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Research Article

Marketing of Hybrid Corn in Tapenpah Village, Insana District, North Central Timor Regency during the New Habit Adaptation Period

Kanisius Siki[1], Umbu Joka[2], Agustinus Nubatonis[3]
[1,2,3] Agribusiness Department, Faculty of Agriculture, University of Timor, Jl. Km. 9 SasiKecamatan Kota Kefamenanu, TTU, Indonesia
[1]sikikanisius@gmail.com , [2]umbujoka@unimor.ac.id [3]agustinusnubatonis74@gmail.com ,
corresponding author : umbujoka@unimor.ac.id

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ABSTRACT

The goal of this study was to determine the general definition of the marketing channel, to know the marketing roles, the marketing margins, and to use a marketing analysis to determine the price earned by hybrid corn traders. The sampling scheme was carried out by purposive sampling on hybrid corn dealers, the number of samples taken by as many as 26 respondents. The data collection tool was used to perform interviews with respondents using questionnaires. The methodological method used was the study of the marketing margin. The findings showed that the margin at the retailer level was IDR 500/kg (0.11 percent) while the retailer margin was IDR 1500/kg (0.11 percent) (0.25 percent). This means that the difference between the purchasing price and the sale price of the collector is less than the difference between the purchase price and the retail price. Since there are two elements in the marketing margin, namely the expense component and the benefit component. Thus, the price component is IDR 4.500/kg (0.11 percent) and IDR 6.000/kg (0.25 percent) for retailers. This indicates that the market prices by the collectors are higher than the retailers

INTRODUCTION

The contribution of the agricultural sector to Gross Domestic Product (GDP) in the second quarter of 2020 was 15.46%. That amount increased due to the contribution in the second quarter of 2019, which was 13.57%. Apart from agriculture, other sectors that contribute significantly to GDP are industry, trade, construction, and mining. The Central Bureau of Statistics (BPS, BadanPusatStatistik) also recorded that the number of people working in Indonesia in November 2020 was 128.45 million people. Based on employment in the agricultural sector, 38.23 million labor, or 29.76% of the total employed population. In 2015, the GDP of the agricultural sector based on constant prices was IDR 790.12 trillion. In 2016 it increased to IDR 813.58 trillion. The increase occurred again in 2017 to IDR 840.88 trillion and in 2019 reached IDR 906 trillion. As of the 3rd quarter of 2020, till IDR 791.76 trillion growth is still positive even though it is affected by the global COVID-19 pandemic (BPS, 2020). Soehardjo (2010) states that the role of the agricultural sector in Indonesia is very important in contributing a significant development of economic growth and the welfare of farmers, as a

source of income for basic necessities, clothing, and shelter, providing employment, contributing the high national income, and providing the country with foreign exchange.

The weaknesses in the agricultural development system for developing countries are a lack of planning, purchasing, selling, transportation, storage, standardization and grouping, financing, communication, and *risk-bearing* which are not going well as expected (Soekartawi, 2011). Marketing of agricultural commodities is a process of concentration of agricultural products by farmers to consumers, which passes through several intermediaries such as directly to consumers, salesmen, collectors, and wholesalers. According to Sudiyono (2002), the marketing process will end in the distribution process, namely the sale of merchants' products to agents, retailers, and consumers and in principle, it is closely related to income levels to increase farmer productivity.

Corn is the second important food crop after rice, considering its multipurpose function as food, nutrition, and energy source (Amzeri, 2018; Watson, 2015), and is the second-largest food contributor to Gross Regional Domestic Product (GRDP) after rice. In Indonesia, corn is the second-largest source of carbohydrates after rice. The chemical content of corn consists of 13.5% water, 10% protein, 4% fat, 61.0% carbohydrates, 1.4% sugar, 6.0% pentose, 2.3% crude fiber, 1.4% ash, and 0.4 % other chemical substances. By observing the chemical content and composition, besides being a source of calories, corn also supplies nutrients to obtain a nutritional balance for the population. According to the Central Bureau of Statistics data, the national corn production in 2014 was 19.0 million tons. Growth in corn production increased in 2015 to 19.6 million tons, the increase in corn production continued in 2016 to 23.6 million tons. Then in 2017, corn production reached 28.9 million tons. Corn production in Indonesia in 2018 increased again to 30 million tons.

In some areas of East Nusa Tenggara, corn is still used as a staple food, especially local varieties are still maintained (Manikin, M. G., &Joka, 2020). For example in Kupang Regency, South Central Timor Regency (SCT), North Central Timor Regency (NCT), Sumba Island, Flores Island, Belu Regency, Malacca Regency, corn is not only a source of food but also corn farming is a source of income and employment as one of the commodities that can affect the country's foreign exchange in world trade. In the future, there are strong indications that the development of corn production will continue to grow, along with increasing population and increasing awareness of community nutrition, so that hybrid corn varieties have a good potential for development because they have the advantage of being disease resistant, tolerant of high temperatures and drought (Azrai, 2015). Observing that the production and development of corn farming in East Nusa Tenggara province continue to increase, the Governor of East Nusa Tenggara issued a program to continue to increase corn production. Planting Cattle Harvest Corn is a program of the Governor of East Nusa Tenggara which is also synergized with the National Food Estate program to realize food security during a pandemic (Sutawi, 2020), which integrates food crop farming with livestock on dry land (Palobo, 2019), and hybrid corn is a commodity suitable for the climate in East Nusa Tenggara Province which is semi-framed.

In 2017, corn production amounted to 809,803 dry shelled tons from the harvested area of 313,150 hectares (*ha*) with an average production per hectare of 25.86 centners. Compared to 2016, corn production increased by 17.63 percent, and harvested area increased by 18, 03 percent. This increase in corn production was due to an increase in harvested area by 18.03 percent, although productivity decreased by 0.33 percent. Over the last 10 years, corn production in East Nusa Tenggara fluctuated with an average growth of 5.74 percent per year.

The North Central Timor Regency has a long history of growing corn (since 1982). According to data from the Agriculture Service Office of North Central Timor (2019), the 2015 production target: 7000 tons; 2016: 10,500 tons; and 2017: 5,425 tons. Nevertheless, the results obtained in 2015: 1,033.2 tons; 2016: 1,236.7 tons; and 2017: 1,490 tons, where productivity achieved an average of 2.37 tons/ha. Corn production in 2018 reached 72,145 tons or an increase of 39.04 percent from corn production in 2017.

Insana as one of the sub-districts in North Central Timor is the center of corn production reached 16.452 tons in a land area of 7864 ha so that the productivity obtained was 2.09 tons/ha. The corn production has been marketed by farmers both in the local market and between neighboring districts (Belu and Malacca Regencies). To market corn, there are a number of market players who connect farmers and consumers to form a marketing flow.

Corn marketers certainly understand the nature of the corn they sell in terms of both quality and quantity. Good product quality must be supported by a good marketing strategy so that consumers know that the products offered are suitable for consumption (Gojali, 2020; Roidah, 2013; Saranani&Hasniati, 2020). One of

the problems is that the role of agribusiness institutions has not been maximized, especially in the marketing of agricultural products (Sarasutha, 2000; Sinaini&Iwe, 2020), which has an impact on the small percentage of prices received by farmers and the prices paid by consumers. One of the factors behind this problem is the weak position of farmers in the market. This is very detrimental to both farmers and consumers. Low prices at the farmer level will cause farmers to decrease their interest in increasing their production and high prices, at the consumer level will cause consumers to reduce consumption.

The impact of the COVID-19 pandemic on the agricultural sector, especially the food crop sector in Indonesia, has changed. This can lead to changes in prices for food products. COVID-19 has also affected various sectors of human life, including agriculture. Distribution disruption occurred due to Indonesia's large-scale social restrictions, causing a decrease in people's purchasing power, even though it was affected, the agricultural sector could be a solution to the crisis that occurred (BAPPENAS, 2009). The COVID-19 pandemic is an opportunity for Indonesian farmers to increase their income according to people who are more fond of local products because they are fresher and safer. The COVID-19 pandemic has also disrupted marketing activities, so that agricultural products, especially food crops, cannot be marketed ordinarily(MohAfrizalMiradji et al., 2020). Corn marketing during the COVID-19 pandemic can also be hampered because all markets, as well as large-scale marketing activities, cannot be carried out, including export activities (Maulana&Nubatonis, 2020).

Corn farmers. as producers, are not only concerned with the marketing system but also need to pay attention to the flow of marketing. The aim is to reduce marketing costs covering multiple marketing chains with different market participants and service costs. The amount of profit for each participant depends on the market structure at each level, the bargaining position, and the efficiency of each participant (Martines-filho et al., 2000). This is to help farmers to get a better price, especially during the adaptation period for new habits (*new normals*) where the implementation of health protocols in activities can affect the marketing of corn commodities.

RESEARCH METHOD

This research was conducted from July to August 2020 at the Bilubahan Farmers Group in the Tapenpah Village, Insana District, as one of the farmer groups cultivating and marketing hybrid corn at the corn production center of North Central Timor Regency. The research on the Analysis of Hybrid Corn Marketing by farmers in Tapenpah Village, Insana District, North Central Timor Regency, discusses the marketing channels for hybrid corn producers, collectors, retailers to the final consumer. Which is stated in the sale and the purchase price. Also, the marketing functions of hybrid corn, the difference in the marketing margin for hybrid corn in Tapenpah Village, Insana District, North Central Timor Regency. Marketing margin is used to see the difference between the price paid by retailers and the price received by the collecting traders carried out by the marketing channel.

In order to know the marketing channels, marketing functions, and to find out the corn marketing margin in Bilubahan Farmers Group in the Tapenpah Village, Insana District, North Central Timor Regency, the data were analyzed using marketing margin analysis, which is the result of measuring the difference between the sales and the purchase price. Marketing margin can be expressed as the sum of marketing costs and profits obtained by the merchants involved (Hanaffiah and Saefudin, 1989). The marketing margin formula is as follows (Anggipora, 2002):

MP = PK-PP
Information :
MP: Marketing Margin (IDR / Kg)
Pk: Prices at the Consumer Level (IDR / Kg)
Pp: Price at Trader Level (IDR / Kg)
Cp: Marketing Costs (IDR / Kg)
π: Marketing Agency Profits (IDR / Kg)..

RESULTS AND DISCUSSION

Corn Marketing Channels in Tapenpah Village, Insan District, North Central Timor Regency

Corn marketing channels are marketing patterns that are formed during the movement of agricultural commodities from farmer producers to final consumers (Azria, 2017; Saranani&Hasniati, 2020). The marketing channels formed during the distribution of corn from production to the final consumer are shown in Figure 1.

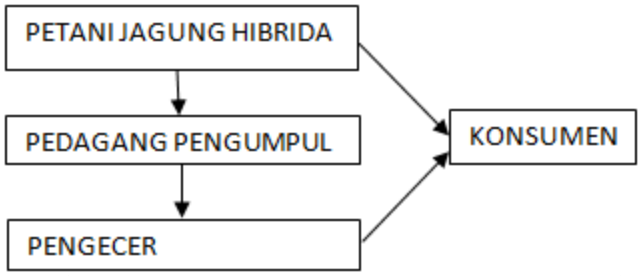

Figure 1. Corn Marketing Channels in Tapenpah Village, Insan District, North Central Timor Regency

Figure (1) shows that the channel formed into 3 types is similar to the research of Yusuf et al., (2020) and Dewi et al., (2018), namely:

1. Hybrid corn growers - consumers
   The marketing conditions for hybrid corn in this channel are hybrid corn farmers selling directly to consumers where the sale is directly at the place of the buyer or marketplace. Of the 24 respondents, 14 respondents directly sell to consumers. However, not all of the products are sold directly to consumers, but some can be sold to collector traders who pick up or buy directly from the seller so that corn farmers do not need to go to the market.
2. Hybrid corn farmers - traders
   The marketing conditions for hybrid corn in this channel are: hybrid corn farmers directly sell their produce to collectors who buy from the seller's shop. Where the collecting traders buy at IDR 4,000 per kg. Meanwhile, if the farmers sell directly to the market/consumers, the price is IDR 5,000 per kg. The corn farmers know that selling to collectors causes them to lose IDR 1,000 compared to selling directly to consumers. This is due to the needs of the family so that farmers can sell their products without having to sell them to markets, which is similar to the study by Hadjah, (2009) regarding the marketing of corn in West Nusa Tenggara Province.
3. Collector traders - Retailers
   The marketing conditions for hybrid corn in this channel are: the yields obtained from hybrid corn farmers range from 500 kg to 1 ton. The collector traders can sell again to retailers, in this case, to the Agricultural Micro Shop. Where the collector traders buy from farmers at a price of IDR 4,000 and are forwarded to retailers for IDR 4500.
4. Retailers - end consumers
   The marketing conditions for hybrid corn in this marketing channel are: the proceeds that can be purchased from collectors can be resold to the final consumer at a price of IDR 5000 per kg.

Functions of Hybrid Corn Marketing in the Bilubahan Farmers Group

The functions performed by traders in marketing shallots to consumers and the market are as follows:

Table 1. Marketing functions performed by traders

NO	MARKETING FUNCTIONS	P-K	P-PP	PP-PP	PP-K
1	Exchange				
	1. Purchase		✓	✓	
	2. Sale	✓	✓	✓	✓
2	Physical Provision				
	1. Transportation	✓	✓	✓	
	2. Warehousing	✓	✓	✓	
	3. Processing				
3	Provision of Facilities				
	1. Standardization	✓			
	2. Expenditure		✓	✓	
	3. Suspension of risk	✓	✓	✓	
	4. Market information	✓	✓	✓	

Source: Processed primary data (2020)

Information:
P-K: Hybrid corn seller from producers to consumers
P-PP: Hybrid corn seller from producers to collectors
PP-PP: Hybrid corn seller from collectors to retailers
PP-K: Hybrid corn seller from retailers to consumers

Table 2. Price of hybrid corn at the trader level

Institutional level	Hybrid Corn	
	Purchase price / kg (IDR)	Selling price / kg (IDR)
Farmer		5.000
Collector	4.000	4.500
Retailer Trader	4.500	6.000

Source: Processed primary data (2020)

Marketing margin

The marketing margin for hybrid corn is the difference between the price paid by consumers and the price received by producers (Dewi et al., 2018; Sujarwo et al., 2011). Marketing margin consists of two components, namely the marketing cost component and the cost-profit component (Devitra, et al., 2018; Indrianti, 2020). Based on the varied marketing channels for hybrid corn in Tapenpah Village, the marketing margins also vary. The marketing margin in each marketing channel is as follows:

Table 3. Distribution of the marketing margin for hybrid corn among traders in Tapenpah Village

Description	Price IDR / Kg	Distribution				
		Sales and purchase volumes	Total sales and purchases	Profit	Margin (IDR)	Percentage (%)
Selling price	4.500	3.600	16.200.000		500	0,11
Purchase price	4.000	3.600	14.400.000			
Marketing cost						
1. Transportation	200.000					0,09
2. Labor	160.000					0,14
3. Packing	54.000					0,02
4. Others	100.000					0,04
Total cost	514.000					0,22
Total				1.260.000		0,78

Source: Processed primary data (2020)

Table (3) shows that the margin at the collector trader level is IDR 500 with a percentage of 0.11%. This research is supported by the results of Widiastuti&Harisudin (2012); Sujarwo et al., (2011); Virgiana et al., (2019) stated that the marketing margin is spread unevenly, namely between 62.50% - 71.07% with farmer's share between 28.93% - 37.50%. The most efficient channel is the farmer - PPK - PMT, because it has the lowest marketing margin (IDR 1,655 or 62.50%) with the largest farmer's share (37.50%).

Table 4. Distribution of the marketing margin of hybrid corn in Tapenpah Village among retailers

Description	Price IDR/Kg	Distribution				
		Sales and purchase volumes	Total sales and purchases	Profit	Margin (IDR)	Percentage (%)
Selling price	6.000	3.600	21.600.000		1.500	0,25
Purchase price	4.500	3.600	16.200.000			
Marketing costs						
1. Labor						
2. Packing	60.000					0.01
Total cost						
Total				5.400.000		1.01

Source: Processed primary data (2020)

Table (4) shows that the margin at the retailer level is IDR 1,500 with a percentage of 0.25%, according to the findings of Cristo et al., (2009); Maasi&Pombode (2019); and Saranani&Hasniati, (2020).

CONCLUSION

The marketing conditions for hybrid corn implemented by the Bilubahan Farmer Group during the adaptation period are as follows: hybrid corn farmers sell directly to consumers where the sale is at the buyer's place or the market. Hybrid corn farmers then sell their produce directly to collectors who buy them directly at the seller's place for IDR 4,000 per kg. Meanwhile, if the farmers sell corn directly to the market/consumer, it is IDR 5,000 per kg and the collectors will sell it to retailers. Collecting traders buy from farmers for IDR 4,000 and are forwarded to retailers for IDR 4,500. Then the proceeds that can be purchased from collectors can be sold again to the final consumer for IDR 6,000 per kg. The margin at the collector merchant level is IDR 500 with a percentage of 0.11%, while the margin at the retailer level is IDR 1,500 with a percentage of 0.25%.

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