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MARKETING STRATEGY FOR PROCESSED RUBBER MATERIALS IN THE APKARKUSI AUCTION SYSTEM IN GUNUNG VILLAGE GUNUNG TOAR SUB-DISTRICT KUANTAN SINGINGI DISTRICT

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Abstract

Apkarkusi is an institution formed by the Government of Kuantan Singingi Regency as a Government action to address the problem of low rubber prices and not the optimal quality of bokar. Research objectives: 1) To find out the characteristics of rubber planters who are members of Apkarkusi in Gunung Village, 2) To know the marketing strategy used by Apkarkusi in Kuantan Singingi Regency. Sampling was purposive sampling with the criteria of farmers joining Apkarkusi and one Apkarkusi administrator, using 41 respondents from 3 farmer groups and the Head of the Apkarkusi auction market division. Data analysis used descriptive qualitative analysis and SWOT analysis. The results of the study were 51-60 years old (34.15%), land area <2 ha (65.85%), last education was junior high school (36.59%), experience in farming (46.34%), number of family dependents 3–5 souls (63.42%). Recommend a ranking order strategy: 1) Implementing the 4S concept and maintaining the quality of bokar to obtain a high and stable selling price to minimize rubber planters changing land functions. 2) Maintaining the quality standards set by Apkarkusi to maintain buyer trust. 3) Applying the 4S concept and having regular buyers can increase the selling price of bokar. The findings of this study can have an impact on long-term development goals (SDG's), such as creating a marketing plan based on the 4S idea, maintaining bokar quality, and engaging customers while dramatically increasing bokar selling prices. This directly affects the revenue of rubber growers, the majority of whom are in vulnerable economic groups.

Keywords: Apkarkusi Auction Market, Rubber Processed Materials, SDG's, SWOT.

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INTRODUCTION

Indonesia is one of the countries with significant potential in the rubber plantation sector. Rubber is an important agricultural commodity and one of Indonesia's flagship products for improving the national economy. In 2021, the total area of rubber plantations in Indonesia reached 3,421.90 hectares, with a production volume of 2,877.90 tons (Badan Pusat Statistik Indonesia, 2022).

In Riau Province, the total area of rubber plantations reached 490,301 hectares in 2021 (Badan Pusat Statistik Provinsi Riau, 2022). The province is well known as a major rubber- producing region, with the sector holding strong potential to support the livelihoods of local communities. Rubber is one of the province's leading commodities, playing a vital role in sustaining and enhancing the local economy. Kuantan Singingi Regency is one of the major rubber-producing areas, where the majority of residents work as rubber farmers. Income generated from rubber cultivation significantly contributes to the community's economy. Rubber plantations represent one of the largest agricultural areas in the regency, covering 123,720 hectares in 2021 (Badan Pusat Statistik Kabupaten Kuantan Singingi, 2022).

Within Gunung Toar District, the area under rubber cultivation in 2021 was recorded at 12,115 hectares (Badan Pusat Statistik Kabupaten Kuantan Singingi, 2022). Gunung Village, located in this district, has residents actively participating in farmer groups under the guidance of the Asosiasi Petani Karet Kuantan Singingi (Apkarkusi). Three farmer groups in Gunung Village are affiliated with Apkarkusi: *Berkah Ilahi*, *Gunung Makmur*, and *Mekar Jaya*. The main challenges faced by rubber farmers in Kuantan Singingi include low rubber prices, lengthy marketing chains, and suboptimal quality of processed rubber (bokar). According to Fatah (2018), the low economic returns for rubber farmers are primarily due to the low prices set by middlemen (*touke*), coupled with a lack of transparency in price determination. This allows middlemen to manipulate prices without adequately considering farmers' profit margins.

Apkarkusi is an institution established by the Kuantan Singingi Regency Government through the Department of Agriculture, functioning as a central hub for rubber farmers in the regency. The marketing system implemented by Apkarkusi is an auction-based system. The auction market is managed by Apkarkusi's administrators and conducted openly to the public to determine the highest possible price.

Given the issues faced by rubber farmers in Kuantan Singingi—particularly in Gunung Village, Gunung Toar District—this study aims to identify Apkarkusi's internal and external factors in order to analyze its strengths, weaknesses, opportunities, and threats. Based on this analysis, marketing strategies for bokar through the auction system will be formulated as actionable insights for Apkarkusi. Therefore, the author is motivated to conduct a study entitled: Bokar Marketing Strategies Through the Apkarkusi Auction System in Gunung Village, Gunung Toar District, Kuantan Singingi Regency.

RESEARCH METHODS

The research was conducted in Gunung Village, Gunung Toar District, Kuantan Singingi Regency. The study was carried out from August 2022 to June 2023, encompassing all stages from proposal preparation, data collection, to the comprehensive examination.

A purposive sampling technique was employed in this study, with selection criteria including: (1) rubber farmers who were members of farmer groups under the guidance of Apkarkusi, (2) individuals who marketed *bokar* (processed rubber) through the auction system, and (3) the head of the auction market division. A total of 41 respondents were selected, considering the homogeneity of the sample.

The sample composition was as follows: three farmer group leaders, along with the secretary and treasurer from each group, resulting in a total of nine respondents based on these criteria. To reach the total sample size of 41, random sampling was then applied within each farmer group, resulting in the selection of thirteen members from the *Gunung Makmur* group, thirteen members from the *Berkah Ilahi* group, and fourteen members from the *Mekar Jaya* group. Additionally, one respondent was the Head of the Auction Market Division. This brought the total number of respondents to 41.

Primary data were tabulated according to the research objectives and analyzed using both qualitative descriptive and quantitative approaches. The qualitative descriptive analysis was employed to describe the characteristics of rubber farmers who are members of farmer groups under Apkarkusi's guidance, including variables such as age, land area, education level, farming experience, and number of dependents. The quantitative analysis was conducted to develop *bokar* marketing strategies using SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis.

The analytical framework applied in this study was the SWOT analysis. According to Rangkuti (2019), the formulation of strategies to be implemented involves the following steps:

1. Identify the existing SWOT elements, namely strengths (S), weaknesses (W), opportunities (O), and threats (T).
2. Assign a score to each factor based on interviews with farmers, using a scale ranging from 4 (very important), 3 (important), 2 (less important), to 1 (not important), with respect to conditions influencing *bokar* marketing.
3. Determine alternative strategies based on the combination of factors, resulting in SO, ST, WO, and WT strategies, which are derived from the interaction between Apkarkusi's internal and external factors.
4. Establish the relationship between the alternative strategies and the SWOT elements identified in step 1.
5. Calculate the weight of each element associated with Apkarkusi's *bokar* marketing strategy.
6. Consult relevant stakeholders to refine and finalize the most appropriate strategy.

The use of SWOT analysis is instrumental in formulating strategies by combining internal factors (strengths and weaknesses) with external factors (opportunities and threats). The resulting strategies are presented in a SWOT matrix, as shown in Table 1.

Table 1. SWOT MATRIX

Internal Factors Eksternal Factors	***STRENGTHS* (S)** (list of Identified strengths)	**WEAKNESSES (*W*)** (list of Identified weaknesses)
***OPPORTUNITY* (O)** (list of Identified opportunities)	**STRATEGI *S-O*** (utilize strenghts to capitalize on opportunities)	**STRATEGI *W-O*** (Overcome weaknesses by leveraging opportunities)
***THREATS* (T)** (list of Identified threats)	**STRATEGI *S-T*** (use strengths to address threats)	**STRATEGI *W-T*** (minimize weaknesses and avoid threats)

Source: Rangkuti, 2019

Notes:

1. S–O Strategy – Developed with the rationale of utilizing Apkarkusi's strengths to optimally capitalize on available opportunities.
2. S–T Strategy – Designed to leverage Apkarkusi's strengths in order to address and mitigate external threats.
3. W–O Strategy – Implemented to overcome Apkarkusi's weaknesses by taking advantage of existing opportunities.
4. W–T Strategy – Defensive in nature, aimed at minimizing existing weaknesses while avoiding potential external threats.

RESULTS AND DISCUSSION

General overview of The Research Area

Gunung Toar District is one of the administrative districts within Kuantan Singingi Regency, covering an area of 287.240 km². In 2021, the district had a population of 13,976 residents. The district is bordered to the west by Hulu Kuantan District, to the east by Kuantan Tengah District, to the south by Kuantan Mudik District, and to the north by Kuantan Tengah District (Badan Pusat Statistik Kecamatan Gunung Toar, 2022).

Characteristics of Respondents

Characteristics respondents in the Kuantan Singingi Regency seen from age, land area, education level, experience, and humber of household, like the table 2

Table 2. Characteristics of Respondents

No	Age	Amount	Percentage (%)
1.	31 – 40	7	17,07
2.	41 – 50	11	26,83
3.	51 – 60	14	34,15
4.	61 – 70	5	12,20
5.	71 – 80	4	09,75
	Land Area (Ha)		
1.	< 2	27	65,85
2.	2 – 4	14	34,15

	Educational Level		
1.	No Schooling	3	7,32
2.	Elementary School	12	29,27
3.	Junior High School	15	36,59
4.	Senior High School	9	21,95
5.	Higher Education	2	4,88
	Farm Experience (Year)		
1.	10 – 15	11	26,83
2.	16 – 20	19	46,34
3.	21 – 25	11	26,83
	Number of household (person)		
1.	0 – 2	15	36,58
2.	3 – 5	26	63,42

Source: Data Processed, 2023

Table 2 show are age is an important factor influencing the productivity of an agricultural enterprise. According to Sukmaningrum (2017), the productive age range for an individual is between 15 and 64 years, during which a person is considered capable of producing goods or services within a production process. Based on the characteristics of respondents, the largest age group was between 51 and 60 years, accounting for 34.15% of the total sample.

Land serves as the physical medium where farmers carry out agricultural activities. In addition to age, the condition and size of the land also affect farm productivity. The rubber plantation area cultivated by respondents influences the volume of *bokar* (processed rubber) to be marketed through Apkarkusi. According to Mandang et al. (2020), land is one of the key factors of production that plays a crucial role for farmers. The most common landholding size among respondents was less than 2 hectares, accounting for 65.85% of the sample.

Education is an effort undertaken by individuals to acquire knowledge, skills, and positive values, whether obtained within formal schooling or outside of it. Education also reflects the quality of an individual in managing a farming enterprise. Consistent with the findings of Manyamsari (2014), education significantly influences the competency level of farmers in carrying out agricultural activities. The majority of rubber farmers surveyed had completed junior high school or its equivalent (36.59%).

Farming experience refers to the length of time a farmer has been engaged in agricultural activities. Farmers with more experience have been involved in farming for many years, gaining practical knowledge over time. As stated by Mandang et al. (2020), farming experience, measured in years, represents the cumulative learning process a farmer undergoes in agricultural activities. The largest proportion of respondents (46.34% or 19 individuals) had the highest level of farming experience within the sample. Regarding their involvement with Apkarkusi, the largest share of respondents (70.74%) had been members for a period of five years.

Household dependents refer to individuals financially supported by the household head—in this study, the rubber farmer. A higher number of dependents increases household needs, consistent with the findings of Mandang et al. (2020), who noted that as the number of dependents rises, so does the household's financial burden. The most common number of dependents among respondents was three to five persons, representing 63.42% of the total sample.

The PIR project environment and outside the PIR project area. In other words, respondents are highly aware of the negative impact of relying entirely on plasma ex-project land, since its contribution to household economics is limited to its economic lifespan—which, at the time of this study, had already shown its effects, namely low land productivity. At the time of the research, production from un-replanted plantations ranged from only 0.7–1.2 tons of fresh fruit bunches per hectare per month, whereas the ideal production previously achieved by 100 percent of respondents ranged between 1.5–2 tons per hectare per month.

Identification of Apkarkusi's Internal and External Factors

SWOT analysis was employed to identify Apkarkusi's internal and external factors. Internal factors consist of Apkarkusi's strengths and weaknesses, while external factors comprise opportunities and threats. The identification process was carried out through field research involving the Head of Apkarkusi's Auction Market Division and three farmer groups in Gunung Village, Gunung Toar District, as respondents. The results of this process are presented below.

A. Identification of Apkarkusi's Internal

1. Strength
   a) Apkarkusi Implements the 4S concept
      One location, one time, one price, and one quality—to facilitate rubber farmers who are members of Apkarkusi and to ensure uniformity in operational procedures. *One location* refers to a mutually agreed-upon site for weighing *bokar* (processed rubber) by the combined farmer groups in Gunung Village. *One time* indicates that the collection and weighing of *bokar* are carried out collectively at a single, predetermined time. *One price* denotes the official price determined through the auction activities held at the Apkarkusi office. *One quality* represents the quality standard established by Apkarkusi; *bokar* that does not meet these standards will not be accepted and will be returned to the farmer.
   b) Clean and Dry Bokar
      The quality standard established by Apkarkusi requires that *bokar* (processed rubber) be free from any contaminants such as bark, wood, or plastic, and that it must be in a dry condition. This quality requirement is consistently enforced for all members participating in the auction market.
   c) High Selling Price
      The selling price is considered high due to the significant price difference between selling rubber through Apkarkusi's auction system and selling directly to *tauke* (middlemen). The price difference typically ranges from IDR 1,500/kg to IDR 2,500/kg in favor of the auction system. This finding is supported by field data: on February 20, 2023, rubber farmers selling *bokar* to *tauke* received a selling price of IDR 7,500/kg, whereas on November 27, 2022, farmers selling *bokar* through Apkarkusi's auction obtained a price of IDR 9,410/kg.

2. Weakness

a) Absence of a Bokar Collection Warehouse

A warehouse serves as a temporary storage facility for *bokar* prior to the weighing process. Gunung Village currently does not have a dedicated *bokar* storage warehouse. As a result, *bokar* collection is carried out on Monday mornings, followed by weighing in the afternoon. The availability of a warehouse would allow farmers to deliver *bokar* a day before the weighing process. This would be beneficial, as storing *bokar* in a warehouse could reduce its moisture content prior to weighing, thereby improving the quality of the product.

b) Offline Integrated Auction Market System

The Integrated Auction Market System (*Sistem Pasar Lelang Terpadu*, SPLT) should ideally be implemented online to improve accessibility and efficiency. However, its adoption requires readiness from both buyers and rubber farmers, as not all farmers currently possess adequate technological proficiency to operate in an online environment.

B. Identification of Apkarkusi's External

1. Opportunity

a) Apkarkusi's List of Regular Buyers

Buyers are Apkarkusi's customers, consisting of large-scale traders or *bokar* processing factories. Apkarkusi acts as an intermediary between farmers and buyers, serving as a facilitator through its auction-based marketing system. Representatives from each buyer participate in the auction activities held at Apkarkusi's office. Currently, there are 26 registered factories listed as buyers in Apkarkusi's database.

b) Buyers from Outside Riau Province

Participants in the auction market are not limited to buyers from Riau Province; they also come from other provinces such as Jambi, West Sumatra, North Sumatra, and South Sumatra. For example, PT. Family Raya, based in West Sumatra, was the winning bidder on November 27, 2022, offering a price of IDR 9,410/kg.

c) Price Stability for Bokar

Farmer groups affiliated with Apkarkusi obtain higher selling prices compared to those selling to conventional *touke* (middlemen). In addition, rubber farmers within Apkarkusi benefit from relatively stable prices due to a shorter marketing chain—Apkarkusi directly connects farmers with buyers, eliminating intermediary traders.

2. Threats

a) Violation of Auction Market Agreements by Farmer Groups

The regulations mutually agreed upon constitute binding provisions that must be accepted and adhered to by all farmer groups affiliated with Apkarkusi. Any group found in violation of these rules is subject to direct sanctions from Apkarkusi. For example, in one recorded case, a farmer group dissatisfied with the auction price conducted its own independent auction. Such actions undermine the integrity of Apkarkusi's system and, consequently, the group was sanctioned by being expelled from the organization.

b) Breach of Rules by Losing Buyers

Violations committed by buyers represent an external threat to Apkarkusi. According to the established agreement, the winning buyer must purchase the entirety of the *bokar* available through Apkarkusi, and losing buyers are strictly prohibited from bypassing this rule. A documented incident involved a losing buyer approaching a farmer group directly and offering to purchase their *bokar* at the group's preferred price, thereby circumventing the formal auction process.

c) Land Use Conversion

Land use conversion refers to the replacement of the original main crop with another type of crop. For instance, rubber plantations may be replaced with oil palm cultivation. The total *bokar* production of all farmer groups affiliated with Apkarkusi reached 81 tons on November 20, 2022. Thus, if rubber farmers convert their land to other crops, this would negatively impact Apkarkusi's *bokar* production, posing a significant external threat to the organization.

SWOT MATRIX

The variables identified in terms of internal dan external factors are entered into the SWOT matrix as in the following table:

Table 3. SWOT MATRIX

Internal Factors / External Factors	***Strength***	***Weakness***
	1. Apkarkusi implements the 4S concept 2. Bokar (processed rubber) is clean and dry 3. High selling price of bokar	1. Absence of a dedicated bokar collection warehouse 2. The integrated auction market system operates solely offline
Opportunity	**Strategies (*SO*)**	**Strategies (*WO*)**
1. Apkarkusi maintains a permanent list of buyers 2. *Buyers also come from outside Riau Province* 3. Stablility in bokar selling prices	1. By implementing the 4S concept and maintaining a permanent buyer list, the selling price of bokar can be increased (S1, S3,O1) 2. Maintaining bokar quality ensures higher selling prices, attracting buyers from outside Riau Province (S2,S3,O2) 3. By implementing the 4S concept ensures high-quality output, contributing to stable prices (S1,S2,O3)	1. Providing bokar collection facilities to facilitate buyer transportation (W1,O1,O2) 2. Developing educational resources to support the transition of the integrated auction market system to an online platform (W2,O2)

Threats	**Strategies (*ST*)**	**Strategies (*WT*)**
1. Farmer groups violating auction market agreements 2. *Losing buyers breaching Apkarkusi's regulations* 3. Land use conversion	1. Maintaining the quality standards established by Apkarkusi to preserve buyer trust (S1,S2,O1,T2,T3) 2. Applying the 4S concept and maintaining bokar quality to ensure high and stable selling prices, thereby reducing the likelihood of land conversion by rubber farmers (S1,S2,S3,O3,T3)	1. By implementing an integrated online auction market system to expand market reach and facilitate interactions with buyers from outside Riau Province (W2,S3,O2,T2) 2. Enforcing Stricter regulations and penalties for violations in the implementation of the auction market system (W2,T1,T2)

Source: Data Processed, 2023

Table 3 explains how strategies are generated by combining the indicated internal and external aspects. The aparkusi system recommends this method as an alternative to the bokar marketing strategy and outlines each technique in greater detail below. Based on the results of the SWOT analysis, the following strategies are recommended for Apkarkusi:

SO Strategies

1) Implement the 4S concept and maintain a permanent buyer base to enable higher selling prices for bokar.
2) Preserve the quality of bokar to ensure high selling prices, thereby attracting auction participants from outside Riau Province.
3) Apply the 4S concept to achieve superior quality, resulting in stable price trends.

***WO* Strategies**

1) Provide facilities for bokar collection to facilitate transportation for buyers.
2) Develop educational media to support the transition to an online integrated auction market system.

***ST* Strategies**

1) Maintain the quality standards established by Apkarkusi to sustain buyer trust.
2) Apply the 4S concept and preserve bokar quality to secure high and stable selling prices, thereby reducing the likelihood of land use conversion among rubber farmers

WT Strategies

1) Implement an online integrated auction market system to broaden market reach and facilitate interactions with buyers from outside Riau Province.
2) Enforce stricter regulations and penalties for violations in the implementation of the auction market system.

Each recommendation will be compared to the score acquired from each sample that has been determined. Each recommendation will receive a score ranging from

lowest to highest. Table 4 shows the score results.

Table 4. Ranking of SWOT Element Strategies Based on Scores

SWOT Elements	Correlation	Total Score	Ranking
SO1	(S1,S3,O1)	2,129	3
SO2	(S2,S3,O2)	1,968	6
SO3	(S1,S2,O3)	2,061	4
WO1	(W1,O1,O2)	1,408	7
WO2	(W2,O2)	0,818	9
ST1	(S1,S2,O1,T2,T3)	2,634	2
ST2	(S1,S2,S3,O3,T3)	3,066	1
WT1	(W2,S3,O2,T2)	1,977	5
WT2	(W2,T1,T2)	1,084	8

Source: Data Processed, 2023

Based on table 4, can see the ranking of strategies derived from the SWOT elements, the recommended strategies, in order of priority, are as follows:

1. Implement the 4S concept and maintain the quality of raw rubber sheets (bokar) to achieve high and stable selling prices, thereby minimizing the tendency of rubber farmers to convert their land to other uses.
2. Maintain the quality standards established by Apkarkusi to preserve buyer trust.
3. Apply the 4S concept and maintain a fixed buyer list to increase the selling price of bokar.
4. Apply the 4S concept to ensure high-quality products, which in turn promotes price stability.
5. Implement an integrated online auction market system to expand marketing reach and facilitate interactions with buyers from outside Riau Province.
6. Maintain the quality of bokar so that selling prices remain high, thereby attracting buyers from outside Riau Province to participate in auctions.
7. Provide facilities for bokar collection to facilitate transportation for buyers.
8. Strengthen regulations and impose penalties on parties who violate the auction market rules.
9. Prepare educational media for the implementation of an integrated online auction market system

The outcomes of this research include recommendations for bokar marketing tactics via the APkarkus system, which have implications for sustainable development goals (SDGs). Several alternative strategy recommendations make relevant contributions to several SDG goals, including SDG 1 (No Poverty), where the implementation of marketing strategies based on the 4S concept, maintaining bokar quality, and engaging with buyers can significantly increase bokar selling prices. This directly affects the revenue of rubber growers, the majority of whom are in vulnerable economic groups. This indicates that as farmers' incomes rise, the chance of poverty decreases. Aside from that, it is also related to SDG #2, where farmers are able toSeveral alternative strategy recommendations make relevant contributions to several SDG

goals, including SDG 1 (No Poverty), where the implementation of marketing strategies based on the 4S concept, maintaining bokar quality, and engaging with buyers can significantly increase bokar selling prices. This directly affects the revenue of rubber growers, the majority of whom are in vulnerable economic groups. This indicates that as farmers' incomes rise, the chance of poverty decreases. The outcomes of this research include recommendations for bokar marketing tactics via the APkarkus system, which have implications for sustainable development goals (SDGs).

CONCLUSION

The characteristics of the respondents indicate that the largest proportion falls within the age range of 51–60 years (34.15%). The majority of landholdings are less than 2 hectares (65.85%). In terms of education, most rubber farmers are junior high school graduates or equivalent (36.59%). The highest proportion of farming experience is represented by respondents with 46.34% (19 individuals), while the largest share of membership duration in Apkarkusi is within the range of 5 years (70.74%). Regarding family dependents, the majority of respondents have 3–5 dependents (63.42%). Based on the ranking of strategies derived from the SWOT analysis, the recommended strategies, in order of priority, are as follows: 1) Implement the 4S concept and maintain the quality of raw rubber sheets (bokar) to achieve high and stable selling prices, thereby minimizing the tendency of rubber farmers to convert their land to other uses. 2) Maintain the quality standards established by Apkarkusi to preserve buyer trust. 3) Apply the 4S concept and maintain a fixed buyer list to increase the selling price of bokar. 4) Apply the 4S concept to ensure high-quality products, which in turn promotes price stability. 5) Implement an integrated online auction market system to expand marketing reach and facilitate interactions with buyers from outside Riau Province. 6) Maintain the quality of bokar so that selling prices remain high, thereby attracting buyers from outside Riau Province to participate in auctions. 7) Provide facilities for bokar collection to facilitate transportation for buyers. 8) Strengthen regulations and impose penalties on parties who violate the auction market rules. 9) Prepare educational media for the implementation of an integrated online auction market system.

For the further development of Apkarkusi, it is recommended to build a warehouse facility in Gunung Village, as this would have a positive impact on the quality of bokar produced by rubber farmers who are members of Apkarkusi. Additionally, further research is needed on the impact of rubber land conversion on the future development of Apkarkusi

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