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FEASIBILITY STUDY JOURNAL OF ROBUSTA GROUND COFFEE BUSINES IN TANGGAMUS REGENCY

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ABSTRACT

Tanggamus Regency is one of the main producers of Robusta coffee in Lampung Province; however,the added value enjoyed by farmers is still limited to the sale of raw coffee beans (green beans). This study aims to analyze the business feasibility of establishing a Robusta ground coffee processing unit to increase the economic value of local commodities and community economic empowerment. The research method used is descriptive quantitative by evaluating five main aspects of business feasibility: market and marketing aspects,technical and production aspects,human resource management aspects,legal aspect,and financial aspects. Data were obtained through field observations,interviews with stakeholders, and trend analysis of the contemporary coffee market. The results of the analysis indicate that from the market aspect,the demand for locally processed coffee continues to increase in line with the lifestyle trends of quality coffee consumption. From the technical aspect,the abundant availability of raw materials in Tanggamus ensures production sustainability. Analysis of the financial aspect using indicators such as Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period, and Net Benefit /Cost Ratio shows that this business has positive profit prospects and is feasible to implement. Coffee is a leading commodity for farmers in Lampung and its surroundings (South Sumatra and Bengkulu). In 2019,the coffee production share of these three provinces reached 49 % of the national productions (BPS Lampung Province,2020). Robusta coffee is the largest agricultural crop in Indonesia produced in Lampung province, with an are of 162,954 hectares and production reaching 131,501 tons, with an average production capacity of 965 kg /ha. This study concludes that the development of the Robusta ground coffee industry in Tanggamus Regency is not only financially feasible but also strategic. In creating new job opportunities and strengthening the branding of regional coffee in the national market.

Keywords: Robusta coffee, Business Feasibility study, Tanggamus, Added Value Agribusiness.

INTRODUCTION

Background, problems statement and research objectives

Tanggamus Regency is one of the largest Robusta coffee production centers in Lampung Province. Despite having abundant natural resource potential, some coffee farmers are still trapped in the pattern of selling primary commodities in the form of raw coffee beans (green beans). This condition result in the added value received by farmers being relatively low and highly dependent on global market price fluctuations. Product downstreaming through the processing of coffee into ground coffee is a strategic step to increase the economic value of the product.

However,the transition from farmers to processing business actors faces major challenges,ranging from quality standards and production concistency to market penetration strategies. Therefore, a comprehensive study is required to map out whether the development of the ground coffee business in this region is truly business -feasible and socio-economically sustainable.

This research aims to analyze the business feasibility of the Robusta ground coffee household industry in Tanggamus Regency. The study focuses on non-financial aspect (market,technical, management,and legal) as well as financial aspects to provide an overview of risks and profit prospects for both business actors and relevant stakeholders.

MATERIALS AND METHODS

Research location and time

This research was conducted in Tanggamus Regency, Lampung Province. The location was selected using a purposive method, considering that this area is the main buffer zone for Lampung’s Robusta coffee commodity. Data collection was carried out during the period of January to May 2026 .

Types and source of data

The data used in this research concist of :

1. Primary Data : Obtained through direct field observations, in -depth interview with coffee business actors, and the completion of questionnaires by relevant respondents.
2. Secondary Data :Obtained from literature studies of annual report from the Central Bureau of Statistics (BPS), and relevant previous research journals.

Data Analysis Method

The analysis was conducted using qualitatative and quantitative approaches through two main stages:

1. Non -Financial Feasibility Analysis:

Market Aspect :Analyzing potential demand,supply, and marketing mix strategies.

Technical Aspect : Evaluating business location, raw material availability, processing technology, and production capacity.

Management & Legal Aspect: Reviewing labor availability and compliance with business lincensing regulations.

2. Financial Feasibility Analysis:

Investment feasibility is calculated using the following economic indicators:

- Net Present Value (NPV) : Calculates the difference between the present value of cash inflows and cash outflows over a period of time.
- Internal Rate of Return (IRR) : Determines the interest rate generated from an investment.
- Net Benefit/ Cost Ratio (Net B/C) :A Comparison between the total positive net benefits and the total negative net benefits.

- Payback Period (PP) : Calculates the time required to recover the investment capital.

$$NPV = \sum \frac{Bt - et}{(1+e)^t}$$

This research uses a case study on a specific brand and survey of several coffee MSMEs (Micro, Small, and Medium Enterprises) in Tanggamus to ensure more accurate results.

Comprehensive business feasibility analysis, downstreaming strategy ,and economic transformation of robusta coffee agro -industry in tanggamus regency

The economy of Lampung Province has long been based on the pillars of the plantation sector, where Robusta coffee has become a prime commodity, placing this region as a major exporter as well as the second -largest producer at the national level. Tanggamus Regency, with its highland geographic characteristics, plays a crucial role in this production map. However,increasingly volatile global market dynamics, challenges of extreme climate change, and a supply chain structure still dominated by intermediaries demand an in-depth evaluation of the latest research results regarding business feasibility and downstreaming strategies.

This journal present a synthesis of results,discussions,and conclusions from s ecurrent research covering financial analysis,environmental productivity, and downstream product innovation to provide strategic guidance for stakeholders.

RESULTS AND DISCUSSION

Production, income, and financial feasibility analysis

The research result consistently show that Robusta Coffee Productivity at the smallholder plantation level in Lampung is still below its optimal potential. Although Lampung is a major production center, current average productivity only ranges around 0,8 tons per hectare per year. This figure lags far behind major competing countries such as Vietnam, which is capable of achieving productivity above 2 tons per hectare. This gap has direct implications for the cost structure and price competitiveness in the international market.

Financial performance of ground coffee and roast bean agro –industr

Research data in Tanjung Anom Village,Tanggamus, indicates that processing coffee into value -added product such as roast beans and ground coffee provides significant profit margins for business actors . The average production cost for a small -scale processing unit was recorded at Rp. 2,521,020 per month . A deeper analysis of financial feasibility indicators reveals the superiority of ground coffee products compared to roast beans.

Table 1: Comparison of Financial Feasibility Indicators for C0ffee Processing Units

Feasibility Indicator	Roast Bean(Roasted Beans)	Packaged Ground Coffee	Feasibility Threshold
R/C Ratio (Revenue/Cost)	1.38	1.89	>1.00
Break Event Point (Unit)	Surpassed	Surpassed	>Production Volume
Lowest Price (BEP Price)	Rp. 105,043/kg	Rp. 76,487/kg	< Market Price
Average Production	24kg/month	32.98kg/month	-

Source : Analysis of Processed Primary Data 1

The data above indicated that every unit of cost spent on ground coffee production yields a return of 1.89 times, which is statistically more profitable that roast bean processing. This reinforce the premise that downstreaming into ground form is a more effective step to increase the liquidity of micro -business. Furthermore,research on micro-business units such as ground coffee MSMEs in Tanggamus,Lampung, recorded and NPV of Rp. 445,307,227 with a Return on investment (ROI) reaching 47.9%, which is categorized as excellent as it exceeds the industry average of 30%.

Profitability parameters and invesment sustainability

In a broader context, the financial feasibility analysis of spiced coffee business units in Lampung show extraordinary economic resilience with an Internal Rate of Return (IRR) of 222% . This very high IRR indicated that innovative processed coffee businesses can survive despite fluctuations in banking interest rates. The Payback Period (PBP) or Capital recovery period for the studied business units range from 3 month to 2.2 years, demonstrating a fast capital turnover rate for small and medium-scale investors.

However, the sensitivity analysis provides an important warning for business actors in Tanggamus and its surroundings. A coffee farm or agro -industry will become unfeasible if there is a 25% decrease in selling price while other production factors remain constant. This shows that the coffee business is highly sensitive to global market price shocks and harvest fluctuations due to environmental factors.

Table 2 : Macroeconomic Indicator Projections For Tanggamus Robusta Coffee,Lampung 2025 2026

Economic Parameter	2025 Projection	2026 Projection
Production Volume (Tons)	116,272	116,214
Export Value (USD)	>400 million	7 % increase target

FPT(Farmer Exchange Rate Contribution)	+0.30%	Stable/Increasing
International Price (Estimated)	US $ 3.60 /lb	Volatile (Upward Trend)

Source : Synthesized From jtai.politala.ac.id,Lampung .rilis.id,Garuda TV

Discussion : value chain tranformation and downstreaming strategy

The discussion of these research results must be placed within the framework of the national downstreaming policy. The central government and regional authorities in Lampung are currently accelerating a paradigma shift from the export of raw green beans toward the export of high -quality processed form to middlemen receive only very thin profit margins.

Mechanisms for increasing added value

Research in Tanggamus Regency reveals striking price differences based on post - harvest treatment and the chosen marketing channels. Traditional farmers who sell raw beans to collectors usually only receive a price of around Rp.18,000 per kilogram. In contrast, through a partnership model with professional roasteries and the application of the “red pick” technique (harvesting only perfectly ripe cherries), the price at the farmer level can surge drastically to Rp45,000-Rp50,000 per kilogram .

Technically, the added economic value created through the processing of coffee into packaged ground coffee can reach 11 to 16 times the price of raw beans,with final product selling prices ranging between Rp.200,000 and Rp. 300,000 per kilogram. Futhermore, if the product enters coffee shop network as a served beverage,its economic value can escalate to reach Rp. 2,000,000 per kilogram. This proves that the downstreaming strategy is not merely jargon,but an economic necessity to release farmers from the trap of structural poverty .

Marketing strategy and branding analysis

In the marketing aspect, the research result on the “Robusta Coffee Amira “ business unit provide an overview of the importance of an effective marketing mix. Even though a product has superior flavor and good hygiene,the main weakness lies in an ineffective distribution system and promotions that still rely on incindental exhibitions. The IFAS and EFAS matrices show that the business position is in the Growth and Build quadrant, which recommends mass market penetration and product development strategies.

Coffee market trend in 2026 are predicted to shift toward “Hyper -Localization “ and “ Modern Heritage”. Consumers in second tier cities (tier -2) such as Bandar Lampung are beginning to seek products that combine modern operational standars with authentic local flavors. Additional, Functional product innovations such as spiced coffee (galangal,red ginger,black pepper,cloves) and the utilization of plant based milk (such as soy milk) will become new standards for health-conscious consumers.

Table 3 : Business Development Strategy Matrix (SWOT Analysis)

Opportunities	Threats

SO Strategy: International market expansion through ITPC by leveraging unique Flavor profiles	ST Strategy: Product diversification into spiced coffee into mitigate coffee bean price fluctuations
WO Strategy : Marketing digitalization and the implementation of QR codes for price transprarency	WT Strategy: Formation of patnerships with exporters for capital access and market guarantees.

CONCLUCION

The development of the Robusta ground coffee industry in Tanggamus Regency is a highly strategic and financially viable initiative for local economic transformation. Based on the comprehensive analysis conducted, several key conclusions can be drawn :

- Financial Feasibility : The business demonstrates strong profitability with an R/C Ratio of 1.89 ,an NPV of Rp.445,307,227, and an ROI of 47.9 % , all of which significantly exceed industry standards.
- Invesment Resillence : With an Internal Rate of Return of 222%, the business shows extraordinary resilience against intrest rate fluctuations. The Payback Period Is relatively short (ranging from 3 month to 2.2 years), indicating rapid capital turnover.
- Economic impact of Downstreaming transitioning from selling raw green beans to processed ground coffee can increase the economic value of the product by 11 to 16 times. This downstreaming strategy is essential to liberating farmers from structural poverty and thin profit margins .
- Strategic Positioning: According to the SWOT analysis and the Growth and Build quadrant position,the business is primed for mass market penetration. Innovations like spiced coffee “and” modern heritage “ branding are key to capturing the 2026 consumer trend toward health - conscious and authentic local flavors.

In summary ,establishing a ground coffee processing unit in Tanggamus is not only a profitable investment but alsoa vital step in strengthening regional brandinga and creating suistainable socio -economic value for the community.

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