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ANALYSIS OF RICE MARKETING EFFICIENCY THROUGH THE STRUCTURE CONDUCT PERFORMANCE APPROACH

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Article Information

Abstract

This study aims to analyze the efficiency of rice marketing in Ngawi Regency. This study uses the Structure-Conduct-Performance (SCP) method to analyze the efficiency of rice marketing. The data collection methods involved surveys and structured interviews with actors in the rice distribution chain. The snowball sampling method is used in this study to follow the marketing flow from farmers to end consumers. The study's results indicate that five main distribution channel patterns were identified. Each actor in the distribution chain has different contributions to marketing activities, including exchange functions, physical functions, and facility functions. The Farmer's Share value in each rice marketing channel in Ngawi Regency shows the proportion of price acceptance received by farmers compared to the price paid by end consumers. The analysis of five rice marketing channels in Ngawi Regency shows that channel 2 has the highest Farmer's Share (54.62%), while channel 5 is the most cost-efficient with a π/c ratio 1.32. This study contributes to agricultural marketing studies by highlighting the importance of evaluating distribution channels based on the balance between the value received by producers and cost efficiency.

INTRODUCTION

Rice is a staple food commodity for most of the Indonesian population and plays a very strategic role in the national economy, especially in supporting social stability and food security (Wuryantoro & Chandra, 2022; Fadillah & Al Islamiyah, 2025; Lapamudi et al., 2022). Ngawi Regency, as one of the rice barns in East Java, has made an important contribution to supplying domestic rice needs, both on a regional and national scale.

Figure 1 shows that Ngawi Regency is the second largest rice producing regency in East Java after Lamongan Regency. Rice production in both regencies fluctuated during 2023. In 2023, rice production in Ngawi Regency was 445,336.1 tons, ranking second after Lamongan Regency at 461,188.28 tons. The high volume of rice production in this region should align with the increase in the welfare of farmers, who are the primary producers. However, the reality in the field shows a gap between production potential and the distribution of added value obtained by the leading actors, namely farmers. In practice, the price of rice at the consumer level has increased quite sharply in recent years, while the price of grain at the farmer level tends to stagnate and even decline during the peak harvest season (Donkor et al., 2021; Choundhary, 2022; Wijaya & Tanjung, 2022). This phenomenon indicates inefficiency in the rice marketing system, caused by the length of the distribution chain, the dominance of certain marketing institutions such as middlemen and collectors, and weak access of farmers to market information and price formation mechanisms (Sima & Simamora, 2023; Mardalisa et al., 2023). This is the gap phenomenon, namely the disparity between agricultural potential and the reality of farmers' income, which is still low.

Theoretically, market efficiency analysis can be carried out through the Structure Conduct Performance (SCP) approach, which emphasizes the relationship between market structure, market actor behavior, and market performance (Min & Paudel, 2021; Antara, 2022; Fatima et al., 2022). Market structure refers to the conditions of actor concentration, barriers to market entry and exit, and the level of product differentiation. Market behavior includes patterns of interaction between actors, pricing mechanisms, and forms of cooperation in the distribution chain (Sucahyo, 2024). Meanwhile, market performance is measured by marketing margins, price efficiency, farmers' share, and the relative profits of each marketing institution. This approach can comprehensively explain how the structure of market power and the behavior of distribution actors can affect the system's efficiency. However, the application of the SCP approach in the context of rice commodity marketing, especially in rural areas such as Ngawi Regency, is still limited. Many SCP studies focus more on the industrial sector or export commodities with a more formal and documented market structure. This creates a theory gap, namely the less-than-optimal use of the SCP framework in analyzing the dynamics of local rice distribution, which is informal, complex, and involves small and medium actors with trust-based economic relationships (Utami et al., 2022).

Previous studies on rice marketing tend to focus on partial aspects, such as analysis of distribution margins, price fluctuations, or the relationship between farmers and retailers (Sima & Simamora, 2023; Wijaya & Tanjung, 2022; Mardalisa et al., 2023). It is rare to find studies that explicitly and structuredly analyze the three SCP components simultaneously and integratively, market structure, market behavior, and market performance in one complete empirical framework (Wuryantoro & Ayu, 2021; Yanti et al., 2025). In fact, at the district level, very few studies link marketing efficiency with market structural characteristics and institutional practices that occur in the field (Hermawan et al., 2025). Therefore, this study is important to fill this gap. This study aims to comprehensively analyze rice marketing efficiency in Ngawi Regency through the SCP approach.

Figure 1. Five Regencies with the Largest Rice Production in East Java in 2023 (Ton)
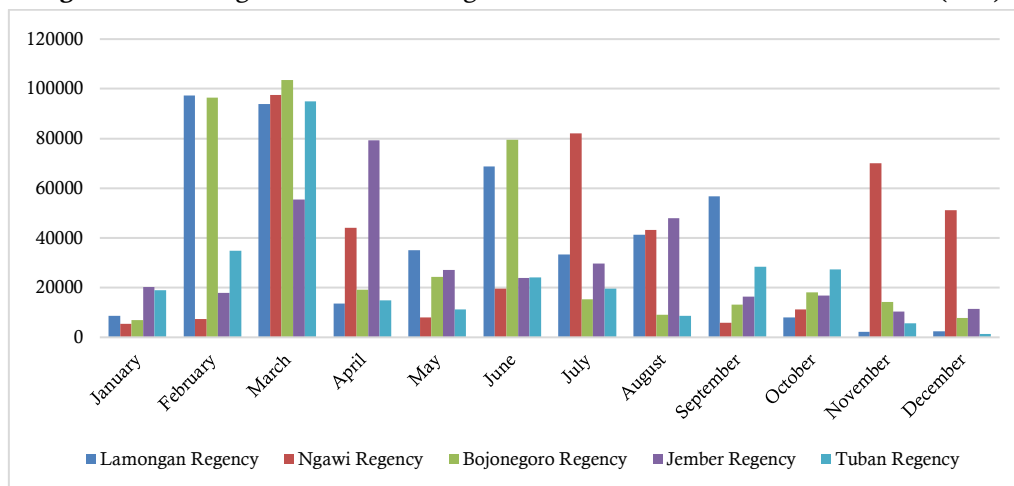
Source: Central Statistics Bureau, 2025.

RESEARCH METHODS

This study uses the Structure-Conduct-Performance (SCP) method to analyze the efficiency of rice marketing. The study was conducted in Ngawi Regency, East Java, which is known as one of the rice production centers in the Mataraman region. The location selection was carried out purposively by considering the intensity of agricultural activities and the diversity of rice distribution patterns.

The types of data used in this study include primary and secondary data. Primary data were collected through surveys and structured interviews with actors in the rice distribution chain, such as farmers, collectors, retailers, and end consumers. Secondary data were obtained from related agencies such as the Ngawi Regency Agriculture and Trade Service, the Central Statistics Agency (BPS), and relevant previous studies. The study population included all distribution actors in the rice marketing chain in the study area. The sampling technique was carried out using the snowball sampling method. The snowball sampling method is used in this study to follow the marketing flow from farmers to end consumers.

The data analysis method used consists of two main parts. First, analysis of marketing channels and functions aims to identify the distribution flow of rice from farmers to consumers and the marketing functions carried out at each level, such as transportation, storage, packaging, promotion, and pricing. Second, analysis of marketing efficiency using the Structure Conduct Performance (SCP) approach, which involves five main components, including the following:

1. Market Structure

Market structure analysis in research is carried out by looking at four market characteristics, namely a) the number of sellers and buyers, b) the condition of the products being traded, c) the barriers to market entry.

2. Market Behavior Analysis

Market behavior analysis uses qualitative analysis by looking at three market characteristics, namely a) the price determination system and price formation between traders, b) sales and purchasing practices, and c) the cooperation network system between marketing institutions.

3. Marketing Performance Analysis

a. Marketing Margin

Marketing margin is the difference between the price that applies or is received by producer farmers and the price received by end consumers. The amount of marketing margin is the sum of marketing costs and profits obtained from related institutions. The formula for calculating marketing margin is as follows:

$$MT = Pr - Pf = Ci + \pi i = \sum_{i=1}^{n} Mi \quad (1)$$

Description:

MT   : Total marketing margin

Pr   : Price at the final consumer level

Pf   : Price at the producer-farmer level

Mi   : Marketing margin of level i

Ci   : Cost of marketing institution at level i

πi : Profit of the i-th level

The calculation of total marketing margin can also be done using a percentage. The percentage marketing margin is usually used to determine the level of marketing efficiency because the percentage margin is easier to compare. The percentage calculation is done with the following formula:

$$MT = \frac{Pr - Pf}{Pr} \, x \, 100\% \qquad (2)$$

b. Farmer's Share

Farmer's share analysis is used to determine the portion of the price received by farmers from the price at the consumer level, carried out using the farmer's share (FS) analysis.

$$FS = \frac{Pr - Pf}{Pr} \, x \, 100\% \qquad (3)$$

Description:

FS   : Farmer's Share

Pf   : Price at the producer level (farmer)

Pr   : Price received by farmers

The size of the farmer's share is influenced by the type of production, quantity of production, and marketing costs.

c. Profit and Cost Ratio

The level of marketing efficiency can also be measured through the ratio of profit to marketing costs. The more evenly distributed the ratio of profit to marketing costs, the more efficient the marketing system is. The distribution of the ratio of profit and costs in each rice marketing institution in Ngawi Regency can be known through calculations with the following formula:

$$Profit \ and \ cost \ ratio = \frac{\pi i}{Ci} \qquad (4)$$

Description:

πi : Profit of the i-th rice marketing institution (Rp/Kg)

Ci   : Costs incurred by the i-th rice marketing institution (Rp/Kg)

i   : 1,2,3, ….. (n).

RESULTS AND DISCUSSION

Analysis of the Number of Marketing Institutions

This study's marketing institutions are involved in rice marketing in Ngawi Regency. In this study, there were 35 marketing institutions. The marketing institutions can be seen in Table 1.

Table 1. Percentage of Respondents Based on Type of Rice Marketing Institution in Ngawi Regency

Types of Institutions	Number of people	Percentage (%)
Grinder	8	22,86
Middlemen	10	28,57
Collector	7	20,00
Agent	4	11,43
Retailer	6	17,14
Total	**35**	**100**

Source: Primary Data Processed, 2025.

The distribution of respondents based on the type of rice marketing institution in Ngawi Regency shows variations that reflect the structure of actors in the rice commodity distribution chain in the region. Based on the data, the largest number of respondents came from the middlemen group, as many as 10 people or 28.57% of the total respondents. This indicates that the role of middlemen is still very dominant in the local rice marketing system, especially as

the initial link between farmers and the next market. Followed by millers, as many as eight people (22.86%), which shows that the existence of rice millers also has an important role in converting grain into ready-to-distribute rice. Collectors are in third place with seven respondents (20.00%), describing their position as intermediaries connecting middlemen with agents or wholesalers.

Meanwhile, the actors from the retailer and agent circles numbered six people (17.14%) and four people (11.43%), indicating their role in downstream distribution was relatively smaller than that of upstream and middle actors. This composition generally reflects the structure of the rice market in Ngawi Regency, which is still dominated by upstream and middle actors in the distribution chain, while the role of downstream, although important, is in a smaller proportion. This imbalance in proportion is an early indicator of the potential for an imbalance in bargaining power in the distribution chain, where upstream actors such as farmers and middlemen may have a large influence on determining the flow and price. In contrast, downstream actors focus more on the volume of distribution to end consumers. This information is an important basis for analyzing the market structure and efficiency of rice marketing through the Structure-Conduct-Performance approach in more depth.

Marketing Channels and Functions Analysis

The study results show that various institutions are involved in the rice marketing system in Ngawi Regency, including millers, middlemen, collectors, agents, and retailers. Each institution has its role in delivering products from farmers to end consumers. However, findings in the field show that the existence of farmer groups as potential distribution actors has not been optimally utilized. In fact, farmer groups have a strategic opportunity to be involved in rice marketing to strengthen the position of farmers in the distribution chain, especially in terms of pricing and bargaining mechanisms with other marketing institutions.

Figure 2. Rice Marketing Channels in Ngawi Regency
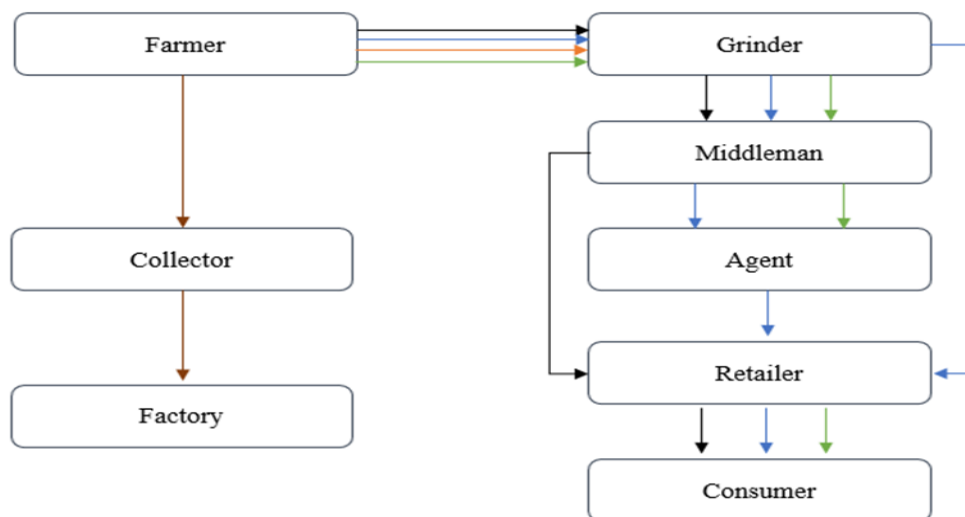
Source: Primary Data Processed, 2025.

Information:

——————————▶ : Marketing Channel 1

——————————▶ : Marketing Channel 2

——————————▶ : Marketing Channel 3

——————————▶ : Marketing Channel 4

——————————▶ : Marketing Channel 5

Figure 2 shows that the rice marketing channel structure in Ngawi Regency involves various marketing institutions, ranging from farmers to end consumers. Five main distribution channel patterns were identified. Marketing Channel 1 (black line) is a conventional flow that starts from farmers to millers, then to middlemen or intermediary traders (middlemen), continues to agents, retailers, and finally to consumers. Marketing Channel 2 (blue line) distributes products from millers directly to agents, then to retailers and consumers, shortening the distribution channel by eliminating the role of middlemen. Marketing Channel 3 (orange line) also comes from farmers to millers, then is forwarded to agents and directly to consumers, further reducing the number of intermediaries.

Marketing Channel 4 (green line) shows the path from millers to retailers without going through agents, then directly to consumers, indicating higher efficiency in the supply chain. Meanwhile, Marketing Channel 5 (brown line) shows an entirely different path, where farmers sell their produce to collectors, who then distribute it directly to processing plants, bypassing all stages of market distribution. These five channels reflect the complexity of the rice marketing structure in Ngawi Regency, with various distribution channels with different efficiency levels and numbers of intermediaries.

Table 2. Marketing Functions Carried Out by Rice Marketers in Ngawi Regency

Marketing Channels	Institution	Sell	Buy	Processing	Packaging	Storage	Transportation	Sorting	Risk	Financing	Market Information
Channel 1	Farmer	✓	✓	×	×	×	×	×	✓	×	✓
	Grinder	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Middleman	✓	✓	×	×	✓	✓	×	✓	✓	✓
	Agent	✓	✓	×	✓	✓	✓	✓	✓	✓	✓
	Retailer	✓	✓	×	✓	×	✓	×	×	×	✓
Channel 2	Farmer	✓	✓	×	×	×	×	×	✓	×	✓
	Grinder	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Agent	✓	✓	×	✓	✓	✓	✓	✓	✓	✓
	Retailer	✓	✓	×	✓	×	✓	×	×	×	✓
Channel 3	Farmer	✓	✓	×	×	×	×	×	✓	×	✓
	Grinder	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Agent	✓	✓	×	✓	✓	✓	✓	✓	✓	✓
	Consumer	✓	✓	×	×	×	×	×	×	×	×
Channel 4	Farmer	✓	✓	×	×	×	×	×	✓	×	✓
	Grinder	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Retailer	✓	✓	×	✓	×	✓	×	×	×	✓
Channel 5	Farmer	✓	✓	×	×	×	×	×	✓	×	✓
	Collector	✓	✓	×	×	✓	✓	×	✓	×	✓
	Factory	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Source: Primary Data Processed, 2025.

The table of rice marketing functions in Ngawi Regency shows that each actor in the distribution chain has different contributions to marketing activities, including exchange functions, physical functions, and facility functions. Farmers generally carry out basic buying and selling activities and risk management functions, but have not been involved in processing, packaging, or physical distribution activities. The role of millers appears to be a key actor in the marketing chain, because almost all marketing functions are carried out by

them, from processing and packaging, to storage, transportation, sorting, and facilitation of market information, which shows the dominant role of millers in increasing the added value of rice products.

Middlemen and agents play an important role in goods' physical movement and market information delivery. They are involved in transportation, storage, and some financing aspects, although they do not perform processing or packaging functions. Meanwhile, retailers generally play a role in the final stages of marketing, focusing on buying and selling activities, final packaging, transportation, and delivery of price information to consumers. Interestingly, in the fifth channel involving collectors and factories, it can be seen that factories carry out all marketing functions completely, making them efficient and modern integrated distribution nodes. Collectors only carry out limited functions, especially in collection and transportation. These results indicate that the further downstream the institution's position in the marketing channel, the more complete and complex the marketing

functions. This also reflects the imbalance in the distribution of roles and added value between marketing actors, which has implications for profit margins and the efficiency of the marketing system.

Structure, Conduct, Performance Analysis
Market Structure

Market structure analysis calculates the production produced by the top four businesses in a particular industry. Table 3 reveals the characteristics of the market structure in the rice marketing system in Ngawi Regency based on the number of actors, the level of product differentiation, and barriers to market entry/exit. Regarding the number of sellers, farmers occupy the most prominent position with 85 actors, reflecting an atomistic producer market, where one individual has little influence on market prices. In contrast, the number of sellers decreases significantly at the distribution institution level, such as grinders (8), middlemen (10), collectors (6), agents (6), and retailers (7), indicating a market structure that tends to be more centralized downstream.

Table 3. Number of Sellers and Buyers, Product Differentiation, and Market Entry Barriers in Rice Marketing in the Regency

Market Properties	Farmer	Grinder	Middleman	Collector	Agent	Retailer
Number of Sellers	85	8	10	6	6	7
Number of Buyers	25	10	12	2	6	>10
Product Differentiation	No	Yes	No	No	No	Yes
Market Entry/Exit Barriers	Yes	Yes	Yes	Yes	No	No

Source: Primary Data Processed, 2025.

In terms of the number of buyers, farmers face a relatively limited number of 25 buyers compared to the number of sellers, which potentially weakens farmers' bargaining position. Retailers have more than 10 buyers, indicating that they serve a wider range of end consumers. Grinders, middlemen, and agents have buyers ranging from 6 to 12, reflecting a more concentrated market.

Regarding product differentiation, only grinders and retailers show efforts to differentiate rice products, either through milling quality,

packaging, or service. In contrast, other actors, such as farmers, middlemen, collectors, and agents, do not differentiate. This shows that most rice products in the Ngawi market are still homogeneous, which limits price flexibility and added value for upstream actors.

Meanwhile, barriers to entry and exit from the market are still relatively high at the farmer, grinder, middleman, and collector levels. This indicates that there are obstacles in terms of capital, access to technology, regulations, or market control that make it difficult for new

players to enter the distribution chain or exit the system if they are not competitive. In contrast, at the agent and retailer levels, barriers to entry and exit tend to be low, indicating a market more open to new competitors.

Market Behavior Analysis

The results of the study on market behavior in the rice marketing system in Ngawi Regency show that the behavior of business actors in purchasing and selling activities is still traditional and dominated by personal relationships between actors. Intermediary traders such as middlemen, collectors, and agents generally purchase grain or rice from farmers or millers in specific amounts based on verbal agreements and established trust relationships. Sales are carried out directly without going through an auction or open market mechanism. Hence, farmers' bargaining position tends to be weak due to dependence on regular buyers with stronger distribution networks.

In terms of the price determination and formation system, it was found that rice prices at the producer level (farmers and millers) do not fully reflect the free market mechanism. Prices tend to be determined unilaterally by dominant buyers (middlemen or collectors) based on market information they control. At the same time, farmers do not have adequate access to actual price information in the consumer market. This condition causes information asymmetry, affecting market efficiency and creating price disparities between distribution levels. Although seasonal fluctuations affect prices, the oligopolistic market structure at the producer level makes price formation more profitable for intermediaries.

The study found that formal coordination between actors is still minimal regarding cooperation between marketing institutions. Most cooperation is carried out informally, based on personal relationships and trust. There is no organized partnership or consolidation system between farmers, millers, agents, and retailers that can strengthen the supply chain efficiently. The absence of connecting institutions such as farmer cooperatives or BUMDes as active actors in distribution is also an obstacle to the formation of horizontal and vertical integration.

Market Performance Analysis

The analysis of the performance of the rice marketing market in Ngawi Regency in this study was carried out by calculating marketing margin, farmer's share, and profit and cost ratio.

a. Marketing Margin

Marketing margin is the difference between the price obtained by farmers and the price received by consumers. The overall margin is also calculated using the total margin obtained by all marketing companies involved. Total margin, on the other hand, is the total margin obtained by all marketing agencies.

Table 4. Marketing Margin of Each Rice Marketing Institution in Ngawi Regency

Marketing Channels	Price at Farmer Level (Rp/kg)	Conversion Price (Rp/kg)	Price at Consumer Level (Rp/kg)	Absolute Marketing Margin (Rp)
1	6,900	9,800	13,300	6,000
2	7.100	10.100	13,000	5,400
3	7,000	10,000	13,200	5,700
4	7,200	10,300	13.100	5,300
5	6,800	9.900	13,200	5,800

Source: Primary Data Processed, 2025.

Table 4 shows the marketing margin of each rice marketing institution in Ngawi Regency. The data shows that the absolute marketing margin obtained by each distribution channel varies, with the highest value of IDR 6,000 in Marketing Channel 1 and the lowest of IDR 5,300 in Marketing Channel 4. Marketing Channel 1 has the lowest price at the farmer level (IDR 6,900/kg). However, the price at the consumer level is relatively high (IDR

13,300/kg), indicating a significant profit difference along the distribution chain. On the other hand, although Marketing Channel 4 has the highest price at the farmer level (IDR 7,200/kg), the margin obtained is the smallest, IDR 5,300/kg, which indicates lower efficiency or profit-making compared to other channels. This shows that the longer the distribution chain or institutions involved, the more the marketing margin tends to increase, as seen in Channel 1 and Channel 3. However, prices at the consumer level do not always reflect efficiency in the marketing system, because several channels with high consumer prices still show relatively moderate marketing margins, such as in Channel 5 (Rp5,800/kg).

b. Farmer's Share

Farmer's share is an analysis tool commonly used to determine the level of marketing efficiency, which can be measured in several ways, such as the income received by farmers or the comparison of prices received by farmers with prices received by end consumers.

Table 5. Farmer's Share Value in Each Rice Marketing Channel in Ngawi Regency

Marketing Channels	Conversion Price at Farmer Level (Rp/kg)	Price at Consumer Level (Rp/kg)	*Farmer's Share* (%)
1	6,900	13,300	51.88
2	7.100	13,000	54.62
3	7,000	13,200	53.03
4	7,200	13,500	53.33
5	6,800	13,200	51.52

Source: Primary Data Processed, 2025.

The Farmer's Share value table for each rice marketing channel in Ngawi Regency shows the proportion of price acceptance received by farmers compared to the price paid by end consumers. Of the five channels analyzed, the highest Farmer's Share value was found in Channel 2, which was 54.62%, indicating that farmers received a larger share of the final selling price to consumers. Conversely, Channel 5 and Channel 1 showed the lowest Farmer's Share values, at 51.52% and 51.88%, respectively, meaning that marketing institutions outside farmers enjoyed the profit margin more. In general, the Farmer's Share value across all channels is still relatively low, at around 51–54%, reflecting that most of the profits in the rice distribution chain have not been optimally benefited by farmers. This could indicate an imbalance in the supply chain structure and the weak bargaining position of farmers in the marketing system. This imbalance has the potential to have a negative impact on farmer welfare and the sustainability of rice production in the region.

c. Profit and Cost Ratio

Profit and cost ratio analysis is used to see the value of the profits received compared to the marketing costs incurred by the marketing agency.

Table 6. Analysis of Profit and Cost Ratio of Rice Marketing in Ngawi Regency

Marketing Channels	Marketing Cost (c) (Rp/kg)	Profit (π) (Rp/kg)	Ratio (π/c)
1	2,800	3,200	1.14
2	2,500	2,900	1.16
3	2,600	3.100	1.19
4	2,400	2,900	1.21
5	2,500	3,300	1.32

Source: Primary Data Processed, 2025.

The analysis table of the profit ratio and marketing costs of rice in Ngawi Regency provides an overview of the economic efficiency of each distribution channel. The profit ratio to marketing costs (π/c) shows the extent to which marketing costs can generate profits. Channel 5 has the highest ratio of 1.32 of the five channels analyzed, which means that every Rp1,000 of marketing costs generates a profit of Rp1,320. This indicates that Channel 5 is the most efficient marketing channel in converting costs into profits. Meanwhile, the lowest ratio is in Channel 1 at 1.14, although this channel has the highest marketing margin in previous data, indicating that high margins are not always accompanied by high efficiency. The difference in this ratio indicates variation in the effectiveness of distribution strategies between channels. Channels with relatively low marketing costs but still generate high profits, such as Channels 4 and 5, tend to be more profitable in terms of efficiency.

RESULTS AND DISCUSSION

Dominance and Competition in the Supply Chain

The study results show that an oligopsony market structure at the producer level still dominates the rice marketing system in Ngawi Regency. This is characterized by the number of sellers (farmers) being much greater than the number of buyers (collectors, intermediaries, agents), thus creating an imbalance in bargaining power. This structural imbalance impacts the weak bargaining position of farmers and contributes to the low farmers' share and the high margin enjoyed by intermediary institutions (Donkor et al., 2021).

The dominant role of marketing institutions, such as middlemen and millers, in the distribution system also lengthens the marketing chain, which has been shown to increase margins without considering producer profits. In Ngawi, the absolute marketing margin value reached IDR 6,000 on Channel 1, with a farmer's share of only 51.88%.

This strengthens the argument that the length of the distribution chain tends to increase market inefficiency and reduce the proportion of prices received by farmers (Lapamudi et al., 2022).

Interaction Patterns and Roles of Market Actors

Market behavior in Ngawi Regency is still traditional and informal. Buying and selling transactions are mainly based on personal relationships and trust between actors. This practice aligns with previous findings that emphasize the importance of social networks in marketing agricultural commodities in rural areas. However, this condition also poses a significant risk of information asymmetry (Fadillah & Al Islamiyah, 2025).

Unequal access to market price information causes the price formation process to be controlled by intermediaries. This follows the theory of asymmetric information, where information imbalances tend to harm one party, in this case, farmers.

In marketing functions, actors such as mills and factories control almost all processing, storage, packaging, and provision of market information functions. This reflects a high level of downstream functional integration, while strengthening the value chain concept, where actors who control value-added activities tend to get a larger portion of the profit. In contrast, farmers only perform limited functions such as selling and managing risks, reflecting low involvement in value creation.

Efficiency, Price, and Impact on Welfare

Rice marketing efficiency is analyzed through the profit-to-cost ratio (π/c), which shows channel variation. Channel 5 recorded the highest ratio of 1.32, although it was not the channel with the most significant absolute margin. This finding confirms that marketing efficiency is determined by the margin size and actors' ability to manage marketing costs effectively.

This suboptimal marketing performance directly impacts prices, distribution speed, amount of waste, and most importantly, farmer welfare. High but inefficient margins cause

farmers to earn low profits, while intermediary institutions accumulate most of the added value. This situation requires strategic intervention to improve efficiency and value distribution.

The practical implications of this finding encourage the need to reform rice marketing strategies in Ngawi, primarily through strengthening farmer institutions such as forming cooperatives or revitalizing the role of BUMDes. This strategy aims to cut the distribution chain and increase farmers' share, so added value is concentrated downstream. In addition, providing real-time market price information to farmers through information technology is key to overcoming information asymmetry.

Theoretically, this study strengthens the Structure-Conduct-Performance (SCP) approach in analyzing agricultural commodity marketing systems, where oligopsony market structures and traditional distribution behavior directly impact suboptimal market performance. Another contribution of this study is the importance of value chain analysis in evaluating the distribution of marketing functions and the proportion of added value among actors.

CONCLUSION

Based on the research results, it can be concluded that the rice marketing system in Ngawi Regency is still dominated by an unbalanced market structure, with the involvement of various marketing actors, but not optimal in terms of efficiency and equal distribution of added value. Institutions such as middlemen and millers dominate the distribution chain, while farmers are still in a weak position with a relatively low farmer's share, ranging from 51–54%. High marketing margins in several channels indicate an imbalance in the distribution of profits, which is exacerbated by the length of the distribution channel and limited access to market information at the producer level. In addition, marketing functions have not been fully distributed evenly between actors, with downstream institutions such as millers and factories carrying out the most complete functions. At the same time, farmers are limited

in their buying and selling activities and risk management.

As a suggestion, a strategy is needed to strengthen farmer institutions through cooperatives or BUMDes, which function as distribution nodes, to shorten marketing channels and improve farmers' bargaining position. Local governments are also advised to provide farmers with open and easily accessible access to market price information and to encourage vertical integration in the rice distribution system. In addition, business management and marketing training for upstream actors must continuously be carried out to increase their capacity in managing risks, differentiating products, and understanding market dynamics. Implementing this policy is expected to encourage the creation of a more efficient, fair, and sustainable rice marketing system in Ngawi Regency. This study has limitations in the region's scope and the analytical approach used, which still focuses on the quantitative aspects of marketing channels without exploring in depth the social, institutional, and policy dynamics that influence the behavior of market players. In addition, efficiency measurement is still limited to indicators of cost and margin ratios, without considering external factors such as price fluctuations, production risks, or access to financing.

For further research, it is recommended that a more comprehensive analysis be carried out with a mixed-method approach to more holistically explore the interaction between market structure, actor behavior, and local policies that influence the distribution of added value. Comparative studies between regions can also provide a broader contextual perspective.

REFERENCES

Antara, MKL (2022). Marketing Efficiency of Semi-Organic Rice in Tindaki Village, South Parigi District, Parigi Moutong Regency. Agroland: Journal of Agricultural Sciences, 29(2), 173-179.

Choudhary, D., Banskota, K., Khanal, N. P., McDonald, A. J., Krupnik, T. J., &

Erenstein, O. (2022). Rice subsector development and farmer efficiency in Nepal: implications for further transformation and food security. Frontiers in Sustainable Food Systems, 5, 740546.

Donkor, E.A., Garnevska, E., Siddique, M.I., & Donkor, E. (2021). Determinants of rice farmer participation in the direct marketing channel in Ghana. Sustainability, 13(9), 5047.

Fadillah, UF, & Al Islamiyah, S. (2025). Analysis of Rice Marketing Efficiency in Salluang Village, Bissappu District, Bantaeng Regency. Agrifo: Agribusiness Journal of Malikussaleh University, 10(1), 147-153.

Fatima, U., Anindita, R., & Nugroho, CP (2022). Analysis of Rice Marketing Efficiency in Randuharjo Village, Pungging District, Mojokerto Regency. Journal of Agricultural Economics and Agribusiness, 6(3), 840-848.

Hermawan, D., Salam, S., & Fitriyah, AT (2025). Marketing Analysis of Premium Rice at PB Citra Lestari in Bontotallasa Village, Simbang District, Maros Regency. PALLANGGA: Journal of Agriculture Science and Research, 3(1), 80-84.

Lapamudi, H., Boekoesoe, Y., & Bakari, Y. (2022). Analysis of Rice Marketing Efficiency in Tilongkabila District, Bone Bolango Regency. AGRINESIA: Scientific Journal of Agribusiness, 7(1), 8-16.

Mardalisa, J., Adhi, AK, & Suwarsinah, HK (2023). Analysis of Organic Rice Marketing in West Sumatra Province. Journal of Indonesian Agribusiness, 11(2), 262-276.

Min, SHI, & Paudel, K.P. (2021). Mechanization and efficiency in rice production in China. Journal of Integrative Agriculture, 20(7), 1996-2008.

Sima, A., & Simamora, L. (2023). Analysis of supply chain and marketing efficiency of rice in Semarang Regency, Central Java Province. Journal of Agribusiness Management, 11(1).

Sucahyo, D. (2024). Analysis of Rice Marketing Efficiency in Sokoboyo Village, Slogohimo District, Wonogiri Regency. Journal of Agronomics, 22(01), 30-35.

Utami, NF, Turukay, M., & Leatemia, ED (2022). Analysis of Rice Marketing in Debowae Village, Waelata District, Buru Regency, Maluku Province. Indonesian Journal of Social Science, 3(5), 469346.

Wijaya, O., & Tanjung, GS (2022). Rice marketing patterns in Grobogan Regency. Journal of Indonesian Agribusiness, 10(2), 325-334.

Wuryantoro, W., & Ayu, C. (2021). Analysis of Marketing Margin of Rice Agroindustry in Mataram City. Agrimansion Journal, 22(1), 39-48.

Wuryantoro, W., & Candra, A. (2022). Analysis of the value chain and marketing efficiency of rice in West Lombok Regency. Journal of Socioeconomics and Humanities, 8(3), 347-354.

Yanti, ME, Nasution, N., & Surbakti, S. (2025). Marketing efficiency of paddy commodities in Padangsidempuan City, North Sumatra Province. Agrilink Journal: Agribusiness Studies and Agricultural Sociology, 7(1), 1-5