

Profit Analysis of Tobacco Farming (*Nicotiana tabacum* L.) in Mareje Village, Lembar District, West Lombok Regency, West Nusa Tenggara

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ABSTRACT

Tobacco (Nicotiana tabacum L.) is one of Indonesia's strategic plantation commodities, contributing significantly to the national economy through employment generation, the supply of raw materials for the tobacco industry, and government revenues from exports and excise taxes. In West Nusa Tenggara Province, particularly in Mareje Village, Lembar District, West Lombok Regency, tobacco farming serves as a major source of income for rural households. Despite its economic importance, tobacco farmers continue to face several challenges, including high production costs, fluctuating market prices, and weak bargaining power within the marketing system, all of which reduce income stability. This study aims to analyze the production costs, revenues, and profitability of tobacco farming in Mareje Village as a basis for evaluating the economic feasibility of the enterprise. The analysis was conducted by calculating total production costs, consisting of fixed and variable costs, and comparing them with total revenues obtained from tobacco sales to determine farmers' net profits. The findings are expected to provide comprehensive information on the profitability and economic viability of tobacco farming, enabling farmers to improve production efficiency and make better farm management decisions. Furthermore, the results are expected to serve as a reference for local governments in formulating policies that support increased productivity, resource-use efficiency, competitiveness, and the sustainable improvement of tobacco farmers' welfare.

Keywords: Tobacco Farming, Production Costs, Revenue, Profitability, Farm Feasibility.

INTRODUCTION

The agricultural sector remains one of the fundamental pillars of economic development, contributing significantly to food security, employment, and rural livelihoods. In Indonesia, agriculture plays a vital role in improving community welfare by providing income opportunities and supporting national economic growth. Among plantation commodities, tobacco (*Nicotiana tabacum* L.) occupies a strategic position due to its substantial economic value and its contribution to government revenue through exports and tobacco excise. As reported by Rhama & Woyanti (2023), tobacco is one of Indonesia's leading plantation commodities because of its high commercial value and its role as the primary raw material for the domestic cigarette industry. Furthermore, tobacco cultivation generates extensive employment opportunities for farmers and rural communities throughout major production areas.

Beyond its contribution to national revenue, tobacco farming serves as an important source of income for farming households. The commodity creates considerable value added throughout both upstream and downstream agribusiness activities, making improvements in tobacco production essential for maintaining the competitiveness and sustainability of Indonesia's tobacco industry.

In West Nusa Tenggara Province, agriculture continues to be the backbone of the regional economy, particularly in providing employment and income for rural communities. Tobacco is one of the province's most important plantation commodities due to its relatively high economic value. West Lombok Regency, especially Mareje Village in Lembar District, possesses favorable agroecological conditions for tobacco cultivation, including suitable agricultural land, soil characteristics, and seasonal climate patterns. Consequently, tobacco farming has become one of the primary agricultural activities and an important source of household income during the planting season.

Despite its considerable potential, tobacco farming in Mareje Village faces several challenges that directly affect farm profitability. Farmers experience high production costs associated with seeds, fertilizers, pesticides, and labor, while unstable market prices and weak bargaining power within the marketing chain reduce the stability of farm income. These conditions limit farmers' ability to maximize economic returns from tobacco production.

Farm profitability is a key indicator for evaluating the economic performance and feasibility of agricultural enterprises. However, many tobacco farmers in Mareje Village do not systematically record production costs and revenues, making it difficult to accurately determine the profitability of their farming operations. Reliable profitability information is essential for supporting farm management decisions, improving resource allocation efficiency, and ensuring the long-term sustainability of tobacco farming.

Based on these circumstances, this study aims to analyze the production costs, revenues, and profitability of tobacco farming in Mareje Village, Lembar District, West Lombok Regency, West Nusa Tenggara Province. The findings are expected to provide a comprehensive assessment of the economic feasibility of tobacco farming and serve as valuable input for farmers and local policymakers in designing strategies to improve farm productivity, profitability, and the sustainable welfare of tobacco-producing households.

RESEARCH METHODS

This study was conducted in Mareje Village, Lembar District, West Lombok Regency, West Nusa Tenggara Province, Indonesia. The research location was selected purposively because Mareje Village is one of the major tobacco-producing areas in West Lombok Regency, characterized by extensive tobacco cultivation and high production activity. In addition, the village has considerable production potential, making it an appropriate location for examining the profitability of tobacco farming. The study was carried out from 20 November to 10 December 2025.

The study population consisted of tobacco farmers in Mareje Village. Respondents were selected using the simple random sampling technique, which provides each member of the population with an equal probability of being selected (Sugiyono, 2016). Following the minimum sample size commonly recommended for multiple linear regression analysis, a total of 30 tobacco farmers were selected as research respondents.

The research employed both primary and secondary data. Primary data were collected directly from respondents through structured interviews using a questionnaire, focusing on farm characteristics, production inputs, production costs, yields, selling prices, and farm revenues. Secondary data were obtained from relevant literature, books, scientific publications, government reports, and other supporting documents related to tobacco farming and agricultural economics.

Data collection was conducted using two methods. First, direct interviews were carried out with tobacco farmers to obtain detailed information regarding tobacco production practices, input utilization, production costs, and farm income. Second, a literature review was undertaken to collect supporting theoretical and empirical information from published references relevant to the research topic.

Data were processed using microsoft excel and analyzed with IBM SPSS Statistics version 21. The analysis consisted of descriptive statistical analysis to describe the characteristics of respondents and tobacco farming practices, and inferential statistical analysis using multiple linear regression to examine the factors influencing tobacco farming profitability. Farm profitability was calculated by comparing total revenue (TR) with total production cost (TC).

RESULTS AND DISCUSSIONS

Characteristics of Respondents

A total of 30 tobacco farmers from Mareje Village participated in this study. The respondents were predominantly middle-aged, with 43% aged between 47 and 56 years, while 27% were between 57 and 66 years old. This indicates that tobacco farming is largely managed by relatively older farmers, highlighting the need for generational regeneration to ensure the long-term sustainability of tobacco farming.

All respondents (100%) were male, reflecting the labor-intensive nature of tobacco cultivation, which requires considerable physical effort throughout land preparation, crop maintenance, harvesting, and post-harvest handling. Regarding farm size, most respondents (60%) cultivated between 0.25 and 0.80 ha of tobacco, whereas the remaining 40% managed 0.90-1.20 ha. Educational attainment was generally low, with 84% of farmers completing only elementary school, suggesting limited access to formal agricultural education and extension services.

Production Cost, Revenue, and Profitability

The average production cost of tobacco farming in Mareje Village was IDR 6,150,167 per production cycle. Labor represented the largest cost component, averaging IDR 4,335,683 (approximately 70.5% of total production costs), followed by production inputs (fertilizers and other farm inputs) at IDR 1,640,650 and seed costs at IDR 173,833. These findings indicate that labor remains the dominant production expense because tobacco cultivation requires intensive labor throughout the production process.

The average tobacco yield reached 367.07 kg per farmer, with an average selling price of IDR 49,016 kg⁻¹. Consequently, the average gross revenue amounted to IDR 17,992,156 per production cycle. After deducting total production costs, farmers obtained an average net profit of IDR 11,841,990 per production cycle.

The relatively high profit indicates that tobacco farming in Mareje Village remains economically feasible despite increasing production costs. The favorable selling price during the study period contributed substantially to farm profitability. These findings are consistent with previous studies reporting that tobacco farming in West Nusa Tenggara is economically viable and generates positive returns for farmers when production is managed efficiently.

Factors Affecting Tobacco Farming Profitability

Prior to regression analysis, the classical assumption tests confirmed that the regression model satisfied the required assumptions. The residuals were normally distributed (Asymp. Sig. = 0.200), no multicollinearity was detected (Tolerance > 0.10; VIF < 10), and the scatterplot indicated no heteroscedasticity. Therefore, the regression model was considered appropriate for further analysis. The coefficient of determination (R²) was 0.644, indicating that seed cost, production input cost, and labor cost jointly explained 64.4% of the variation in tobacco farming profit, while the remaining 35.6% was influenced by other factors not included in the model, such as land quality, climatic conditions, managerial capability, and market price fluctuations.

The F-test produced an F-value of 15.703 with a significance level below 0.001, demonstrating that the three explanatory variables simultaneously exerted a significant influence on tobacco farming profitability. This result suggests that production cost allocation plays a crucial role in determining farm income and overall business performance.

Partial regression analysis revealed different effects among the independent variables. Seed cost significantly influenced farm profit ($t = 3.970$; $p < 0.05$), indicating that investment in high-quality planting materials contributes positively to tobacco productivity and profitability. Labor cost also showed a significant positive effect ($t = 2.486$; $p < 0.05$), reflecting the importance of adequate labor input for maintaining crop quality during cultivation and harvesting. In contrast, production input costs (fertilizers and other farm inputs) did not significantly affect profitability ($t = 0.726$; $p > 0.05$). This finding suggests that increasing expenditure on production inputs alone does not necessarily improve profits, possibly because farmers already apply fertilizers close to the recommended dosage or because profitability is more strongly influenced by output price and labor efficiency than by additional input use.

Overall, the findings demonstrate that tobacco farming in Mareje Village is economically profitable. Improving profitability should therefore focus on enhancing labor productivity and the use of high-quality seedlings while maintaining efficient input utilization. In addition, strengthening farmers' bargaining power and improving market access would help stabilize tobacco prices and further increase farm income.

CONCLUSIONS

Based on the data analysis and discussion regarding tobacco farming in Mareje Village, several key conclusions can be drawn. First, from a financial perspective, tobacco farming in Mareje Village is highly profitable within a single production cycle. Farmers incur an average production cost of IDR 6,150,167, which generates a total revenue of IDR 17,992,156. Consequently, this yields an average net profit of IDR 11,841,990 per production period, demonstrating the economic viability of the commodity in this region. Second, the regression model utilized in this study is highly reliable for further analysis. Diagnostic tests using IBM SPSS Statistics version 20 confirm that the model satisfies all classical assumption requirements specifically normality, the absence of multicollinearity, and freedom from heteroscedasticity. Furthermore, the simultaneous analysis reveals that seeds, production inputs (saprodi), and labor concurrently exert a significant impact on tobacco farming profits in Mareje Village. The coefficient of determination (R^2) value of 0.644 indicates that these three variables account for 64.4% of the variance in farming profits, while the remaining 35.6% is influenced by other external factors not captured in this model. Lastly, the partial analysis indicates varying degrees of influence among the independent variables. Seeds and labor are found to have a significant positive effect on tobacco farming profits. Conversely, the production inputs variable does not show a statistically significant effect on profits, suggesting that its current utilization has not optimally contributed to financial returns.

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