

Financial Analysis and Marketing of Pakkat from Rattan Seel (Daemonorops Melanochaetes Bl.) in Simangambat District, North Padang Lawas Regency

Yunus Afifuddin¹, Rosadi Patra Tanjung², Agus Purwoko³, Hafnita Misrawati Harahap⁴

Universitas Sumatera Utara

Corresponding Author: Hafnita Misrawati Harahap

hafnitamisrawatiharahap@yahoo.co.id

ARTICLE INFO

Keywords: Financial Analysis, Marketing Package, Daemonorops Melanochaetes Bl

Received : 18, September

Revised : 20, November

Accepted: 22, January

©2026 Afifuddin, Tanjung, Purwoko, Harahap: This is an open-access article distributed under the terms of the [Creative Commons Atribusi 4.0 Internasional](https://creativecommons.org/licenses/by/4.0/).



ABSTRACT

The existence of forests is a source of livelihood for people whose economic level is still low because they use forest resources traditionally. Rattan is one plant timber forest products. Almost all parts can be used, one of which is processed into pakkat. Today, information of pakkat economic value is limited, so that people were uninterested in process it. Therefore, this research aimed to determine the financial feasibility, workflow and marketing margins and marketing efficiency pakkat. The research was conducted in the Simangambat District, North Padang Lawas Regency. Respondents of this study are pakkat businesses and entrepreneurs pakkat sales. The method of data analysis were financial analysis and marketing analysis. Pakkat marketing groove starts from farmers, collectors, retailers, and through to consumers. There are 2 lines with margin value from broom Rp. 900,00.

INTRODUCTION

The existence of forests is a source of livelihood for people whose economic level is still low because they use forest resources traditionally. Along with the increase in population, the demand for forest products, both timber and non-timber, also increases. Given this, most of the Indonesian population depends on the use of forest products and forest services (DEPHUTBUN, 1998). One of the non-timber forest products known by the community around the forest is rattan. According to Januminro (2000), rattan is used by the community in various daily life needs, even in some places rattan has become a support for the cultural development of the local community.

The potential of non-timber forest products such as rattan is used by the community as the main source of livelihood for local people who live around the forest. The local community from the beginning until now has never been separated from its dependence on rattan. Every part of a particular type of rattan starting from the roots, stems, leaves, and fruits is used directly by the local community. Therefore, rattan harvesting activities carried out by the community can make an adequate contribution as a source of their income. Rattan stems or commonly called *rattan pokrol* are used as ingredients for vegetables for people in and around the forest. The types of rattan that are used by *pokrol* as vegetables are large-diameter rattan such as *Daemonorops* and several types of *Calamus*. The people of Aceh are more familiar with *Pokrol* rattan with the term *umbut* rattan which has a top part approximately 100 cm long from an adult rattan stem that can be used as a vegetable, while the people of Tapanuli know *Pokrol* rattan by the name *pakkat*.

Simangambat District is one of the sub-districts in North Padang Lawas Regency that has the potential to produce *pakkat*. Rattan processed into *pakkat* is in great demand by the community, especially in certain months, for example in the month of Ramadan. Therefore, most *pakkat businesses* only process in the month of Ramadan because at that time the demand and value of *pakkat* are very high. Unlike in normal months, the demand for *pakkat* is small and automatically the people who process young rattan or *pakkat* will also decrease.

Rattan plants that produce *pakkat* are less in demand to be processed because the surrounding community considers that *pakkat* has a low selling value. Therefore, it is necessary to know the financial value of *the pakkat* so that later it can provide information to the community that *the pakkat* is also useful for increasing people's income. In addition, the value of the business feasibility run by the producer who is engaged in *pakkat processing* also needs to be assessed so that it can be known whether *the pakkat* business is feasible to be run or not. So that the results of this research will be information for people who want to become *farmers of this pakkat*.

The results of *pakkat* that are processed into food have a selling value that can be marketed in the market. In addition, understanding and information about *pakkat* marketing is still one of the factors that causes the lack of willingness of the community to process *pakkat*. By analyzing this *pakkat marketing*, it is hoped that it can be known how the level of *pakkat* marketing in Simangambat District is. Therefore, it is necessary to conduct a study on "Financial Analysis and Marketing of Rattan Seel (*Daemonorops melanochaetes* Bl.) in Simangambat District, North Padang Lawas Regency".

THEORETICAL REVIEW

Forests constitute a source of livelihood for communities with relatively low economic levels because forest resources are utilized traditionally. Along with population growth, the demand for both timber and non-timber forest products increases, resulting in a large proportion of Indonesian society depending on forest products and services. One of the non-timber forest products widely known by forest-adjacent communities is rattan. Rattan is used in various daily needs and in several regions has become a support for the cultural development of local communities.

The potential of non-timber forest products such as rattan is utilized by local communities as a primary source of livelihood. Since early times, local communities have remained closely dependent on rattan because almost every part of the plant can be used. Young rattan stems are processed into food known as *pakkat*. *Pakkat* is the tip of a young rattan stem measuring approximately ± 1 meter, harvested at the age of about 2–3 months, and consumed as a vegetable by the community, including the people of Simangambat.

The processing of young rattan into *pakkat* has economic value and can be marketed; however, information regarding the financial value and marketing of *pakkat* remains limited, resulting in low community interest in undertaking *pakkat* enterprises. Therefore, financial feasibility analysis is required to assess whether the *pakkat* business is viable. Financial analysis includes cost and revenue analysis, Revenue Cost Ratio (R/C), Break Even Point (BEP), and Payback Period. Cost and revenue analysis determines business profit through the calculation of total production cost, total revenue, and net income. The R/C ratio represents the comparison between total revenue and total cost to evaluate business profitability. An R/C value greater than one indicates profit, equal to one indicates break-even, and less than one indicates loss.

Break Even Point analysis determines the point at which costs equal revenue so that the business experiences neither profit nor loss. BEP can be calculated based on production units and selling price. If production volume or selling price exceeds the BEP value, the business generates profit. Payback Period describes the time required to recover investment. A shorter payback period indicates higher feasibility because investment risk is lower and capital turnover is faster.

In addition to financial feasibility, marketing aspects determine the success of the pakkat enterprise. Marketing is the activity of distributing products from producers to consumers through marketing agencies such as farmers, collectors, and traders. The price difference between producer and consumer levels is referred to as marketing margin, which consists of marketing costs and marketing profits. Analysis of marketing margin and profit margin is used to identify the distribution of returns among marketing actors.

Marketing efficiency reflects the ability of the marketing system to deliver products from producers to consumers at minimum cost and with a fair distribution of price among participants. Efficiency can be measured through the mark-up on selling price. The lower the marketing efficiency value, the more efficient the marketing system because the cost borne by consumers is relatively smaller. A marketing system is considered efficient when it is able to distribute products at low cost and provide equitable income distribution to all marketing actors involved.

Thus, the theoretical foundation concerning non-timber forest products, the utilization of rattan as pakkat, financial feasibility analysis, marketing margin, and marketing efficiency forms the basis for assessing the feasibility and marketing system of the pakkat enterprise in Simangambat District.

METHODOLOGY

Data Collection Methods

The data used in this study consisted of primary data and secondary data. Primary data were obtained through field observations, questionnaires, and interviews with pakkat farmers conducted regularly. Secondary data were obtained from official sources and related agencies, including population data, socio-economic data, administrative maps, and general descriptions of the research area. The determination of respondents was carried out using purposive sampling, namely selecting communities who regularly cultivated pakkat, totaling 27 families. This sampling technique is based on specific objectives. This research was also conducted on pakkat sales business actors starting from farmers, collectors, distributors, to consumers. Sample selection for marketing actors was carried out using the snowball sampling method.

Data Analysis Methods

Data analysis used production data within a single production period. The analyses carried out were financial analysis and marketing analysis.

Financial Analysis

Financial analysis was carried out using cost and revenue analysis, Revenue Cost Ratio (R/C), Break Even Point (BEP) approach, and Payback Period. Cost and revenue analysis aimed to determine the amount of profit obtained from the business. The formulas used were:

Total

Cost:

$$TC = TFC + TVC$$

Total

Revenue:

$$TR = P \times Q$$

Income:

$$I = TR - TC$$

The Revenue Cost Ratio (R/C) is the comparison between total revenue and total cost and was calculated as:

$$R/C = TR / TC$$

Evaluation criteria:

- a. $R/C < 1$ = young rattan processing business suffers losses.
- b. $R/C = 1$ = break-even point.
- c. $R/C > 1$ = young rattan processing business makes a profit.

Break Even Point analysis aimed to determine the point where costs equal revenue. BEP based on production units was calculated as:

$$BEP(Q) = TFC / (P \text{ per unit} - VC \text{ per unit})$$

Variable cost per unit (VC/unit) = Total Variable Cost / Production Quantity

BEP based on rupiah units was calculated as:

$$BEP(Rp) = TC / Y$$

where Y is total production.

Payback Period analysis was used to determine the time required for investment to be fully returned. The payback period describes the length of time needed for invested funds to be recovered. If the payback period is shorter than the project life, the project is feasible.

Marketing Analysis

Marketing analysis evaluated the distribution of pakkat from producers to consumers. Data obtained from interviews and questionnaires were analyzed using marketing margin, profit margin, and marketing efficiency formulas.

Marketing margin (MP) was calculated as:

$$MP = Pr - Pf$$

where Pr is consumer price and Pf is producer price.

The share received by farmers (Sp) was calculated as:

$$Sp = (Pf / Pr) \times 100\%$$

Profit of each marketing agency was calculated as:

$$\Pi = M - Bp$$

where M is marketing margin and Bp is marketing cost.

Marketing efficiency was analyzed using mark-up on cost and mark-up on selling price to determine the operational efficiency level of the trading system. A lower marketing efficiency value indicates a higher level of efficiency.

RESEARCH RESULTS

Respondent Characteristics

Respondents in Simangambat District consisted of pakkat farmers and marketing actors such as collectors and retailers. A total of 27 respondents were obtained. Based on age characteristics, the largest group was 31–40 years with 11 people (40.74%), followed by >50 years with 9 people (33.33%), and 41–50 years with 7 people (25.93%). Most respondents were within the productive age range of 30–50 years (66.67%), indicating that age is an important factor in production activities. Based on education level, respondents were dominated by elementary school graduates (74.08%), followed by junior high school (22.22%) and high school (3.33%). The high proportion of elementary education reflects the limited economic background of respondents, which restricted access to higher education.

Description of Pakkat Business

Pakkat collection areas were located in Tanjung Botung, Ulok Tano, Pagaran Tonga, and Tanjung Maria villages in Simangambat District. The collection sites were generally rubber and oil palm plantation areas converted from forest land. Harvested rattan was young rattan (pakkat) aged approximately 2–3 months, with the harvested part being the tip of the stem about 1 meter long. Pakkat is commonly consumed as a vegetable and is considered a special food by the local community. The production process consisted of equipment preparation, site cleaning, selection of harvestable stems, cleaning of prickly fronds, and transportation. Farmers harvested approximately 300 stems per day and transported pakkat manually from forest areas to their homes over a distance of about 2 km.

Financial Analysis of Pakkat Business

Total production cost in one production period (four days) was Rp 474,270.83, consisting of fixed costs of Rp 3,270.83 (0.69%) and variable costs of Rp 471,000.00 (99.31%). Total revenue per production was Rp 720,000.00, based on a selling price of Rp 600 per stem and production of 1,200 stems. Net income per production was Rp 245,729.17. The Revenue Cost Ratio (R/C) was 1.5, indicating that the pakkat business was profitable and feasible. Break Even Point (BEP) analysis showed a BEP production level of 790 stems and a BEP price of Rp 392.50 per stem. Actual production (1,200 stems) and selling price (Rp 600) exceeded BEP values, confirming profitability. The payback period was 2.71 production cycles, indicating relatively fast capital recovery and business feasibility.

Marketing Channels

Pakkat marketing in Simangambat District involved four actors: farmers (producers), collectors, retailers, and consumers. Two marketing channels were identified:

- a. Channel I: farmers → collectors → consumers.
- b. Channel II: farmers → collectors → retailers → consumers.

Marketing Margin and Profit Distribution

In Channel I, the farmer share was 40% with a marketing margin of Rp 900 per stem. The highest profit margin was obtained by collectors (51.26%). The price received by farmers was Rp 600 and the consumer price was Rp 1,500. In Channel II, the farmer share remained 40%. Collectors obtained a profit margin of 18.76%, while retailers obtained the highest profit margin of 39.33% (Rp 590). The total marketing margin was also Rp 900 per stem.

Marketing Efficiency

Marketing efficiency measured by mark-up on selling showed values of 33% for collectors and 40% for retailers in both channels. Since all values were below 50%, both marketing channels were categorized as efficient. The collector level was the most efficient due to the lower mark-up value.

DISCUSSION

The characteristics of respondents indicate that pakkat business actors in Simangambat District are predominantly in productive age groups and have relatively low formal education levels. Productive age supports physical work activities such as harvesting and transporting pakkat, while low education levels reflect limited economic conditions and dependence on forest resources as a livelihood source. This condition is consistent with the role of non-timber forest products as an accessible income source for rural communities living near forest areas. The description of pakkat business shows that pakkat harvesting is carried out in plantation areas converted from forest land and does not require intensive cultivation practices. Rattan naturally regenerates after harvesting, and pakkat can be harvested at a young age of 2–3 months. This indicates that pakkat utilization is based on natural resource availability and traditional knowledge. The manual harvesting and transportation process also reflects the small-scale and labor-intensive nature of the business.

Financial analysis demonstrates that the pakkat business is profitable and feasible. The dominance of variable costs (99.31%) compared to fixed costs (0.69%) indicates that production activities mainly depend on operational expenses such as labor, consumption, and transportation. With total revenue exceeding total cost, the business generates positive net income. The R/C value greater than one confirms that pakkat processing provides financial benefits to farmers. Break Even Point analysis further supports feasibility, as actual production and selling price are both higher than BEP values. This means farmers operate in a profit zone and have a safety margin against loss. The relatively short payback period of 2.71 production cycles indicates rapid capital turnover and low investment risk, which is favorable for small-scale rural enterprises.

Marketing analysis shows that pakkat distribution involves a limited number of market actors, forming short marketing channels. The existence of two channels indicates flexibility in marketing options for farmers. However, the farmer share of only 40% in both channels shows that farmers receive a smaller portion of the final consumer price compared to intermediaries. The higher profit margins obtained by collectors and retailers reflect their roles in transportation, handling, and market access.

The equal marketing margin value in both channels indicates that price increases occur mainly at intermediary levels rather than at the producer level. Differences in profit distribution between collectors and retailers in the two channels are influenced by differences in marketing costs and selling prices. This reflects that marketing actors who bear higher costs and perform additional distribution functions obtain higher margins. Marketing efficiency analysis indicates that both channels are operationally efficient because mark-up values are below 50%. Lower mark-up at the collector level shows relatively lower distribution cost compared to retailer level. Efficient marketing channels imply that pakkat can be distributed from producers to consumers with relatively low additional cost and acceptable price distribution among actors.

Overall, the results indicate that pakkat as a non-timber forest product has economic potential and feasible marketing structure in Simangambat District. The combination of profitable financial performance, short payback period, and efficient marketing channels supports the viability of pakkat business as a livelihood activity for local communities.

CONCLUSIONS AND RECOMMENDATIONS

The conclusions of this study are:

- a. The young rattan or *pakkat* business is feasible to run because the RC ratio value is more than 1, which is 1.5 with a break-even point of 790 units and a break-even point of Rp. 392.50, and *the payback period* is after 2.71 times of production.
- b. There are two pakkat marketing channels in Simangambat District. The marketing margin of this *package* is Rp.900.00.
- c. All pakkat *marketing channels* in Simangambat District are efficient, said to be efficient because they have a *mark up value on selling* below 50%.

FURTHER STUDY

Further research from the study Financial Analysis and Marketing of Pakkat from Rattan Seel (*Daemonorops melanochaetes* Bl.) in Simangambat District, North Padang Lawas Regency can be directed towards a more comprehensive analysis related to the value chain, product diversification, and ecological sustainability of pakkat as a non-timber forest product.

REFERENCES

- Alamsyah, I. 2005. Analisis Nilai Tambah dan Pendapatan Usaha Industri Kemplang Rumah Tangga Berbahan Baku Utama Sagu dan Ikan. *Jurnal Pembangunan Manusia*. Fakultas Pertanian Universitas Sriwijaya. Palembang.
- Awang, S dkk. 2002. Hutan Rakyat, Sosial Ekonomi dan Pemasaran. BPFE. Yogyakarta Hal. 69-81.
- Badan Urusan Logistik. 1996. Studi Analisis Keterpaduan Pasar Pada Sistem Pemasaran Komoditas Pangan Strategis. Lembaga Penelitian IPB. Bogor.
- Daniel, M. 2001. Pengantar Ekonomi Pertanian. Bumi Aksara. Jakarta.
- Departemen Kehutanan dan erkebunan Republik Indonesia. 1998. Buku Panduan Kehutanan Indonesia. Badan Penelitian dan Pengembangan Kehutanan dan Perkebunan. Jakarta.