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Analysis of Marketing Strategies for Dendrodium Orchids in Semarang City

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ABSTRACT

This study is motivated by the problem of an inefficient marketing system for Dendrobium orchids in Semarang City, as reflected in long distribution chains, unequal profit distribution, and the absence of well directed strategies to enhance farmers' competitiveness. In addition, differences in product characteristics at each growth stage (flask, seedling, juvenile, and flowering) are likely to influence marketing efficiency, yet these variations have not been comprehensively examined within a unified analytical framework. The study aims to reveal differences in marketing performance across product stages while identifying more effective strategic directions for improvement. The findings indicate that shorter marketing channels generate greater economic benefits for farmers. The flask stage exhibits the highest level of efficiency, as farmers capture the full value of the product, whereas in more advanced stages, the increasing involvement of intermediaries reduces the share received by farmers. This pattern reflects a structural imbalance in the marketing system that directly affects the distribution of returns. These results highlight that the core issue in Dendrobium orchid marketing extends beyond technical aspects of selling and lies fundamentally in the structure of the marketing chain and farmers' bargaining position. Therefore, strategic improvements should not only focus on increasing production but also on restructuring distribution systems, enhancing value added at the farm level, and adopting marketing innovations. This study contributes to the literature by providing an integrated understanding of the relationship between product stages, marketing structure, and efficiency, and offers a basis for designing policies that support the competitiveness and sustainability of Dendrobium orchid agribusiness.
Keywords*: dendrobium orchid, marketing efficiency, distribution channel structure, farmer's share, value added strategy.*

BACKGROUND

Orchids are among the most valuable floriculture commodities due to their high aesthetic appeal and strong economic potential in domestic and international markets. Global demand continues to increase alongside the growth of the horticultural industry and consumer preferences for exotic ornamental plants (Tang et al., 2020; Zhang et al., 2022). In addition to their ornamental value, orchids contribute significantly to farmers' income and the development of the floriculture value chain (Rochaeni et al., 2023; Waluyo et al., 2021; Widiastoety et al., 2010). However, successful orchid marketing depends on product quality, efficient distribution systems, and the ability of

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producers to adapt to market dynamics. Due to their sensitivity to environmental changes and physical damage, marketing efficiency plays a crucial role in ensuring profitability (Ketsa & Vichai, 2023; Shih et al., 2010).

Previous studies in Indonesia highlight the importance of integrating product quality, marketing strategies, and institutional support to improve competitiveness. Effective coordination among farmers, traders, and consumers helps maintain profit margins and product quality (D. Rachmawati et al., 2024). Meanwhile, collective marketing institutions and standardized quality systems can strengthen farmers' bargaining power and improve efficiency (Istiyowati et al., 2025; Ridwan et al., 2025). Nevertheless, research consistently shows that long marketing channels reduce farmers' share and increase marketing margins, indicating inefficiency (Asa & Humaidi, 2024; Wanto, 2021).

In Semarang City, Dendrobium orchid marketing faces similar challenges, including limited market access, lengthy distribution channels, and low adoption of digital marketing strategies (Prayudi & Fikien, 2026; Ridwan et al., 2025). As a result, farmers' bargaining positions remain weak. Although several studies discuss orchid business management, comprehensive research integrating marketing efficiency and strategic analysis for Dendrobium orchids in Semarang is still limited.

This study addresses that gap by analyzing marketing efficiency across four product stages: flasks, seedlings, juveniles, and flowering plants. Marketing margin, farmer's share, and Cost Margin Ratio (CMR) are used as quantitative indicators, while the Kruskal–Wallis test and Post Hoc analysis identifies differences in efficiency among product stages. In addition, SWOT analysis combined with IFE and EFE matrices is employed to formulate appropriate marketing strategies.

The study aims to: (1) analyze the marketing system of Dendrobium orchids in Semarang City; (2) measure marketing efficiency; and (3) develop suitable marketing strategies. The findings are expected to contribute theoretically to floriculture agribusiness literature and practically to support farmers and policymakers in improving competitiveness and sustainability.

RESEARCH METHODS

This study was conducted from June to August 2025 in Semarang City, Central Java, using a mixed-methods approach to obtain a comprehensive understanding of the marketing system and efficiency of Dendrobium orchids across four production stages: flask, seedling, juvenile, and flowering (Sulaiman, 2025; Waluyo et al., 2021). All farmers who are members of the Semarang Multiflora Association were included through a census approach.

In this study, it is important to distinguish between the number of respondents and the number of analytical units. A total of 22 farmers were identified as respondents. However, since several farmers manage more than one production stage, the number of stage-based analytical units is larger. There are 30 production-stage units consisting of 4 flask, 8 seedling, 12 juvenile, and 17 flowering stages. Considering that farmers may operate across multiple stages, the total number of observations

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based on production stages reaches 54 data points. This approach enables a more detailed analysis of variations in marketing performance across product stages.

To enrich the understanding of marketing dynamics, the study also involved 11 key informants selected purposively, including experienced farmers, intermediary traders, comparative farmers from outside the region, and representatives from the Semarang City Agriculture Office (F. A. D. Rachmawati et al., 2023; Ridwan et al., 2025). Primary data were collected through in-depth interviews, questionnaires, and field observations to capture information on prices, costs, margins, distribution patterns, and constraints faced by market actors. Secondary data were obtained from government reports, literature, and previous studies (Pratama, 2024; Wanto, 2021).

Data analysis was conducted by integrating quantitative and qualitative approaches (Indrawan & Jalilah, 2021). Quantitatively, marketing efficiency was evaluated using marketing margin (Waluyo et al., 2021), farmer's share (Sulaiman, 2025), and cost margin ratio (Pratama, 2024), with differences across production stages tested using the Kolmogorov-Smirnov test, Kruskal–Wallis test, and post hoc analysis ($p < 0.05$). Qualitatively, a descriptive-analytic approach was applied to interpret distribution patterns, marketing strategies, constraints, and development opportunities, further strengthened by SWOT analysis to formulate strategies aligned with actual field conditions (Furidha, 2023; Prayudi & Fikien, 2026; F. A. D. Rachmawati et al., 2023; Ridwan et al., 2025).

RESULT AND DISCUSSION

Study Area

Semarang City, the capital of Central Java Province, has a strategic location on the northern coast of Java Island, characterized by varied topography ranging from lowlands to hilly areas, as well as a tropical monsoon climate with an average temperature of 27.5°C and annual rainfall of 2,500–3,000 mm. These conditions are favorable for cultivating Dendrobium orchids (Semarang, 2023; (BMKG, 2022). Major production centers are located in Mijen, Gunungpati, and Banyumanik Districts, contributing 58.04%, 29.91%, and 10.39% of total production, respectively (Semarang, 2023).

Marketing System of Dendrobium Orchids by Product Stage

The marketing system for Dendrobium orchids in Semarang varies according to product stage. The flask stage uses a short distribution channel with lower risk, whereas the juvenile to Flowering stages involve more intermediaries and higher costs. This highlights the importance of understanding marketing patterns to improve efficiency and product competitiveness.

Marketing System of Flask-Stage Orchids

The marketing of Dendrobium orchids at the flask stage in Semarang City follows a simple distribution channel, from producers to seedling farmers or directly to hobbyist consumers. Four main producers: Candi Orchid, Coconut Orchid, Riyani Orchid, and the Semarang City Agriculture Department's UPTD play a role in meeting both local and out-of-town demand. Details of marketing channels, margins, farmer's share, and benefit–cost ratios for flask-stage orchids are presented in Table 1.

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Table 1. Marketing Channels (MC), Marketing Margin, Farmer's Share, and Cost–Margin Ratio of Flask-Stage Dendrobium Orchids

Producer	MC	Producer Price	Consumer Price	Marketing Margin	Farmer's Share	CMR
		IDR	IDR	IDR	%	%
Candi Orchid (Farmer)	1	50.000	50.000	0	100	8,00
Candi Orchid (Hobbyist)	1	60.000	60.000	0	100	6,67
Coconut Orchid (Farmer)	1	50.000	50.000	0	100	8,00
Coconut Orchid (Hobbyist)	1	60.000	60.000	0	100	6,67
UPTD Dispertan Kota Semarang	1	50.000	50.000	0	100	8,00
Riyani Orchid	1	60.000	60.000	0	100	6,67
			Average	0	100	7,33

Source: Primary Data, 2025

Based on Table 1, the Farmer's Share (FS) for all flask-stage orchid producers in Semarang City reaches 100%. This means that the price received by producers is equal to the price paid by consumers, indicating no price difference and that all profits go directly to the producers. This condition shows that the marketing of flask-stage orchids uses only one distribution channel, namely direct sales from producers to consumers without intermediaries. The marketing margin shown in the table is also equal to the consumer price, as no other party takes a share of the price difference. Meanwhile, the Cost–Margin Ratio (CMR) ranges from 6.67% to 8.00%, with an average of 7.33%, indicating a very high level of marketing efficiency. The marketing of flask-stage orchids in Semarang City is simple, efficient, and provides full profit to producers. The distribution pattern is presented in Figure 1.

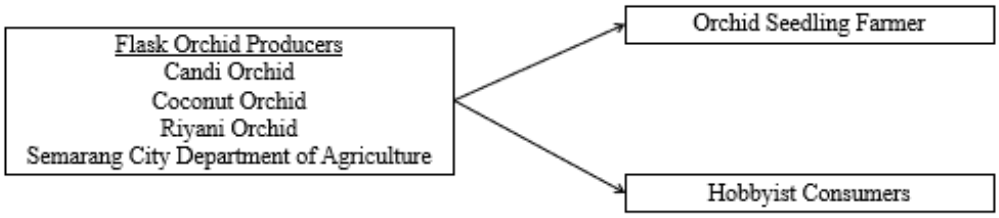

Figure 1. Marketing Flow of Flask-Stage Dendrobium Orchids

Based on Table 1 and Figure 1, the marketing of flask-stage orchids in Semarang City is carried out through two channels: from producers to seedling farmers and from producers directly to hobbyist consumers. Both channels operate without intermediaries, resulting in producer prices being equal to consumer prices. Consequently, the Farmer's Share reaches 100%, and the marketing margin corresponds to the consumer price. The low Cost–Margin Ratio (CMR), ranging from 6.67% to 8%, indicates that the marketing of flask-stage orchids is highly efficient.

The main difference between the two channels lies in their sales strategies. In the channel involving seedling farmers, the selling price is lower due to wholesale transactions, but the larger sales volume still provides significant profit for producers. Conversely, in the channel aimed at

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hobbyist consumers, prices remain more stable and are retail-based, although the number of units sold tends to be smaller.

Marketing System of Seedling-Stage Orchid

In Semarang City, the marketing of Dendrobium orchids at the seedling stage is relatively simple. Tissue culture flasks priced at approximately IDR50,000 (containing about 25 seedlings) are purchased by farmers, acclimatized for 3–4 months, and then sold at around IDR20,000 per seedling. Details of the marketing channels, marketing margin, farmer's share, and cost–margin ratio for seedling-stage orchids are presented in Table 2.

Table 2. Marketing Channels, Marketing Margin, Farmer's Share, and Cost–Margin Ratio of Seedling-Stage Dendrobium Orchids

Producer	MC	Producer Price	Consumer Price	Marketing Margin	Farmer's Share	CMR
		IDR	IDR	IDR	%	%
Candi Orchid	1	15,000	20,000	5,000	75.00	20.00
Candi Orchid	2	15,000	35,000	20,000	42.86	25.00
Arum Orchid	1	20,000	25,000	5,000	80.00	20.00
Coconut Orchid	1	17,000	20,000	3,000	85.00	33.33
Arvia Orchid	1	17,000	20,000	3,000	85.00	33.33
Kamaniya Orchid	1	20,000	25,000	5,000	80.00	20.00
Mekarsari	1	17,000	20,000	3,000	85.00	33.33
Bentuku Orchid	1	17,000	20,000	3,000	85.00	33.33
Isti Orchid	1	17,000	20,000	3,000	85.00	33.33
			Average	5,556	78.10	27.96

Source: Primary Data, 2025

Based on Table 2, the marketing of seedling-stage orchids in Semarang is predominantly conducted through direct channels to end consumers, resulting in a high Farmer's Share (FS) of 80–85% and a moderate Cost–Margin Ratio (CMR). These values indicate a relatively efficient marketing performance. The price variations observed in Arum Orchid and Kamaniya Orchid illustrate that differences in selling prices can reduce the proportion of income received by farmers, even in the absence of marketing intermediaries.

Candi Orchid demonstrates two distinct marketing pathways with contrasting levels of efficiency. The first channel remains relatively efficient with an FS of 75%, whereas the second channel shows a substantially lower FS of 42.86%, attributable to a considerably higher marketing margin. Overall, the average FS of 78.10% and CMR of 27.96% suggest that the marketing of seedling-stage orchids remains efficient, provided that the distribution chain is kept short. The corresponding distribution pattern is presented in Figure 2.

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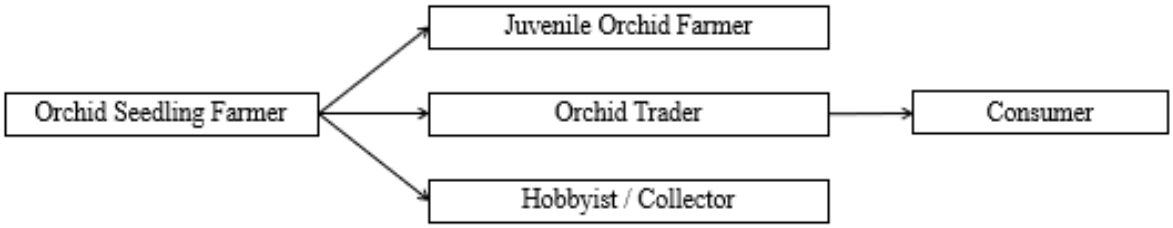

Figure 2. Marketing Flow of Seedling-Stage Dendrobium Orchids

The marketing channels for orchid seedlings are generally divided into three main consumer segments: (1) juvenile orchid farmers, who purchase seedlings to be grown until the flowering stage; (2) orchid traders, who act as intermediaries and distribute seedlings to the final consumers; and (3) hobbyists or collectors, who purchase seedlings for personal collection or recreational purposes. Seedling distribution can occur directly from farmers to final consumers or through limited intermediaries such as orchid traders.

Overall, the seedling distribution system in Semarang City is relatively efficient because most producers sell directly without intermediaries, resulting in competitive pricing. However, several challenges arise during the distribution process, particularly the risk of seedling damage after removal from sterile culture media. Temperature fluctuations, humidity levels, and physical shocks during transportation may affect seedling quality. Therefore, proper postharvest handling—including adequate packaging and appropriate transport methods—is essential to maintain seedling quality until they reach the consumers.

Marketing System of Juvenile-Stage Orchids

The marketing channels for juvenile-stage Dendrobium orchids in Semarang City vary among producers, reflected in differences in selling prices, marketing margins, farmer's share, and cost–margin ratios. A detailed comparison of distribution pathways and marketing efficiency is presented in Table 3.

Table 3. Marketing Channels (MC), Marketing Margin, Farmer's Share, and Cost–Margin Ratio of Juvenile-Stage Dendrobium Orchids

Producer	MC	Producer Price	Consumer Price	Marketing Margin	Farmer's Share	CMR
		IDR	IDR	IDR	**%**	**%**
Candi Orchid	1	30.000	40.000	10.000	75,00	25,00
Candi Orchid	2	30.000	50.000	20.000	60,00	25,00
Kamaniya Orchid	1	35.000	45.000	10.000	77,78	20,00
Coconut Orchid	1	35.000	45.000	5.000	77,78	20,00
Isti Orchid	1	30.000	40.000	10.000	75,00	20,00
Arum Orchid	1	35.000	45.000	10.000	77,78	20,00
Kebun Anselia	1	30.000	40.000	10.000	75,00	20,00
Happy Orchid	1	30.000	45.000	15.000	66,67	13,33
Oemah Anggrek	1	30.000	45.000	15.000	66,67	13,33

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Producer	MC	Producer Price	Consumer Price	Marketing Margin	Farmer's Share	CMR
Alas Kumara	1	30.000	40.000	10.000	75,00	20,00
Toni Orchid	1	25.000	35.000	10.000	71,43	20,00
Q-an Anggrek	1	30.000	40.000	10.000	75,00	20,00
Asih Orchid	1	30.000	40.000	10.000	75,00	20,00
			Average	11.538	72,93	19,74

Source: Primary Data, 2025

Based on Table 3, the majority of juvenile-stage orchid farms in Semarang use direct marketing channels, with an average producer price of IDR 35,000 and a consumer price of IDR 45,000. This structure generates a margin of IDR 10,000, a Farmer's Share (FS) of 77.78%, and a CMR of 20%, indicating relatively good efficiency since most of the final price is retained by farmers. However, Candi Orchid (second channel), Happy Orchid, and Oemah Anggrek show higher margins and lower FS values. The lower CMR in some farms is likely due to more controlled marketing costs, such as shorter distribution channels, lower transportation expenses, and minimal intermediary involvement. In contrast, the greater the intermediary margin and the longer the marketing channel, the lower the efficiency and the smaller the income share received by farmers.

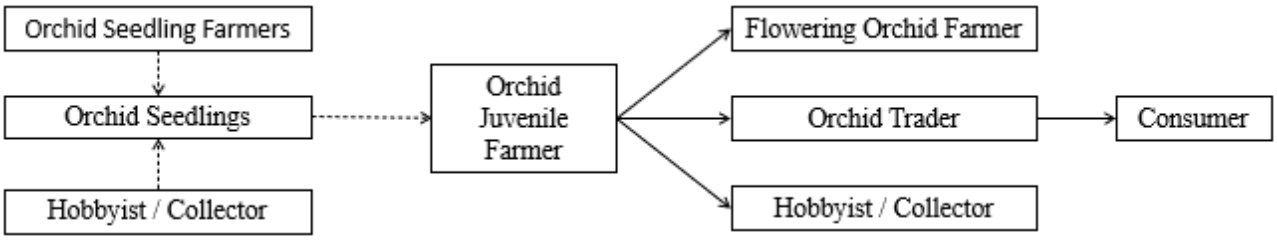

Figure 3. Marketing Flow of Juvenile -Stage Dendrobium Orchids

The marketing flow of juvenile-stage orchids begins with seedling acquisition, either by purchasing from seedling farmers or through in-house acclimatization. These seedlings are then grown into juvenile plants that are ready for sale. Juvenile orchids are marketed through several channels, including sales to Flowering-orchid growers, orchid traders, and directly to hobbyists or collectors. This diversity of channels provides farmers with flexibility in generating profit, while also requiring careful selection of the most efficient distribution pathway. Within the value chain, juvenile-orchid farmers play a crucial role as intermediaries linking seedling production with the needs of end consumers.

Marketing System of Flowering-Stage Orchids

The marketing of flowering-stage Dendrobium orchids is more complex than other stages. Farmers usually sell to collectors, who pass the products to wholesalers and retailers before reaching final consumers such as hotels and individual buyers. The average farm-gate price is around IDR 70,000 per pot. Further details are shown in Table 4.

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Table 4. Marketing Channels (MC), Marketing Margin, Farmer's Share, and Cost–Margin Ratio of Flowering-Stage Dendrobium Orchids

Producer	MC	Producer Price	Consumer Price	Marketing Margin	Farmer's Share	CMR
		IDR	IDR	IDR	%	%
Candi Orchid	1	60.000	80.000	20.000	75,00	15,00
Candi Orchid	2	60.000	120.000	60.000	50,00	16,67
Candi Orchid	3	60.000	200.000	140.000	30,00	21,43
Kamaniya Orchid	1	65.000	85.000	20.000	76,47	15,00
Coconut Orchid	1	75.000	100.000	25.000	75,00	12,00
Isti Orchid	1	65.000	85.000	20.000	76,47	15,00
Arum Orchid	1	65.000	80.000	15.000	81,25	20,00
Arum Orchid	2	65.000	100.000	35.000	65,00	28,57
Arum Orchid	3	65.000	175.000	110.000	37,14	31,82
Kebun Anselia	1	65.000	80.000	15.000	81,25	20,00
Happy Orchid	1	65.000	90.000	25.000	72,22	12,00
Happy Orchid	2	65.000	120.000	55.000	54,17	18,18
Oemah Anggrek	1	65.000	80.000	15.000	81,25	20,00
Oemah Anggrek	2	65.000	100.000	35.000	65,00	22,86
Oemah Anggrek	3	65.000	200.000	135.000	32,50	25,93
Alas Kumara	1	65.000	85.000	20.000	76,47	15,00
Taman Anggrek Sutikno	1	65.000	85.000	20.000	76,47	15,00
Taman Anggrek Sutikno	2	65.000	100.000	35.000	65,00	28,57
Taman Anggrek Sutikno	3	65.000	150.000	85.000	43,33	35,29
Q-an Anggrek	1	70.000	90.000	20.000	77,78	15,00
Asih Orchid	1	70.000	90.000	20.000	77,78	15,00
Lestarinda	1	65.000	80.000	15.000	81,25	20,00
Asitya Anggrek	1	70.000	80.000	10.000	87,50	30,00
Bentukku Orchid	1	70.000	90.000	20.000	77,78	15,00
Wijaya Kusuma	1	65.000	80.000	15.000	81,25	20,00
Jerobang Orchid	1	65.000	80.000	15.000	81,25	20,00
			Average	38.462	68,41	20,13

Source: Primary Data, 2025

Based on Table 4, the marketing of Flowering Dendrobium orchids exhibits greater variability in distribution channels compared with the seedling and juvenile stages. Many farms such as Kamaniya Orchid, Coconut Orchid, Isti Orchid, Kebun Anselia, and Alas Kumara sell directly to consumers, generating margins of IDR15,000–IDR25,000. This pattern results in a Farmer's Share (FS) of 75–81.25% and a Cost–Margin Ratio (CMR) of 12–20%, indicating that shorter marketing channels provide higher efficiency because the majority of the consumer price is captured by farmers.

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In contrast, farms utilizing longer marketing channels experience substantially higher margins but lower FS values. For example, Candi Orchid (Channel 3) records a margin of IDR140,000 with an FS of 30%, while Oemah Anggrek and Arum Orchid also show large margins under extended channels, accompanied by a sharp decline in the share received by farmers. On average, Flowering orchids have a marketing margin of IDR38,462, an FS of 68.41%, and a CMR of 20.13%. These findings demonstrate that the longer the marketing chain, the greater the profit gained by intermediaries and the lower the marketing efficiency for farmers.

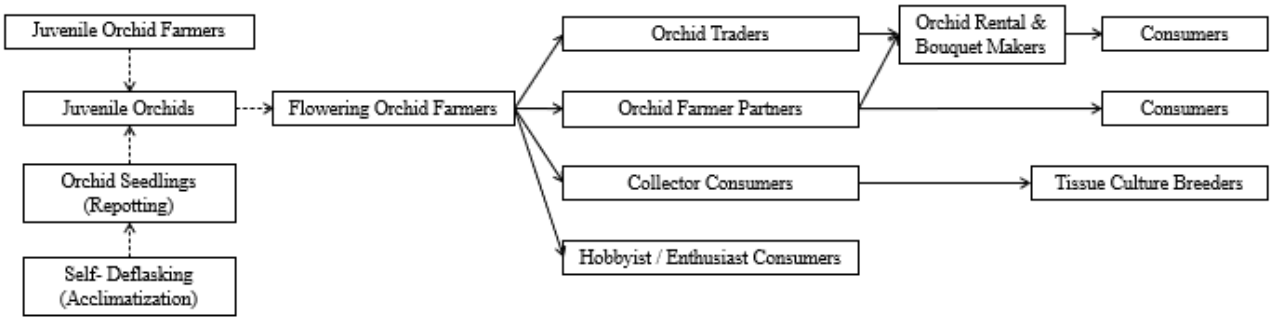

Figure 4. Marketing Flow of Flowering-Stage Dendrobium Orchids

The distribution flow of flowering orchids illustrates the movement of products from the seedling stage to the final consumer. Juvenile orchid seedlings are sourced from two main channels: self-produced flask-grown seedlings or purchases from juvenile seedling growers. These planting materials are then cultivated by Flowering-orchid farmers, who serve as production centers as well as the initial distribution point before the orchids enter the market.

In the marketing process, there are four main consumer groups for Flowering orchids: hobbyists, collectors, partner orchid farmers, and orchid traders. The distribution structure becomes diverse due to the involvement of various intermediaries, including collectors, tissue-culture breeders, partner farmers, plant rental services, and bouquet artisans. Interactions among these actors form three types of marketing channels: (1) short channels, where products move directly from farmers to consumers; (2) medium channels, involving one intermediary; and (3) long channels, involving two or more intermediaries.

Differences in marketing channel length affect overall marketing efficiency. Farmers receive the highest farmer's share in short channels because marketing margins are relatively small. Conversely, in long channels, the percentage received by farmers tends to be lower due to larger marketing margins distributed among more intermediaries.

Marketing Efficiency

Marketing efficiency refers to the ability of a distribution system to minimize costs and value losses while ensuring that producers receive a fair share of the final price (Asmarantaka, 2012). In the marketing of Dendrobium orchids in Semarang City, marketing efficiency is assessed using three key indicators: marketing margin, farmer's share, and the cost-to-margin ratio. These indicators are

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compared across each product stage from flaskd seedlings to flowering plants as presented in Table 5.

Table 5. Comparison of Average Marketing Efficiency at Each Product Stage

Product Stage	Marketing Margin	*Farmer's share*	CMR	Interpretation
	IDR	%	%	
Flask-Stage Orchid	55.000	100	7,33	The highest efficiency level is characterized by the maximum farmer's share (100%) and the lowest CMR (7.33%), indicating that all profits are fully captured by the farmers.
Seedling Orchid	5.556	78,10	27,96	The upper-medium efficiency level shows that the farmer's share remains relatively high (78.10%), despite the marketing channel exhibiting the highest CMR (27.96%)
Juvenile Orchid	11.538	72,93	19,74	The lower-medium efficiency level reflects a decline in the farmer's share (72.93%) accompanied by a moderately high CMR (19.74%).
Flowering Orchid	38.462	68,41	20,13	The lowest efficiency level is marked by the lowest farmer's share (68.41%), suggesting that a substantial portion of profits is absorbed by marketing costs.

Source: Processed Data, 2025

Based on Table 5, marketing efficiency varies across production stages. The flask stage is the most efficient, with a farmer's share of 100% and a CMR of 7.33%, indicating that almost the entire consumer price is received by farmers. At the seedling stage, the margin is relatively small (IDR 5,556) and the farmer's share remains high (78.10%), although the CMR increases to 27.96%. The juvenile stage is moderately efficient, with a margin of IDR 11,538, a farmer's share of 72.93%, and a CMR of 19.74%. Meanwhile, the flowering stage is the least efficient, characterized by the highest margin (IDR 38,462), the lowest farmer's share (68.41%), and a CMR of 20.13%. The efficiency ranking from highest to lowest is: flask → seedling → juvenile → flowering.

These findings are consistent with previous studies. Natadiwirja, (2019) in Jakarta and Yahya, (2021) in Depok reported a decline in farmer's share from the early stages to the flowering stage due to longer marketing chains. Zaenuri et al., (2022) in Yogyakarta also emphasized that the highest efficiency occurs at the early stages because the distribution structure is simpler. Overall, both in Semarang and other regions, early cultivation stages tend to be more efficient, while flowering products generate higher margins but provide a smaller profit share for farmers.

Statistical Hypothesis Testing

Before conducting the analysis, the Kolmogorov–Smirnov normality test was applied to 54 samples to determine the appropriate testing method. The results showed Asymp. Sig. and Monte Carlo Sig. values of < 0.001, indicating that the residual data were not normally distributed. Therefore, the analysis proceeded using the non-parametric Kruskal–Wallis test to examine

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differences in the marketing system of Dendrobium orchids across the flask, seedling, juvenile, and flowering stages.

The Kruskal–Wallis results revealed that farmer's share, marketing margin, and cost–margin ratio differed significantly across product stages (Sig. < 0.001), while the marketing channel variable showed no significant difference (Sig. = 0.078). Further Post Hoc testing with Bonferroni correction indicated significant differences only between the juvenile–flask pair (Adj. Sig. = 0.001) and the juvenile–flowering pair (Adj. Sig. = 0.003). Overall, the marketing patterns at the seedling, juvenile, and flowering stages were relatively similar, although meaningful differences were observed at the juvenile stage compared to the other two stages.

Marketing Strategy Analysis

The post hoc results indicate that significant differences in the marketing system primarily occur between the juvenile stage and the flask and flowering stages. The efficiency analysis also shows that marketing efficiency declines as the product advances; the flask stage is the most efficient, while the flowering stage is the least efficient due to higher marketing costs and a lower farmer's share. This suggests that the main challenges lie in distribution and marketing channel management rather than production alone. Strategies were formulated using the IFE and EFE Matrices, which were then mapped into the IE Matrix and further analyzed through SWOT. The main strategic priorities include shortening distribution channels, increasing value added at the farmer level, strengthening digital marketing adoption, and enhancing price transparency to improve competitiveness in a sustainable manner.

Internal and External Factors

Internally, strengths include farmers' experience, good product quality, and relatively stable prices. Weaknesses involve the limited number of young farmers, reliance on conventional marketing systems, capital constraints, and suboptimal branding and packaging. Externally, opportunities arise from the growing ornamental plant trend, seasonal demand, government support, and the expansion of digital marketing. Threats include fluctuations in purchasing power, competition from other production centers such as Karanganyar, Batu, and Muntilan, and production risks related to the rainy season and plant diseases.

Internal Factor Evaluation (IFE) Matrix

The IFE Matrix analysis identifies the strengths and weaknesses of the Dendrobium orchid business as the foundation for developing strategic recommendations, with the summary results presented in Table 6.

Table 6. Internal Strategic Factors Matrix

No.	Internal Strategic Factors	Weight	Rating	Score
	Strengths			
1	Farmers have experience and skills in cultivation.	0.17	4	0.67
2	Farmers' social networks and hobbyist communities are fairly active.	0.13	3	0.40

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No.	Internal Strategic Factors	Weight	Rating	Score
3	Quality of Dendrobium flowers is relatively good and diverse.	0.16	4	0.66
4	Product prices are fairly stable in the local market.	0.14	3	0.41
	Weaknesses			
1	Involvement of the younger generation in orchid cultivation is still low.	0.10	2	0.20
2	Marketing is still dominated by conventional systems.	0.08	2	0.16
3	Production scale is still limited.	0.08	2	0.16
4	Capital and business facility support are limited.	0.07	2	0.15
5	Product branding and packaging are not yet optimal.	0.06	1	0.06
	Total	1.00	1.00	2.87

Source: Processed Data, 2025

Based on Table 6, the total internal factor score for the Dendrobium orchid enteIDRrise is 2.87, indicating a moderately strong internal position. The main strengths lie in the good and diverse flower quality, sufficient cultivation experience, active farmer social networks, and relatively stable product prices. However, several weaknesses remain, including suboptimal branding and packaging, limited access to capital and production facilities, restricted production scale, and a predominantly conventional marketing system.

External Factor Evaluation Matrix

The analysis of the EFE matrix illustrates the influence of market dynamics, policy support, competition, economic conditions, and seasonal factors on the sustainability of the Dendrobium orchid enterprise, as presented in Table 7.

Table 7. External Strategic Factors Matrix

No.	External Strategic Factors	Weight	Rating	Score
	Opportunities			
1	Increasing trend of ornamental plants in the community.	0.17	3	0.50
2	Higher demand during specific occasions (end of year, celebrations, official events).	0.16	3	0.47
3	Local government policies in the form of training and exhibition facilitation.	0.17	3	0.50
4	Support for digital marketing through marketplaces and social media.	0.17	4	0.70
	Threats			
1	Changes in community trends or preferences.	0.12	2	0.24
2	Intense competition with products from other orchid centers (Karanganyar, Batu, Muntilan, etc.).	0.06	1	0.06
3	Risk of production damage due to rainy season and diseases.	0.07	1	0.07
4	Fluctuations in purchasing power during certain periods (e.g., new school year).	0.09	2	0.19
	Total	1.00	1.00	2.71

Source: Processed Data, 2025

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Based on Table 7, the total external factor score for the Dendrobium orchid enteIDRrise is 2.71, indicating a moderately strong external condition. The main opportunities include increasing public interest in ornamental plants, high seasonal demand, government support, and the expansion of digital marketing platforms. Meanwhile, the threats consist of intense competition, risks of damage caused by weather or disease, and declining purchasing activity during certain periods.

Internal–External Matrix (IE Matrix)

The Internal–External (IE) Matrix maps the enterprise's strategic position based on the IFE and EFE scores, serving as a guideline for determining the marketing direction of Dendrobium orchids in Semarang City. The strategic position of the enteIDRrise is presented in Figure 5.

TOTAL SKOR EFE	TOTAL SKOR IFE: 4.0 Kuat	3.0 Rata-Tata	2.0 Lemah 1.0
Tinggi 3.0	I *Grow and Build*	II *Grow and Build*	III *Hold and Maintain*
Sedang 2.0	IV *Grow and Build*	**V *Hold and Maintain***	VI *Harvest or Divest*
Rendah 1.0	VII *Hold and Maintain*	VIII *Harvest or Divest*	IX *Harvest or Divest*

Figure 5. Intenal External Matrix

Based on the results of the IFE analysis (2.87) and EFE analysis (2.71), the Dendrobium orchid business is in a moderately strong position in terms of both internal and external factors. This indicates that the business possesses sufficient strengths to remain sustainable, yet it still faces challenges related to competition, production limitations, and market fluctuations. Therefore, the most appropriate strategic approach is Hold and Maintain, with a focus on market penetration and product development.

SWOT Matrix

SWOT analysis is used to examine the strengths, weaknesses, opportunities, and threats in the marketing of Dendrobium orchids in Semarang City. The results of this analysis help identify the business position while formulating strategies to enhance competitiveness. The identified factors are then presented in the SWOT matrix shown in Table 8.

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Table 8. SWOT Matrix of Dendrobium Orchid Marketing in Semarang City

EFE\IFA	STRENGHT (S)	WEAKNESSES (W
	1. Farmers have experience and skills in cultivation. 2. Farmers' social networks and hobbyist communities are fairly active. 3. Quality of Dendrobium flowers is relatively good and diverse. 4. Product prices are fairly stable in the local market.	1. Involvement of the younger generation in orchid cultivation is still low. 2. Marketing is still dominated by conventional systems. 3. Production scale is still limited. 4. Capital and business facility support are limited. 5. Product branding and packaging are not yet optimal.
OPORTUNITY (O)	**S-O STRATEGIES**	**W-O STRATEGIES**
1. Increasing trend of ornamental plants in the community. 2. Higher demand during specific occasions (end of year, celebrations, official events). 3. Local government policies in the form of training and exhibition facilitation. 4. Support for digital marketing through marketplaces and social media.	1. Utilize the high product quality to attract the ornamental plant market trend. 2. Optimize social networks and hobbyist communities through digital marketing and marketplaces. 3. Offer stable prices during periods of high demand (end of year, celebrations, official events).	1. Leverage government support (training, exhibitions, capital) to increase production scale. 2. Expand marketing from conventional channels to digital/marketplaces. 3. Develop branding and product packaging according to ornamental plant trends.
THREATHS (T)	**S-T STRATEGIES**	**W-T STRATEGIES**
1. Changes in community trends or preferences. 2. Intense competition with products from other orchid centers (Karanganyar, Batu, Muntilan, etc.). 3. Risk of production damage due to rainy seasons and diseases. 4. Fluctuations in purchasing power during certain periods (e.g., new school year).	1. Improve the quality and variety of Dendrobium orchids to anticipate changes in market trends. 2. Utilize social networks and hobbyist communities to maintain consumer loyalty amid intense competition. 3. Offer stable prices and guaranteed quality to remain competitive when purchasing power declines. 4. Implement more adaptive cultivation techniques to reduce the risk of crop failure due to rainy seasons and diseases.	1. Access capital, training, and modern cultivation technologies to mitigate losses due to climate and diseases. 2. Develop innovative packaging and branding to provide added value compared to competitors from other regions. 3. Diversify marketing channels (offline–online) to anticipate fluctuations in consumer purchasing power. 4. Increase production efficiency to face price competition from other orchid centers.

Source: Processed Data, 2025

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Based on the strategy formulation in Table 8, the combination of internal and external factors produces several alternative strategies that can be applied in the development of the Dendrobium orchid business. The S–O strategies are directed toward utilizing the enterprise's strengths such as product quality and social networks to capture market opportunities in the growing ornamental plant industry. Meanwhile, the W–O strategies aim to reduce internal weaknesses by leveraging external opportunities, including government support and the use of digital marketing.

The S–T strategies emphasize using strengths to respond to threats such as competition with other production centers, changing trends, and production risks caused by climate variability. Efforts include enhancing product quality, adding varietal diversity, utilizing hobbyist communities, and controlling prices to remain competitive. On the other hand, the W–T strategies focus on strengthening internal aspects such as access to capital, the application of modern cultivation technology, packaging and branding innovation, and diversification of marketing channels to minimize the impact of market threats.

The results of the IE Matrix analysis show that the Dendrobium orchid business is positioned in Cell V (Hold and Maintain), indicating that the recommended strategies are market penetration and product development. Strategy Implementation Based on SWOT Results

1. Market Penetration Strategy
   a. Utilize product quality to attract consumers in line with ornamental plant trends. (SO1)
   b. Optimize community networks and digital/marketplace platforms as marketing channels. (SO2)
   c. Expand marketing from conventional methods toward digital-based promotion. (WO2)
2. Product Development Strategy
   a. Strengthen branding and packaging aligned with trends in ornamental plants. (WO3)
   b. Offer stable prices during peak demand periods to enhance market appeal. (SO3)
   c. Diversify products, such as planting media, fertilizers, and plant accessories.

CONCLUSION AND SUGGESTION

Conclusion

The marketing system of Dendrobium orchids in Semarang City applies short, medium, and long channels. The bottle and seedling stages tend to be more efficient because they use shorter channels and provide a higher farmer's share. In contrast, the flowering stage is less efficient due to higher marketing costs and longer distribution chains. The Kruskal–Wallis test shows that marketing margin, farmer's share, and cost–margin ratio differ significantly among product stages, while marketing channels do not differ significantly. Post hoc results indicate that the most notable differences occur at the juvenile stage compared to the bottle and flowering stages, whereas the other stages show relatively similar patterns. Overall, marketing efficiency declines as the product advances to higher stages. Based on the SWOT and IE Matrix analysis (IFE 2.87; EFE 2.71), the business is positioned in the Hold and Maintain cell. The recommended strategies include strengthening digital marketing, improving product and packaging innovation, and adding complementary products to enhance competitiveness and business sustainability.

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Suggestion

Dendrobium orchid farmers are advised to expand marketing through social media, marketplaces, and community groups, and to increase product attractiveness through varietal diversity, improved packaging, and bundled product offerings. The Semarang Multiflora Association should strengthen member capacity through training in cultivation and tissue culture, and develop a collective marketing hub and joint promotion activities. The Semarang City Government is expected to provide support through financing access, training, and facilities such as greenhouses and logistics infrastructure, while also promoting Dendrobium orchids as a regional flagship product.

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