Estimation of the Proportion of Vulnerable Households and Its Determinants in Lampung Province in 2022

.

ABSTRACT

Aims: The purpose of this researchto determine the profile of poverty vulnerability in Lampung Province and the factors that influence it. This is one of the efforts to achieve the ultimate goal of determining targeted policies as a preventive effort to prevent poverty from occurring in vulnerable households in Lampung Province in 2022.

Study design: Carrying out poverty grouping then carries out testing to determine poverty vulnerability.

Place and Duration of Study: The data sources used in this study are secondary data in the form of raw data from the National Socio-Economic Survey (SUSENAS) KOR and Module for March 2022. In addition, this study also uses various other data sourced from the BPS Lampung Website and the Lampung Province Publication in Figures 2022.

Methodology: The first step is to estimate poverty vulnerability using the Vulnerability as Expected Poverty (VEP) method. The study continued by analyzing the determinants of poverty vulnerability. The analysis of vulnerability determinants was carried out using the logit regression method.

Results: Analysis of the level of vulnerability to poverty in the Lampung region shows that areas with high vulnerability, such as East Lampung, Tanggamus, and South Lampung, are influenced by various structural factors such as limited access to infrastructure and public services, minimal economic opportunities, and dependence on the agricultural sector. These factors are exacerbated by low levels of education and limited access to credit, which further worsen the economic conditions of the community. The number of household members, age of the head of household, education, gender, regional classification, access to credit, savings, employment status, and non-cash food assistance all contribute to the level of vulnerability; increasing the number of household members and the age of the head of household increase the likelihood of vulnerability, while higher education is also associated with increased risk. Male heads of households and urban areas are less likely to experience poverty vulnerability, while access to credit, savings, employment status, and non-cash food assistance can reduce the risk of poverty.

Conclusion: The government needs to prioritize infrastructure development in vulnerable areas, such as East Lampung, Tanggamus, and South Lampung, to improve connectivity and public accessibility to basic services, in line with the Lampung Provincial Government's program to improve production efficiency and regional connectivity.

***Keywords**: Poverty Vulnerability, Lampung Province, and SUSENAS.*

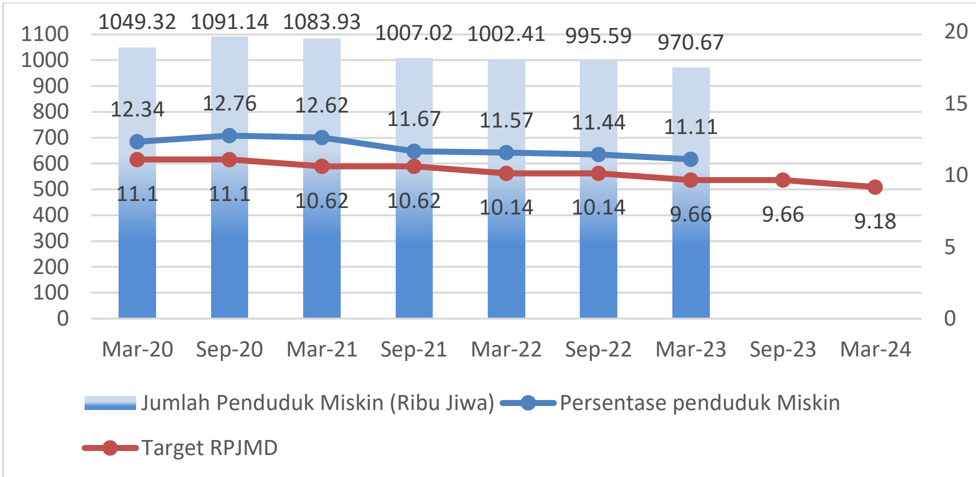
1. INTRODUCTION

The issue of poverty remains a persistent challenge that governments worldwide strive to overcome. Poverty directly affects the welfare of a society, as it is reflected in individuals' ability to fulfill basic needs and access essential resources (Haughton

& Shahidur R. Khandker, 2009). Consequently, poverty reduction has become a central theme in development, as success in development is often measured by reductions in poverty levels. Globally, poverty alleviation efforts are aligned with the Sustainable Development Goals (SDGs), which set an ambitious target to eradicate all forms of poverty by 2030. In Indonesia, the government has also prioritized poverty eradication, with a specific target to eliminate extreme poverty by 2024, as part of the 2020-2024 National Medium-Term Development Plan (RPJMN) and National Poverty Alleviation Strategy. The goal is to reduce the national poverty rate to 6.0–7.0 percent by 2024.

Data from Indonesia's Central Statistics Agency (BPS) shows a gradual decline in the national poverty rate, from 10.64 percent in 2017 to 9.54 percent in 2022. Despite this progress, a significant portion of the Indonesian population remains vulnerable to poverty, with many households at risk of falling below the poverty line if faced with economic shocks. Girsang (2018) found considerable socioeconomic mobility in Indonesia between 2000 and 2014, where 18.03 percent of households experienced poverty at least once. This high level of vulnerability highlights that Indonesia is not only grappling with poverty itself but also the risk of individuals slipping back into poverty, which complicates efforts to achieve sustained poverty reduction.

Lampung Province exemplifies this dual challenge of poverty and vulnerability. Its poverty rate consistently exceeds the national rate, making it one of the provinces with the highest poverty rates in Sumatra. In 2022, while Indonesia's national poverty rate stood at 9.54 percent, Lampung's poverty rate was still high at 11.57 percent, down from 13.69 percent in 2017. Although Lampung has made progress in reducing poverty, it has not yet met the targets outlined in the 2020-2024 Regional Medium-Term Development Plan (RPJMD), which aims to lower the provincial poverty rate to 9.18 percent by 2024. Lampung's continued efforts will be crucial to achieving this target and reducing vulnerability to poverty within the province, underscoring the broader national challenge of poverty alleviation and resilience building.

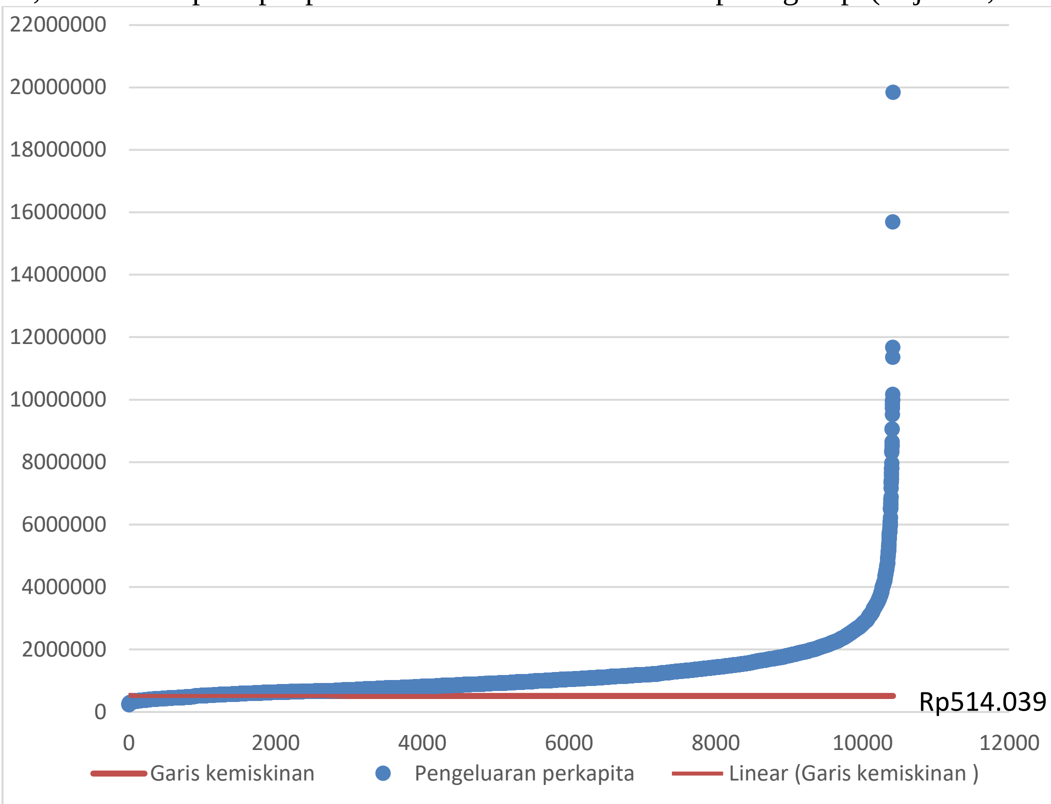


Source: BPS, processed

Figure 1: Poverty Reduction Targets of the Lampung Province RPJMD 2020-2024

From Figure 1, it can be seen that each year the target of the Lampung Province RPJMD has not been achieved. In fact, the gap between the target and the achievement of poverty reduction tends to widen. In 2020, the poverty target for Lampung Province was 11.1 percent, but based on March Susenas data, Lampung's poverty still reached 12.34 percent. In 2023, the poverty rate in Lampung Province was 11.11 percent while the RPJMD target was 9.96 percent. This condition shows that the achievement of the poverty alleviation strategy has not been maximized. Changes in poverty rates are not one-way changes. Changes in the percentage of the poor population are full of movement, going out and into poverty(Haughton & Shahidur R Khandker, 2009).The movement shows that poverty is dynamic. People who are poor in a certain year will not necessarily remain poor in the following years. Conversely, people who are not poor in a certain year will not necessarily not become poor in the following year. The existence of shocks in the economic, climate and natural and social environmental conditions or other detrimental conditions can cause people to become poor in the coming period.(Chaudhuri et al., 2002). This brings us to the concept of vulnerability to poverty, which is defined as the risk that a household will become poor in the near future.

Traditional poverty measures, such as the poverty rate using the current poverty line, do not take into account aspects of dynamic poverty such as this. Traditional poverty measures only focus on people who are currently poor without considering the chances of them becoming poor in the future. Existing poverty programs have not been able to prevent vulnerable poor groups from falling into poverty when there is a shock to their economy. The problem of vulnerability can also be seen from the distribution of households based on their per capita expenditure. Households that are around the poverty line (GK) are households that are vulnerable to falling into poverty. Households that are almost poor experience conditions of insecure income, so that even a small shock can cause them to fall into poverty. Vulnerable poor households often escape the attention of society and even the government because the policies taken currently focus on those who have the status of poor people. In fact, vulnerable poor people are not much different from poor groups(Pujiwati, 2023)



Source: Susenas March 2022, processed

Figure 2: Distribution of Households Based on Expenditure Per Lampung Province Chapter 2022

Based on the March 2022 SUSENAS data sample, the distribution of household per capita expenditure in Lampung Province reveals that many households still live slightly above the poverty line. This group of residents is often referred to as the "vulnerable poor," encompassing households with per capita consumption below 1.6 times the poverty line. In Lampung, 30.75 percent of the population is classified as vulnerable poor. A previous study by Adnyani & Lilik Sugiharti (2019) highlighted that Lampung Province faces significant poverty vulnerability issues, even ranking as the province with the highest vulnerability to poverty in 2014.

The calculation of poverty vulnerability differs from traditional poverty measurement. Vulnerability analysis is *ex-ante*, or forward-looking, meaning policies aim to prevent vulnerable poor households from falling into poverty. In contrast, poverty measurement is *ex-post*, assessing past conditions, which leads to strategies focused on mitigating the effects of poverty. Chaudhuri et al. (2002)

explained that measuring vulnerability has three essential functions: guiding the design of forward-looking poverty alleviation strategies, distinguishing between poverty prevention and alleviation interventions, and highlighting risks within poverty dynamics. Indahwati (2006) further emphasized that poverty alleviation policies should distinguish between poor and vulnerable households. Poor households require support for daily survival, such as direct assistance and subsidies, while vulnerable households need policies to reduce income fluctuations, ensuring they do not fall into poverty during economic shocks.

The determinants of poverty vulnerability are closely linked to household characteristics, including a large number of household members, female-headed households, rural residency, lack of savings, limited access to credit, and absence of social assistance. A large household size increases the dependency ratio, reduces per capita expenditure, and consequently lowers the welfare level, heightening the risk of poverty vulnerability (Adnyani & Lilik Sugiharti, 2019). Education also plays a crucial role, as low educational attainment is negatively associated with poverty vulnerability. Ngepah et al. (2023) revealed that education enhances human capital, equipping households with skills to improve economic resilience against poverty.

In addition to education, household location impacts vulnerability. Rural households are more susceptible to poverty vulnerability than urban households due to limited access to public facilities such as healthcare, education, and markets (Chaudhuri et al., 2002; Adnyani & Lilik Sugiharti, 2019). This lack of infrastructure restricts economic activity, increasing the likelihood of future poverty. Households headed by women also face higher vulnerability, as shown by Mba et al. (2018), who found that female-headed households increase poverty vulnerability by 1.62 percent. Access to credit and physical assets like land ownership significantly reduce poverty vulnerability. According to Abebe (2016), adequate credit access enables households to acquire assets and provides a buffer against economic shocks, enhancing resilience. Land ownership, meanwhile, offers an alternative income source to offset negative shocks to primary income (Adnyani & Lilik Sugiharti, 2019; Haq, 2015). Social assistance and financial assets, such as savings, are also crucial in lowering poverty vulnerability. Participation in social protection programs statistically increases per capita household expenditure and reduces vulnerability (Abebe, 2016). Additionally, savings help households face economic shocks like natural disasters and price hikes (Haughton & Khandker, 2009).

The objective of this study is to examine the profile and determinants of poverty vulnerability in Lampung Province, with the ultimate aim of informing targeted policies that can prevent at-risk households from falling into poverty. While poverty alleviation programs in Indonesia primarily focus on those already below the poverty line, this approach often overlooks the sizable group of households that live slightly above it and remain highly vulnerable to economic shocks. This study addresses this gap by focusing on the characteristics and factors that contribute to vulnerability among these households, a population at risk but not necessarily classified as "poor."

Specifically, the study hypothesizes that certain household characteristics, such as larger household size, lower educational attainment, and female-headed households, increase the likelihood of vulnerability to poverty. Additionally, it is hypothesized that rural households are more vulnerable to poverty than urban households due to limited access to infrastructure and services. Access to financial resources, such as credit and savings, and ownership of physical assets, such as land, are expected to reduce poverty vulnerability by providing households with a buffer against economic shocks. Furthermore, the study proposes that participation in social assistance programs can alleviate vulnerability by enhancing household income stability. By examining these hypotheses, the study aims to provide a nuanced understanding of poverty vulnerability in Lampung, ultimately contributing to policies that support poverty prevention and economic resilience.Based on the background and problem identification, this study aims to understand the profile of poverty vulnerability in Lampung Province and the factors influencing it. The goal is to inform targeted policies as a preventive measure, preventing vulnerable households in Lampung from falling into poverty.

2. METHODOLOGY

2.1 Data Types and Sources

This study uses a quantitative approach with cross-sectional data. In the initial stage of the study, poverty vulnerability measurements were carried out in Lampung Province. The method used in this study is the Vulnerable Expected as Poverty (VEP) method developed by Chaudhuri (2000). The next stage is testing the hypothesis of whether or not there is an effect of the number of household members, female heads of households, regional classification, access to credit, land ownership, savings ownership, social assistance on poverty vulnerability. The data sources used in this study are secondary data in the form of raw data from the National Socio-Economic Survey (SUSENAS) KOR and the March 2022 Module. In addition, this study also uses various other data sourced from the Lampung BPS Website and the Lampung Province Publication in Figures 2022.

2.2 Data Analysis Methods

The analytical methods used in this study are descriptive analysis and inferential analysis. Descriptive analysis is used to describe the distribution and profile of households according to poverty status in Lampung Province in 2022. Inferential analysis is carried out using binomial logistic regression.

2.2.1 Poverty Status Classification Analysis

To answer the first objective, namely to determine the proportion of households based on their poverty status, several stages are required. The stages that must be carried out include:

2.2.1.1 Getting the Consumption Log Variance Value$X_h\ \hat{\theta}_{FGLS}$

To assess household poverty vulnerability, a prediction of future prospects of household consumption expenditure is required. To be able to predict future household expenditure, a model is needed that takes into account various factors that influence consumption expenditure.To calculate vulnerability, household consumption expenditure will be used as the basis for forming the probability function, so that the consumption expenditure variable is required to follow a certain distribution, for example normal. However, consumption expenditure between individuals or households will vary greatly in value and of course it will be difficult to follow a normal distribution. Therefore, in the VEP approach, consumption expenditure is assumed to be distributed log-normally so that by transforming consumption expenditure in the form of a natural logarithm (Ln), Lnkons is assumed to be distributed normally(Chaudhuri et al., 2002). The model of consumption expenditure that is formed is:

$$\ln C_h = \alpha + \beta_1 jlh\_art_h + \beta_2\, pendidikan_h + \beta_3 Jenis\_kelamin_h + \beta_4 Klasifikasi\_Daerah_h + \beta_5 Kepemilikan\_Lahan_h + \beta_6 Bantuan\_Sosial + +\beta_7 Akses\_Kredit_h + \beta_8 Kepemilikan\_Tabunga_h + \varepsilon_h \quad (1)$$

Through this OLS regression, the expected value of log consumption and residuals will be obtained. Furthermore, the residuals are squared. The equation for the model is written as follows:

$$\varepsilon^2 = \alpha + \beta_1 jlh\_art_h + \beta_2\, pendidikan_h + \beta_3 Jenis\_kelamin_h + \beta_4 Klasifikasi\_Daerah_h + \beta_5 Kepemilikan\_Lahan_h + \beta_6 Bantuan\_Sosial + +\beta_7 Akses\_Kredit_h + \beta_8 Kepemilikan\_Tabunga_h + \varepsilon_h \ldots (2)$$

The estimation results in model (2) are used to transform the problem into the following form:

$$\frac{\hat{\varepsilon}^2_{OLS,h}}{X_h\hat{\theta}_{OLS}} = \left(\frac{X_h}{X_h\hat{\theta}_{OLS}}\right)\theta + \frac{\eta_h}{X_h\hat{\theta}_{OLS}} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3)$$

From this second step, an estimate of the variance will be obtained. $X_h\, \hat{\theta}_{FGLS}$

2.2.1.2 Get the Expected Value of Log Consumption ($X_h\, \hat{\beta}_{FGLS}$)

To measure poverty vulnerability using the VEP approach, it is necessary to estimate the expected value and variance of household consumption expenditure per capita from the model that has been formed. The expected value of consumption expenditure per capita shows consumption expenditure per capita in the future period. To estimate the expected value of consumption per capita, OLS regression is carried out again using Weighted Least Square or weighting. The weighting used is . The equation of the transformation form

is: $$\frac{1}{\sqrt{X_h\, \hat{\theta}_{FGLS}}}\frac{lnC_h}{\sqrt{X_h\hat{\theta}_{FGLS}}} = \left(\frac{X_h}{\sqrt{X_h\hat{\theta}_{FGLS}}}\right)\beta + \frac{\varepsilon_h}{\sqrt{X_h\hat{\theta}_{FGLS}}}$$

Through this OLS regression, the expected value of log consumption will be obtained. $X_h\, \hat{\beta}_{FGLS}$

2.2.1.3 Vulnerability Level Calculation

After obtaining the expected value and variance of household consumption expenditure per capita, the next stage is to estimate the probability of a household falling into poverty or the level of household vulnerability. Based on the calculation, the probability of a household falling into poverty in the next year is obtained as a cumulative density function (Cumulative Distribution Function/ CDF) of the standard normal distribution. Household poverty vulnerability h with characteristics can be calculated using the following formula: X_h

$$\hat{V} = = \hat{P}_r(\ln C_h < \ln GK | X_h)\phi[\frac{lnGK_t - lnX_h\, \hat{\beta}_{FGLS}}{\sqrt{X_h\hat{\theta}_{FGLS}}}$$

$\hat{V}$ states the level of poverty vulnerability, namely the chance that the per capita consumption level will fall below the poverty line on the condition that the household has the characteristics GK is the provincial poverty line. While X_h.ϕ shows the cumulative density of the standard normal distribution.

2.2.1.4 Grouping of Household Poverty Status

To group households according to their poverty status, the cut off valueThe probability used is 0.5 based on pthere is research(Chaudhuri et al., 2002). The following is an explanation of the grouping of poverty vulnerability:

a) Households with a value of 0.5 are classified as highly vulnerable households, meaning that households that fall into the vulnerable category in this alternative are estimated to have a very high chance of becoming poor in the next period.$\hat{V} \geq$

b) Households with a value of 0.5 are classified as low vulnerable households.$\hat{V} \leq$

2.2.2 Analysis of Variables Affecting Poverty Vulnerability

To answer the second objective, namely to determine the variables that influence the proportion of vulnerable poor households in Lampung Province, the researcher used binomial logistic regression. Logistic regression is one of the methods used to conduct regression analysis if the dependent variable is a category (Gujarati and Porter, 2010: 543). The dependent variable consists of 2 categories, namely high vulnerable poor denoted y = 1 and low vulnerable poor denoted y = 0. So that the variable y follows the Bernoulli distribution for each single observation. The logistic distribution function is stated as in the following equation:

$$P_h = \frac{e^{\alpha + x_h\beta}}{1 + e^{\alpha + x_h\beta}}$$

The non-linear relationship of$P_h$with and parameters cause OLS estimation cannot be done, so a transformation is carried out which finally finds a logit function that is linear to and parameters. Logit is the natural logarithm of the odds ratio is the ratio of the probability of an event of interest to the probability of an event of interest not occurring, this is shown in the following equation:$x_h\beta x_h\beta$

$$\frac{P_h}{1 - P_h} = \frac{1 + e^{\alpha + x_h\beta}}{1 + e^{-(\alpha + x_h\beta)}} = e^{\alpha + x_h\beta}$$

The logarithm of the equation above produces a Logit Model as in the following equation:

$$L_h = \ln\left(\frac{P_h}{1 - P_h}\right) = \alpha + x_h\beta$$

$$\begin{aligned} L_h = \alpha + \beta_1 jlh\_art_h + \beta_2\, pendidikan_h + \beta_3 Jenis\_kelamin_h + \beta_4 Klasifikasi\_Daerah_h \\ + \beta_5 Kepemilikan\_Lahan_h + \beta_6 Bantuan\_Sosial + +\beta_7 Akses\_Kredit_h \\ + \beta_8 Kepemilikan\_Tabunga_h + \varepsilon_h \end{aligned}$$

Parameter estimation The equation above is done with Maximum Likelihood (ML). Likelihood is a function of the probability of the occurrence of an event of interest expressed by the joint probability. The principle of this ML method is to find the parameter value that can maximize the likelihood or find the parameter value that can maximize the probability of an event occurring in this case high poverty vulnerability or low poverty vulnerability. Model parameter testing in logistic regression analysis is done to see whether the explanatory variables have a real influence on the model. The parameter tests used in this study are as follows:

2.2.2.1 Goodness of Fit (Nagelkerke R square value)

Nagelkerke R square explains how much the independent variables are able to explain the variation that occurs in the dependent variable. The value of the coefficient of determination is between zero and one. A small Nagelkerke R square value indicates that the independent variables are very limited in explaining the variation in the dependent variable. A value approaching one indicates that the independent variables provide almost all the information needed to predict the variation in the dependent variable.

2.2.2.2 Hosmer and Lemeshow's Goodness of Fit Test

Hosmer and Lemeshow's Goodness of Fit test is used to prove empirical data fits or matches the model. There is no difference between the model and the data so that the

model can be said to be fit. This test uses the Hosmer and Lemeshow test statistics (Hosmer & Lemeshow, 2000) with the following hypotheses:
H0 : Fit model
H1 : Model does not fit

Test Statistics:
The Hosmer-Lemeshow test statistic follows a chi-square distribution with degrees of freedom of g-2.

$$\hat{C} = \sum_{r=1}^{g} \frac{(0_r - n'_r \bar{P}_{1r})^2}{n'_r \bar{P}_{1r}(1 - \bar{P}_{1r})},$$

Where
0_r : number of successful event samples in the rth group
$\bar{P}_{1r}$: average estimated probability of success of the rth group
n'_r: total sample of rth group
Rejection region: Reject H0If$\hat{C} > \chi^2_{(a;g-2)}$ or p-value <α

2.2.2.3 Omnibus Test of Model Coefficient
Omnibus test of model coefficient is used to find out whether independent variables can simultaneously predict dependent variables or not. G test statistic is a maximum likelihood ratio test used to test the role of independent variables simultaneously with the hypothesis:
$H_0 : \beta_1 = \beta_2 = \ldots = \beta_p = 0$
H_1: There must be at least one, with$\beta_i \neq 0 i = 1, 2, \ldots, p$
Test Statistics:

$$G = -2 \ln \frac{\left(\frac{n_1}{n}\right)^{n_i} \left(\frac{n_0}{n}\right)^{n_0}}{\sum_{i=1}^{n} \hat{\pi}_i^{yi} \ (1 - \hat{\pi}_i)^\wedge(1 - y_i)}$$

With
n_0: number of observations with category y= 0
n_1: number of observations with category y= 1
n : total number of observations
Rejection area:
Reject H0If$G > X^2_{(a,v)}$ or p-value<α

Vulnerability as Expected Poverty (VEP) and the Logit model are essential in estimating poverty vulnerability, as each provides unique insights into the future risk of poverty among households. VEP is a quantitative approach that estimates the probability or risk of a household falling into poverty in the future. Rather than focusing solely on current poverty status, VEP considers the likelihood of future poverty by accounting for various uncertainties affecting households, such as income fluctuations or economic shocks (e.g., natural disasters or inflation). This approach uses household-level data on income variation to estimate the level of risk households face, allowing policymakers to design preventive poverty interventions based on different vulnerability probabilities rather than existing poverty levels. The Logit model, on the other hand, helps determine the significance of specific household characteristics on poverty vulnerability. It estimates the probability that a household will become poor based on factors such as education level, household size, gender of the household head, access to credit, and geographic location (rural or urban). By using the Logit model, analysts can systematically identify the primary determinants of vulnerability and assess which factors increase or decrease poverty risk, providing targeted insights into household characteristics most associated with vulnerability. Together, VEP and the Logit model offer a comprehensive approach: VEP estimates the future risk of poverty, while the Logit model provides a deeper understanding of the risk factors themselves.

Combining these approaches allows for a more effective and targeted strategy in poverty prevention and vulnerability reduction.

3. RESULTS AND DISCUSSION

3.1 Household Grouping Based on Poverty Status in Lampung Province

After obtaining the best parameter estimate value of household consumption, the next step is to estimate the expected value and variance of household consumption. Then, by using the estimated results of the expected value and variance, the probability value of each household to fall into poverty in the future can be calculated. Based on the obtained poverty vulnerability figures, it can be done
household poverty vulnerability grouping. Household poverty vulnerability grouping is divided into two, namely highly vulnerable groups and low vulnerable groups. Households that have a poverty vulnerability value of more than or equal to 0.5 are declared highly vulnerable, while those below 0.5 are classified as low vulnerable. Based on the calculation of poverty vulnerability values, the average aggregate of household poverty vulnerability values in 15 regencies/cities in Lampung Province in 2022 is obtained.

Table 1 Results of Poverty Vulnerability Calculation

Region	Poverty Vulnerability	
	Low (%)	Tall (%)
West Lampung	78.77	21.23
The Great Wall	73.87	26.13
South Lampung	74.14	25.86
East Lampung	71.72	28.28
Central Lampung	72.53	27.47
North Lampung	74.18	25.82
Right Way	79.94	20.06
Onion Bones	78.69	21.31
Offerings	72.56	27.44
Pringsewu	76.29	23.71
Mesuji	75.00	25.00
West Tulang Bawang	78.00	22.00
West Coast	76.94	23.06
Bandar Lampung	81.81	18.19
Metro	83.27	16.73

Source: Stata 14, 2024

Based on Table 1, it is concluded that the areas with the highest levels of vulnerability in Lampung are East Lampung (28.28%), Tanggamus (26.13%), and South Lampung (25.86%). Some common factors that can cause high levels of poverty vulnerability in these areas are limited access to infrastructure and public services. Areas with less developed infrastructure, such as limited access to education, health facilities, and transportation, often show high levels of poverty vulnerability. These limitations affect the quality of life and economic productivity of the community. Furthermore, limited economic opportunities, in rural or remote areas such as some parts of East Lampung and Tanggamus, access to formal employment is often limited. The community relies more on the informal sector or agriculture with unstable income levels.

Next, dependency on the agricultural sector. Areas with a high dependence on the agricultural sector are often more vulnerable to economic fluctuations influenced by climate factors and commodity prices. If crops fail or commodity prices fall, people in these areas are more likely to fall into poverty. Furthermore, low levels of education, lack of access to or poor quality of education can lead to limited skills and knowledge that prevent people from obtaining better jobs. Areas with low levels of education generally show higher rates of poverty and vulnerability. In addition, lack of access to credit or capital for entrepreneurship can also worsen the economic conditions of people. In many rural areas, people do not have access to formal financial systems that could help them improve their standard of living.

3.2 Determinants Affecting Poverty Vulnerability

a. Overall Model Significance TestHousehold Individual

From the SPSS results, the "Omnibus Tests of Model Coefficients" table can be used to see the results of simultaneous testing of the influence of variables.Number_of_household_members, Age_of_head_of_household, Education, Gender, Regional_Classification, Credit_Access, Savings, Working, Non-Cash Food Assistance.

Table 2. *Omnibus Tests of Model Coefficients* Household Individual

		Chi-square	df	Sig.
Step 1	*Step*	9564.757	9	0.000
	Block	9564.757	9	0.000
	Model	9564.757	9	0.000

Source: SPSS 25 Output, Appendix 3

The overall significance test through the Omnibus Test of Model Coefficients in Table 2 is used to knowing the influence of variables Number_of_household_members, Age_of_head_of_household, Education, Gender, Regional_Classification, Credit_Access, Savings, Working, Non-Cash Food Assistanceas a whole or together towards poverty vulnerability. So the criteria in testing are if significant value < 0.05 for all independent variables (dependent variables) Number of household members, Age of household head, Education, Gender, Regional Classification, Credit Access, Savings, Working, Non-Cash Food Assistance)together is said to influence the dependent variable (poverty) or one of them contains one independent variables that affect the dependent variable. On the other hand, if the value significance > 0.05 then the variable Number_of_household_members, Age_of_head_of_household, Education, Gender, Regional_Classification, Credit_Access, Savings, Working, Non-Cash Food Assistancetogether not affects poverty vulnerability. Based on Table 2, it shows that the Chi-Square model prob. value is of 0.000 < 0.05 significance level α = 5%.It can be concluded that the variablesNumber_of_household_members, Age_of_head_of_household, Education, Gender, Regional_Classification, Credit_Access, Savings, Working, Non-Cash Food Assistance in a way together influence vulnerability to poverty.

b. Model Fit TestHousehold Individual

1) Nagelkerke R Square Test

The Nagelkerke R Square test was conducted to determine how large percentage of fit between models with values ranging between zero (0) up to one (1). If the Nagelkerke R Square value is one (1), it can be interpreted that there is a perfect match between the dependent variable and the dependent variable. free. Where the results of the Nagelkerke R Square test are shown in Table 3.

Table 3.*Model Summary* Household Individual

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nails R Square
1	1534.708a	0.606	0.917

a. Estimation terminated at iteration number 10 because parameter estimates changed by less than .001.

Source: SPSS 25 Output, Appendix 4

Table 3. shows the Model Summary to see the ability of the variables.Number of household members, Age of household head, Education, Gender, Regional Classification, Credit Access, Savings, Working, Non-Cash Food Assistance in explaining poverty vulnerability, the Cox & Snell R Square and Nagelkerke R Square values are used. These values are also called Pseudo R-Square or if in linear regression (OLS) it is better known as R-Square. The Nagelkerke R Square value is 0.917 and the Cox & Snell R Square is 0.606, which shows that the abilityvariable Number_of_household_members, Age_of_head_of_household, Education, Gender, Regional_Classification, Credit_Access, Savings, Working, Non-Cash Food Assistance,in explaining the vulnerability of poverty inindividualhousehold is 0.917 or 91.7% and there are 8.3% other factors outside the model that explain the vulnerability to poverty inindividualdistrict/city households in Lampung Province.

2) Hosmer and Lemeshow Test

Hosmer and Lemeshow Test is a Goodness of fit test (GoF) or model suitability test, which is a test to determine whether the model formed is appropriate or not. It is said to be appropriate if there is no significant difference between the model and its observation value.From the output results in Table 4, it can be analyzed using a hypothesis test with a p-value, namely in the Sig column. Hypothesis: H0: the model is in accordance with the data; H1: the model does not match the data. Significance level α = 5%. Critical area: reject H0 if Sig <α Test statistics p-value = 0.068 > α = 0.05 the decision fails to reject H0 or H0 is accepted. The calculated Chi Square (X2) value is 14.538 <Chi Square (X2) table value is 15.507, so H0 is accepted (Table 4). With a significance level of α = 5%, it can be concluded that the model that has been obtained is in accordance with the data on individual joint households.

Table 4.*Hosmer and Lemeshow Test* Household Individual

Step	*Chi-square*	*df*	*Sig.*
1	1.100	8	0.998

Source: SPSS 25 Output, Appendix 5

c. Hypothesis Testing Household Individual

1) Partial Significance Test and Model Building

Table 5. *Variables in the Equation (Logit Model)*

	Independent Variable	B	SE	Wald	df	Sig.	Exp (B)
Step 1a	Number_of_ART	0.391	0.053	55,198	1	0.000	1,478
	Age_KRT	0.889	0.032	759,907	1	0.000	2.434
	Education	0.402	0.022	337,653	1	0.000	1,495

Gender	-6.644	0.313	451,416	1	0.000	0.001
Classification_Area	-6.938	0.307	512.151	1	0.000	0.001
Credit_Access	2.618	0.199	173,603	1	0.000	13,708
Savings	-0.128	0.005	575,194	1	0.000	0.880
Work	-0.216	0.008	675,834	1	0.000	0.806
Non-Cash Food Assistance	-0.434	0.151	8.209	1	0.004	0.648
Constant	-33,548	1.283	683,716	1	0.000	0.000

a. Variable(s) entered on step 1: Number of Household Members, Age of Household Head, Education, Gender, Regional Classification, Credit Access, Savings, Work, Non-Cash Food Assistance.

Source: SPSS 25 Output, Appendix 6

With*alpha*level 5%Table 4.5 The variables in the equation above are the variables Number_of_household_members, Age_of_head_of_household, Education, Gender, Regional_Classification, Credit_Access, Savings, Working, Non-Cash Food Assistance which has a P value of the Wald test (Sig) < 0.05, meaning that each variable has a significant partial influence on poverty vulnerability in the model, while for the P Value of the Wald test (Sig) > 0.05, meaning that each variable does not have a significant partial influence on poverty vulnerability in the model. These variables include:

1. The constant has a Wald Sig Value: 0.000 < 0.05, so the constant value in this model is also significant, indicating that even without the influence of independent variables, there are other factors that significantly influence poverty vulnerability.
2. The number of ART (Household Members) has a Wald Sig Value: 0.000 < 0.05, so H is rejected.$_0$and accept H_a, which means that the number of household members has a partial or significant effect on poverty vulnerability. The Exp(B) value of 1.478 indicates that with the addition of one household member, the chance of poverty vulnerability increases by 1.478.
3. The age of the KRT (Head of Household) has a Wald Sig Value: 0.000 < 0.05, so H is rejected.$_0$and accept H_a, which means that the age of the KRT has a significant effect on poverty vulnerability. The Exp(B) value of 2.434 shows that the older the age of the KRT, the chance of poverty vulnerability increases by 2.434.
4. Education has a Wald Sig Value: 0.000 < 0.05, so H is rejected.$_0$and accept H_a, which means that education has a significant effect on poverty vulnerability. The Exp(B) value of 1.495 indicates that the higher the level of education, the chance of poverty vulnerability increases by 1.495.
5. Gender has a Wald Sig Value: 0.000 < 0.05, so H is rejected.$_0$and accept H_a, which means that gender has a significant effect on poverty vulnerability. The Exp(B) value of 0.001 indicates that male heads of households have a smaller chance of being in a vulnerable poverty condition compared to female heads of households by 0.001.
6. The Regional Classification has a Wald Sig Value: 0.000 < 0.05, so H is rejected.$_0$and accept H_a, which means that the classification of areas (rural and urban) has a significant effect on poverty vulnerability. The Exp(B) value of 0.001 indicates that areas with urban classification have a lower chance of experiencing poverty vulnerability than urban areas by 0.001.
7. Credit Access has a Wald Sig Value: 0.000 < 0.05, so H is rejected.$_0$and accept H_a, which means that credit access has a significant effect on poverty vulnerability. The Exp(B) value of 13,708 indicates that those without credit access have a lower chance of experiencing poverty vulnerability than those with credit access of 13,708.
8. Savings have a Sig Wald Value: 0.000 < 0.05, mother rejects $H_0$and accept H_a, which means that savings have a significant effect on poverty vulnerability. The Exp(B) value of 0.880 indicates that having savings reduces the chance of poverty vulnerability by 0.880.

3) Work has a Wald Sig Value: 0.000 < 0.05, then rejects $H_0$and accept H_a, which means that employment status has a significant effect on poverty vulnerability. The Exp(B) value of 0.806 indicates that working reduces the chance of poverty vulnerability by 0.806.
4) Non-Cash Food Assistance has a Sig Wald Value: 0.004 < 0.05, so it rejects $H_0$and received H_a, which means that non-cash food assistance has a significant effect on poverty vulnerability. The Exp(B) value of 0.648 indicates that receiving non-cash food assistance has a lower chance of experiencing poverty vulnerability than those who do not receive non-cash food assistance of 0.648.

Factors such as more limited infrastructure, limited access to basic services, and government assistance programs may explain the low poverty vulnerability in this region. Appropriate social assistance and economic policies may have succeeded in reducing the risk of vulnerability. Overall, these results indicate that despite differences between regions, poverty vulnerability in Lampung Province is generally at a relatively low level. However, this does not mean that poverty-related challenges do not exist. There may be other factors that may not be captured in these data, such as the distribution of economic resources, job quality, or the impact of ongoing social programs. Santoso, A., et al. (2021) found that access to credit and formal financial services had a significant impact on reducing poverty vulnerability in rural areas. This study underscores the importance of policies that support financial inclusion in remote areas. Wulandari, E., & Sudirman, M. (2020) discuss the effectiveness of social assistance programs in Lampung, showing that non-cash assistance programs significantly reduce poverty vulnerability levels in areas with less developed infrastructure.Azhar et al. (2023)shows that areas with a dependence on the agricultural sector are often more vulnerable to economic fluctuations, but programs to improve food security and access to microcredit have succeeded in reducing vulnerability in many rural areas, including Lampung.Murdiyana & Mulyana (2017)discusses the importance of financial inclusion and the role of access to financial services in reducing poverty. Areas with better access to banking and financial institutions show lower levels of poverty vulnerability.Permana et al. (2021)concluded that education, basic infrastructure, and government assistance directly affect the level of poverty vulnerability in Lampung and South Sumatra. Higher education tends to reduce poverty vulnerability significantly. A study published in 2019 analyzed poverty vulnerability in various provinces in Indonesia, including Lampung, and found that Lampung had a high level of vulnerability in 2014, but has improved since then. Factors such as the age of the household head, education, household size, and ownership of assets such as savings and land also play an important role in determining poverty vulnerability(Saidah, 2020).

The addition of one household member can increase vulnerability to poverty, especially in an unstable economic context. Research shows that the addition of household members often implies an increase in economic burden, which can lead to a decrease in welfare. For example, in a study conducted by Ni Kadek Suardani and Kadir (2024), it was found that households with more members tend to have difficulty meeting basic needs, especially if their per capita income is below the poverty line. This study underlines the importance of understanding the depth of poverty and the gap between the per capita expenditure of poor households and the poverty line, which shows that the more household members, the more likely they are to be trapped in poverty.(Suardani, 2024). Furthermore, research by the Smeru Research Institute noted that during the pandemic, many individuals who were previously in the vulnerable poor group fell into poverty due to job loss or reduced wages. This shows that social and economic dynamics greatly affect poverty vulnerability at the household level. Thus, the addition of household members not only has an impact on economic well-being but also on the social and mental stability of the family.(Unicef et al., 2021).

The older the age of the head of the household (KRT), the likelihood of vulnerability to poverty tends to increase. This is due to several factors, including decreased productivity and limited access to decent work. Research byThe Last Supper (2019)shows that heads of households aged over 40 years are at higher risk of being trapped in poverty, especially since many of them work in the informal sector which does not provide adequate social protection. In addition, in old age, physical abilities and health often decline, reducing their earning potential. The study also noted that in Indonesia, the proportion of heads of households aged over 40 years who experience poverty vulnerability reached 80.76%. In addition, research byArbarizq (2024)underlined that the older the head of household, the more likely they are to not have sufficient savings or assets to support their lives in old age. This shows that financial planning and access to social services are essential to reduce this vulnerability. Therefore, it is important for the government and related institutions to formulate policies that can support the elderly group so that they do not get trapped in the cycle of poverty.

Education level has a significant influence on poverty vulnerability, although some studies show different results. In the Indonesian context, research by(Surbakti et al., 2023)found that an increase in the average length of schooling was actually positively associated with an increase in poverty of 0.16% for every 1% increase in the average length of schooling. This finding reflects that although education is considered a tool to improve welfare, in practice, the quality of education and its relevance to the labor market greatly determine its impact on poverty. In other words, education that is not balanced with skills that are in accordance with industry needs can produce graduates who find it difficult to compete in the labor market, thus increasing their vulnerability to poverty. Furthermore, research by(Susanto & Pangesti, 2019)shows that the higher the level of education, the lower the poverty rate. This study uses secondary data from the Central Bureau of Statistics and analyzes the relationship between education level and poverty in DKI Jakarta. The results confirm that individuals with low education tend to have limited access to decent jobs, so they are at higher risk of falling into poverty. This shows the importance of quality education in equipping individuals with the skills needed to get good jobs. On the other hand, research by(Zacky & Sholihah, 2023)underlines that while higher education can increase employment opportunities and income, there are other factors such as location of residence and access to resources that also play an important role in determining poverty vulnerability. People in rural areas or areas with less developed infrastructure often do not benefit from higher education due to limited employment opportunities. Therefore, to effectively reduce poverty vulnerability, a holistic approach is needed that focuses not only on improving education levels but also on developing the local economy and providing access to better employment opportunities.

Research by(Yanto et al., 2023)shows that female heads of households often face greater challenges in accessing health and education services, which contributes to their vulnerability to poverty. On the other hand, male heads of households, even though they work in the informal sector, often have better access to employment opportunities and more stable incomes, especially in rural areas. Furthermore, research by(Satriawan, 2022)noted that most male household heads in Indonesia are still of productive age and have higher education compared to female household heads. This contributes to their ability to get better jobs and avoid poverty. In contrast, female household heads are often trapped in low-wage jobs and lack access to adequate education, increasing their risk of falling into poverty. This study emphasizes the importance of paying attention to gender differences in the context of poverty in order to formulate more effective policies. In addition, a study by(Arbarizq, 2024)shows that the characteristics of the head of the household, including gender, have a significant effect on the chances of poverty. In this study, it was found that female heads of households have a 32.58% higher risk of living in poverty compared to men. This shows that although men as heads of households may face economic challenges, they still have advantages in terms of access to resources and job opportunities. Therefore, to reduce overall poverty vulnerability, it is important to design programs that support women's economic empowerment and improve their access to education and health services.

Research by(Ihsani & Rohman, 2022)shows that in urban areas, individuals have more opportunities to engage in the formal economic sector that offers higher wages and social protection. In contrast, in rural areas, many residents are trapped in informal jobs with low wages and no social security, increasing the risk of poverty. Furthermore, data from the Central Statistics Agency (BPS) shows that the poverty rate in urban areas tends to be lower than in rural areas. In March 2024, the poverty rate in urban areas was recorded at 7.09%, while in rural areas it reached 11.79%.

Research by(Agustina, 2021)shows that while micro and small business credit can provide capital to increase income, unwise or excessive use of credit can cause individuals to get trapped in debt. This has the potential to worsen their financial condition, especially if the income generated is not enough to repay the loan. In this context, access to credit can be a double-edged sword that increases vulnerability if not managed properly. Furthermore, a study by(Anindyntha, 2020)revealed that although access to financial services can help reduce poverty, inappropriate use of credit can cause individuals to experience financial difficulties. This study shows that the variable of financial service use has a significant negative effect on poverty, but only if used wisely. If individuals rely on credit without careful planning, they risk falling into a cycle of debt that is difficult to overcome. Therefore, it is important for the community to have good financial literacy in order to utilize credit access effectively and avoid debt traps.

Research conducted by(Pane et al., 2024)found that access to formal financial services, such as bank accounts and savings products, can increase the proportion of people who set aside their income. By having access to savings, people can not only keep their money safe, but also prepare themselves for future investments, such as education and health. This contributes to improving the quality of life and reducing vulnerability to poverty. However, challenges remain in ensuring that people have adequate access to financial services. Research by(Lalamentik et al., 2022)shows that despite the increasing number of bank accounts among the community, many individuals in remote areas still have difficulty accessing these services. The inability to save due to lack of access to formal financial institutions can worsen poverty. Therefore, it is important for the government and related institutions to continue to expand access to financial services and improve financial literacy among the community so that they can take advantage of savings opportunities effectively and reduce poverty vulnerability in a sustainable manner.

Research by(Purnomo, 2020)shows that increased employment absorption is directly related to a decrease in poverty levels. In this context, the more individuals involved in economic activities, the greater their chances of earning income that can meet basic needs and improve the quality of life. This study underlines the importance of expanding employment opportunities as a primary strategy in poverty alleviation, especially in areas that still have high unemployment rates. Furthermore, research by(Trimulato & Syarifuddin, 2023)highlights the important role of Micro, Small and Medium Enterprises (MSMEs) in creating jobs and reducing poverty. MSMEs not only provide employment opportunities for individuals, but also contribute to local economic growth. By providing skills training and access to capital, MSMEs can empower people to create their own businesses, thereby reducing dependence on formal employment that may not always be available. This study shows that supporting MSMEs is a strategic step in poverty alleviation efforts in Indonesia. However, challenges remain in ensuring that the jobs provided can actually improve welfare.

Research by(Ridha & Rumayya, 2024)shows that households receiving BPNT experienced an average increase in food expenditure of 6.52%. This shows that the assistance not only helps in meeting basic needs, but also improves family food security, which is an important step in reducing vulnerability to poverty. Furthermore, the BPNT program also functions as an effective social protection mechanism. According toThe Last Supper (2022)This program provides access to Beneficiary Families (KPM) to purchase decent and nutritious food through a non-cash system. With this program, the burden of expenditure on the poor in meeting their basic needs can be significantly reduced. This study also noted that BPNT helps alleviate the impact of poverty by providing an important social safety net for vulnerable families. However, challenges in implementing the BPNT program remain, such as the accuracy of targeting beneficiaries. Research by(Salsabila et al., 2024)shows that there are still problems in the data collection of aid recipients, where some recipients do not meet the established criteria. This can reduce the effectiveness of the program in achieving its goal of reducing poverty. Therefore, it is important for the government to continue to improve the data collection and distribution system so that non-cash food assistance really reaches those in need, so that it can maximize its impact in reducing the vulnerability of poverty in the community.

4. CONCLUSION

Based on the findings, it can be concluded that household vulnerability to poverty in Lampung Province is influenced by various factors, including the number of household members, age of the household head, education, gender, regional classification, access to credit, savings, employment, and non-cash food assistance. Specifically, larger households, older household heads, lower education levels, female-headed households, rural classification, lack of credit access, and absence of savings are associated with higher poverty vulnerability. Urban areas and households with fewer members, male heads, higher education levels, savings, and access to credit demonstrate lower vulnerability levels. Meanwhile, receiving non-cash food assistance and employment significantly reduce the risk of vulnerability, providing households with essential support to mitigate poverty risks. To address and reduce poverty vulnerability in Lampung Province, targeted interventions should prioritize expanding educational access, especially in rural areas, as it has a significant impact on reducing poverty risk. Enhancing access to formal credit and financial systems, alongside encouraging household savings, would support economic resilience. Additionally, support for the agricultural sector, including infrastructure development and access to alternative income sources, should be increased to reduce vulnerability in rural areas. The government should also strengthen non-cash food assistance programs and provide targeted employment opportunities, particularly for vulnerable demographics such as female-headed households, to promote long-term poverty reduction.

Disclaimer (Artificial intelligence)

Option 1:

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

Option 2:

Author(s) hereby declare that generative AI technologies such as Large Language Models, etc. have been used during the writing or editing of manuscripts. This explanation will include the name, version, model, and source of the generative AI technology and as well as all input prompts provided to the generative AI technology

Details of the AI usage are given below:

1.

2.

3.

REFERENCES

1. Abebe, F. E. (2016). Determinants of Rural Households' Vulnerability to Poverty in Chencha and Abaya Districts, Southern Ethiopia (Microeconometric Analysis). In Journal of Economics and Sustainable Development www.iiste.org ISSN (Vol. 7, Issue 21). Online.

2. Adnyani, A. W., & Lilik Sugiharti. (2019). Profile and Determinants of Household Poverty Vulnerability. JOURNAL OF ECONOMIC & SOCIAL SCIENCES, 10(2), 119–128. https://doi.org/10.35724/jies.v10i2.2413

3. Agustina, E. (2021). The Effect of Micro and Small Business Credit on Poverty in Indonesia. Master of Development Economics, Universitas Gadjah Mad, 447463.

4. Anindyntha, F. A. (2020). The Effect of Financial Inclusion Implementation on Economic Growth in Indonesia. JIE Journal of Economics, 4(1), 153–164. https://doi.org/10.22219/jie.v4i1.14900

5. Arbarizq, I. E. (2024). FARMER HOUSEHOLD POVERTY AND CHARACTERISTICS OF THE HEADS OF HOUSEHOLDS IN INDONESIA: A STUDY OF IFLS-5 DATA ANALYSIS Idzhar Elna Arbarizq Syarif Hidayatullah State Islamic University, Jakarta Email: idzhar.elna20@mhs.uinjkt.ac.id ABSTRACT Poverty is. Syarif Hidayatullah State Islamic University, Jakarta.

6. Azhar, A. L., Suliyanto, S., Chamidah, N., Ana, E., & Amelia, D. (2023). Modeling of Food Security Index in Indonesia Based on Ordinal Logistic Regression Approach of Random Effect Panel Data. Journal of National Resilience, 29(2), 166. https://doi.org/10.22146/jkn.86511

7. Chambers, R. (1983). Rural Development: Putting the Last First. Longman.

8. Chaudhuri, S. (2003). Assessing vulnerability to poverty: concepts, empirical methods and illustrative examples.

9. Chaudhuri, S., Jalan, J., & Suryahadi, A. (2002). Assessing Household Vulnerability to Poverty from Cross-sectional Data: A Methodology and Estimates from Indonesia Assessing household vulnerability to poverty from cross-sectional data: a methodology and estimates from Indonesia *.

10. Fuad, M., 1□, F., & Basuki, M. U. (2020). Analysis of Factors Affecting Relative Poverty Vulnerability in West Jakarta City in 2018. Diponegoro Journal of Economics, 9(2), 168. https://ejournal2.undip.ac.id/index.php/dje

11. Girsang, A. P. L. (2018). ANALYSIS OF POVERTY VULNERABILITY AND POVERTY DETERMINANTS OF VULNERABLE HOUSEHOLDS IN INDONESIA. Universitas Gajah Mada.

12. Haq, R. (2015). Quantifying vulnerability to poverty in a developing economy. Pakistan Development Review, 54(4), 915–929. https://doi.org/10.30541/v54i4i-iipp.915-929 13. Haughton, J., & shahidur r khandker. (2009). HANDBOOK ON POVERTY AND INEQUALITY. In Journal of Primary School Teacher Education Research (Vol. 6, Issue August).

14. Hoddinott, J., & Quisumbing, A. (2003). Social Protection Discussion Paper Series Methods for Microeconometric Risk and Vulnerability Assessments METHODS FOR MICROECONOMETRIC RISK AND VULNERABILITY ASSESSMENTS.

15. Hutahaean, Y. M., & Sitorus, J. R. H. (2021). Analysis of Susenas Data 2021 (Factors Affecting Working Household Poverty in Java Island: Analysis of Susenas. 2021, 1165–1176.

16. Ihsani, S. F., & Rohman, M. F. (2022). Income Distribution and Poverty in Indonesia: Case of Centralization, Decentralization, and Covid-19 Pandemic Policies. Jurnal Ekonomi-Qu, 12(1), 1. https://doi.org/10.35448/jequ.v12i1.16292

17. Indahwati. (2006). Identification of Characteristic Variables of Poor Households and Households Slightly Above the Poverty Line. 11(2).

18. Lalamentik, O. J., Wuisang, J., Ekonomi, F., & Manado, U. N. (2022). Analysis of Factors Affecting the Amount of Savings At Bank Bri in Tondano. 3(3), 55–65.

19. Mba, P. N., Nwosu, E. O., & Orji, A. (2018). International Journal of Economics and Financial Issues An Empirical Analysis of Vulnerability to Poverty in Nigeria: Do Household and Regional Characteristics Matter? International Journal of Economics and Financial Issues, 8(4), 271–276.

20. Murdiyana, M., & Mulyana, M. (2017). Analysis of Poverty Alleviation Policy in Indonesia. Journal of Politics and Government of Dharma Praja, 10(1), 73–96. https://doi.org/10.33701/jppdp.v10i1.384

21. Ngepah, N., Makgalemele, T., & Saba, C. S. (2023). The relationship between education and vulnerability to poverty in South Africa. Economic Change and Restructuring, 56(1), 633–656. https://doi.org/10.1007/s10644-022-09439-8

22. Pane, S. G., Harahap, A. A., Daeli, I., Suganda, R. D., & Fazria, R. (2024). The Effect of Financial Literacy and Financial Inclusion on the Level of Community Savings and Investment in the National Financial System. MANTAP: Journal of Management Accounting, Tax and Production, 2(2), 725–736. https://doi.org/10.57235/mantap.v2i2.3333

23. PENG, Y. ling, REN, Y., & LI, H. jian. (2021). Do credit constraints affect households' economic vulnerability? Empirical evidence from rural China. Journal of Integrative Agriculture, 20(9), 2552–2568. https://doi.org/10.1016/S2095-3119(20)63557-2

24. Permana, Y., Dawa Mumtaazy, A., & Rohendi, et. al. (2021). Challenges of Indonesian Education in Improving Human Resources in the 21st Century. Conference Series Journal, 01(01), 017.

25. Pritchett, L., Suryahadi, A., & Sumarto, S. (2000). Quantifying Quantifying Quantifying Quantifying Quantifying Vulnerability Vulnerability Vulnerability Vulnerability Vulnerability to Poverty: to Poverty: to Poverty: to Poverty: to Poverty: A Proposed A Proposed A Proposed A Proposed Measure, w.

26. Pujiwati, L. A. (2023). Indonesian society is still vulnerable to poverty, what is the cause? .

27. Purnomo, A. B. (2020). The Effect of Investment, GDP and Labor Absorption on the Number of Poor People. Journal of Economics and Business Airlangga, 29(2), 79. https://doi.org/10.20473/jeba.v29i22019.79-93

28. Ridha, M. R., & Rumayya, R. (2024). Analysis of the Impact of the Non-Cash Food Assistance Program on Household Consumption Expenditure on Agriculture in Maluku. Journal of Economics and Indonesian Development, 24(1), 17–30. https://doi.org/10.21002/jepi.2024.02

29. Ristanti, E. Y., & Fadhli, K. (2022). Analysis of the Implementation of the Distribution of Non-Cash Food Assistance (Bpnt) in Improving Community Welfare. Jpekbm, 6(2), 1–7.

30. Saidah, Z. (2020). Analysis of Microfinance and Outreach to the Poor. UNES Journal of Scientech Research.

31. Salsabila, N., Muna, N., Pradana, V. H., & Nurcahya, W. F. (2024). Analysis of the Effectiveness of Social Assistance (Bansos) in Overcoming Poverty in Indonesia. Journal of Macroeconomics and Social Development, 1(4), 1–13. https://doi.org/10.47134/jmsd.v1i4.317

32. Saputri, A. (2021). Social Capital and Household Poverty in Indonesia. Jurnal Kawistara, 11(3), 252. https://doi.org/10.22146/kawistara.v11i3.66012

33. Sari, C. A., & Munawar, D. (n.d.). Analysis of Factors Affecting Consumption Expenditure of Poor Households in East Java.

34. Satriawan, D. (2022). Female Heads of Households Working in the Informal Sector in Indonesia: Situation and Challenges. Journal of Women and Families, 3(2), 64–76. https://doi.org/10.22146/jwk.1476

35. Sibagariang, F. A., Mauboy, L. M., Erviana, R., & Kartiasih, F. (2023). Overview of Informal Workers and Factors Affecting Them in Indonesia in 2022. National Seminar on Official Statistics, 2023(1), 151–160. https://doi.org/10.34123/semnasoffstat.v2023i1.1892

36. Suardani, N. K. (2024). Diversity of Household Poverty Depth by Region Type and Household Socioeconomic Characteristics in Jambi Province. Journal of Population and Family Economics, 1(1). https://doi.org/10.7454/jekk.v1i1.03

37. Surbakti, S. P. P., Muchtar, M., & Sihombing, P. R. (2023). Analysis of the Influence of Education Level on Poverty in Indonesia for the Period 2015-2021. Ecoplan, 6(1), 37–45. https://doi.org/10.20527/ecoplan.v6i1.631

38. Susanto, R., & Pangesti, I. (2019). The Influence of Education Level on Poverty in DKI Jakarta. JABE (Journal of Applied Business and Economic), 5(4), 340. https://doi.org/10.30998/jabe.v5i4.4183

39. Trimulato, T., & Syarifuddin, S. (2023). The Role of State Sukuk Instruments to Support Halal Industry. Benefit: Journal of Bussiness, Economics, and Finance, 1(1), 1–13. https://doi.org/10.37985/benefit.v1i1.14

40. Unicef, UNDP, Prospera, & SMERU. (2021). Analysis of the Social and Economic Impact of COVID-19 on Households and Strategic Policy Recommendations for Indonesia. SMERU Research Institute, 1–7.

41. Vo, T. T., & Van, P. H. (2019). Can health insurance reduce household vulnerability? Evidence from Viet Nam. World Development, 124. https://doi.org/10.1016/j.worlddev.2019.104645

42. Yanto, D. A., Halimah Nur Churil Aini, & Meydina Tri Luvianasari. (2023). Social Exchange in Women's Dual Roles: A Case Study of Housework and Professional Careers. Journal of Public Relations, 1(4), 66–77. https://doi.org/10.59581/jrp-widyakarya.v1i4.1811

43. Zacky, M., & Anisatus Sholihah, R. (2023). The Influence of Education Level on Career Opportunities (Case Study in Batang Regency Community). Sahmiyya Journal, 2(1), 1–6.