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FACTORS AFFECTING FARMER POVERTY AND EFFORTS TO OVERCOME IT IN TANJUNG JABUNG TIMUR DISTRICT

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ABSTRACT

This study aims to analyze the effect of technology, own capital, people's business credit, training, and agricultural institutions on the income of farmers in East Tanjung Jabung Regency and analyze poverty reduction strategies for farmers in East Tanjung Jabung Regency. The analysis tools used are multiple linear regression analysis and SWOT analysis. Based on the results of multiple linear regression partially owned capital, people's business credit, training, and agricultural institutions have a significant effect on the income of food farmers in East Tanjung Jabung Regency. Meanwhile, technology does not have a significant effect on the income of food farmers in East Tanjung Jabung Regency. The results of the SWOT analysis show that the strategy used for poverty reduction in farmers in East Tanjung Jabung Regency is in quadrant I position, which is a progressive recommendation, which means a very favorable situation for farmers in East Tanjung Jabung Regency because it has opportunities and strength so that it can take advantage of existing opportunities to overcome poverty.

Keywords: *Technology, Own Capital, People's Business Credit, Training, Agricultural Institutions, Farmer Income*

1. INTRODUCTION

Agriculture plays a crucial role in the livelihoods of many communities, especially in rural areas like Tanjung Jabung Timur District. Farmers are the backbone of food security and rural development, yet they often face significant challenges that impede their productivity and income levels. Addressing farmer poverty is not only essential for improving the well-being of these communities but also for ensuring sustainable agricultural practices and food production. Understanding the factors that contribute to farmer poverty is vital for developing effective strategies to enhance their economic conditions and overall quality of life (Kuncoro, 2004).

In today's rapidly changing environment, the significance of addressing farmer poverty has become even more pronounced. With the advent of modern technology and global economic shifts, there is an urgent need to integrate these advancements into agricultural practices. However, many farmers in East Tanjung Jabung Regency still lack access to these technologies, which limits their productivity and income potential. The importance of this topic lies in bridging the gap between traditional farming methods and modern technological advancements to uplift the socioeconomic status of farmers (Basavaraja et al., 2008; Wouterse, 2015).

The current situation in East Tanjung Jabung Regency highlights the pressing need for a comprehensive approach to tackling farmer poverty. Despite government initiatives and programs aimed at providing financial support and training, many farmers remain trapped in a cycle of low productivity and poverty. This can be attributed to several factors, including insufficient capital, lack of access to credit, inadequate training, and weak agricultural institutions. These challenges not only affect the farmers' income but also hinder the overall development of the agricultural sector in the region (Apriadi, 2015).

Technology plays a pivotal role in transforming agriculture. It can significantly enhance production efficiency, even with limited human resources. However, without sufficient land or access to advanced technologies, the benefits remain out of reach for many farmers. Capital is another critical factor; the availability of working capital determines the ability to procure necessary inputs and pay for labor. Despite the government's efforts to provide business credit (KUR) to farmers, many are still hesitant to utilize these funds due to fears of repayment difficulties (Rianita, 2015; Mahmudah, 2015).

Training is an essential component for the development of human resources in agriculture. It equips farmers with the necessary skills and knowledge to improve their productivity and manage their farms more efficiently. Studies have shown that farmers who participate in training programs tend to have higher profits compared to those who do not (Gunawan et al., 2011). However, in East Tanjung Jabung Regency, a significant number of farmers have not received adequate training, which impacts their productivity and income.

Previous studies have highlighted the importance of various factors in influencing farmer poverty. For instance, training programs have been shown to significantly increase farmers' productivity and income by equipping them with essential skills and knowledge. Additionally, strong agricultural institutions can improve farmers' bargaining positions and provide necessary support services. However, in East Tanjung Jabung Regency, many farmers have not benefited from such training and institutional support, exacerbating their poverty situation (Rusmono, 2012).

The objective of this study is to analyze the factors affecting farmer poverty in East Tanjung Jabung Regency and to explore potential strategies to overcome these challenges. By employing statistical analysis and SWOT analysis, this research aims to provide a comprehensive understanding of the internal and external factors contributing to farmer poverty. The findings will have significant implications for policymakers, agricultural practitioners, and development agencies, offering actionable insights to improve the livelihoods of farmers in the region.

2. LITERATURE REVIEW

2.1. Poverty Theory

According to the World Bank, poverty is a deficiency in welfare, which consists of many dimensions. The Central Bureau of Statistics defines poverty as individuals who have an average monthly expenditure less than the poverty line. The poverty line is the sum between the food poverty line and the non-food poverty line. The food poverty line is the poverty line which refers to the expenditure of individuals in meeting their minimum food needs of 2,100 calories per capita per day, while the

non-food poverty line refers to individual expenditures in meeting minimum non-food needs, such as housing, clothing, education, and health (Hakim, 2006).

2.2. Strategy Concept

Strategy is a means to an end. In its development, the concept of strategy continues to develop. This can be shown by the difference in concepts regarding strategy over the last 30 years (Rangkuti, 2013). In line with that, Hamel and Prahaland (1995) also said that strategy is an incremental action (always increasing) and continuously carried out based on the point of view of what is expected by customers in the future (Rangkuti, 2013).

2.3. Technology

Increasing rice production can be done through agricultural intensification and cultivation activities that are important in agricultural intensification are tillage or land area (Silamat, 2014), but to further maximize agricultural productivity, the need for facilities to be used to allow the productivity produced to be maximized, with the support of existing technology can maximize agricultural output. What is done will increase output.

2.4. Own Capital

According to Karyanto (2008) capital is a factor that determines the amount of production. Lack of capital in farming will cause. The use of means of production becomes very limited, which in turn will affect production. According to Firdaus (2012), capital is money used to buy assets such as machinery, equipment, labor accounts receivable and raw materials.

2.5. People's Business Credit

People's Business Credit (KUR) is a credit or financing to micro, small, and medium enterprises, and cooperatives (MSMEs-K) in the form of providing working capital and investment supported by guarantee facilities for productive businesses. KUR is a government program, in general, the purpose of implementing KUR by the government is to empower micro, small, medium, and cooperative enterprises.

2.6. Training

Training is an effort to develop human resources. Training is also an educational process that aims to remember the specific abilities or skills of a person or group of people. Education and training are something that must be done by organizations because this can be seen as an investment. Regular education and training will be able to improve abilities, skills, and productivity. Non-cognitive education affects a person's behavior and ability to choose. However, both cognitive and non-cognitive education can significantly increase productivity (Rivera, 1998).

2.7. Agricultural Institutions

Institutions contain norms, values, regulations, knowledge, and more. Become a guideline in the behavior of actors (individuals or organizations). Institutions are matters related to or related to institutions (Syahyuti, 2011). Agricultural institutions are norms or customs that are structured, patterned, and practiced continuously to meet the needs of community members who are closely related to the livelihood of agricultural fields in rural areas.

3. METHODOLOGY

Quantitative research methods can be interpreted as research methods based on the philosophy of positivism, used to examine certain populations or samples, data collection using research instruments, and quantitative/statistical data analysis, to test hypotheses that have been set. with analysis tools such as multiple linear regression with the SPSS 20 program. The quantitative analysis method in this study uses multiple linear regression analysis and processes the results with the SPSS 20 application. Regression Analysis is a study of the dependence of dependent variables (bound) of farmers' income in East Tanjung Jabung Regency and technology, own capital, people's business credit, training, and agricultural institutions as independent variables (independent variables). The multiple linear regression equation proposed by Sugiyono (2014) can be seen as follows:

$$LogPD = \alpha + b1TK + b2LogMS + b3LogKUR + b4PL + b5LP + e$$

Keterangan:

PD = Income
α = onstanta
$b1$, $b2$, $b3$, $b4$, $b5$, $b6$, $b7$ = Regression Coefficient
TK = Technology
MS = Own Capital
KUR = People's Business Credit
OT = Training
LP = Agricultural institution
People = Logritma
e = Confounding variables**.**

SWOT Analysis

To answer the third goal, namely, to find out poverty reduction strategies for farmers in East Tanjung Jabung Regency, a SWOT analysis formula is used. The respondents who could answer SWOT were 10 people consisting of 6 farmers, 2 people from Bappeda, and 2 people from academics. According to Freddy Rangkuti, SWOT analysts are the systematic identification of various factors to formulate a company's strategy. This analysis is based on logic that maximizes strengths and opportunities, but simultaneously minimizes *weaknesses* and threats.

4. FINDINGS AND DISCUSSION

Based on the processed data using the SPSS program version 22, multiple linear regression results can be obtained, namely in Table 1:

Table 1 Multiple Linear Regression Calculation Results

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	3,303	,307		10,745	,000		
TK	-,033	,021	-,062	-1,603	,112	,388	2,579
LogMS	,454	,054	,592	8,364	,000	,114	8,744
LogKUR	,008	,002	,137	3,634	,000	,403	2,481
PL	,115	,014	,385	8,268	,000	,265	3,778
LP	,059	,025	,074	2,380	,019	,598	1,672

a. Dependent Variable: LogPD
Source: Processed Data, 2024

Based on the table above, the multiple regression equation is obtained as follows:

logPD = 3,303 – 0,033TK+ 0,454logmus + 0,008Cur + 0,115PL + 0,059PL+E

The regression equation has the following meanings:

1. Constants = 3.303
   If the variables of technology, own capital, people's business credit, training, and agricultural institutions remain or do not change, then the variable income is 3.303 percent.
2. Technology Coefficient = -0.033

The technology variable cannot be explained by its coefficient because it does not have a significant effect on income.

3. Coefficient of Own Capital = 0.454
   If the capital variable itself increases by 1 percent, while other independent variables are considered fixed or unchanged, it will lead to an increase in income by 0.454 percent.
4. People's business credit coefficient = 0.008
   If the people's business credit variable increases by 1 percent, while other independent variables are considered fixed or unchanged, it will increase income by 0.008 percent.
5. Training Coefficient = 0.115
   If the training variable increases by 1 time, while the other independent variables are considered fixed or unchanged, it will lead to an increase in income of 0.115 percent.
6. Coefficient of Agricultural institutions = 0.059
   If the agricultural institution variable increases by 1, while the other independent variable is considered fixed or unchanged, it will increase income by 0.059 percent.

4.1. Overall hypothesis testing *(*F test)

Test F is performed to see the influence of the independent variable as a whole on the dependent variable or often called the regression equation linear test. To find out the overall test results can be seen in the following table:

Table 2 F Test Results

ANOVA

Model		Sum of Squares	df	Mean Square	F	Say.
1	Regression	2,893	5	,579		
	Residual	,158	90	,002	330,572	,000b
	Total	3,050	95			

Dependent Variable: LogPD
Predictors: (Constant), LP, TK, LogKUR, PL, LogMS
Source: Processed Data, 2024

In the Anova table, a sig value of 0.000 is smaller than 0.05, this means that the independent variables of technology, own capital, people's business credit, training, and agricultural institutions together have a significant effect on the dependent variable of food farmer income.

4.2. Partial hypothesis testing (t-test)

The t-test is performed to determine whether individually (partially) the independent variable affects the dependent variable significantly or not. If the level of significance is below 5%, then partially technology, own capital, people's business credit, training, and agricultural institutions have a significant effect on the dependent variable of income of food farmers.

Table 3 Test Results t

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	3,303	,307		10,745	,000		
TK	-,033	,021	-,062	-1,603	,112	,388	2,579
LogMS	,454	,054	,592	8,364	,000	,114	8,744
LogKUR	,008	,002	,137	3,634	,000	,403	2,481
PL	,115	,014	,385	8,268	,000	,265	3,778
LP	,059	,025	,074	2,380	,019	,598	1,672

a. Dependent Variable: LogPD
Source: Processed Data, 2024

Based on the table above, the results of the t-test are obtained as follows:

4.3. Technology Variables

From the test results, the probability value for the technology variable is 0.112 with a confidence level (α = 5%) the probability value is smaller than 0.05 (0.112 > 0.05), meaning that Ho is accepted, and Ha is rejected meaning that technology does not have a significant effect on the income of food farmers. Thus, the hypothesis that states the influence of technology on the income of food farmers is incorrect and not proven.

4.4. Own Capital Variables

From the test results, the probability value for the variable own capital is 0.000 with a confidence level (α = 5%) the probability value is smaller than 0.05 (0.000 < 0.05), meaning that Ho is rejected, and Ha is accepted meaning that own capital has a significant effect on the income of food farmers. Thus, the hypothesis stating the effect of own capital on the income of food farmers is correct and proven.

4.5. Variable Credit of People's Business

From the test results, the probability value for the people's business credit variable is 0.000 with a confidence level (α = 5%) the probability value is smaller than 0.05 (0.000 < 0.05), meaning that Ho is rejected, and Ha is accepted means that people's business credit has a significant effect on the income of food farmers. Thus, the hypothesis that states the effect of people's business credit on the income of food farmers is true and proven.

4.6. Training Variables

From the test results, the probability value for the training variable is 0.000 with a confidence level (α = 5%) the probability value is smaller than 0.05 (0.000 < 0.05), meaning that Ho is rejected, and Ha is accepted means that training has a significant effect on the income of food farmers. Thus, the hypothesis stating the effect of training on the income of food farmers is true and proven.

4.7. Variables Agricultural institutions

From the test results, the probability value for the agricultural institution variable is 0.019 with a confidence level (α = 5%) the probability value is smaller than 0.05 (0.019 < 0.05), meaning that Ho is rejected, and Ha is accepted means that agricultural institutions have a significant effect on the income of food farmers. Thus, the hypothesis stating the influence of agricultural institutions on the income of food farmers is true and proven.

4.8. Coefficient of Determination (R2)

Coefficient of determination (KD) analysis is used to see that most independent variables affect the dependent variable expressed as a percentage. As shown in the following table:

Table 4. R2 Square Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin - Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,974[a]	,948	,945	,04184	,948	330,572	5	90	,000	,605

Predictors: (Constant), LP, TK, LogKUR, PL, LogMS
Dependent Variable: LogPD

Table 4 above the model *summary* known Rsquare value of 0.948. This means that 94.8 percent of the variation in palm oil income by food farmers is explained by variables in this study, while the remaining 5.2 percent is explained by other variables outside the study.

4.9. Matrix SWOT

With the preparation of the results of internal factor evaluation (IFAS) and the results of external factor evaluation (EFAS), a SWOT matrix is formulated to determine the right strategy. The formulation of the SWOT matrix is based on the results of the evaluation of internal and external factors, namely:

Table 5 SWOT Matrix Formulation

IFAS / EFAS	Strength (S)	Weakness (W)
Opportunity (O)	Strategy SO SO = 1,242 + 1,144 SO = 2,386	Startegy WO WO = 1,210 + 1,144 WO = 2,354
Threat (T)	Strategy ST ST = 1,242 + 1,089 ST = 2,331	Strategy WT WT = 1,210 + 1,089 WT = 2,299

Source: Processed Data, 2023

From the calculation of the SWOT matrix above, the highest value is SO of 2.386. Thus, the highest value is a suitable strategy in the strategy carried out for poverty reduction in farmers in East Tanjung Jabung Regency. Where the SO strategy is to rely on strength to bring opportunities.

As for the SWOT analysis model in quadrants, it can be described as follows:

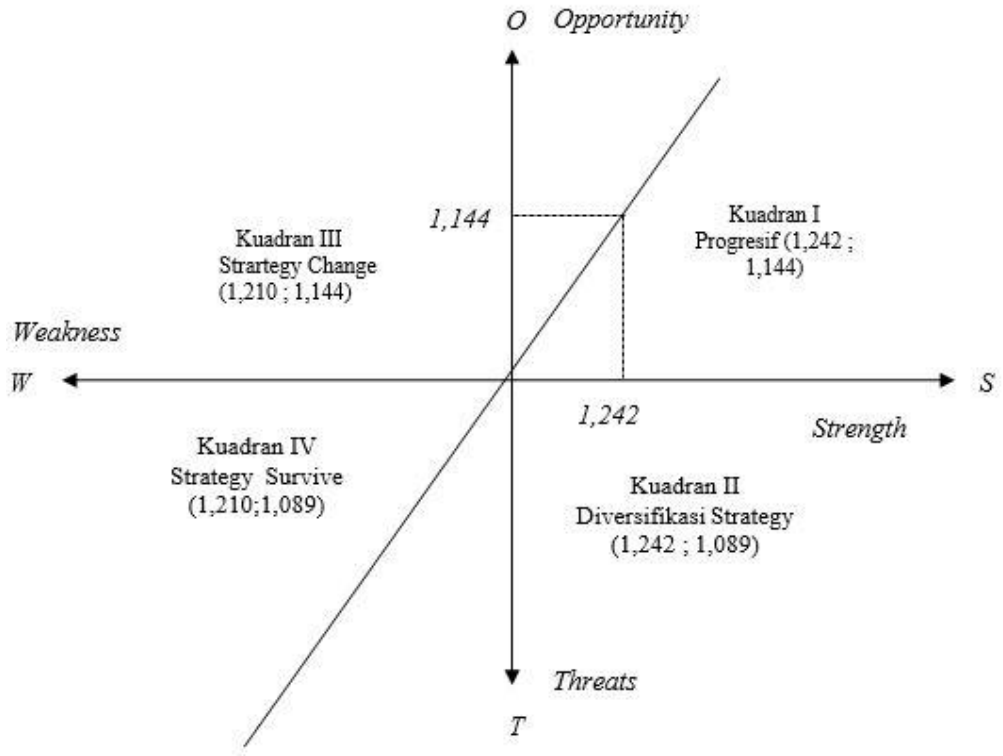

Figure 5 SWOT Matrix Analysis Quadrant Model

Based on the SWOT Matrix Analysis Quadrant Model Figure above, the strategy recommendations that are most in line with the development of strategies carried out for poverty reduction in farmers in East Tanjung Jabung Regency in quadrant I position, namely progressive recommendations, which means a very favorable situation for farmers in East Tanjung Jabung Regency because they have opportunities and strengths so that they can take advantage of existing opportunities, So the strategy that must be applied in this condition is to support aggressive growth policies.

Based on the results of the SWOT matrix analysis on farmers of East Tanjung Jabung Regency, 12 alternative strategies were obtained resulting from the S-O strategy, S-T strategy, W-O strategy, and W-T strategy.

1. S-O Strategy
   The S-O strategy or power-opportunity strategy is a strategy that uses internal forces to take advantage of external opportunities. Based on the strengths of food farmers and their ability to seize opportunities, strategies can be formulated as follows:
   a. Improving the quality of assistance to farmer groups
   b. Development of agricultural land potential and farmers' economic business
2. S-T Strategy
   An S-T strategy or force-threat strategy is a strategy that uses internal forces to avoid or mitigate external threats faced by food farmers. S-T strategies that can be recommended are:
   a. Development of superior commodities
   b. Increased partnerships with the corporate world
   c. Intensive socialization of government programs
   d. Create spatial system policies that favor farmers.
3. Strategy W-O
   The W-O strategy or weakness-opportunity strategy is a strategy that aims to improve internal weaknesses by utilizing existing external opportunities. Alternative strategies obtained are as follows:
   a. Make government budget system policies that favor farmers.
   b. Improving the quality of farmer human resources
   c. Improvement of agricultural facilities and infrastructure
4. W-T Strategy
   The W-T strategy or weakness-threat strategy is a strategy geared towards reducing internal weaknesses and avoiding external threats. From the weaknesses and threats faced by farmers, alternative strategies can be formulated as follows:
   a. Providing business capital assistance in the form of KUR and training to develop their farms.
   b. Provide social assistance to food farmers with precisely the target.
   c. Protect farmers from land use changes that do not benefit farmers.

5. CONCLUSION

Based on the results of multiple linear regression partial own capital, people's business credit, training, and agricultural institutions have a significant effect on the income of food farmers in East Tanjung Jabung Regency. Meanwhile, technology does not have a significant effect on the income of food farmers in East Tanjung Jabung Regency. Based on the results of the SWOT analysis the strategy used for poverty reduction in farmers in East Tanjung Jabung Regency is in quadrant I position, which is a progressive recommendation, which means a very favorable situation for farmers in East Tanjung Jabung Regency because it has opportunities and strengths so that they can take advantage of existing opportunities to overcome poverty.

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