permintaan Tanaman Hias Di Desa Bangun Sari Kecamatan Tanjung Morawa Kabupaten Deli Serdang*. Access From (repository.uma.ac.id)
- Hanafiah, A.M. & A.M Saefuddin. (1986). *Tataniaga Hasil Perikanan*. UI Pres. Jakarta.Universitas Indonesia.
- Herawati. (2012). Analisis Pemasaran Nenas Palembang di desa Paya, Kecamatan Payaraman, Kabupaten ogan Ilin. Propinsi Sumatra Selatan. *Journal Agribisnis Farum*, ISSN2252-5401. 2013.
- Nurlan, F. (1986). *Indikator Keberhasilan dalam Pemasaran*, UI Press, Jakarta.
- Mubyarto. (2000). *Pengantar Ekonomi Pertanian*. LP3ES. Jakarta
- Soekartawi, (2002). *Prinsip Dasar Manajemen Pemasaran Hasil Pertanian*. PT Raaja Grafindo. Jakarta.
- Soekartawi. (2003). *Teori Ekonomi Produksi dengan Pokok Bahasan Analisis Fungsi Cobb-Douglas*. PT Raja Grafindo Persada. Jakarta
- Suratiyah. (2006). *Ilmu Usahatani*. Jakarta. Penebar Swadaya.
- Meiska , S., Ali Ibrahim, H, Situmorang, S. (2019). *Efisiensi Sistem Pemasaran Cengkeh di kabupaten Pesisir Barat*. Jurnal Volume 7 No 2, 2019.