

## Is White Copra More Attractive Than Black Copra? Comparative Study of Marketing Margin and Farmer's Share in Southeast Sulawesi

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### ABSTRACT

*Coconut (Cocos nucifera L.) is one of the plantation commodities that has an important role in the economy of coastal communities in Indonesia. This study aims to analyze the black and white copra marketing pattern. The analysis used is marketing channel analysis, marketing margin analysis and farmer's share, and marketing function analysis. The data used in this study are primary data obtained through interviews with 30 farmers, 5 middlemen, and 1 manager of CV. Buana Jaya Bombana) and secondary data obtained from relevant agencies and scientific journals. The results showed that there was one copra marketing channel in Poleang District which consisted of three marketing institutions. The farmer's share analysis showed that the value received by farmers on black copra was 82,14% while that received on white copra was 78,66%. The analysis of the marketing function shows that each marketing agency has performed its marketing function well.*

*Keywords: Copra, farmer's Share, Marketing Margin, Comparison*

### INTRODUCTION

The development of the agribusiness sector in the management of coconut commodities is related to the cultivation aspect, especially the adjustment of regional characteristics (Arumugam & Ibrahim, 2015). Coconut plants can be planted in lowlands, tides, people's fields, rice fields, to mountainous areas up to an altitude of 900 above sea level (Budiman et al., 2015 and Suud et al., 2021). Development in the coconut agribusiness sector is very

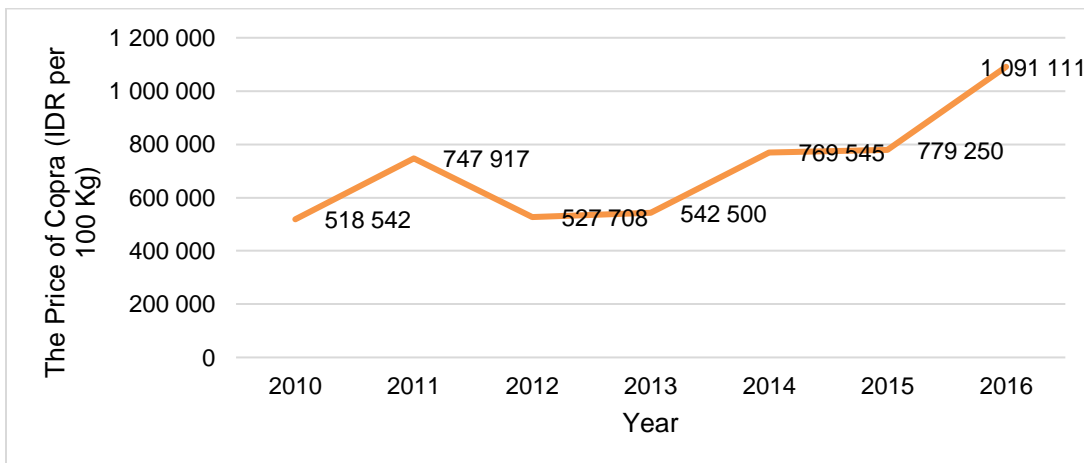
important as a tree of life with various aspects of function, because plant parts can be used for human needs. If we examine the use of coconut management in the production process, it is closely related to the copra management process for the benefit of the coconut oil industry, the soap-making industry, and other vegetable source materials (Drakel, 2010).

Coconut (*Cocos nucifera L.*) is one of the plantation commodities that has an important role in the economy in Indonesia

(Fadli et al., 2020). In addition to contributing to Indonesia's exports, as a foreign exchange earner, as well as a source of income for coconut farmers themselves, help absorb labor from the upstream sector to the downstream sector and play a role in meeting domestic needs (Alemu et al., 2021). Coconut is a versatile plant because all parts of the plant are useful in everyday human life (Destin, 2018). The coconut tree is known to have many benefits. Almost all of its parts can be used by humans, so it is considered a versatile plant. Especially in the flesh of this old fruit, it can also be processed by taking it and drying it into a trade commodity of economic value, which is called copra. Copra is dried coconut flesh, which is one of the most important coconut derivative products because it is the raw material for making coconut oil (Budiman et al., 2015).

The coconut plant is also a versatile plant. Almost all parts of plants can be used for human life. Coconut plants can be used as a source of food and beverages, industrial materials, building materials, household appliances, and so on. One of the processed coconuts that are mostly cultivated by farmers is copra. Copra is one of the semi-finished coconut products that

can be utilized and further processed into various advanced products used for household needs, such as coconut oil. (Suud et al., 2021). In general, copra is divided into two types, namely black copra and white copra. Black copra is black copra and the processing process is relatively easy, namely by separating the coconut from the shell and then smoking or drying it until it turns black, while white copra is a type of high-quality copra, pearl white and light brown, clean, hygienic, smells good, not contaminated with aflatoxins, fungi, dirt and elements harmful to human health. According to (Mustajib and Burhan, 2014; Alemu et al., 2021; Suud et al., 2021) the quality of white copra is much better than the quality of smoked copra because white copra has several advantages, including having a fairly low water content of up to 6%, white copra is relatively free from fungal attacks. And the color is much whiter and cleaner. Free from the aroma generated from the smoking process the original copra aroma is much more dominant. With such quality, white copra is much preferred by the coconut oil industry because the resulting product is very clear with high quality.



Source: BPS, 20222

**Figure 1**  
**Copra Price Development At Wholesaler Level In 2010-2016**

Indonesia is known as an agrarian country whose economy cannot be separated from the agricultural sector, especially as a provider of food for the entire community, as well as supporting industry growth in terms of providing industrial raw materials (Anindita et al., 2013; Wowiling et al., 2019). The agricultural sector includes the food crops sub-sector, horticulture sub-sector, fisheries sub-sector, livestock sub-sector, and forestry sub-sector (Arango et al., 2017; Tamungku et al., 2019; de Oliveira & Batalha, 2021). Indonesia itself is an archipelagic country consisting of 34 provinces, one of the provinces that are producers of copra in Indonesia is Southeast Sulawesi which has 17 urban districts, one of the regencies in this province is Bombana Regency which consists of 22 districts. Poleang District itself is one of the sub-districts in Bombana Regency. In this sub-district, there are many coconut plantations and it is a potential commodity and a source of income for its citizens. According to the Bombana Regency BPS (2020), the number of coconut plantations in Bombana Regency is 14,550 ha, and 3,395 ha of the total plantations are located in Poleang District, this is reason why copra is one of the businesses that many polling residents run. Beside that, based on Graph 1, the price of copra is still increasing. At the last period, on 2016, the price at wholesaler level was about IDR 1.091.111 per 100 kilograms and we can conclude that the price will be still increasing for this time. It is interesting to study further how the white and black copra marketing channels have been implemented in Poleang District and what the efficiency level of each copra marketing channel is with the marketing margin analysis approach and farmer's share in Poleang District, Bombana Regency, Southeast Sulawesi.

## **METHODS**

The location of this research was done at CV. Buana Jaya is located in

Poleang District, Bombana Regency, Southeast Sulawesi Province. The time of the research was carried out from March to June 2022. The data used in this research activity were primary and secondary data. Where primary data is data obtained from field surveys, using information and interviews with 36 respondents (consists of 30 farmers (as the producers), 5 middlemen (sub-district collectors), and 1 manager of CV. Buana Jaya Bombana at the research site. While secondary data is data obtained from related agencies and other scientific reading materials such as journals and others. related to this research.

## **Marketing Margin Analysis**

Marketing margin is used to analyze the marketing system from a macro perspective, namely analyzing product marketing from producer farmers to final consumers. From a micro perspective, marketing margin is the difference between the selling price and the buying price. Increased marketing margins, but many treatments (functions) occur and consumers are satisfied with the final product, indicating a tendency for the product marketing system to be efficient (Rahayu et al., 2021; Nurfadila et al., 2021; and Dari et al., 2021). Mathematically, the model used to measure marketing margins is (Asmarantaka, 2012 and Chaerani, 2016) :

$$M = Pr - Pf$$

where M is marketing margin (IDR/Kg); Pr is price at the level of the final consumer (IDR/Kg); Pf is price at farm level (IDR/Kg).

## **Farmer's Share Analysis**

A farmer's share is a portion of the price paid by final consumers to farmers in the form of a percentage. The amount of farmer share is influenced by the level of processing, transportation costs, product durability, transportation costs, and the number of products (Kohls & Uhl, 2002; Anandita et al., 2013; Chaerani, 2016). The higher the farmer share, the higher the share of the price received by farmers (Tomek & Kaiser, 2014; Behzadi et al.,

2018). The formula used in calculating the farmer's share is:

$$FS = \frac{PF}{PR} \times 100\%$$

where FS is Farmer's Share (%); Pf is Price at producer level (IDR/Kg); Pr is Price at retail level (end consumer level) (IDR/Kg).

Furthermore, the difference in the value of the farmer's share obtained was tested using the analysis of the difference in variance test (ANOVA). The hypotheses used are:

Ho: There is no difference in farmer's share in the marketing of black copra and white copra.

Ha: There is a difference between farmer's share in the marketing of black copra and white copra.

The ANOVA test statistic is the ratio variance (VR), which is distributed as F with the number of degrees of freedom corresponding to the numerator and the degrees of freedom of the denominator at the selected level. ANOVA analysis used 95% confidence interval or a significance level of 0.05, with the formula (Kim, 2014):

$$VR = \frac{\textit{Among - group mean square}}{\textit{Within - group mean square}}$$

If the F value obtained is lower than the significance level value of 5 percent (0.05), then the null hypothesis is rejected while the higher value is accepted. The ANOVA test was also used to compare the average values of the two farmer's share marketing channels for black copra and white copra.

**The Analysis of Marketing Agency Functions**

At this section, we use the descriptive analysis in analyzing the function of marketing agency. We know that there are three functions of the marketing agency (Asmarantaka, 2012 and Chaerani, 2016).

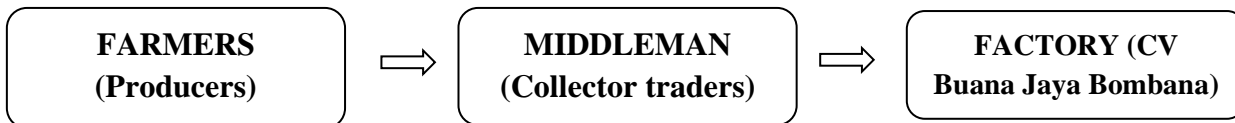
(1) The exchange function which consists of

two derivative functions, namely buying and selling function. (2) The physical function, has three advanced functions (packaging, freighting, and storage). (3) The last function is the facilitating function. There are five derivative functions, as sorting, standardization, risk covering, financing, and market information. Every marketing agency has different function. They will do the marketing activities based on their functions. Although the agencies have same function, but the description of their function is really different.

**RESULTS AND DISCUSSION**

**The Marketing Channel Analysis of White and Black Copra**

From the results of the study, it is known that the copra trading system starts from the producer to the level of wholesalers (factories). The copra harvests obtained are sold to sub-district collectors and end up with wholesalers in the city of Surabaya (factories). The place of buying and selling between farmers and sub-district collectors is on the CV. Buana Jaya. Meanwhile, sub-district traders make transactions with large collectors (factories) at the port of Depok, before making transactions, sub-district traders take goods contracts from companies in Surabaya, the goods contracts must then be fulfilled in fulfilling the cooperative relationship. This shows that the trading system plays a role in distributing copra from farmers to the next collector. In Poleang District, Bombana Regency, Southeast Sulawesi, the majority of farmers directly sell the copra they produce to sub-district collectors, according to our research, there are no other channels besides the channels listed above. The pattern of copra trading in Poleang District, Bombana Regency, Southeast Sulawesi is presented in Figure 1 below.



Source: Primary Data After processing, 2022

**Figure 2**  
**Copra Network Design Pattern**

**Comparative Analysis of Marketing Margin and Farmer's Share on Black Copra and White Copra**

After knowing the pattern or marketing channel of black copra and white copra, the next analysis is to analyze the value of the marketing margin and farmer's share of each type of commodity. Determination of the value of marketing margin and farmer's share is done by referring to equations (1) and (2). Each commodity is analyzed for its value and then the value is compared. This is used to determine which commodity provides a greater level of efficiency to the copra business actors. As explained by several studies on marketing margins and farmers' share that the two values of the analysis can be used as an indicator of determining the efficiency of the marketing pattern or channel of commodities distributed from producers to consumers (Elliot et al., 2020; Dlamini et al., 2022). The higher the farmer's share, the more efficient the marketing channel. As for the marketing margin value, the lower the value, the more efficient the marketing channel (Wohlgenant, 2001; Zidora et al., 2016; and Rahayu et al., 2021). Table 1 and

Table 2 present the results of the comparative analysis of these two commodities.

Based on Table 1, it can be seen that the marketing margin between farmers and wholesalers is IDR 2,500/kg black copra. The share of profits received by each marketing agency is quite varied. The share of the price received by farmers is 82.14%. Based on Table 2, it can be seen that the marketing margin between farmers and wholesalers is IDR 3,200/kg white copra. In white copra commodity, the share of price received by farmers is 78.66%.

The results of the comparative analysis of the value of marketing margins and farmer's share between black copra and white copra showed that there were differences. Based on the theory of marketing channel efficiency, black copra is more efficient than white copra. There are several reasons. First, the marketing margin of black copra is lower than that of white copra. Second, the value of the farmer's share of black copra is higher than that of white copra. Regarding the length and shortness of marketing channels, both commodities have the same marketing pattern.

**Table 1**  
**Marketing Margin and Farmer Share Received by Farmers on the Yield of Black Copra**

No.	Marketing Agency	Price (IDR/Kg)	Farmer's Share (%)
1	<b>Farmer</b>		
	Selling price	11.500,00	82,14
2	<b>District collectors</b>		
	Purchase price	11.500,00	
	Transportation costs	700,00	
	Packing	57,00	
	Profit	1.743,00	
	Marketing margin	2.500,00	

	Selling price	14.000,00
<b>3</b>	<b>Wholesaler (factory)</b>	
	Purchase price	14.000,00

Source: Data After processing, 2022

Based on the results of the analysis and theory of marketing channel efficiency stated by Asmarantaka (2012), Wohlgenant (2001), and Zidora et al., (2016), farmers should prefer to market black copra commodities. However, the reality on the ground is that black copra is rarely done. This means that farmers market more white copra commodities. This is because the price of white copra is higher than the price of black copra. However, farmers do not or are less aware that the farmer's share they receive is actually lower. This condition is also faced by the farmers all around the world, especially for the small farmers. They think that the main purpose of farming is to earn money regardless of the price they get (Martínez-Castillo, 2016; Kyomugisha et al., 2018; Elliot et al., 2020; Dlamini et al., 2022). Based on the results of the analysis in Table 1 and Table 2, the part that determines the difference between marketing margin and farmer's share lies

in the packing costs incurred by sub-district collectors. The packing value for white copra is greater than the packing value for black copra. This shows that there is indeed a more preferential treatment for white copra commodities than black copra commodities.

Another value that becomes interesting is the amount of profit taken by sub-district collectors. The profit taken by sub-district collectors for black copra is IDR 1,743 per kilogram or 69.72 percent of the marketing margin value. This means that the profit taken by sub-district collectors is 69.72 percent of the marketing margin. As for the white copra commodity, the profit value taken is IDR 2,426 per kilogram or reaching 75.81 percent of the marketing margin value. The interesting conclusion is that a white copra commodity is able to provide greater profit value to sub-district collectors than a black copra commodity.

**Table 2**  
**Marketing Margin and Farmer Share Received by Farmers on White Copra Yield**

No.	Marketing Agency	Price (IDR/Kg)	Farmer Share (%)
<b>1</b>	<b>Farmer</b>		
	Selling price	11.800,00	78,66
<b>2</b>	<b>District collectors</b>		
	Purchase price	11.800,00	
	Transportation costs	700,00	
	Packing	74,00	
	Profit	2.426,00	
	Marketing margin	3.500,00	
	Selling price	15.000,00	
<b>3</b>	<b>Wholesaler (factory)</b>		
	Purchase price	15.000,00	

Source: Data After processing, 2022

Mondragón-Anselmo et al., (2012), Orr et al., (2018), Lenou Nkouedjo et al., 2020, and Rahayu et al., (2021) stated in their research that the value of marketing margins should not be separated from the main actors, known as middlemen or sub-district collectors. The role of intermediaries in channel marketing affects marketing margins. The role of the agricultural commodity market in Indonesia is very important. In general, marketing costs include: transportation, processing, storage, capital, and other costs (Drakel, 2010; Kalangi & Umboh, 2017; Matsui, 2019; Dlamini et al., 2022). In providing marketing services, intermediaries will make a profit as payment for their work. Marketing costs and intermediary profits are all calculated as marketing margins. Since the marketing margin will be distributed to producers and consumers, prices at the farm level will decrease and at the same time, prices at the consumer level will increase (Sakti et al., 2019 and Ridwan et al., 2019). Thus, it can be concluded that there are indeed trading costs in the marketing margin, the amount of which is

influenced by the marketing function provided by the marketing agency.

This conclusion is supported by the results of a study conducted by Abokyi et al., (2020) which states that marketing costs are determined by the roles and functions of intermediary institutions, including middlemen. Intermediary traders are one of the determining factors for profit sharing. Factors of age, gender, market access, the role of extension services, and marketing costs, including transportation and packaging costs, are aspects that guide smallholder participation in Ghana. All of these factors serve as sources for the government to develop interventions to stabilize and grow incomes for small maize farmers (Abokyi et al., 2020).

Table 1 and Table 2 show that there are indeed differences in farmer's share between the marketing of black copra and white copra commodities. This conclusion is strengthened by the results of statistical analysis using ANOVA. Statistical differences of the share of farmers between commodities are presented in Table 3.

**Table 3**  
**Results of Statistical Significance of Farmer's Share on Marketing of Black Copra and White Copra**

Ho	Significance Level	Significance ANOVA	Decision
There is no difference in farmer's share in the marketing of black copra and white copra	0,05	0,000	Ho rejected

Source: Data After Processing, 2022

The results of the ANOVA analysis showed that the marketing of black copra and white copra commodities was significantly different in the farmer's share value. The farmer's share is one indicator of efficiency in a marketing chain. A higher farmer's share value represents more efficient marketing and a share of a farmer's profit. The black copra

marketing channel is more efficient with a higher farmer's share value. However, interestingly, farmers tend to prefer to produce white copra compared to black copra. Whereas according to the theory presented by Wohlgenant (2001); Asmarantaka (2012); Rahayu et al., (2021), and several other research results state that the reality on the ground

is the opposite. This certainly needs to be studied further regarding the factors that cause farmers' preference to produce more white copra than black copra. None other than that, the goal is for farmers to be more aware and able to see opportunities in the global market for this commodity (Kambli & McGarvey, 2020). So that, their level of welfare increasing.

### Analysis of Marketing Agency Functions

Included in the group of marketing institutions are producers, intermediary traders, and service providers (Asmarantaka, 2012 and Sakti et al., 2019). Intermediaries in marketing channels perform several important

functions that make the flow of goods between producers and consumers possible. (Wohlgenant, 2001; Nuryati et al., 2018 and Sakti et al. 2019). The marketing institutions involved in the distribution of black copra and white copra are producers (in this case coconut farmers), sub-district collectors as intermediary traders, and service providers (CV. Buana Jaya). The marketing function analysis is aimed at identifying the functions of marketing institutions involved in black copra and white copra commodities in Poleang District, Bombana Regency, Southeast Sulawesi presented in Table 4.

**Table 4**  
**Functions of Copra Marketing Institutions**

Marketing Function	Marketing Agency		
	Farmer	Merchant Collector	Wholesaler (CV. Buana Jaya)
<b>Exchange Function</b>			
Purchase	-	✓	✓
Sale	✓	✓	-
<b>Physical Function</b>			
Storage	-	✓	✓
Freight	✓	✓	✓
Packaging	✓	✓	✓
<b>Facilitating Function</b>			
Sorting	✓	✓	✓
Standardization	-	✓	✓
Risk Cover	✓	✓	-
Financing	✓	✓	✓
Market Information	-	✓	✓

Source: Data After Processing, 2022

Based on Table 3, it shows that in the exchange function all marketing agencies make exchanges but only collecting traders make purchases and sales. As for the physical function, all marketing agencies carry out transportation, packaging, and storage activities, especially for farmers, but storage activities are not carried out. Whereas in the facility function, only traders who carry out all types of

activities in full, while farmers do not need to carry out standardization activities and seek market information, for wholesalers themselves do not need to bear the risk (Tardzenyuy et al., 2020). Based on Table 4, merchant collector and wholesaler do more marketing function than the farmers. There are so many reasons why this happened. First, the farmers have limited finance to do extra marketing function and the second



reason is the information. The farmers also face imitations on market information access. That is why they just be a price taker (Matsui, 2019; Lenou Nkouedjo et al., 2020).

## CONCLUSION

There is only one marketing channel for copra in Poleang District, Bombana Regency, consisting of three marketing institutions, and farmer's share received by farmers for black copra by 82,14% while that received on white copra is 78.66%. Based on the analysis of marketing channel efficiency, black copra is more efficient. However, the white copra commodity has its own charm. One of the factors is the high price given to farmers.

The marketing margin structure also shows that the profit received by sub-district collectors on white copra is higher. This is due to higher marketing costs such as packing costs and other costs for marketing functions carried out by sub-district collectors. Black copra and white copra have the same opportunities and potential for utilization. The government is expected to initiate a cooperative or other formal institution that can assist farmers in determining prices, including in determining the bargaining position for farmers. So that profits are not only controlled by middlemen and marketing becomes more efficient.

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