

Candlenut Efficiency Analysis and Marketing Strategy (*Aleurites moluccana*) in Alor Regency

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Abstract

Candlenut commodity is a featured farming commodity for farmers in Alor Regency. Candlenut marketing business with current marketing pattern has not shown equitable sharing of benefits among farmers, collectors and wholesalers (inter-island traders). This study aims to determine the pattern of candlenut marketing channels, candlenut marketing efficiency through the marketing margin approach and “*farmer's share*”, and to know what alternative strategies that are needed to improve candlenut marketing business in Alor Regency. The formulation of strategic alternatives conducted by SWOT analysis and continued with QSPM analysis for the determination of strategic priorities. The results showed that (1) Marketing channels of whole round shelled candlenut and crushed/mixed shelled candlenut consist of five marketing channels. (2) The most efficient and the best marketing channel of whole round shelled candlenut is the fourth channel, with the smallest marketing margin (11.85%) and the largest *farmer's share* (88.15%). The most efficient and the best marketing channels for crushed/mixed shelled candlenut is the channel I, with the smallest marketing margin (16.95%) and the largest *farmer's share* (83.05%); (3) The marketing strategies that can be implemented by the Government of Alor regency to support the improvement of candlenut marketing efficiency is to improve access to post-harvest modern technology through partnerships with large enterprises / partner companies outside the region and the capital increase to the marketing agents provided by the loan bank.

Keyword: candlenut; marketing channel; marketing margin; farmer's share; SWOT; QSPM.

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1. Introduction

Plantation sub-sector is one of the most labor-intensive agricultural sub-sectors because of its broad commodity coverage. Besides, the output produced by plantation sub-sector has broad market coverage, ranging from the local market to the export market. It also produce some types of featured plantation commodities such as coconuts, cocoa, coffee, candlenut and cashew that are very valuable for the people's economy and even improving people's lives, including farmers.

For candlenut commodity, major cultivated areas that can be found in Indonesia are the province of North Sumatra, West Sumatra, South Sumatra, Bengkulu, Lampung, West Java, West Kalimantan, South Kalimantan, East Kalimantan, Bali, South Sulawesi, Maluku and East Nusa Tenggara , with a total area of 205 532 ha [4]. For NTT, one of the largest candlenut-producing regencies is Alor Regency which has 6,062 hectares total candlenut planting area with total production of as much as 3,416 tons [2].

For Alor Regency's farmers, candlenut commodity is featured plantation commodities. So it can be said that many farmers in the Alor regency put their hopes on the results of candlenut cultivation to supplement their income. One of the things that is very influential to candlenut farmer's income in terms of marketing is the marketing pattern used by candlenut farmers. Each marketing pattern has a different price level causing distinct prices. The profit gained is affected by the level of prices received by farmers. The level of prices received by farmers is affected by subsequent marketing efficiency. The existence of uneven distribution of profits among farmers, collectors and wholesalers (inter-island trader) led to a decrease in farmers' interest to sell candlenut.

In the buying and selling practice of Alor Regency's candlenut, whole and crushed shelled candlenut (broken shell) prices can range between Rp. 6.500/kg – Rp. 15,000/kg. Even the price depends on the interests of certain parties such as traders or local businessmen and entrepreneurs at a higher level. The price game like this is inefficient for candlenut farmer who often sell directly to village collectors or to traders outside the village. Candlenut farmers should obtain high marketing margins or profits, because the farmer is the one who perform production activities starting from candlenut cultivation to post-harvest. The difference of the marketing margin is due to the number of marketing agencies are involved, the cost incurred by each marketing agencies and levels of expected profit.

Candlenut's low price is also influenced by the quality and quantity of candlenut products that are not in suitable with the criteria desired by the customer (great entrepreneurs). This is due to, among others, the process of post-harvest by the farmer or middleman traders that are still using traditional methods, which not yet take the advantage of more modern technology or suboptimal post-harvest treatment. For example in the process of cracking candlenut seed which is still done manually by hand, then on the candlenut harvest storage, there is also a lack of attention to the place / warehouse according to the standards of good packaging, that will reduce the risk of damage or loss.

The next problem in the candlenut marketing in Alor regency is the limited means of transportation and communication infrastructure (land or sea), which is influenced by Alor Regency geographical condition which

is steep hills and also islands where many people also use sea transport, so the farmer who wants to sell his candlenut directly to entrepreneurs in urban areas has to spend more money if compared with the results of his sales. Another problem is the lack of accurate and up to date market information for candlenut farmer.

In order to avoid the stakeholders' market monopoly, maintain the quality and quantity of candlenut also to reduce the impact of the limited conditions of transportation infrastructure, the necessary strategy is needed in the marketing process of candlenut. The concept of strategy enables executives to control the level of efficiency and effectiveness of marketing the candlenut commodity. That is why it requires the active participation of the Government of Alor Regency along with other supporting agencies in an effort to create a conducive business environment for candlenut commodity marketing and able to support the betterment of the candlenut marketing business in the region. The main problem studied in candlenut product marketing business is the absence of the implementation of an appropriate strategy to make candlenut marketing activities into something more attractive and can be enjoyed by the parties involved and associated with that activity.

The purpose of this study was to determine the pattern of candlenut marketing channels formed in Alor Regency, to determine the efficiency of candlenut marketing on Alor Regency using marketing margin and *farmer's share* approach, and to find alternative strategies needed to improve the efficiency of candlenut commodity marketing in Alor Regency.

Research conducted by using analytical approach to marketing channels and marketing margin analysis also the marketing efficiency was Affamdi study on the analysis of citizens' candlenut marketing in the Perbulan Village, Laubaleng District of Karo Regency [1]. The results of this study indicated that there were four citizens' candlenut marketing channels. The average marketing margin earned for each marketing agencies was 69.75% farmers, 17.21% sheller merchants, village trader of 1.90%, 5.16% sub-district collectors and 5.43% for distributors. Candlenut Marketing on Perbulan village had been efficient, the most efficient marketing channel was channel II with the efficiency of 2.34%. Then Donuisang study on candlenut commodity development strategies in Alor Regency of East Nusa Tenggara province, which evaluated candlenut commodity development with marketing methods: a growth strategy, competitive advantage strategy, vertical interaction strategy, and understanding competence and uniqueness in the market strategy. Development of candlenut in Alor Regency can be done by implementing the following strategies: the government pay attention to the trade system of delivery, always follow the established rules, look for prices outside the region, focus on new areas, settle the unfair price for the farmers and the land shifting for housing, open the transportation way to Timor Leste, give attention on candlenut plantations, marketing areas, and the fluctuating price, attract investors, give more socialization and education, give of quality control, change the processing from the still traditional way to a more modern one, build manufacturing plant, give more capital for the farmers, improve the quality of candlenut, and improve the candlenut production [5].

2. Material and Method

The research area was intentionally determined (purposive) in Alor Regency, East Nusa Tenggara province, with consideration that Alor regency is one of the largest candlenut-producing regencies in East Nusa Tenggara.

This research was conducted in three candlenut centers districts in the regency of Alor, namely Southern Alor District, Southwest Alor District and Northeast Alor District. The research was conducted from May to July 2016. The basic method used in this research was descriptive analytical method that aims to describe or give a picture of an object of research or study through a sample of collected data and make conclusions that are generally applicable.

Sampling research from farmers was selected proportionally from amount of candlenut production of each district, the researcher chose 100 farmers. Farmers sampling in the location was determined by *accidental sampling*. According to Sugiyono *accidental sampling* is a sampling technique based on chance, that anyone who by chance met with investigators that can be used as a sample, if those people who happen to be encountered are suitable as a data source [10].

The method used to decide the samples/respondents marketing agencies was the snowball method, which determines the size of the sample based on the multiplier effect of the informant, or first respondent who will give the researcher a referral to the informant or the second respondent, and so on. The sampling of key informants are to identify strategic factors with *purposive* (intentional) way with consideration that the selected respondents were considered to wholly understand the marketing of candlenut products at the research site. There were 27 respondents selected to be the key informants to identify internal and external factors, also there were 15 respondents to determine the weight and appeal value. The data collection was done by using three kinds of techniques which were: interview, to collect primary data from respondents based on a list of questions prepared in advance; observations, performed by holding direct observation of the examined object; recording, to record all the results obtained through the questionnaire and through interviews with respondents and stakeholders and recording of the direct observation results to the location associated with this research.

Data analysis methods used to determine the efficiency level of candlenut marketing were the analysis of marketing channels, marketing margin analysis and the *farmer's share*. Meanwhile, to formulate an alternative strategy the researcher used SWOT matrix analysis and continued by QSP matrix analysis to choose the best strategy.

These are several the stages of analytical methods to determine the level of marketing efficiency, which are:

1. Marketing Channels Analysis

In order to determine the pattern of candlenut's marketing channels in Alor Regency, the flow of candlenut production from farmers to wholesalers (inter-island traders) were tracked. Downey and Erickson mentioned that the marketing channel is the trace of goods distribution from producer to final consumer. The type and complexity of marketing channels varied according to the commodity [6].

2. Marketing Margin Analysis

Marketing margin is the difference between producer prices (P_f) and prices at the consumer level (P_c). Sudiyono defined the marketing margin as the price difference between the prices paid by the consumer with price

received by farmers. The amount of marketing margin is influenced by elements of the marketing costs and marketing profit in exchange for middleman services in marketing their products [9]. The formula to calculate the amount of marketing margins is as follows:

$$Mp = P_r - P_f \text{ atau } Mp = Bp + Kp$$

Information:

Mp = Marketing margin (Rp/kg)

P_r = Price at consumer level (Rp/kg)

P_f = Price at producing farmer level (Rp/kg)

Bp = Marketing costs (Rp/kg)

Kp = Marketing profit (Rp/kg)

3. Analysis of *Farmer's Share*

An analysis of the *farmer's share* is helpful to know how much part of the price received by farmers from the price at the consumer level which is expressed as a percentage (%). The formula is as follows:

$$Fs = \frac{P_f}{P_r} \times 100 \%$$

Information : Fs = *farmer's share*

P_f = Price at farm level (Rp/kg)

P_r = Price at consumer level (Rp/kg)

If the *share* of profit becomes more evenly on every marketing agencies and marketing margin is less than 50%, the marketing can be said to be efficient. The longer the marketing channels' chain, the greater the marketing margin, so the consumers have to pay a higher price.

Stages of analytical methods to determine marketing strategies are:

1. Analysis of external factors, aims to identify the key external factors that became opportunities and threats for the marketing activities of candlenut in Alor Regency. Opportunities and threats are seen in the trends and events of economy, social, cultural, demographic, environmental, political, legal,

government and technology. Most of the opportunities and threats are beyond the control of the company [3].

2. Analysis of internal factors, aims to identify the key internal factors into strengths and weaknesses in candlenut commodity marketing in Alor Regency. According to Sedarmayanti, the internal environment consists of strengths and weaknesses variables that exist in the organization. These variables form the atmosphere in which the work is done. The variables included are: structural, cultural and organizational resources. Resources are assets which are the raw materials for the production of goods and services of the organization. These assets include: the employee expertise, capabilities and managerial talents, such as financial assets [8].
3. SWOT Analysis, is used to identify the strengths and weaknesses of internal factors and the opportunities and threats of external factors in the candlenut marketing in Alor regency. Strategic planning must be able to analyze the company's strategic factors (strengths, weaknesses, opportunities and threats) in the conditions that exist at the moment. This is called as a situational analysis. The most popular models for situational analysis is SWOT analysis [7].

Table 1: SWOT Matrix

Internal External	Strengths (S)	Weakness (W)
	1. 2. 3. 4. 5.etc	1. 2. 3. 4. 5.etc
Opportunities (O)	S-O Strategy	W-O Strategy
1. 2. 3. 4. 5.etc	1. 2. 3.	1. 2. 3.
Threats (T)	S-T Strategy	W-T Strategy
1. 2. 3. 4. 5.etc	1. 2. 3.	1. 2. 3.

4. Formulation of alternative strategies, using the SWOT matrix analysis, which describes how the opportunities and threats can be adapted by strength and weaknesses. SWOT analysis is described in the SWOT matrix with four possible alternative strategies, which are strengths-opportunities strategy, weaknesses-opportunities strategy, strengths-threats strategy, and weakness-threat strategy.
5. Analysis of the QSP matrix is used to determine the priorities in the candlenut marketing strategy in Alor regency. According to Umar QSPM's goal is to establish the relative attractiveness from various strategies, to determine which strategy is considered the best to be implemented [11].

Table 2: QSPM

		Alternative Strategy					
Main Factor	Weight	Strategy 1		Strategy 2		Strategy 3	
		AS	TAS	AS	TAS	AS	TAS
Internal Factor							
-							
-							
External Factor							
-							
-							
Total Attractiveness Value							

3. Result

1. Patterns of Candlenut Marketing Channels.

Candlenut marketing system in research areas ranging from farmers to the final consumer involved several marketing agencies, among others were village traders, traders outside the village, the Village Unit Cooperation (KUD), wholesalers (inter-island traders), and retailers. Shelled candlenut commodities which were generally marketed had two types based on the results of the process of shelling/crushing by the farmers, whole round candlenut and crushed candlenut (mixture of round and crushed ones). Comparison percentage of round candlenut and mixed/crushed sold by farmers and traders was generally 60% whole round and 40% mixed. Round shelled candlenut's prices were more expensive than the crushed/mixed candlenut's. The sales of whole round shelled candlenut and crushed/mixed candlenut by farmers and traders were generally conducted simultaneously. Generally shelled candlenut products (both round and crushed) of Alor regency, were sold to outer regions with the same destination, which was the wholesalers in Surabaya.

Generally, the patterns of shelled/candlenut content marketing channels in Alor regency can be seen in Figure 1.

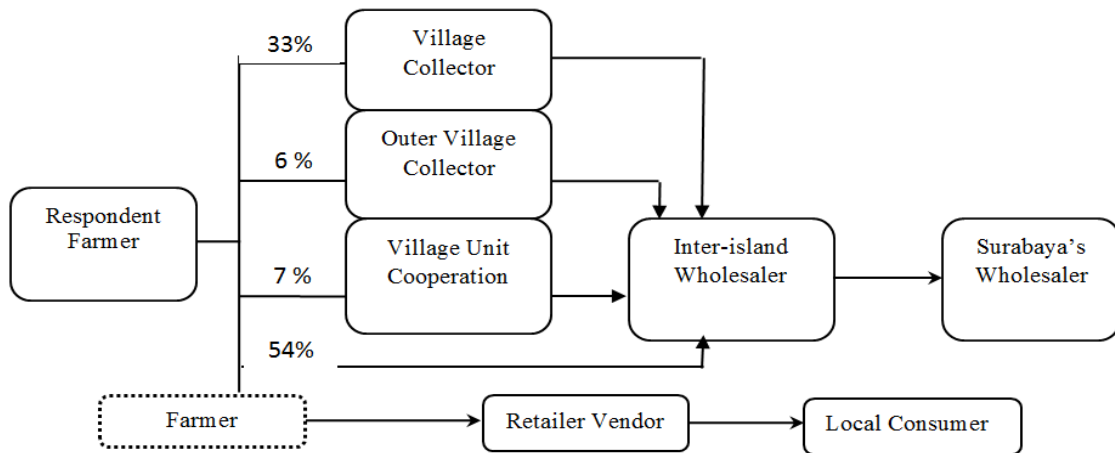


Figure 1: Candlenut's Channels and Marketing Agencies in Alor Regency

a. Marketing channel I

In this marketing channel, the farmers directly sold whole round shelled candlenut and crushed shelled candlenut to a village collector at a price of Rp. 12,500 / Kg and Rp.9.136 / Kg respectively. In round shelled candlenut marketing channels, village collectors paid the packaging and transportation costs, respectively Rp.12 / kg and Rp.86 / kg. While in marketing channels of crushed shelled candlenut, village traders paid the packaging and transportation costs, respectively Rp.67 / kg and Rp.20 / kg. Furthermore, the village collectors sold the whole round shelled candlenut and crushed shelled candlenut to wholesalers across the island at a price of Rp. 13,000 / Kg and Rp.10.750 / Kg.

In marketing channels of round shelled candlenut, inter-island wholesalers paid the cost of packaging/sorting, transportation, depreciation and retribution, respectively Rp.113 / kg, Rp.518 / kg, Rp.89 / kg and Rp.35 / kg , The same types of costs paid by wholesalers inter-islands in marketing channels crushed shelled candlenut, respectively Rp.30 / kg, Rp.141 / kg, Rp.24 / kg and Rp.10 / kg. Inter-island sold whole round shelled candlenut and crushed shelled candlenut to Surabaya wholesalers at the price of Rp.14,400 / Kg and Rp.11.000 / Kg. In simple term, this channel is presented in Figure 2.

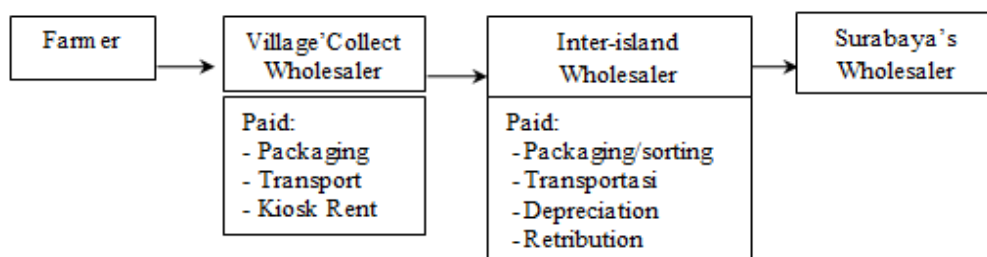


Figure 2: Flowchart of whole round and crushed/mixed shelled candlenut marketing channels I in Alor Regency.

b. Marketing channel II

In this marketing channel, the farmers sold directly whole round shelled candlenut and crushed shelled candlenut to the outer village trader at a price of Rp. 12.667/Kg and Rp.8.000/Kg. In round shelled candlenut's marketing channels, outer village traders paid the cost of packaging, transport, and kiosk rent, respectively Rp.54/kg, Rp.62/kg and Rp.8/kg. While in crushed shelled candlenut marketing channels, outer village trader also paid the cost of packaging, transport, and kiosk rent Rp.36/kg, Rp.41/kg and Rp.6/kg respectively. Furthermore, outer village trader sold round shelled candlenut and crushed shelled candlenut to inter-islands wholesalers with their respective price Rp.13.250/Kg and Rp.8.750/Kg. In marketing channel II, inter-island the wholesalers' marketing cost paid was the same as on the channel I, for the purpose of selling to the same destination, which is Surabaya wholesalers with the selling price of shelled candlenut (round and crushed) as well as on the channel I. In simple term, this channel is presented in Figure 3.

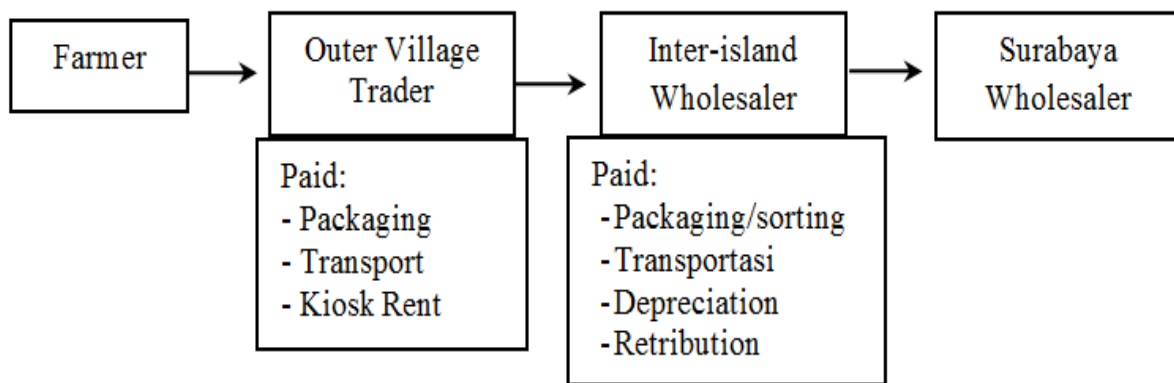


Figure 3: Flowchart of shelled candlenut marketing channel II in Alor Regency.

c. Marketing channel III

In this marketing channel, the farmers sold directly whole round shelled candlenut and crushed shelled candlenut to the at a price of Rp. 12 357 / Kg and Rp.6.571 / Kg. In round shelled candlenut's marketing channels, cooperative village unit paid the cost of packaging and sorting, depreciation, and kiosk maintenance, respectively Rp.430 / kg, Rp.78 / kg and Rp.75 / kg. While in crushed shelled candlenut marketing channels, village cooperatives paid packaging and sorting, depreciation and kiosk maintenance Rp.287 / kg, Rp.52 / kg and Rp 50 / kg respectively. Furthermore, village cooperatives sold round shelled candlenut and crushed shelled candlenut to inter-islands wholesalers with their respective price Rp.13.000 / Kg and Rp.7.000 / Kg. In marketing channel III, inter-island the wholesalers' marketing cost paid was the same as on the channel I and II, for the purpose of selling to the same destination, which was Surabaya wholesalers with the selling price of shelled candlenut (round and crushed) as well as on the channel I and II. In simple term, this channel is presented in Figure 4.

d. Marketing Channel IV

In this marketing channel, the farmers sold directly whole round shelled candlenut and crushed shelled

candlenut to wholesalers across the island at a price of Rp. 12 694 / Kg and Rp.6.898 / Kg. In marketing channel IV, inter-island wholesalers paid the costs of marketing just like on the channel I, II and III, for the purpose of selling to the same destination, which was Surabaya wholesalers with the selling price of shelled candlenut (round and crushed) as well as on the channel I, II and III. In simple term, this channel is presented in Figure 5.

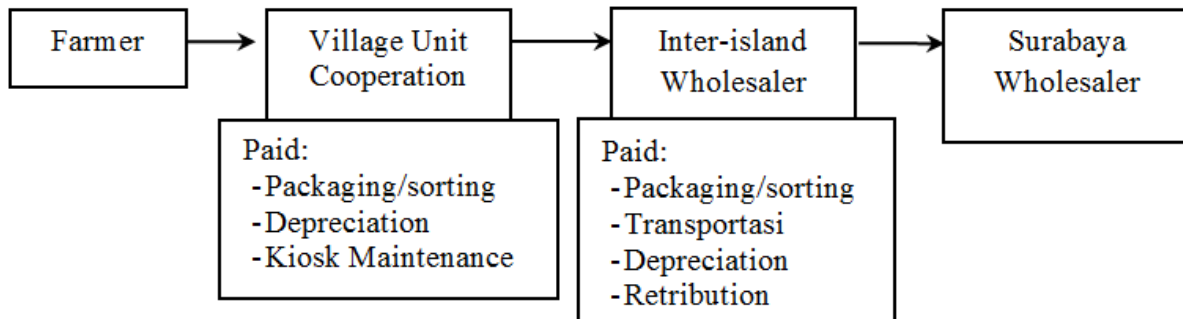


Figure 4: Flowchart of whole round and crushed/mix shelled candlenut marketing channel III in Alor Regency.

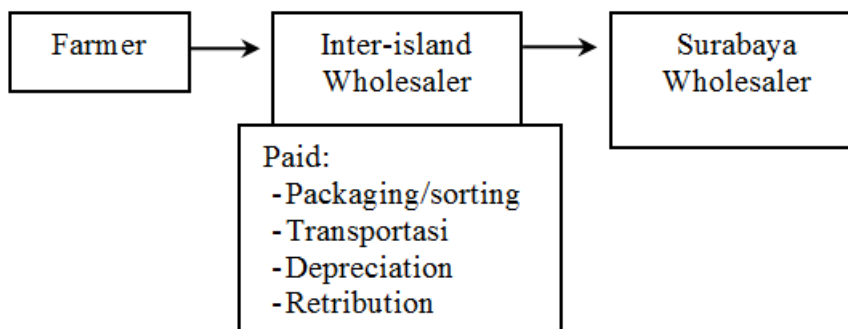


Figure 5: Flowchart of whole round and crushed/mixed shelled candlenut marketing channel IV in Alor Regency.

e. Marketing Channel V

In this marketing channels, farmers only directly sold crushed/mix shelled candlenut to retailers at a price of Rp.13,875 / Kg. Furthermore, retailers sold crushed peeled candlenut to local consumers with the price of Rp.2000/pack and 5,000/pack. In marketing channel V, retailers paid the cost of marketing just to buy packaging materials. In simple term, this channel is presented in Figure 6.

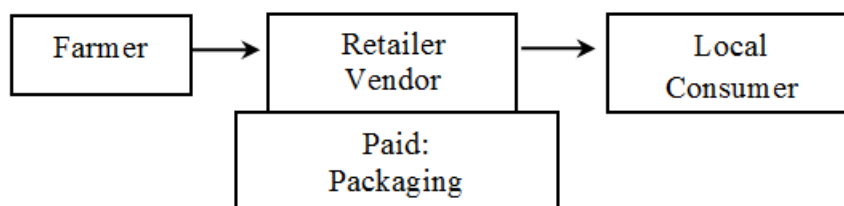


Figure 6: Flowchart of cracked/mix shelled candlenut marketing channels V in Alor Regent.

The distance between production farmer in Alor and wholesalers' consumer in Surabaya were so far, but the marketing channels that formed were short. It was influenced even more by the financial position of the entrepreneurs/wholesalers involved, where the trader's financial position (capital) will be able to perform a strong marketing function better than the traders/market participants who had weak capital position. In other words, the wholesalers who have a strong capital tend to shorten the candlenut marketing channels.

Judging from existing forms of candlenut marketing channels, it can be said that the five marketing channels were quite simple / short. Plantation commodities which was faster to get to the consumer hands and which did not have a high economic value, usually had a relatively simple marketing channels.

2. Candlenut Marketing Strategy

The candlenut marketing strategy was made by combining the external environment factors which were related to the opportunity and the threats against the candlenut marketing business with the internal environment condition related to the strength and weakness of the candlenut marketing activity in the area of Alor Regency.

Internal factor analysis had the aim to find some strengths and weaknesses of Alor Regency in many aspects related to the candlenut commodity marketing, especially in the aspect of marketing elements (product, price, promotion, distribution, people, process, physical proof) and business capital. Then, the external factors analysis was done in order to find many opportunities that can be earned by all stakeholders involved in the candlenut marketing business in the area of Alor Regency and also to identify the threats that were being the hampering factor in the effort of improving the candlenut marketing business.

Based on the identification result of the internal and external strategic factors through the SWOR analysis, the strengths, weaknesses, opportunities, and threats of the candlenut marketing business in Alor could be known, which were as follows:

a. Strengths

- 1) The content of the candlenuts or shelled candlenuts had clean and bright appearance, sweet taste, high oil contents, and only some of them did not.
- 2) The large number of candlenut shell/husk products.
- 3) Candlenut products were always available in central areas.
- 4) Local government's active role in the candlenut products promotion activities.
- 5) Friendly attitude and behavior of the market agents in the candlenut trading activities.
- 6) Local government through the concerned technical instance held the bimtek candlenut management activity programs regularly.

b. Weaknesses

- 1) Fluctuating price of candlenut (variant price)
- 2) The topography of steep hills area and generally bad condition of the connecting road infrastructure.
- 3) Low perception and knowledge of the market agents in candlenut marketing.

- 4) The minimum role of village unit cooperation (KUD) in the research area.
- 5) The long schedule/time needed to send the products to other areas with ship expedition.
- 6) Generally traditional means/facilities of candlenut after harvest and marketing.
- 7) The lack of business capital.

c. Opportunities

- 1) The development of the use of candlenut as the raw material of cosmetics and alternative energy industries.
- 2) The increasing demand and price of shelled candlenut.
- 3) Utilization of toll sea vessels.
- 4) Direct trade relations/joints with Surabaya and Timor Leste.
- 5) Business loan subsidy from the loan giving institution (Bank Rakyat Indonesia).

d. Threats

- 1) Trade monopoly practices.
- 2) Competition with other areas with candlenut potency in East Nusa Tenggara.
- 3) The destruction/forest fire and conversion of candlenut fields.
- 4) Pest attacks and diseases on candlenut products.
- 5) Extreme weather condition in the sea as the candlenut transportation way to the other areas.

SWOT matrix was used in order to formulate the alternative strategy needed in candlenut marketing in Alor regency. This matrix produced four possible alternative strategy cells; they were S-O strategy, W-O strategy, W-T strategy, and S-T strategy. The elaborations of those strategies were as follows:

a. S-O Strategy (Strength – Opportunity Strategy)

The formulas of the alternative strategy were;

- 1) Maintaining products' quality and increasing selling volume by utilizing the development of shelled candlenut manufacturing technology in outer areas.
- 2) Building a cooperation/joint with great entrepreneurs in outer areas.
- 3) Expanding the marketing area by promotion and utilization of sea toll transportation.

b. W-O Strategy (Weakness – Opportunity Strategy)

The formulas of the alternative strategy were;

- 1) Improving the access of modern after harvest technology through the cooperation with great enterprises and increasing the capital provided by the business loan giving bank.
- 2) Increasing the role of KUD through the cooperation with great enterprises and the capital provided by the bank.
- 3) Giving socialization to the entrepreneurs to use the toll sea vessel service.

c. S-T Strategy (Strength – Threat Strategy)

The formulas of the alternative strategy were;

- 1) Increasing the number of promotion activities to expand/increase the marketing area and new customer.
 - 2) Holding continuous socialization about the efforts to prevent disease pest of candlenut products and the way to do a good farming.
- d. W-T Strategy (Weakness – Threat Strategy)

The formulas of the alternative strategy were;

- 1) Making local regulation about the base price setting of candlenut commodity in the area of Alor Regency.
- 2) Doing coordination with all stakeholders to anticipate the extreme weather as an effort of sea voyage welfare.

After that, the strategy priority decision as the effort of increasing the candlenut marketing in Alor Regency used the QSPM analysis (*Quantitative Strategies Planning Matrix*). In the QSPM, there would be some choices of alternative strategies that were previously made in the SWOT matrix.

The alternative strategies chosen to be prioritized in its application consisted of three strategies, they were:

- a) Maintaining products' quality and increasing selling volume by utilizing the development of shelled candlenut manufacturing technology in outer areas (Strategy I).
- b) Improving the access of modern after harvest technology through the cooperation with great enterprises and increasing the capital provided by the business loan giving bank (Strategy II).
- c) Increasing the number of promotion activities to expand/increase the marketing area and new customer (Strategy III).

Those three chosen alternative strategies were included in the QSPM to make the best strategy. The result of the QSPM analysis showed that the best strategy that could be applied in the shelled candlenut marketing in Alor Regency was the strategy II \ (improving the access of modern after harvest technology through the cooperation with great enterprises and increasing the capital provided by the business loan giving bank), which total Attractive Score earned was 6.26. The application of this strategy was started by lobbying effort from Alor Local Government to the big enterprises/cooperated enterprises from outer areas, which concerned about the manufacturing and development of products using candlenut as the raw material. An approach could be done by promoting the special qualities of Alor candlenut products to convince the cooperated enterprise. Through the trade relations/cooperation made, the cooperated enterprise could help by the operational cooperation pattern.

The cooperated enterprises could guarantee the product marketing, also increase the positive quality of the products through manufacturing and packaging. The enterprises helped in the betterment of production process, product quality, and even access of technology. The big enterprises/cooperation could help by adding the number of the more modernized tools/means, such as drying machine and candlenut knapping/shelling machine for the farmers. They also could be the supervisor or trainer in order to improve the knowledge and technology

about the candlenut products development and marketing to the candlenut farmers and entrepreneurs in Alor Regency.

The candlenut marketing business doers in Alor area could increase their capital by using the citizens' business loan policy provided by Bank Rakyat Indonesia in Alor branch. While for the candlenut farmers/farming groups, this additional capital could be used for the betterment of candlenut after harvest tools/means so that the quantity and quality of the candlenuts would be better. The additional capital could also be used by the collector merchants or cooperation to increase the volume of shelled candlenuts bought from the farmers and adds complementary tools for the sake of the smooth distribution of candlenuts.

4, Discussion

4.1. Marketing Margin Analysis and Farmer's Share

The marketing margin analysis is used to determine the distribution of marketing margins in each agency involved in the candlenut marketing system.

While the farmer's share is the ratio of prices received by farmers with the price paid by the final consumer is expressed in percent.

a. Marketing margins and Farmer's Share of Whole Round Shelled Candlenut.

The amount of marketing margin and the farmer's share also the distribution patterns of whole round shelled candlenut marketing can be seen in Table 3.

Table 3: Marketing Margin Analysis of Whole Round Shelled Candlenut in each Marketing Organizations

No.	Market Organization/ Margin Element	Channel I		Channel II		Channel III		Channel IV	
		MS		MS		MS		MS	
		(Rp/Kg)	(%)	(Rp/Kg)	(%)	(Rp/Kg)	(%)	(Rp/Kg)	(%)
1	Farmer								
	Selling Price	12,500	86.81	12,667	87.97	12,357	85.81	12,694	88.15
2	Village Collector								
	Buying Price	12,500	86.81						
	Cost :								
	Packaging	12	0.08						
	Transportation	86	0.60						
	Kiosk Rent	0	0.00						
	Total Cost	98	0.68						
	Profit	402	2.79						

	Marketing Margin	500	3.47						
	Selling Price	13,000	90.28						
3	Outer Village Collector								
	Buying Price			12.667	87.97				
	Cost :								
	Packaging			54	0.38				
	Transportation			62	0.43				
	Kiosk Rent			8	0.06				
	Total Cost			124	0.86				
	Profit			459	3.19				
	Marketing Margin			583	4.05				
	Selling Price			13,250	92.01				
4	Village Unit Cooperative (KUD)								
	Buying Price					12,357	85.81		
	Cost :								
	Packaging & Sorting					430	2.99		
	Depreciation					78	0.54		
	Kiosk Maintenance					75	0.52		
	Total Cost					583	4.05		
	Profit					60	0.42		
	Marketing Margin					643	4.47		
	Selling Price					13,000	90.28		

Continuation of Table 3

No.	Market Organization/ Margin Element	Channel I	Channel II	Channel III	Channel IV	Channel I	Channel II	Channel III	Channel IV
		MS	MS	MS	MS	MS	MS	MS	MS
		(Rp/Kg)	(%)	(Rp/Kg)	(%)	(Rp/Kg)	(%)	(Rp/Kg)	(%)
5	Wholesaler								
	Buying Price	13,000	90.28	13,250	92.01	13,000	90.28	12,694	88.15
	Cost :								
	Packaging / sorting	113	0.78	113	0.78	113	0.78	113	0.78
	Transportation:								
	Local	69	0.48	69	0.48	69	0.48	69	0.48

	to Surabaya	449	3.12	449	3.12	449	3.12	449	3.12
	Depreciation	89	0.62	89	0.62	89	0.62	89	0.62
	Retribution	35	0.24	35	0.24	35	0.24	35	0.24
	Total Cost	755	5.24	755	5.24	755	5.24	755	5.24
	Profit	645	4.48	395	2.74	645	4.48	951	6.60
	Marketing Margin	1,400	9.72	1,150	7.99	1,400	9.72	1,706	11.85
	Selling Price	14,400	100.00	14,400	100.00	14,400	100.00	14,400	100.00
	Total Cost	853	5.92	879	6.10	1,338	9.29	755	5.24
	Total Profit	1,047	7.27	854	5.93	705	4.90	951	6.60
	Total Margin	1,900	13.19	1,733	12.03	2,043	14.19	1,706	11.85

Source: Primary Data Analysis, 2016

According to the margin marketing analysis in the channel I, village collector marketing margin was 3.47%, with lower marketing cost contribution than the profit acquired. However, this condition didn't guarantee village collector merchants to get more profit in every harvest season, because it depends on the quality of the whole round shelled candlenut successfully bought from the farmer and the buying price variation set by the wholesaler.

According to the margin marketing analysis in the channel II, outer village collector marketing margin was 4.05%. This condition was caused by the small amount of marketing expenses. The profit was higher than the marketing expenses, even though the cost component was increased due to the kiosk rent. However, this condition also didn't guarantee outer village collector to get more profit in every harvest season, because it depends on the volume of the whole round shelled candlenut successfully bought from the farmer and the range of buying price set by the regular wholesaler.

According to the margin marketing analysis in the channel III, village unit cooperation's marketing margin was 4.47%, with higher marketing expenses than the profit earned. However, in a harvest season (a year), the cooperation would still be able to earn profit up to ten million rupiahs from the whole round shelled candlenut sale. This was due to this village unit cooperation being the only cooperation in the regency of the research area, so that the members and farmers from the other areas would sell the whole round shelled candlenut through KUD even though the buying price per kilogram was lower than these from the village collector and outer village collector.

The marketing margin analysis in the inter-island wholesaler in the four channels of marketing showed that their marketing profit average was 4.57% and only in the channel IV that the profit earned was higher compared to the marketing expense which was 6.60%. This result emerged because the wholesale vendors bought the whole round shelled candlenut directly from the farmer with the much lower price than the buying price from the collector and KUD (due to the price war). This situation generally happened in the South Alor and North East Alorsub districts, which was also supported by the asphalted road that connected those two regencies to the

research villages, so that the wholesale vendors could have swifter personal vehicle (truck) to buy candlenut directly from the farmer.

The total marketing margin analysis result of the whole round shelled candlenut marketing showed uneven marketing margin distribution, which was around 11.85% - 14.19% with the farmer's share around 88.15% - 85.81%. This was due to the farmers' only selling the candlenut to the inter-island wholesaler and the farmers got advantage from the wholesalers who wanted to visit them directly to their house to buy their candlenut.

Based on the explanations above, it could be concluded that the farmer's share was high and marketing margin were lower than 50%, so that the whole round shelled candlenut in the Alor Regency could be said as efficient.

b. Marketing Margin and Farmer's Share of Crushed/Mixed Shelled Candlenut

The marketing margin and farmer's share also the distribution patterns of the crushed/mixed shelled candlenut can be seen in Table 4. According to the margin marketing analysis in the channel I, village collector's marketing margin was 14.67%, with marketing cost contribution 1,02% lower than the profit earned which was 13,65%. This condition didn't guarantee village collector merchants to get more profit in every harvest season, because it depends on the quality of the crushed/mixed shelled candlenut successfully bought from the farmer and the buying price variation set by the wholesaler. According to the margin marketing analysis in the channel II, village collector merchants' marketing margin was 6.82%. This was caused by the small amount of marketing expenses. The profit share earned was 6.06% higher than the marketing expense which was 0.75%, even though the cost component was increased due to the kiosk rent. Even though, to earn more profit in each harvest season, it depends on the volume of the crushed shelled candlenut successfully bought from the producing farmer and the scale of buying price per kilogram set by the regular wholesaler.

Table 4: Marketing Margin Analysis of Crushed/Mixed Shelled Candlenut in each Marketing Organization.

No.	Market Organization/ Margin Element	Channel I		Channel II		Channel III		Channel IV		Channel V	
		MS		MS		MS		MS		MS	
		(Rp/Kg)	(%)	(Rp/Kg)	(%)	(Rp/Kg)	(%)	(Rp/Kg)	(%)	(Rp/Kg)	(%)
1	Farmer										
	Selling Price	9,136	83.05	8,000	72.73	6,571	59.74	6,898	62.71	13,875	38.54
2	Village Collector										
	Buying Price	9,136	83.05								
	Cost :										
	Packaging	67	0.61								
	Transportation	20	0.18								
	Kiosk Rent	25	0.23								
	Total Cost	112	1.02								
	Profit	1,502	13.65								

	Marketing Margin	1,614	14.67								
	Selling Price	10,750	97.73								
3	Outer Village Collector										
	Buying Price			8,000	72.73						
	Cost :										
	Packaging			36	0.33						
	Transportation			41	0.37						
	Kiosk Rent			6	0.05						
	Total Cost			83	0.75						
	Profit			667	6.06						
	Marketing Margin			750	6.82						
	Selling Price			8,750	79.55						
4	KUD										
	Buying Price					6,571	59.74				
	Cost :										
	Packaging & Sorting					287	2.61				
	Depreciation					52	0.47				
	Kiosk Maintenance					50	0.45				
	Total Cost					389	3.54				
	Profit					40	0.36				

Continuation of Table 4

No.	Market Organization/ Margin Element	Channel I		Channel II		Channel III		Channel IV		Channel V	
		MS		MS		MS		MS		MS	
		(Rp/Kg)	(%)	(Rp/Kg)	(%)	(Rp/Kg)	(%)	(Rp/Kg)	(%)	(Rp/Kg)	(%)
	Marketing Margin					429	3.9				
	Selling Price					7,000	63.64				
5	Wholesaler										
	Buying Price	10,750	97.73	8,750	79.55	7,000	63.64	6,898	62.71		
	Cost :										
	Packaging/Sorting	30	0.27	30	0.27	30	0.27	30	0.27		
	Transportation :										

	Local	19	0.17	19	0.17	19	0.17	19	0.17		
	to Surabaya	122	1.11	122	1.11	122	1.11	122	1.11		
	Depreciation	24	0.22	24	0.22	24	0.22	24	0.22		
	Retribution	10	0.09	10	0.09	10	0.09	10	0.09		
	Total Cost	205	1.86	205	1.86	205	1.86	205	1.86		
	Profit	45	0.41	2,045	18.59	3,795	34.5	3,897	35.43		
	Marketing Margin	250	2.27	2,250	20.45	4,000	36.36	4,102	37.29		
	Selling Price	11,000	100	11,000	100	11,000	100	11,000	100		
6	Retail Vendor										
	Buying Price									13,875	38.54
	Marketing Expense									1,308	3.63
	Profit									20,817	57.83
	Marketing Margin									22,125	61.46
	Selling Price									36,000	100
	Total Cost	317	2.88	288	2.62	594	5.4	205	1.86	1,308	3.63
	Total Profit	1,547	14.06	2,712	24.65	3,835	34.86	3,897	35.43	20,817	57.83
	Total Margin	1,864	16.95	3,000	27.27	4,429	40.26	4,102	37.29	22,125	61.46

Source: Primary Data Analysis, 2016

According to the margin marketing analysis in the channel III, village unit cooperation's marketing margin was 3.9%, with the marketing expense higher than the profit earned. However, in a harvest season (a year), the cooperation still would be able to get more profit more than ten million rupiahs from the sale of crushed/mixed shelled candlenut

The marketing expenses of crushed/mixed shelled candlenut in channel I, II, III, and IV which involved wholesalers were same, because the sale target was also the same, which were the wholesalers in Surabaya. In the channel II, III, and IV showed that the profit share earned (18.59% - 35.43%) was more than the marketing expenses which was around 1.86%. This condition was caused by the wholesale vendors bought the crushed/mixed candlenut with much lower price from the farmers, village collector, and KUD. While in channel I the wholesaler's profit was lower than the marketing expenses. This was because the wholesale vendor bought the candlenut with much higher price from the village collector than the other marketing organizations. The marketing margin analysis in the level of wholesale vendors in four channels showed that the margin share earned ranged from 2.27% - 37.29%.

Based on the marketing margin in channel V, the retail vendor's margin was 61.46%. The high profit earned was caused by the retail vendors' buying the candlenut per kilogram directly from the farmers, without paying the transport cost because the farmers themselves came to the retail vendors' place. However, the high profit per

kilogram didn't mean that the retail vendors and farmers would get a high profit too in a harvest season, because everything depends on the shelled candlenut purchasing power of local consumers.

Result of total marketing margin analysis of crushed/mixed shelled candlenut shown uneven marketing margin, between 83,05% - 38,54%. The best and most efficient marketing channel is on channel I, which has smallest marketing margin 16.95 with biggest *farmer's share* 83,05%. This condition is caused by village collectors buy candlenut from farmer with higher price than outer village collectors and village unit cooperative, wholesaler buys candlenut from village collectors with highest price compared to buying price from outer village collector and village unit cooperative, the goal of selling candlenut is to Surabaya's wholesaler which has higher buying power than local consumer inside the region.

The different marketing expenses in each marketing organization or profit level, length of marketing channel will make different margin in every marketing channel. The high marketing margin impacted on the farmer's low share score. The price difference received by the farmers was basically caused by some factors, such as;

- 1) The farmers' bargaining position was relatively low in marketing their candlenut products. This condition was caused by the farmers' inability to hold their sale because they were pushed by the urgent and important daily needs.
- 2) Their limited possession of vehicles/transportations and capital made produced candlenut products were only sold to the merchants who want to buy their candlenut products.

The marketing channel I in the crushed/mixed shelled candlenut marketing was the best channel, it was seen that the marketing channel was longer than the channel IV and V, which marketing margin should had been higher, but what happened was the contrary. This showed that the length or the quality of a marketing channel could be seen from the amount of the marketing margin, not from the number of the marketing organizations involved, because marketing margin is the reflection of the expense contribution and profit earned in the marketing of a commodity. This meant that the higher the marketing margin, the longer the marketing channel or the worse. On the opposite, the lower the marketing margin, the more efficient or better the marketing channel. The high farmer's share and the marketing margin were lower than 50% in the channel I, II, III, IV, it showed that in general, the marketing of crushed shelled candlenut in the Alor Regency was efficient.

The high *farmer's share* and smaller marketing margin than 50% are on channel I, II, III and IV, has shown how marketing of crushed shelled candlenut in Alor Regency is already efficient, generally.

5. Conclusion

There were five marketing channels of whole round shelled candlenut and crushed/mixed shelled candlenut in Alor Regency. The marketing margin distribution in the marketing of whole round shelled candlenut and crushed/mixed shelled candlenut was uneven. The best and the most efficient marketing channel for whole round shelled candlenut was channel IV, while the best and the most effective channel for the crushed/mixed shelled candlenut was channel I. The prioritized strategy that needed to be applied by the Alor Regency government to support the increase of the candlenut marketing efficiency was improving the access of modern

after harvest technology through the cooperation with great enterprises and increasing the capital provided by the business loan giving bank

References

- [1] Affandi, O., Purwoko, A., dan Silvi, Y.B. 2012. Analisis Pemasaran Kemiri Rakyat di Desa Perbulan Kecamatan Laubaleng Kabupaten Karo, Jakarta, Fakultas Pertanian, Universitas Sumatera Utara, 2012
- [2] BPS, Nusa Tenggara Timur dalam Angka, Kupang, 2014
- [3] David, F.R, Manajemen Strategis: Konsep-Konsep, Jakarta, Edisi 12 Buku 1. Penerbit Salemba, 2011
- [4] Direktorat Budidaya Tanaman Tahunan. 2008. Budidaya Kemiri. Direktorat Jenderal Perkebunan, Kementerian Pertanian Republik Indonesia Jakarta, <http://ditjenbun.deptan.go.id/budtanan/images/copy%20of%20budidaya%20kemir.pdf> [6 Desember 2010]. diakses tanggal 25 Januari 2016
- [5] Donuisang, Z.G, Strategi Pengembangan Komoditi Kemiri: Studi Kasus di Kabupaten Alor Provinsi Nusa Tenggara Timur. Yogyakarta, Tesis. Universitas Gajah Mada, 2009
- [6] Downey, W.D., dan Erickson, S.P, Manajemen Agribisnis Edisi II. Jakarta, Penerbit. Erlangga. 1992
- [7] Rangkuti, F, Analisis SWOT: Teknik Membedah Kasus Bisnis, Cara Perhitungan Bobot, Rating dan OCAI Jakarta, PT Gramedia Pustaka Utama, 2014
- [8] Sedarmayanti, . Manajemen Strategi, Bandung, . Refika Aditama, 2014
- [9] Sudiyono, A, Pengantar Pemasaran Pertanian. Malang, Fakultas Pertanian, Universitas Muhammadiyah, Malang, . 2002
- [10] Sugiyono, Metode Penelitian Bisnis. Bandung, Alfabeta, 2001
- [11] Umar, H, Strategic Management In Action. Jakarta, PT Gramedia Pustaka Utama, . 2002