

## ANALYSIS OF FAMILY ECONOMIC RESILIENCE OF LAYER CHICKEN EGG FARMERS IN SUSUT DISTRICT, BANGLI REGENCY

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### Abstract

Family economic resilience refers to the household's ability to meet basic needs, manage assets, and protect itself from economic risks. Susut District, Bangli Regency, was chosen as the research site because it represents one of the major centers of egg production in Bali. This study aims to analyze the effects of location, income, savings, education of the household head, home ownership, and health insurance on the economic resilience of farming families. The research population consisted of 95 farming households, all of which were used as the sample through purposive sampling. Data were analyzed using binary logistic regression, with family economic resilience defined as the fulfillment of at least three out of five resilience criteria. The results indicate that simultaneously, all variables significantly affect family economic resilience. Partially, income, education of the household head, home ownership, and health insurance exert significant effects, while location and savings do not.

**Keywords:** Family Economic Resilience, Layer Chicken Farmers, Location, Income, Savings, Education, Home Ownership, Health Insurance.

### INTRODUCTION

The family is the smallest social unit that plays a vital role in national development. A strong and independent family serves as a solid foundation for building the nation (Septilia & Husin, 2024). Family economic resilience is understood as a dynamic state reflecting the persistence and strength of households in facing various challenges, threats, and barriers both external and internal that may directly or indirectly endanger their economic sustainability (Shahreza & Lindiwatie, 2021).

Family resilience refers to the condition of households that exhibit endurance and toughness, supported by material and physical capacities to live independently, develop themselves, and maintain family harmony in pursuit of both material and spiritual well-being (Regulation of the State Minister for Women's Empowerment and Child Protection of the Republic of Indonesia No. 06 of 2013, Chapter 1 Article 1). It may also be defined as the capacity of the family as a functional system to withstand and recover from various life challenges and pressures (Walsh, 2016, in E. Anggaraini, 2023). Each family has its own way of coping with life's challenges, and the perspective of family resilience is grounded in the belief in the family's potential to strengthen its capacity to overcome them.

Micro, Small, and Medium Enterprises (MSMEs) are among the most crucial economic actors contributing to community development and economic growth. MSMEs have demonstrated resilience in various conditions to sustain community welfare. Given their significant contribution to supporting the national economy, MSMEs are expected to play an essential role in every country as they are critical for economic progress and

social welfare. The establishment of MSMEs helps absorb labor that would otherwise remain unemployed, thereby reducing unemployment rates (Srijani, 2020).

The role of MSMEs in boosting economic growth, generating employment, and distributing development outcomes has become increasingly tangible. Livestock farming, in particular, presents significant potential to address economic challenges and enhance community welfare (Sulastri, 2013, in M. Satria, 2023). Livestock activities, whether managed by commercial enterprises or community-based farmers, involve breeding animals in a systematic and long-term manner with the goal of generating profits. These activities include the production and marketing of eggs, breeding stock, milk, and meat, either as supplementary or primary income sources (Yuniarti, 2020).

Among animal protein sources, chicken eggs are considered affordable and accessible (Wibowo, 2019). Poultry egg farming requires careful management to ensure it contributes meaningfully to community welfare. Effective marketing is crucial for the sustainability of egg farming enterprises. However, these businesses face multiple challenges, such as fluctuating prices, limited production facilities, unstable feed costs, disease outbreaks, and business competition. Farmers adopt various strategies to survive in the face of such challenges (Ariska & Pravitasari, 2022).

The livestock sector plays a significant role in Bali's economy. According to data from Statistics Indonesia (BPS), average egg consumption in Bali in 2019 reached 8.85 eggs per capita per month, equivalent to approximately 106.2 eggs per capita per year. This figure highlights the importance of eggs as an affordable source of animal protein across all social groups. Furthermore, data from the Bali Provincial Statistics Office (2024) shows that agriculture is the second-largest contributor to Bali's Gross Regional Domestic Product (GRDP), amounting to IDR 40,059.24 billion. Of this, the livestock subsector contributed IDR 13,645.57 billion, underscoring its dominance within Bali's agrarian economy. Among the primary subsectors supporting livestock production is layer chicken farming, which not only provides a reliable source of animal protein but also plays a key role in maintaining economic stability for families dependent on this enterprise.

The following data on poultry population across Bali's districts and municipalities provides an initial step in estimating the production potential of layer chicken eggs, offering insight into the distribution of poultry resources in the region.

**Table 1. Population of Chicken Egg Poultry by Regency/City**

Regency	Population of Laying Hens by Regency/City Type		
	2021	2022	2023
Jembrana Regency	57,495	373,176	83,100
Tabanan Regency	852,863	3,755,112	1,233,300
Badung Regency	374,479	389,929	107,250
Gianyar Regency	284,164	1,227,866	298,935
Klungkung Regency	41,295	185,443	42,280
Bangli Regency	2,516,700	5,552,734	1,236,500
Karangasem Regency	632,176	2,496,961	540,973
Buleleng Regency	80,225	324,241	99,816
Denpasar City	1,140	0	2,000
<b>Bali Province</b>	<b>4,840,537</b>	<b>14,305,462</b>	<b>3,644,154</b>

Source: Department of Agriculture and Food Security, 2024

The data in Table 1 above shows that Bangli Regency has held the top position in the population of chicken eggs in Bali Province for the past three years. In 2021, the chicken egg population in Bangli Regency was recorded at 2,516,700. This figure showed a significant increase in 2022, reaching 5,552,734, indicating a remarkable increase in poultry farming capacity in the Bangli Regency area. However, in 2023, the chicken egg population in Bangli Regency decreased to 1,236,500. Nevertheless, Bangli Regency remains the area with the highest population of laying hens compared to other regencies/cities in Bali, reflecting its important role in meeting the demand for chicken eggs at the regional level. Furthermore, the high population of chicken eggs in various regencies/cities, especially in Bangli Regency, is a major foundation in supporting chicken egg production. Supported by a high poultry population, chicken egg production in Bangli Regency is estimated to be the highest compared to other regions, reflecting the optimization of the potential of poultry farming in the area.

Based on data from the Central Statistics Agency of Bali Province, the total population of chicken poultry is at 14,687,010 in chicken egg production in Bali in 2024 producing 224,601,526 and based on data from the Department of Agriculture and Food Security in 2024, Bangli Regency has the highest level of broiler chicken egg production in Bali Province over the past few years, the average price of broiler chicken eggs in this Regency shows an increasing trend, namely from Rp. 22,451 in 2022 to Rp. 28,557 in 2023, and a slight decrease to Rp. 26,325 in 2024. This shows fluctuations influenced by problems in Bangli Regency, especially related to the increase in feed prices. The significant increase in feed costs in recent years has become an additional burden for farmers, so that even though egg prices have increased, higher operational costs have resulted in smaller profits. This impacts the economic resilience of livestock farming families, as income becomes increasingly limited while basic needs and operational costs continue to rise. This can negatively impact the well-being of livestock farming families in the future.

Poultry production continues to rise and fall annually due to unstable feed prices. Feed is one of the major components of production costs in broiler chicken farming, accounting for the largest share of all production costs (Suparno and Maharani, 2017). Chicken farming experiences ups and downs due to several factors, including unpredictable price fluctuations (Ratnasari et al., 2015). The main problem with smallholder chicken farming is its relatively small scale, making it difficult to achieve a decent income.

Most livestock farmers are highly vulnerable to price fluctuations. When output prices fall, production input costs do not automatically decrease, resulting in low incomes or even losses (Deptan, 2005). The main constraints related to feed are uneven prices, availability, and distribution, leading to uncertain profits for farmers (Fitriza, 2012). Other risks faced in the chicken farming business include production risks caused by weather and climate, disease, and social risks (Yemina, 2014).

**Table 2. Egg Production per District in 2023**

Subdistrict	Chicken Egg Production (Tons)		
	2021	2022	2023
Bangli	192,000	158,700	174,570
Susut	1,902,300	668,300	735,130
Tembuku	93,000	93,000	102,300
Kintamani	329,400	316,500	348,150

Source: Department of Agriculture and Food Security, Bangli Regency, 2024

The selection of Susut District as the research site for analyzing the household economic resilience of poultry egg farmers was based on significant data presented in Table 2 regarding layer egg production in the region. According to the 2023 production report, Susut District recorded the highest total egg production compared to other districts, indicating a strong potential in the poultry sector within the area. The high production level was one of the main considerations in selecting Susut District, as it contributes substantially to the supply of eggs in Bangli Regency, Bali. Given this relatively high production, the study provides an overview of the economic resilience of poultry farmers and the factors influencing the sustainability of layer farming operations in the district. By choosing Susut District, this research aims to identify the opportunities and challenges faced by poultry farmers in sustaining their household economic resilience.

Household resilience is defined as the adequacy and continuity of access to income and resources in meeting basic needs, including sufficient access to food, clean water, health services, housing, education, social integration, and time for community participation. A household is considered resilient and independent when it is able to optimally utilize its potential to achieve well-being (Wulandari, 2017). Household welfare is closely linked to resilience, as both must progress hand in hand. A common measure of household welfare is economic resilience, which reflects the fulfillment of physical needs such as clothing, food, housing, education, and healthcare (Alie & Elanda, 2020).

Income refers to all forms of receipts, whether in cash or goods, obtained from external parties or personal business activities, valued in monetary terms according to prevailing market prices. Income is a vital source for meeting daily needs and ensuring survival, either directly or indirectly (Suroto, 2000). Household income, therefore, represents the total monetary earnings of household members, derived from employment activities or transfer receipts.

According to Samuelson and Nordhaus (1997), savings represent the portion of income that is not consumed, i.e., the difference between income and expenditure, set aside for future use. Two fundamental issues underlie saving behavior: (1) the ability to save, which reflects the capacity of households to mobilize domestic savings, generally determined by the level of per capita income, and (2) the willingness to save. Higher income levels increase a household's potential to save. Consequently, the level of savings serves as a proxy for a household's economic potential.

An increase in household savings can be used as an indicator of stronger household economic resilience, since greater savings generally reflect higher income levels. In line with basic economic principles, increases in income affect both consumption and savings levels. Hence, higher savings indicate improved economic conditions, stronger purchasing power, and, consequently, greater household economic resilience.

Education, as a field of applied knowledge drawing from philosophy, psychology, sociology, and the humanities (Nana Syaodih, 1997), plays a crucial role in human development. According to Nana Sudjana (1988), education is the process of humanizing individuals, equipping them with the personal and social competencies required to realize their potential. Education holds strategic importance in shaping productive and innovative human resources and serves as a means of transmitting values beneficial for community and national life (Rungkat & Kindangen, 2020). Education also enhances entrepreneurial skills, enabling individuals to establish and develop businesses, thereby increasing income and family welfare. Cross-sectoral synergies among education, health, and the economy are essential for achieving optimal household welfare. Education improves workforce quality, which in turn drives economic growth and enhances access to healthcare services (Ananta, 2024).

Household economic resilience can also be assessed through housing adequacy. Families living in their own homes have fulfilled one of their primary needs, thus strengthening their overall resilience (Shareza & Lindiatatie, 2020). Meanwhile, health constitutes another critical factor. Nurfiani and Sihaloho (2019) emphasize that maintaining family health directly influences work productivity and household expenditure, particularly medical costs. Economic and health conditions are closely interrelated: improved health fosters productivity, which contributes to economic growth, while stronger economic conditions enhance access to healthcare, thereby supporting welfare (Budhi Prakoso, 2015).

Location is another determinant of business performance. According to Syahputra (2022), choosing a business location is a strategic decision, as it must attract customers and influence purchasing decisions. Strategic locations—easily accessible, well-connected to transport routes, and close to main roads—support efficiency in poultry feed access, egg distribution, and ultimately reduce costs while improving profitability. The poultry sector in Bangli Regency also faces external challenges, particularly fluctuating feed prices, which pose risks to household economic resilience. Key considerations include whether household income is sufficient to support family needs, whether savings serve as adequate emergency reserves, and how factors such as education, home ownership, and health insurance contribute to resilience.

This study thus identifies two key categories of variables. First, the internal economic dimensions of households income, savings, household head's education, home ownership, and health insurance are treated as control variables. Second, the external factor of farm location is analyzed as the main variable of interest, to assess how geographical context influences household economic resilience. Accordingly, this study aims to evaluate the impact of household control variables on economic resilience while independently examining the role of location as a strategic determinant of resilience among poultry egg farmers in Susut District.

## **METHOD**

This research employs a descriptive and associative design to analyze the household economic resilience of layer poultry farmers in Susut District, Bangli Regency. The dependent variable is household economic resilience, while the independent variable of interest is farm location, complemented by control variables: income, savings, household head's education, home ownership, and health insurance. The research site

was selected due to Susut District's position as the largest egg production center in Bangli Regency, supported by favorable geographical conditions for poultry farming.

The research population comprises 95 households of poultry egg farmers in Susut District, all of whom were selected as the sample using purposive sampling, based on the criterion of owning a poultry egg farming business (Sugiyono, 2017).

Data collection involved observation, structured interviews, and questionnaires. Quantitative data were obtained through survey responses on research variables, while qualitative data were derived from literature on family welfare, human capital, and household economic resilience. Primary data were collected directly from respondents, while secondary data were sourced from institutions such as the Central Bureau of Statistics (BPS), the Department of Animal Husbandry, and relevant scholarly publications. The main instrument used was a structured questionnaire designed to measure household economic resilience, farm location, and related control variables (Creswell, 2009).

Data analysis was conducted using both descriptive statistics and binary logistic regression analysis. Descriptive analysis was applied to illustrate the general condition of household economic resilience. Logistic regression was employed to examine the effects of location, income, savings, education, home ownership, and health insurance on the probability of achieving household economic resilience. Logistic regression was chosen because the dependent variable is dichotomous (resilient = 1, not resilient = 0), and the model accommodates predictor variables of both nominal and ratio scales. Model fit was tested using Hosmer and Lemeshow's Goodness of Fit, -2 Log Likelihood, and Nagelkerke R Square, while hypothesis testing employed the Omnibus Test for simultaneous effects and the Wald Test for partial effects (Ghozali, 2016; Ghozali, 2018).

## RESULTS AND DISCUSSION

### Data Analysis Results

#### Model Fit Testing

##### a) Hosmer and Lemeshow's

The hypothesis for assessing model fit is

H<sub>0</sub>: There is no difference between the model and the observed data.

H<sub>1</sub>: There is a difference with the observed model

If the Hosmer and Lemeshow's value is significantly less than 0.05, then H<sub>0</sub> is rejected, which means there is a significant difference between the model and its observation value, so the model's goodness of fit is not good because it cannot predict the observation value. If the Hosmer and Lemeshow's statistical value is greater than 0.05, then H<sub>0</sub> cannot be rejected, meaning the model predicts its observation value or it can be said that the model is acceptable because it fits the observation data. The following is table 3 of the Hosmer and Lemeshow's Test for model fit testing.

**Table 3. Hosmer Lemeshow's Test**

Step	Chi-square	df	Sig.
1	1,302	7	0.988

Source: Primary data processed 2025

Hosmer and Lemeshow's Chi-square test was used to assess the regression model in predicting the feasibility of a data. Based on the analysis, the calculated chi-square (X<sub>2</sub>) value was 1.302 < X<sub>2</sub> table 15.507 with a significance probability of 0.988,

which is greater than the level of significance of 0.05. Thus, it can be concluded that  $H_0$  is accepted. This means that there is no difference between the predicted classification and the observed classification, so the logistic regression model used can explain the data and can be used for further analysis.

b) Nagelkerke R Square

**Table 4. Model Summary**

Step	-2 likelihood	Log Cox & Snell R Square	Nagelkerke R Square
1	28,388a	0.638	0.872

Source: Primary data processed 2025,

The Nagelkerke R Square value of 0.872 means that 87.2 percent of family economic resilience is influenced by location, income, savings, education of the head of the family, ownership of the residence, and health insurance of the respondent, the remaining 12.8 percent is explained by other factors not mentioned in the model.

**Results of Simultaneous Regression Coefficient Significance Test**

**1) Without Control Variable**

**Table 5. Omnibus Tests Model Coefficients Without Control Variables**

		Chi-square	df	Sig.
Step 1	Step	0.172	1	0.679
	Block	0.172	1	0.679
	Model	0.172	1	0.679

Source: Primary data processed 2025,

The calculated  $X^2$  value =  $0.172 < X^2$  table = 3.841 and the significance is 0.679 ( $> 0.05$ ) so  $H_1$  is rejected and  $H_0$  is accepted, meaning that the addition of independent variables does not have a real effect on the model, or in other words, the location of the farm statistically does not have a significant effect on family economic resilience.

**2) With Control Variable**

**Table 6. Omnibus Tests Model Coefficients With Control Variables**

		Chi-square	df	Sig.
Step 1	Step	96,653	6	0,000
	Block	96,653	6	0,000
	Model	98,653	6	0,000

Source: Primary data processed 2025

The calculated  $X^2$  value =  $98.653 > X^2$  table = 12.592 or a significance of 0.000 ( $< 0.05$ ) then  $H_0$  is rejected and  $H_1$  is accepted, meaning that the addition of independent variables can have a real influence on the model, or in other words the model is stated to be fit and better than without the addition of independent variables.

**Results of Partial Regression Coefficient Significance Test**

**1) Without Control Variable**

**Table 7. Variables in Equation Without Control Variables**

		B	SE	Wald	df	Sig.	Exp(B)
Step 1a	X1(1)	-0.205	0.497	0.170	1	0.680	0.815
	Constant	0.693	0.433	2,562	1	0.109	2,000

Source: Primary data processed 2025,

Based on the results of Table 7, it can be seen that variable X partially does not significantly influence variable Y as indicated by the Sig value = 0.680. The logistic regression equation can be written as follows:

$$Li = \ln \frac{P_i}{1-P_i} = 0.693 + (-0.205)$$

Li = Family Economic Resilience

0.693 = Intercept

-,205 = Location Parameter

Interpretation:

Interpretation of the logit regression equation formed refers to the sig. value, which indicates whether each independent variable partially has a significant effect on the qualitative dependent variable. The logit regression equation formed shows that the sig. value of location (X) is 0.680.

The  $\beta_1$  value in Table 7 is -0.205 with a probability value of 0.448 obtained using the formula with a p-value or sig. level of 0.680 which is more than 0.05, so  $H_0$  is accepted and  $H_1$  is rejected, this means that the location variable does not have a partial effect on the probability of economic resilience of the families of chicken egg farmers in Susut District, Bangli Regency.

$$\frac{1}{1+e^{-(-0.205)}}$$

## 2) With Control Variable

**Table 8. Variables in Equation with Control Variables**

		B	SE	Wald	df	Sig.	Exp(B)
Step	X(1)	-0.753	1,192	0.399	1	0.528	0.471
1a	K1	0,000	0,000	5,262	1	0.022	1,000
	K2	-0.651	1,250	0.271	1	0.603	0.522
	K3	1,456	0.488	8,915	1	0.003	4,291
	K4(1)	4,963	1,651	9,039	1	0.003	143,041
	K5(1)	4,904	2,223	4,868	1	0.027	134,798
	Constant	-24,561	18,849	1,698	1	0.193	0,000

Source: Primary data processed 2025,

The dependent variable (Y) in this study is the economic resilience of the families of chicken egg farmers in Susut District, Bangli Regency, and the independent variable is (X1) location, while the control variables are income (K1), savings (K2), education of the head of the family (K3), home ownership (K4), and health insurance (K5).

The partial influence of independent variables and control variables can be seen in the regression by paying attention to the sig. value. The form of the regression equation seen from the table above is as follows:

$$Li = -24.561 - 0.753X + 0.000K1 - 0.651K2 + 1.456K3 + 4.463K4 + 4.904K5 \dots \dots \dots (4.2) \ln \frac{P_i}{1-P_i}$$

Information:

Li = Family Economic Resilience

-24,561 = intercept

-0.753 = location parameters

0,000 = income parameters

-0.651 = savings parameters

1,456 = educational parameters of the head of the family

4,463 = home ownership parameters



4,904 = health insurance parameters

Interpretation:

The interpretation of the logit regression line equation formed refers to the sig. number, which means it shows whether each independent variable and control variable partially have a significant effect or not on the dependent variable. The logit regression line equation formed shows that the sig. value of location (X1) is 0.528; the sig. value of income (K1) is 0.022; the sig. value of savings (K2) is 0.603; the sig. value of head of family education (K3) is 0.003; the sig. value of home ownership (K4) is 0.003; the sig. value of health insurance (K5) is 0.027.

Independent variables with a significance value  $<0.05$  have a significant influence on the dependent variable, conversely, variables with a significance value  $>0.05$  have an insignificant influence. Therefore, of the 6 independent variables estimated to influence the probability of economic resilience of livestock farming families, 4 of them have a significant positive influence, these variables are income, education of the head of the family, ownership of a residence, and health insurance, on the other hand, 2 of them have a negative and insignificant influence. A more complete interpretation of the partial influence of the variables of location, income, savings, education of the head of the family, home ownership, and health insurance on the probability of economic resilience of families of chicken egg farmers in Susut District, Bangli Regency is as follows:

### 1) Location

The  $\beta_1$  value in Table 8 is -0.753 with a probability value of 0.320 obtained using the formula . With a p-value or significance level of 0.528, which is greater than 0.05. This means that the location variable has a negative and insignificant effect on the probability of economic resilience of families of chicken egg farmers in Susut District, Bangli Regency. 
$$\frac{1}{1+e^{-(-0,753)}}$$

The odds ratio based on the Exp(B) coefficient for location is 0.471. Because the B coefficient is negative, it can be interpreted that the economic resilience of chicken farming families with farms in strategic locations is lower than that of farms located in non-strategic locations. This is because the research data shows that 24 of the 95 chicken egg farmers are located in non-strategic locations.

### 2) Income

The  $\beta_2$  value in Table 8 is 0.000 with a probability value of 0.500 obtained using the formula . With a p-value or significance level of 0.022, which is less than 0.05. This means that the income variable has a positive and significant effect on the probability of economic resilience of families of chicken egg farmers in Susut District, Bangli Regency. 
$$\frac{1}{1+e^{-(0,000)}}$$

The odds ratio is based on the Exp(B) coefficient for income of 1,000. Because the B coefficient is positive, it can be interpreted that the chance of economic resilience of families with income is 1,000 times stronger than the economic resilience of families without family income. The influence of this variable is quite significant and can explain its influence on family economic resilience. This is because income is something needed to meet daily needs. With sufficient income in the family, the level of welfare of a family increases, this makes families with insufficient income tend to lack family economic resilience.

### 3) Savings

The  $\beta_3$  value in Table 8 is -0.651 with a probability value of 0.343 obtained using the formula . With a p-value or significance level of 0.603, which is greater than 0.05. This means that the income variable has a negative and insignificant effect on the probability of economic resilience of families of chicken egg farmers in Susut District, Bangli Regency.

$$\frac{1}{1+e^{-(-0,651)}}$$

The odds ratio based on the Exp(B) coefficient for savings is 0.522. Because the B coefficient is negative, it can be interpreted that the economic resilience of chicken farming families who save is lower than that of farmers who do not save or have savings. Therefore, greater savings will reduce the likelihood of a family's economic resilience.

### 4) Head of Family Education

The  $\beta_4$  value in Table 8 is 1.456 with a probability value of 0.811 obtained using the formula . With a p-value or significance level of 0.003, which is less than 0.05. This means that the variable has a positive and significant effect on the probability of economic resilience of families of chicken egg farmers in Susut District, Bangli Regency.

$$\frac{1}{1+e^{-(1,456)}}$$

The odds ratio based on the Exp(B) coefficient value for income is 4.291. Since the B coefficient is positive, it can be interpreted that the greater the respondent's years of educational success, the stronger the chance of family economic resilience by 4.291 times compared to the economic resilience of families with relatively few years of educational success.

The influence of these variables is significant enough to explain their impact on a family's economic resilience. A person's education can influence their decision-making in the face of a decline in sales or business.

### 5) Ownership of Residence

The  $\beta_5$  value in Table 8 is 4.963 with a probability value of 0.993 obtained using the formula . With a p-value or significance level of 0.003, which is less than 0.05. This means that the variable has a positive and significant effect on the probability of economic resilience of families of chicken egg farmers in Susut District, Bangli Regency.

$$\frac{1}{1+e^{-(4,963)}}$$

The odds ratio based on the Exp(B) coefficient value for income is 143.041. Because the B coefficient is positive, it can be interpreted that the chance of economic resilience for families who own their own residence is 143.041 times stronger than families who own a residence but do not own it. Based on the results of the survey that has been conducted, as many as 70 respondents have the status of owning their own residence.

### 6) Health insurance

The  $\beta_6$  value in Table 8 is 4.904 with a probability value of 0.992 obtained using the formula . With a p-value or significance level of 0.027, which is less than 0.05. This means that the variable has a positive and significant effect on the probability of economic resilience of families of chicken egg farmers in Susut District, Bangli Regency.

$$\frac{1}{1+e^{-(4,904)}}$$

The odds ratio based on the Exp(B) coefficient value for income is 134.798. Because the B coefficient is positive, it can be interpreted that the chance of economic resilience for families with health insurance is 134.798 times stronger than for families

without health insurance. Based on the survey results, 80 respondents have health insurance.

### **Discussion of Research Findings**

#### **The Influence of Location, Income, Savings, Education of the Household Head, Home Ownership, and Health Insurance on the Economic Resilience of Layer Chicken Egg Farmer Families in Susut District, Bangli Regency**

The analysis results indicate that the variables of location ( $X_1$ ), income ( $K_1$ ), savings ( $K_2$ ), education of the household head ( $K_3$ ), home ownership ( $K_4$ ), and health insurance ( $K_5$ ) simultaneously affect family economic resilience ( $Y$ ). This finding implies that the economic resilience of farmer households is not shaped by a single determinant but rather by a combination of structural and economic factors that are interrelated. Income ( $K_1$ ) and savings ( $K_2$ ) reflect the household's economic capacity and financial reserves to meet daily needs and cope with economic shocks. Education of the household head ( $K_3$ ) contributes to economic literacy and decision-making in managing both farming operations and household finances. Home ownership ( $K_4$ ) and health insurance ( $K_5$ ) provide stability while reducing health-related risks that may threaten family economic security.

#### **The Influence of Location on Family Economic Resilience**

The results show that location has a negative and insignificant effect on the economic resilience of layer chicken egg farmer families in Susut District, Bangli Regency. This suggests that differences in farm locations across villages do not significantly contribute to variations in household economic resilience. The negative effect indicates that farms located farther from markets or facilities may face higher transportation and input costs, potentially weakening resilience. However, in this context, whether the farms are located near settlements and main roads (less strategic due to potential conflict) or further away (considered more strategic for environmental reasons), the location factor does not significantly influence resilience. This finding aligns with Agustin and Habib (2023), who emphasized that poultry farms contribute to income generation, employment, and local entrepreneurship, but physical location alone does not directly determine household resilience.

#### **The Influence of Income on Family Economic Resilience**

The findings indicate that income has a positive and significant effect on family economic resilience. This demonstrates that higher farm income directly strengthens household resilience, as income primarily derives from egg production and sales. When egg prices are stable and production volume increases, farmers' income rises, enabling them to meet food, education, and health needs. Adequate income also allows families to cope with feed price fluctuations and other economic challenges, thereby minimizing vulnerability. This result is consistent with Afelia and John (2025), who found that higher poultry farmers' income significantly contributes to household economic resilience, as well as with Cahyono and Suharyono (2020), who showed that average egg farmers' income positively and significantly supports family economic stability.

#### **The Influence of Savings on Family Economic Resilience**

The results reveal that savings have a negative and insignificant effect on economic resilience. This suggests that savings do not play a strengthening role in household resilience among small-scale egg farmers. Limited business scale and unstable income constrain the ability to save. This finding is consistent with Ragyl (2022, in

Christina, 2024), who found that although savings and health insurance enhance resilience during crises such as social restrictions, in lower-income households, savings alone are insufficient to provide substantial protection against economic risks.

#### **The Influence of Education of the Household Head on Family Economic Resilience**

Education of the household head has a positive and significant effect on economic resilience. Higher education levels equip household heads with better knowledge and decision-making capacity in both farming and financial management. Educated household heads are more likely to adopt advanced planning, marketing strategies, risk analysis, and technological innovation in poultry farming. These capabilities enhance productivity and efficiency, directly strengthening family resilience. This supports Kuku and Sasongko (2019), who emphasized that higher education significantly improves household welfare, which in turn sustains economic resilience.

#### **The Influence of Home Ownership on Family Economic Resilience**

Home ownership exerts a positive and significant effect on economic resilience. Owning a home reduces long-term financial burdens such as rent and risk of displacement, enabling households to allocate income toward productive needs such as business capital, education, health insurance, and emergency funds. This stability strengthens resilience against economic pressures such as feed price fluctuations. Home ownership also provides a sense of security, improving overall well-being. Similar findings were reported by Christina and Heny (2024) and Iyoea (2021 in Christina & Heny, 2024), who noted that home ownership contributed significantly to household resilience during the COVID-19 pandemic. Likewise, Shareza and Lindiwatie (2020) and Rohaniah and Rahmaini (2021) highlighted home ownership as a primary indicator of family resilience, supporting household economic security and welfare.

#### **The Influence of Health Insurance on Family Economic Resilience**

The results demonstrate that health insurance has a positive and significant effect on family economic resilience. Families with access to health insurance are better protected against financial risks arising from illness or accidents. Health insurance serves as a financial safety net, allowing families to allocate resources more efficiently toward other household needs. Beyond its financial benefits, health insurance also contributes to psychological well-being, which enhances productivity and overall stability. This aligns with Rosmalah (2022), who identified healthcare preparedness as an important resilience indicator, and Panman (2022), who found that health insurance accelerates household recovery from economic shocks such as the COVID-19 pandemic. Similarly, Alie (2020) noted that families with health insurance demonstrate stronger economic resilience even under crisis conditions.

### **CONCLUSION**

Based on the analysis and discussion, the following conclusions can be drawn:

1. The simultaneous test results confirm that all six variables location, income, savings, education of the household head, home ownership, and health insurance significantly influence the economic resilience of layer chicken egg farmer families in Susut District, Bangli Regency. This indicates that resilience is not determined by a single factor but is the outcome of household economic conditions, asset ownership, human capital, and social protection mechanisms. Thus, strengthening family economic resilience requires a comprehensive, multi-dimensional approach.

2. Partial test results show that income, education of the household head, home ownership, and health insurance have positive and significant effects, while location and savings do not significantly affect resilience. This means that when income stability, education, asset ownership, and health security are present, households are more likely to achieve strong economic resilience, regardless of geographical differences or savings capacity.

## REFERENCES

- Adriani, E. (1975). Pengukuran Modal Manusia (Suatu Studi Literatur). *Jurnal Manajemen dan Sains*.
- Amalia, L. P. (2020). Strategi Ketahanan Ekonomi Keluarga Miskin Penerima Dana Bantuan Sosial Di Kelurahan Tanah Tinggi Jakarta Pusat. *Sosio Konsepsia*.
- Ananta, A. (2024). Pendidikan , Kesehatan , dan Ekonomi : Pilar-Pilar Kesejahteraan Keluarga di Kalimantan Timur. *Jurnal Pendas Mahakam*.
- Anggraini, E. (2023). Analisis Faktor-Faktor Ketahanan Keluarga Pada Keluarga Pekerja Migran Indonesia Di Desa Sukowilangun, Kecamatan Kalipare, Kabupaten Malang. *Ekonomi Pertanian Dan Agribisnis (Jepa)*.
- Arisetyawan, K. (2019). Apakah Tingkat Pendidikan Kepala Rumah Tangga Mempengaruhi Kesejahteraan Rumah Tangga? Studi Kasus Data Rumah Tangga Indonesia (IFLS). *Jurnal Ekonomi Pendidikan Dan Kewirausahaan*.
- Bagus Aditya, A. P. (2022). Faktor-Faktor Yang Mempengaruhi Pendapatan Usaha Ternak Ayam Broiler Di Kabupaten Banyumas. *urnal Ekonomi dan Bisnis*.
- Cahyono, D. N. (2023). Bangkitnya Perekonomian Indonesia Pasca Covid-19. *Ekonomi Dan Kewirausahaan*.
- Cahyono, E. B. (2020). Analisis Pendapatan Usaha Ternak Ayam Petelur Di Desa Tegalharjo Kecamatan Trangkil Kabupaten Pati. *REKASATWA : Jurnal Ilmiah Peternakan*.
- Creswell, J. W. (2009). *Research Design Qualitative, Quantitative, And Mixed Methods Approaches*.
- Dimas Ageng Sudrajat, J. M. (2024). Pendapatan dan biaya transaksi pada agribisnis peternakan ayam ras petelur di kabupaten jember. *Jurnal Ekonomi Pertanian dan Agribisnis (JEPA)*.
- Eka Larasati Amalia, A. N. (2019). Sistem Pendukung Keputusan Penentuan Lokasi Pembangunan Peternakan Ayam Menggunakan Metode MOORA. *Jurnal Ilmiah Teknik Informatika*.
- Fauzi, M. (2023). Tanggung Renteng Dalam Kelompok Simpa Pinjam Perempuan (Spp) Terhadap Ketahanan Ekonomi Keluarga. *Jurnal Kajian Ekonomi dan Perbankan Syariah*.
- Hasan, Y. (2022). Studi Partisipasi Kelompok Peternak Dalam Usaha Ternak Sapi Bali. *Corontalo Journal of Equatorial Animals*.
- Hellen, C. (2024). Analisis Faktor-Faktor Yang Mempengaruhi Ketahanan Ekonomi Keluarga Pedagang Pasar Kediri Pada Masa Covid-19. *Buletin Studi Ekonomi*.
- Isnaini Rahmah, M. E. (2020). Peran Pemerintah Dalam Meningkatkan Pendapatan Umkm. *Jurnal Capital Kebijakan Ekonomi, Manajemen, dan Akuntansi*.
- Jeine Silvano Rungkat, P. K. (2020). Pengaruh Pendidikan, Jumlah Anggota Keluarga dan Pengalaman Kerja Terhadap Pendapatan Rumah Tangga di Kabupaten Minahasa. *Jurnal Pembangunan Ekonomi dan Keuangan Daerah*.

- Kogoya, W. (2023). Pengelolaan Biaya Rumah Tangga bagi Ketahanan Ekonomi Keluarga di Masa Pandemi Covid-19 (Studi Kasus Pengelolaan Biaya Rumah Tangga Pada Keluarga Suku Dani Di Kampung Waena Perumnas II Jayapura-Papua). Jurnal Lembaga Ketahanan Nasional Republik Indonesia.
- Lestariasih, N. K. (2019). Analisis Faktor-Faktor Yang Mempengaruhi Pendapatan Peternak Telur Ayam Buras Di Kecamatan Penebel Kabupaten Tabanan. urnal Ekonomi Pembangunan Universitas Udayana.
- Madina, T. (2019). Pengaruh Pendapatan Keluarga terhadap Perilaku Konsumsi Rumah Tangga dalam Perspektif Islam Studi Kasus Kecamatan Ilir Timur II Palembang. Jurnal Pemikiran Dan Pengembangan Ekonomi Syariah.
- Maria Serlina Jaura, A. A. (2022). Ibu Rumah Tangga Di Kampung Kue Surabaya Pada Masa Pandemi Covid-19. Urban Sociology.
- Mulyanti, K. (2022). Penguatan Ekonomi Keluarga Melalui Subsistensi Produksi.
- Nadira Nurul Izza, L. H. (2025). Kontribusi Usahaternak Sapi Perah Dan Pengaruh Faktor Sosial Ekonomi Terhadap Ketahanan Pangan Rumah Tangga Peternak. Agrinimal Jurnal Ilmu Ternak dan Tanaman.
- Nurfiani, A. (2019). Pengaruh Perekonomian Keluarga terhadap Penggunaan BPJS Kesehatan Desa Cileles Jatinangor. Ekonomis: Journal of Economics and Business.
- Puspitaningrum, Y. (2022). Analisis Lokasi Usaha Dalam Meningkatkan Keberhasilan Bisnis Pada Grosir Berkah Doho Dolopo Madiun. Journal of Economics and Business Research.
- Putra, F. S. (2024). Pembuatan Peta Lokasi Alternatif Peternakan Ayam Broiler Kabupaten Muara Enim Dengan Menggunakan Logika Fuzzy. Jurnal Ilmiah Teknik dan Sains.
- Rahman, A. (2022). Pengertian Pendidikan, Ilmu Pendidikan dan Unsur-Unsur Pendidikan. Al Urwatul Wutsqa: Kajian Pendidikan Islam2022.
- Raihan, M. R. (2020). Teori human capital.
- Reski Rahman Sriwijaya, A. (2024). Ketahanan Ekonomi Keluarga Petani Pala di Kabupaten Fakfak. MAHATANI: Jurnal Agribisnis (Agribusiness and Agricultural Economics Journal).
- Rinto. (2019). Pengaruh Keterampilan Berusaha Dan Kreativitas Kerja Terhadap Ketahanan Ekonomi Keluarga Yang Bermata Pencaharian Di Bidang Usaha Tenun Sarung Toraja Di Kecamatan Mappak Kabupaten Tana Toraja.
- Rismayani Ahmad, A. N. (2023). Strategi Pengembangan Usaha Peternakan Ayam Ras Petelur Di Kecamatan Campalagian Kabupaten Polewali Mandar. Jurnal Ilmu Pertanian.
- Rochmadi, I. (2022). Analisis Ketahanan Ekonomi Keluarga Paska Pembangunan Pasar Ekologis Argowijil. Ilmu Administrasi.
- Satria, M. (2023). Analisis Strategi Pemasaran Peternakan Ayam Ras Petelur Zoeya Berkah Di Kelurahan Nalu Kecamatan Baolan Kabupaten Tolitoli. Agrokompleks Tolis.
- Septrilia, M. (2024). Analisis Ketahanan Ekonomi Keluarga Pada Pelaku Pernikahan Usia Dini Di Desa Pengaringan Pagaralam Sumatera Selatan. Jurnal Comm-Edu.
- Shahreza, D. (2021). Ketahanan Ekonomi Keluarga Di Depok Pada Masa Pandemi Covid-19. JABE (Journal of Applied Business and Economic).
- Srijani, K. (2020). Peran Umkm (Usaha Mikro Kecil Menengah) Dalam Meningkatkan Kesejahteraan Masyarakat. Equilibrium.

- Sudjiono, N. S. (2022). Analisis Pengaruh Tingkat Upah, Skill Dan Modal Terhadap Penyerapan Tenaga Kerja Pada Usaha Ternak Ayam Buras Di Kabupaten Kediri. *Jurnal Riset Bisnis dan Ekonomi*.
- Sudrajat, A. Y. (2018). Faktor-Faktor Yang Berpengaruh Terhadap Pendapatan Usaha Ternak Ayam Sentul Di Kabupaten Ciamis. *urnal Pemikiran Masyarakat Ilmiah Berwawasan Agribisnis*.
- Susilowati, E. (2020). Ketahanan Ekonomi Keluarga Di Masa Pandemi Outbreak : Pendekatan Tinjauan Pustaka.
- Syahputra, A. (2022). Pengaruh Modal Usaha, Lokasi Usaha, Lokasi Pemasaran dan Kualitas Produk terhadap Pendapatan UMKM. *Journal of Management and Bussines (JOMB)*.
- Tri Agustin, F. (2023). Peran Peternakan Ayam Ras Petelur dalam Meningkatkan Perekonomian Pada Masyarakat Desa Pucung Lor Kecamatan Ngantru Kabupaten Tulungagung. *Journal on Education*.
- Wardhana, H. (2023). Analisis Faktor-Faktor Yang Mempengaruhi Pendapatan Usaha Peternakan Ayam Petelur Di Kabupaten Lima Puluh Kota. *Ekonomipedia: Jurnal Ekonomi Manajemen dan Bisnis*.