Profile of Education and Breeding Experience with the Implementation of Seven Principles of Super Free-Range Chicken Breeding Business in Bone Bolango Regency

by Jusna Ahmad

Profile of Education and Breeding Experience with the Implementation of Seven Principles of Super Free-Range Chicken Breeding Business in Bone Bolango Regency

Suparmin Fathan[1]*, Ramli Utina[2], Muhammad Mukhtar[3], Jusna Ahmad[4], Hasim[5], Masra Latjompoh[6], Frida Maryati Yusuf[7]

[1,2,3,4,5,6,7]Postgraduate Program, Universitas Negeri Gorontalo, Gorontalo, 96128, Indonesia

suparminfathan1@gmail.com

Abstract. The purpose of this study was to find the positive and significant effect of : 1) formal education *(PF)* on livestock experience *(PB)*; 2) PF on the seven principles of business breeding super free-range chickens implementation *(PSUBAKS)*; 3) PB towards PSUBAKS; and 4) PF through PB to PSUBAKS. The research was conducted in 29 villages in 8 sub-districts in Bone Bolango Regency. Respondents in total 76 farmers were determined using purposive sampling technique, with descriptive method, as well as hypotesis testing using Structural Equation modeling (SEM) with the help of Partial Least Square (PLS) to find out the positive and significant influence between variable in order to reveal the direct and indirect influence. Based on the findings can be concluded that : 1) PF has a positive and significant impact on PB; 2) PF has a positive and significant impact on PSUBAKS; 3) PB has a positive and significant impact on PSUBAKS; and 4) PF has a positive and substantial impact on PSUBAKS through PB.

Keywords. Education, experience, seven principles of super free-range chicken breeding.

1.   Introduction

Education is a powerful factor in the livestock industry, and it is expected to aid the community in increasing livestock production. Hasriani (2019) stated that formal education of breeders is an important factor that need to be considered, particularly improving the quality of technology absorption and breeder skills. An adequate level of education will have an impact on the management ability of the livestock business involved (Putra, et al., 2016). Soekartawi in Waris, et al. (2015) stated that, those who are higher educated are relatively quicker to understand implementing innovation adoption, and vice versa those who are poorly educated are difficult to implement innovation adoption quickly. The level of education also affects the breeder's mindset in taking and deciding an action or decision, a breeder with higher level of education is better compared to an ordinary educated ones, especially in livestock management.

Super free-range chicken business is a popular livestock enterprise among the Gorontalo people, particularly in the Bone Bolango Regency. Super free-range chicken is a lucrative livestock subsector commodity which can be seen by the high demand for chicken meat both within and outside of the Gorontalo region. Further, the high demand for chicken meat necessitates an increase in the number of chicken populations as well, meanwhile the number

of super free-range chicken producers fluctuates at any moment, which has a direct impact on the number of chickens ready to be harvested. In addition, the rise of new farmers as a result of the government's large amount of seed and feed aid super free-range chicken without considering the profitability of the farm company caused uncertainty in the development of Super free-range chicken business.

In addition to formal education, breeding experience can be used as a primary support for the success of super chicken farmers. According to Bere and Rifai (2021), the main factor that determines the success of a livestock business is the experience of breeding. Thus, the breeder has excellent guidelines to run the business. Breeding experience also influences farmers' ability to handle livestock business such as making decisions and acting by learning from previous experience. Meanwhile, according to Sambodo (2020), the experience of raising livestock will be obtained by someone based on the length of time they struggle in a livestock business. The experience of breeding is the most important factor that must be owned by a breeder in increasing his productivity and work ability in the livestock business. Further stated by Indriyani and Adri (2018) that, experience in livestock business can affect the ability to manage livestock business, with long experience farmers have a better understanding of the livestock business they run.

The implementation of seven principles of super free-range chickens is a method of intense super free-range chicken maintenance that comprises seven aspects, including seeds, feed, cages, diseases, reproduction, post-harvest/marketing and business management. These seven aspects are the application of Natural Science Learning *(IPA),* as evidenced by the presence of a poultry agribusiness Study Program at the Vocational High Schools *(SMK)* level, in which practically all topics discuss the application of seven principles of poultry farming business, one of them is super free-range chicken. While at a higher level of education both in public and private universities, the application of seven priciples of super free-range chicken breeding business is covered in several courses in the study program of Animal Husbandry, particularly at Gorontalo State University's Faculty of Agriculture *(UNG).* The courses directly related to this are poultry production courses, poultry management courses, Animal Husbandry agribusiness courses and Animal Husbandry introduction courses.

Next, at the completion of their studies in grade 12, SMK students who choose the Agribsnis poultry study program will take a student competency exam with subjects tested, one of which is the implementation of seven priciples of super free-range chicken breeding business. This is an ilustration that science education has been applied to students both substance and learning model. The intention is that graduates of vocational schools will become skilled workers in the field of animal husbandry. Next, elementary schools, first middle schools and high/public school have obtained Science Education. Therefore, it is necessary to assess the knowledge of those who have received science education, particularly active farmers in the field of raising super free-range chickens.

Furthermore, the development of Super free-range chicken farming business, particularly in Bone Bolango Regency as a source of community income, a source of employment, and a source of meat commodities of animal origin has not been a top priority in society, owing to a lack of standards in determining whether or not someone is eligible to become a successful Super free-range chicken farmer based on education and breeding experience. Therefore, research on the profile of Education and breeding experience has been conducted with the use of seven principles super free-range chicken breeding in Bone Bolango Regency.

Based on the previous rationale, this study aims to identify and analyze whether formal education can have a positive and significant influence on the breeding experience and on the application of seven principles of super free-range chicken breeding business. In addition, this

study also intends to assess whether the breeding experience also has a positive and significant impact towards implementation aforementioned.

2.   Methodology

This study employed a quantitative approach with survey methods and descriptive statistical techniques as well as Structural Equation Modeling (SEM) analysis with alternative Partial Least Square (PLS) methods. In this study, descriptive statistics are used to explain the relationship between exogenous variables, intervening variables, and endogenous variables, specifically the relationship between the profile of education and breeding experience and the application of seven principle of super free-range chicken business in Bone Bolango Regency. Structural Equation Modeling (SEM) analysis is used when each dependent variable (endogenous = Y) is uniquely determined by a set of independent variables (exogenous = X).

Image 1 depicts a path diagram, which is a pattern of relationships between variables. In this equation, Z = function X and Y = function (X and Z) are structural equations because each equation describes the pattern of relationships between variables, namely variable X to endogenous variables Z and Y.
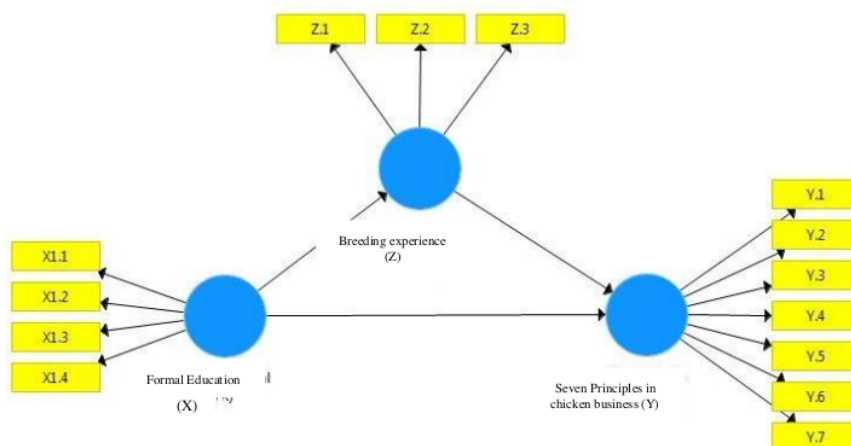

Image 1. Relationship patterns between variables

The object used in this study is super free-range chicken farmers in Bone Bolango Regency. The provisions of the object of research are as follows : (1) farmers receiving government assistance, farmers participating in partnerships and independent breeders; (2) breeders over the age of 15; (3) breeders who have completed elementary school; (4) breeders who have received counseling material, group material, or other electronic information about Super free-range chickens; (5) farmers with at least one maintenance period experience; and (6) farmers with at least 100 Super free-range chickens.

2.1.   Population and Sample

Sugiyono (2013) stated that population is a generalization area consisting of objects / subjects that have certain qualities and characteristics, determined by researchers to be studied and then drawn conclusions. The participants in this study were all super free-range chicken farmers in the Bone Bolango Regency. The purposive sample strategy was utilized to collect data from 76 respondents throughout 8 districts and 29 villages in Bone Bolango Regency.

2.2. Data Collection Techniques

Sources of data in this study are:

1. Primary data to be collected include data on formal education and breeding experience as well as the application of seven principles of super free-range chicken business. The respondent are breeder in Bone Bolango Regency.

2. Secondary data gathered from relevant agencies such as the Central Bureau of Statistics of Gorontalo province, Central Bureau of Statistis Bone Bolango, local district/village etc. The data collected for this study are data on the general condition of the location which includes a description of location, population, education and other related statistical data sets.

Table 2.1 shows the variables of research on the profile of Education and breeding experience with the application of seven principles of super free-range chicken business in Bone Bolango Regency.

Table 2.1 Research variables and measurement indicators in research

No	Variable	Sub Variable	Indicator
1.	Formal Education (X_1)	Elementary School, Junior HS, Senior HS, Diploma, Bachelor.	Year
2.	Breeding experience (Z)		
	Breeding Period	1 - 5, 6 - 10	Years
	Informal Education	1, 2, 3, 4, >4	Year
	Livestock ownership	<1.000, 1.001-2.000, 2.001-3.000, 3.001-4.000,	Tail
3.	Seven Principles of Super Free-Range Chicken Business (Y)	Seeds, Feed, Cage, Disease, Reproduction, Marketing, Business Management.	Parts

2.3. Data Analysis Techniques

In this study the data analysis used is descriptive analysis and hypothesis testing. Structural Equation Modelling (SEM) with the partial least square (PLS) approach was employed to test the hypothesis. Partial Least Square (PLS) analysis aims at helping researchers to obtain latent variables for predictive purposes (Ghozali, 2014). There are 14 manifest variables and 3 latent variables in this study, including formal education (X), which is measured by 4 manifest variables, breeding experience (Z) that measured by 3 manifest variables, and the implementation of seven super free-range chicken business principles, which is measured by 7 manifest variables.

3. Findings and Discussion

3.1. Findings

The questionnaire is distributed to respondents who meet the sample standards determined by the previous researcher which classified as primary data. It applied path analysis since there is intervening variable in the study. Next, a descriptive analysis is used with the aims to examine the initial process of selected object. Score interpretation criteria based on respondents' answers

can be determined by multiplying the highest score by the number of respondents and multiplying the lowest score by the number of respondents, with the maximum score of each questionnaire is 4 and the minimum score is 1.

Known respondent in this study as many as 76 people with the highest score of 4 and the lowest score of 1. So that the results of the calculation of respondents ' answers are presented as follows:

There were 76 respondents in the survey, with the highest score of 4 and the lowest score of 1. As a result, the calculation of respondents ' answers are presented as follows:

Highest Score = 4 (100%)
Lowest Score =1 (25.00%)
Scale Range = (4-1)/4 = 1 (18.75%).

Thus, an assessment or interpretation of the score is created based on the scale range, as shown in Table 3.1:

Table 3.1 Score interpretation

No	Percentage Score	Criteria
1	25.01% - 43.75%	Bad
2	43.76% - 62.50%	Poor
3	62.51% - 81.25%	Adequate
4	81.26%- 100.00%	Good

Source: Processed Data, 2022

Based on the table above, it can be known the criteria of each statement or variable. The score can be calculated through the following calculations:

$$\% \, Statement \, Score = \frac{Actual \, Score}{Ideal \, Score} \, x100\%$$

Description:
a. The actual score is the sum of all respondents' responses to the kusioner that has been proposed.
b. The ideal Score is the maximum score or the highest score possible if all respondents choose the answer with the highest score.

The results of descriptive analysis for each variable in this study are presented as follows:

1) Super Variable Formal Education of Super Free-Range Chicken Farmers

The results of descriptive analysis for formal education variables of chicken farmers are presented in Table 3.2 as follows:

Table 3.2 results descriptive Variable formal education of chicken farmers

No.	STATEMENT SCORE							CRITERIA
	F1	F2	F3	F4	Actual	Ideal	%	
X1-1	0	25	41	10	213	304	70.07%	Adequate
X1-2	0	27	41	8	209	304	68.75%	Adequate
X1-3	1	11	51	13	228	304	75.00%	Adequate
X1-4	1	19	46	10	217	304	71.38%	Adequate
Total	**2**	**82**	**179**	**41**	**867**	**1,216**	**71.30%**	Adequate

Source: Excel Data Processing, 2022

Based on table 3.2, the overall percentage of achievement score for the variable of formal education of chicken farmers is 71.30% which is in the category of "adequate". This indicates that the perception of formal education for a breeder is critical for confidence in performance various business activities.

2)   Super Free - Range Chicken Farmers Breding Experience Variable

Table 3.3 shows the findings of descriptive analysis for the variables of chicken farmers' breeding experience. The overall percentage of achievement score is 80.04 percent which is in the category of "adequate". This shows that farmers' breeding experience is still limited which still in the period of 1-5 years

Table 3.3 Descriptive results variable chicken farmers breeding experience

No	Score Statement			Score Indicator			Criteria	
	Actual	Ideal	%	Actual	Ideal	%	Statement	Indicator Statement
Z1	237	304	77.96%	967	1.216	79.52%	Adequate	Adequate
Z2	242	304	79.61%				Adequate	
Z3	247	304	81.25%				Adequate	
Z4	241	304	79.28%				Adequate	
Z5	261	304	85.86%	996	1.216	81.91%	Good	Good
Z6	241	304	79.28%				Adequate	
Z7	245	304	80.59%				Adequate	
Z8	249	304	81.91%				Good	
Z9	237	304	77.96%	957	1.216	78.70%	Adequate	Adequate
Z10	240	304	78.95%				Adequate	
Z11	241	304	79.28%				Adequate	
Z12	239	304	78.62%				Adequate	
Total	2,920	3,648	80.04%	Good Enough				

Source: Excel Data Processing, 2022

3)   Seven Principles of Super Free-Range Chicken Business Variable

Seven principles of super free-range chicken business is an overview of activities in order to improve the status of farmers and as a business orientation as well as make the farm as one of the sources of income. The Seven Principles of breeding super free-range chickens consist of 7 indicators which described below:

a.   Seven principles of breeding super free-range chicken business in terms of seed

Descriptive results of seven principles previously mentioned in Bone Bolango Regency are presented in the following table:

Table 3.4. The implementation of seven principles of breeding super free-range chicken business in terms of seed

No.	Answer	Number (Average) Of Respondents	Percentage (%)	Cumulative
1	Less	0.20	0.26	0.26
2	Medium	14.60	19.21	19.47
3	Good	31.20	41.05	60.53
4	Excellent	30.00	39.47	100.00
	Total	**76**	**100**	

Source: Excel Data Processing, 2022

Based on the table above, farmers' dominant perception of farmers on seven principles breeding super free range chicken in terms of seeds is a good perception of 41.05%. This indicates that superior seed selection for initiatives to boost breeder income has been done well in accordance with the standard operating procedures.

b.   Seven principles of breeding super free-range chicken business in terms of the cage

Descriptive results of seven principles previously mentioned in Bone Bolango Regency are presented in the following table:

Table 3.5 The Implementation of seven principles of breeding super free-range chicken business in terms of cage

No	Answers	Number (Average) Of Respondents	Percentage (%)	Cumulative
1	Less	0.00	0.00	0.00
2	Medium	6.92	9.11	9.11
3	Good	31.15	40.99	50.10
4	Excellent	37.92	49.90	100.00
	Total	**76**	**100**	

Source: Excel Data Processing, 2022

Based on the table above, farmers have a great perception of seven principles of bredding super free-range chickens in terms of cages measured 49.90%. This shows that, there are actions taken by farmers on the aspect of the cage to maximize business results both on productivity and income.

c.   Seven principles of breeding super free-range chicken business in terms of feed

Descriptive results of seven principles aforementioned in Bone Bolango Regency are presented in the following table:

Table 3.6 The Implementation of seven principles of breeding super free-range chicken business in terms of feed

No	Answer	Number (Average) Of Respondents	Percentage (%)	Cumulative
1	Less	0.00	0.00	0.00
2	Medium	11.43	15.04	15.04

3	Good	29.71	39.10	54.14
4	Excellent	34.86	45.86	100.00
	Total	**76**	**100**	

Source: Excel Data Processing, 2022

Based on the table, farmers have an excellent perception towards seven principles of breeding super free-range chickens in terms of feed which arrived at 45.86%. This prove that, ensuring that the super free-range chicken is produced in accordance with the farmers' goals.

d. Seven principles of breeding super free-range chicken business in terms of disease.

Descriptive results of seven principles aforesaid in Bone Bolango Regency are presented in the following table:

Table 3.7 The Implementation of seven principles of breeding super free-range chicken business in terms of disease

No	Answer	Number (Average) Of Respondents	Percentage (%)	Cumulative
1	Less	0.12	0.15	0.15
2	Medium	5.35	7.04	7.20
3	Good	28.24	37.15	44.35
4	Excellent	42.29	55.65	100.00
	Total	**76**	**100**	

Source: Excel Data Processing, 2022

Farmers' dominant perception based on table above is 55.65% which revealed that, there are tactical steps from farmers for various disease risk mitigation in super free-range chickens that are cultivated for a better income.

e. Seven principles of breeding super free-range chicken business in terms of reproduction

Descriptive results regarding title mentioned in Bone Bolango Regency are presented in the following table:

Table 3.8 The Implementation of seven principles of breeding super free-range chicken business in terms of reproduction

No	Answer	Number (Average) Of Respondents	Percentage (%)	Cumulative
1	Less	3.33	4.39	4.39
2	Medium	17.00	22.37	26.75
3	Good	31.67	41.67	68.42
4	Excellent	24.00	31.58	100.00
	Total	**76**	**100**	

Source: Excel Data Processing, 2022

Based on the data, it can be concluded that the dominant perception of farmers arrived at good perception of 41.67%. Farmers are not maximal in terms of reproduction rate of chickens for better outcomes, thus this aspect needs to be optimized through various non-formal teaching activities.

f. Seven Principles of Breeding Super Free-Range Chicken Business in Terms of Marketing

Descriptive findings related to title stated above in Bone Bolango Regency are presented in the following table:

Table 3.9 The Implementation of seven principles of breeding super free-range chicken business in terms of marketing/post-harvest

No	Answer	Number (Average) Of Respondents	Percentage (%)	Cumulative
1	Less	0.00	0.00	0.00
2	Medium	8.60	11.32	11.32
3	Good	38.60	50.79	62.11
4	Excellent	28.80	37.89	100.00
	Total	**76**	**100**	

Source: Excel Data Processing, 2022

Based on the table, farmers' perception is include in a good category of 50.79%. Hence, for improved production growth in the future period of super free-range chicken livestock management, farmers should be more engaged in undertaking optimal post-harvest actions.

g. Seven Principles of Breeding Super Free-Range Chicken Business in Terms of Business Management

The descriptive findings are presented in the following table:

Table 3.10 The Implementation of seven principles of breeding super free-range chicken business in terms of business management

No	answer	Number (average) of respondents	percentage (%)	cumulative
1	Less	0.00	0.00	0.00
2	Medium	8.86	11.65	11.65
3	Good	36.57	48.12	59.77
4	Excellent	30.57	40.23	100.00
	Total	**76**	**100**	

Source: Excel Data Processing, 2022

Based on the table, farmers' perception arrive at good category of 48.12%. This pointed out that, farmers should improve business management capabilities to develop their capacity of farmers, both on own initiative and participating in various activities and government programs to increase the success of Super free-range chicken farmers in Bone Bolango Regency.

Based on data above, the results of descriptive analysis for seven principles of chicken breeding are presented in Table 3.11 the following:

Table 3.11 Descriptive results variable seven principles of breeding super free-range chicken business

No	Regency	Seven Principles of Chicken Breding Business							
		Seed	Cage	Feed	Disease	Reproduction	Post-Harvest	Business Management	Total
1	Tilong Kabila	79.55%	85.49%	82.85%	87.21%	72.47%	82.50%	80.52%	82.99%

		A	G	G	G	A	G	A	G
2	Bulango Timur	81.50%	87.40%	83.57%	87.65%	79.79%	83.38%	83.93%	84.77%
		G	G	G	G	A	G	G	G
3	Tapa	79.00%	87.31%	80.00%	88.24%	76.67%	74.00%	82.14%	82.29%
		A	G	A	G	A	A	G	G
4	Bulango Utara	80.00%	81.73%	83.33%	87.50%	76.39%	81.67%	82.14%	82.87%
		A	B	G	G	A	G	G	G
5	Suwawa Timur	92.50%	83.65%	86.61%	83.82%	70.83%	75.00%	89.29%	83.16%
		G	G	G	G	A	A	G	G
6	Suwawa	77.00%	80.77%	80.36%	87.94%	80.83%	81.50%	82.86%	82.43%
		A	A	A	G	A	G	G	G
7	Bulango Selatan	77.50%	84.62%	80.36%	86.76%	72.92%	81.25%	83.93%	82.29%
		A	G	A	G	A	A	G	G
8	Botupingge	73.33%	79.49%	81.55%	79.90%	62.50%	78.33%	80.95%	78.13%
		A	A	G	A	P	A	A	A
	Total	79.93%	85.20%	82.71%	87.07%	75.11%	81.64%	82.14%	**83.16%**
		A	G	G	G	A	G	G	G

G = Good, A = Adequate, P = Poor, B = Bad

Source: Excel Data Processing, 2022

Based on Table 3.11, the overall percentage of achievement score for the variable seven principles of breeding super free-range chicken business is 83.16 percent, which include in the "Good" category. The implementation has made positive progress in attempts to increase farmers' income and the population of super free-range chicken in Bone Bolango Regency.

3.2.   Pre-Requisite Analysis (Outer Model)

3.2.1. Convergent Validity

The standardized loading factor can be used to assess the convergent validity of individual item reliability assessments. The amount of correlation between each measurement indicator and its concept is described by the standardize loading factor. Each indicator's outer loading value in the research variable is as follows:

Table 3.12 Convergent validity result

Variable	Indicator	Outer Loading	Standard	Status
Chicken farmers' formal education	X1.1	0.792	0.5	Valid
	X1.2	0.875	0.5	Valid
	X1.3	0.852	0.5	Valid
	X1.4	0.784	0.5	Valid
Chicken farmers' breeding experience	Z.1	0.802	0.5	Valid
	Z.2	0.682	0.5	Valid
	Z.3	0.743	0.5	Valid
Implementation of seven principles of chicken breeding business	Y.1	0.759	0.5	Valid
	Y.2	0.574	0.5	Valid
	Y.3	0.674	0.5	Valid
	Y.4	0.633	0.5	Valid
	Y.5	0.564	0.5	Valid
	Y.6	0.657	0.5	Valid

| | Y.7 | 0.689 | 0.5 | Valid |

Source: Olahan PLS, 2022

Based on results above, there is no variable indication with an outer loading value less than 0.5. Hence, all indicators are valid for research use and can be used for further analysis.

3.2.2. Discriminant Validity

Discriminant Validity is a comparison between discriminant validity and square root of average extracted (Ave). If the value of the Ave square root of each construct is greater than the correlation value between the construct and other constructs in the model, then the expected Ave value is > 0.5. The results of the analysis is presented in the following table:

Table 3.13 Discriminant validity result

Variable	AVE	Standard	Status
Chicken farmers' formal education	0.683	0.5	Valid
Chicken farmers' breeding experience	0.554	0.5	Valid
Implementation of seven principles of chicken breeding business	0.526	0.5	Valid

Source: Olahan PLS, 2022

Based on the above table obtained the value of the variable AVE formal education of chicken farmers, non-formal education of chicken farmers, chicken farmers breeding experience and seven principles of breeding super free-range chicken business > 0.5. Thus it can be stated that each variable has a good discriminant validity.

3.2.3. Composite Reliability

Composite Reliability is an index that indicates how much a measurement device can be relied on. Data that has composite reliability > 0.7 has a high reliability. Internal consistency and Cronbach's Alpha are two measures that can be used to evaluate composite reliability indicator blocks. Composite Reliability test results are presented in the following table:

Table 3.14 Composite reliability result

Variable	Composite Reliability	Standard	Status
Chicken farmers' formal education	0.896	0.7	reliable
Chicken farmers' breeding experience	0.787	0.7	reliable
Implementation of seven principles of chicken breeding business	0.838	0.7	reliable

Source: Olahan PLS, 2022

Based on the results of the above data processing can be seen that the value of cronbach's alpha of each research variable > 0.7. Thus these results can show that, each variable has met the requirements of cronbach's alpha value.

3.2.4. Cronbach's Alpha

The cronbach's alpha value can be used to strengthen the reliability test with composite reliability above. A variable can be stated reliable or satisfy cronbach's alpha if it has a value of cronbach's alpha > 0.55. The cronbach's alpha value for each variable is shown in table 4.25. Based on the data processing results, the value of composite reliability of all research variables are > 0.5. These findings reveal that each variable has met the composite reliability standard, implying that the overall variable has a high level of reliability

Table 3.15 Cronbach's alpha result

Variable	Cronbach's Alpha	Standard	Status
Chicken farmers' formal education	of chicken farmers	0.846 0.5	reliable
Chicken farmers' breeding experience	0.602	0.5	reliable
Implementation of seven principles of chicken breeding business	0.775	0.5	reliable

Source: processed PLS, 2022

3.2.5. Inner Model

The path coefficient evaluation is used to indicate how strong the independent variable's effect towards dependent variable. The R-Square method is used to determine how much endogenous variables are affected by other factors. The results of the analysis of the level of R-Square can be described as follows:

Table 3.16 R-Square Results

No.	Variable	variable Z	variable y		Total direct indirect influence	
			Direct (L)	Indirect (TL)	L+TL	Increase
1	Chicken farmers's formal education	0.255	0.449	0.164	0.613	26.75%
2	Chicken farmer breeding experience		0.340			
imultaneous determination		**0.314**	**0.497**			**45.80%**

Source: processed PLS, 2022

3.3. Hypothesis Testing Results

Hypothesis test in this study was conducted by looking at the value of T-Statistics and P-Values.

Based on the figure above, the research hypothesis is considered acceptable if the value of P-Values < 0.05. For more detailed results, hypothesis testing is classified in the following elaboration:

3.3.1. Direct Influence

The results of hypothesis testing for direct influence can be presented in the following table:

Table 3.17 Direct influence hypothesis testing results

No.	Exogenous	Endogenous	Hypothesis	P-Value	Conclusion
1.	Chicken farmers' formal education	Breeding experience	Positive and significant effect	0.038	H2 accepted
2.	Chicken farmers' formal education	Implementation of seven principles of super free-range chicken breeding business	Positive and significant effect	0.004	H4 accepted
3.	Chicken farmers' breeding experience	Implementation of seven principles of	Positive and significant effect	0.007	H6 accepted

		super free-range chicken breeding business			

Source: processed PLS, 2022

Based on the direct influence hypothesis testing table above, the results of the analysis can be described as follows:

1.   The influence of formal education on the experience of B Super Free-Range Chickens Breeding

T-statistic value the influence of formal education on the experience of raising Super free-range chickens obtained results of 2.085 with a probability value (p-value) of 0.038 which is smaller than the probability value of 0.05 (0.038<0.05) then Ha2 received which means that formal education has a positive and significant effect on the experience of super free-range chickens breeding in Bone Bolango Regency.

2.   The Effect of Formal Education On The Implementation of Seven Principles of Super Free-Range Chicken Breeding Business

The influence of formal education on the experience of super free-chicken breeding acquired T-statistic value of 2.882 with a probability value (p-value) of 0.004. When the p-value is less than 0.05 (0.0040.05), Ha4 is accepted, showing that formal education has a favorable and substantial impact on the titled stated above

3.   The influence of the farmers' breeding experience of super free-range chicken business

The effect of breeding experience obtained reult T-statistic value of 2.702 with a probability value (p-value) of 0.007. When the p-value is less than 0.05 (0.007<0.05), ha6 is approved, indicating that the breeding experience has a beneficial and significant impact on the application of seven principles of super free-range chicken breeding business.

3.3.2. Indirect Influence

The results of hypothesis testing for indirect influence can be presented in the following table:

Table 3.18 Indirect influence hypothesis testing results

No.	Exogenous	Mediation	Endogenous	Path Coefficient	P-Value	Conclusion
1.	Chicken farmers' formal education	Breeding experience	Implementation of seven principles of super free-range chicken breeding business	0.613	0.035	H8 accepted

Source: processed PLS, 2022

Based on the indirect influence hypothesis testing table above, the results of the analysis can be described as follows:

1. The Influence of Formal Education through Breeding Experience on the Application of Seven Principles of Super Free-Range Chicken Business

The indirect influence of formal education variable has a T-statistic value of 2.286 with a probability value (p-value) of 0.035. The p-value is smaller than the probability value of 0.05 (0.035<0.05), then Ha8 is accepted which means that formal education through breeding experience has a positive and significant effect on super free-range chicken business in Bone Bolango Regency.

4. Discussion

4.1. The Influence of Formal Education On The Experience Of Raising Super Free-Range Chicken In Bone Bolango Regency

The results of the second hypothesis testing found that, formal education has a beneficial and significant effect on the experience of raising super free-range chickens in Bone Bolango Regency. Super free-range chicken farmers are dominated by high school graduates in total 31 breeders or 40.8%, followed by freshman graduates as many as 21 breeders or 27.6%. The formal education has an impact on the high number of breeders who have long breeding between 1 and 5 years (53 breeders, or 69.70%) and 6-10 years (23 breeders, or 30.30%). Breeders with long breeding 1-5 years are more dominated by breeders who are educated high school and undergraduate, while the rest are breeders with primary school education. Meanwhile, breeders with a breeding experience period of 6-10 years are dominated by breeders with a primary education. This phenomenon illustrates that breeders depend on informal education than formal education in maintaining their livestock company.

4.2. The Influence of Formal Education on the Implementation of Seven Principles of Breeding Super Free-Range Chickens Business in Bone Bolango Regency

The fourth hypothesis testing revealed that formal education has a positive and significant effect on seven principles of super free-range chicken breeding business in bone Bolango Regency. Super free-range chicken breeders in Bone Bolango Regency, graduated from high school as many as 31 (40.8%) breeders, diploma as many as 2 (2.6%) breeders followed by undergraduate graduates as many as 21 (27.6%) breeders, became the main capital in understanding the implementation of seven principles of super free-range chicken breeding business.

4.3. The Influence of The Farmers' Breeding Experience on Seven Principles of Super Free-Range Chicken Business in Bone Bolango Regency

The results of the sixth hypothesis testing found that, breeding experience has a favorable and significant effect on the implementation of super free-range chicken breeding business in bone Bolango Regency. The experience of breeding super free-range chickens in Bone Bolango Regency is quite good, the long-term breeding experience is one of the motivations of farmers in applying the seven principles of super free-range chickens breeding business. This can be proven by the number of chicken ownership by each farmer is quite a lot on average, long period of livestock breeding and sufficient knowledge of farmers.

4.4. The Influence of Formal Education through Breeding Experience on The Application of Seven Principles of Super Free-Range Chicken Business in Bone Bolango Regency.

The results of the eighth hypothesis test found that formal education through breeding experience has a positive and significant impact on the application of super free-range chicken breeding in Bone Bolango Regency. The breeding experience in Bone Bolango Regency is one of the characteristics that can affect the application of seven principles of super free-range

chicken business which in turn able to increase the success of the business itself. Besides adequate breeding experience, a good fornal education alos affect the selling price and better result. These two main factors will further improve the understanding of farmers about the application seven principles of super free-range chicken business.

4.5. The Implementation of Seven Principles of Super Free-Range Chicken Breeding Business in Bone Bolango Regency

The overall implementation rate of super free-range chicken breeding business in Bone Bolango Regency is 83.16 percent, which is in the "Good" category. This shows that its implementation is making good and positive progress in increasing farmer income and the population of super free-range chickens in Bone Bolango Regency. Despite being in a good category, it still required improvemen in some aspects such as seed aspect 79.93 percent and resproduction 75.11 percent.

5. Conclusion

Based on research and discussion findings, it can concluded that:

1. Formal education has a positive and significant effect on the experience of raising super free-range chickens. Good formal education has aided farmers in maintaining long-term efforts, increasing the number of livestock, and expanding expertise in the field of free-range chicken.
2. Formal education has a beneficial and significant impact on the implementation of seven principles of super free-range chicken breeding business. Good formal education is the main capital of farmers in understanding and implementing the business application.
3. Breeding experience has a positive and significant effect on implementation of super free-range chicken breeding business aooicaLong-term breeding experience, livestock ownership, and knowledge (informal education) owned by farmers make the business of raising super chickens intensive
4. Formal education through breeding experience has a positive and significant effect on seven principles of breeding super chicken business' implementation. Farmers with proper formal education and breeding experience have had a favorable impact on boosting farmers' understanding of the implementation of breeding super free-range chicken business.

6. Suggestion

Based on the findings in the field and and in order to expand the resources of Super free-range chicken farmers, it can be suggested as follows:

1. It is proposed that farmers of super free-range chicken in Bone Bolango Regency increase their understanding and knowledge of the implementation of seven principles of breeding super free-range chicken through intensive training and counseling. Thus, the results obtained are more increased and competitive in the market.
2. It is suggested that the local government and agencies associated to animal husbandry establish a School of Animal Husbandry *(SPR)* focused on one commodity in the areas of animal husbandry centers, further intensifying services to farmers in deciding the direction of policy.
3. It is advised that the Regional Government and livestock sector agencies, prioritize education as a standard in distributing aid or stimulus to the community.

It is recommended that the Regional Government and livestock sector agencies, provide accurate data on farmer conditions in the context of mapping the center for developing livestock commodities, forming special cooperatives for farmers in preparing production facilities, and distributing production results in order to maintain market price stability

References

[1] Hasriani, Arifin, Pata, A.A. (2019). "Factors That Affect The Demand for Free-Range Chicken In Maros Regency", *Jurnal Agribis* – Vol. 1 No. 1.

[2] Putra, F.A., Nurlina, L., Alim, S. (2016). "Relationship between the Amount of Livestock Ownership and the Level of Application of Physical Forage Feed Technology on People's Dairy Farms". Fakultas Peternakan Universitas Padjadjaran, Bandung.

[3] Waris, Badriyah, N., Wahyuning, A.D. (2015). "Influence of Education Level, Age and Length of Breeding on Knowledge of Reproduction Management of Beef Cattle in Kedungpring Village, Balongpangang District, Gresik Regency", *Jurnal Ternak – Vol. 06 No. 01*.

[4] Bere, E.K., Rifa'I. (2021). "Evaluation of Farmer Characteristics for Bali Cattle Production in Belu Regency of East Nusa Tenggara", *Jurnal AGRIOVET Vol. 3 No.2*.

[5] Sambodo, A., Widyasworo, A., Rahmawati, R.Y. (2020). "Characteristics of Farmers on the Ability to Raise Beef Cattle in Klampok Village, Sananwetan District, Blitar City", *Jurnal Aves – Vol. 14 No. 1*.

[6] Indrayani, I., Andri. (2018). "Factors Affecting Beef Cattle Business Income in Sitiung District, Dharmasraya Regency", *Jurnal Peternakan Indonesia Vol. 20 No. 3*.

[7] Sugiyono. (2018). *Quantitative, Qualitative and R&D Research Methods*. Alfa Beta. Bandung.

[8] Ghozali, I. (2014). *Structural Equation Model, Alternative Method with Partial Least Square*. Semarang: Universitas Diponegoro.

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