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SINTA 2

Study on Entrepreneurship Competencies of Coffee Farmers

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ABSTRACT

Coffee is the main source of income for 1.8 million heads of farming families spread across almost all provinces and 69 thousand families of employees of large plantations, plays a role in job creation, encouraging domestic agribusiness. The stock of coffee beans in Indonesia for the last 5 years has continued to decline. Seeing this phenomenon, researchers are interested in studying entrepreneurial competence, and the factors that influence it both directly and indirectly. Determination of respondents using the method of arikunto 10% of the total population, then obtained as many as 496 respondents. Analysis of research data using path equations. The results of the study stated the eleven indicators of entrepreneurial competence have competencies of which 1 indicator is included in low competence. The results of the path analysis state that X2 (Farming Business Experience), X5 (Access to Information), X7 (Farmers' Perceptions of Government Policy) have a significant direct and indirect influence on the entrepreneurial competence of farmers.

Keywords*: Competence, Entrepreneurship, Coffee Farmers*

INTRODUCTION

Coffee is one type of agricultural commodity that is the largest foreign exchange earner for the country. Coffee is the fourth foreign exchange-producing commodity after palm oil, rubber and cocoa; The main source of income for 1.8 million farmer families spread across almost all provinces and 69 thousand families of employees of large plantations, plays a role in job creation, encouraging domestic agribusiness and agro-industry, environmental conservation and regional development (Ditjenbun, 2018).

Based on Lernoud et al. (2018), Indonesia ranks fourth in the world after Brazil, Colombia and Vietnam. Indonesia's coffee bean production is around 600 thousand tons per year. Indonesia's national coffee consumption over the last five years has shown an increase that is consistent with the current average estimate of coffee consumption per capita in Indonesia at around 1.11 kg/capita/year. Exports in the form of beans (green beans and roasts) decreased, on the other hand exports in the form of powder, instant coffee, and coffee drinks continued to increase, except for instant coffee in 2019

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which suddenly declined. The stock of coffee beans in Indonesia in the last 5 years has decreased. Coffee imports by Indonesia over the last 5 years have continued to increase, except in the form of roasted beans which have decreased slightly. The stock of coffee beans in Indonesia for the last 5 years has continued to decline. (Radar, 2021). Many countries are of the opinion that the implementation of farming is inadequate compared to the total production area. This happens because of the many challenges and obstacles faced by smallholders to meet specific compliance with sustainability standards or certification (Brandi et al. 2015)

Bengkulu province is one of the 6th largest coffee producing provinces in Indonesia after South Sumatra, Lampung, Aceh, North Sumatra and East Java. (BPS, 2021). The area of coffee plantations in Kepahiang has increased in 2019 it is noted that the area of coffee plantations is around 24.75 thousand hectares and in 2020 it increased to 24.85 thousand hectares. Total area of coffee plantations in Bengkulu Province in 2020 is 85.02 thousand hectares. Kepahiang Regency is the district that has the largest coffee plantation area in Bengkulu province, which is 24.85 thousand hectares, followed by Rejang Lebong Regency with an area of 23.63 thousand hectares. The difference in the area of these 2 regencies with other regencies is quite significant, the area of coffee plantations in other regencies in Bengkulu Province is under 10 thousand hectares (BPS, 2021)..

Seeing the opportunities and threats of coffee prospects, farmers as entrepreneurs who run their farms need to obtain information, technology, business opportunities and technology related to coffee cultivation in order to increase productivity and as successful entrepreneurs. This information was obtained by farmers through a learning process in extension carried out by agricultural extension workers. The learning process carried out by farmers cannot be separated from various factors that exist within the farmer and in the surrounding environment such as the business environment, farmer participation in existing institutions in the community, access to information, the ability of extension workers to carry out the learning process. The learning process will help farmers in carrying out farming, increasing competence will ultimately increase farm productivity.

Farmers have great potential to become entrepreneurs. It can be seen that farmers around the world are able to adapt and find the best way to carry out their farming activities. They are already market oriented and able to estimate the risks that occur. However, not all farmers have the potential to become entrepreneurs, some of them are still focused on maintaining traditional methods and still making production decisions according to what they have (Kahan, 2012). spearheading the ministry of agriculture.

Seeing this phenomenon, researchers are interested in studying entrepreneurial competence, and the factors that influence it both directly and indirectly. In addition, it is important to formulate the right model in increasing the entrepreneurial competence of coffee farmers in Kepahiang Regency.

RESEARCH METHOD

This research was conducted in Kepahiang Regency, Bengkulu Province. The location selection was carried out purposively or intentionally, because Kepahiang Regency is an area that has the largest coffee plantation in Bengkulu province with an area of 24,738.50 hectares (BPS, 2019). Determination of respondents using the method of arikunto 10% of 4960 the total population 4960, then obtained as many as 496 respondents who will be selected randomly. Analysis of research data using descriptive and quantitative methods using path equations, while data processing uses SPSS and AMOS 22 software. The analysis is intended to test the relationship and test the effect between the hypothesized variables according to the previous formulation (Aviati et al., 2016). To analyze paths using;

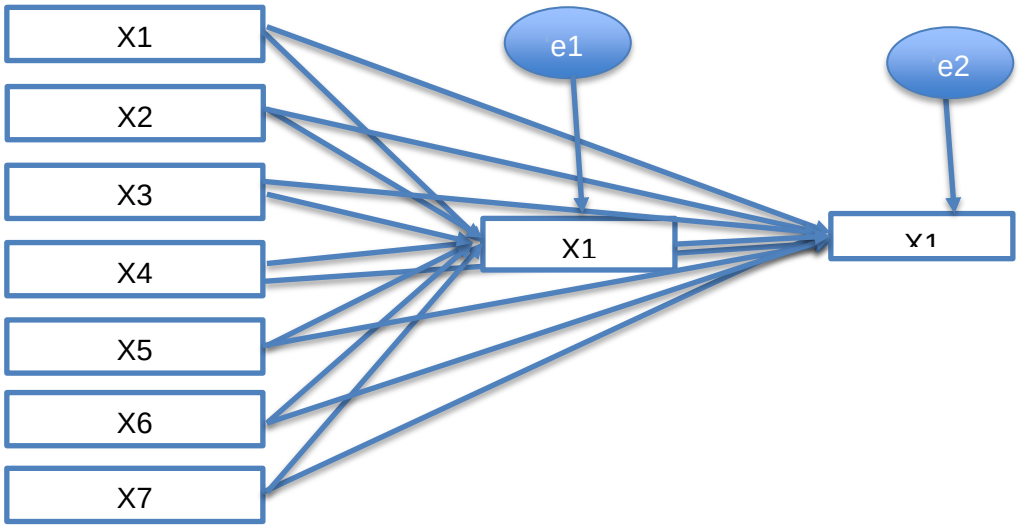

Figure 1
Path Analysis Chart

Description;
X1 (Farmers' Formal Education), X2 (Farming Business Experience), X3 (Work motivation), X4 (Farmers' participation in community institutions), X5 (Access to Information), X6 (Farming Environment), X7 (Farmers' Perceptions of Government Policy) , X8 (farmers' perception of the learning process in extension) and Y (entrepreneurial competence)

RESULTS AND DISCUSSION

Characteristics of Respondents

Characteristics of respondents in this study will describe the age of the respondent, farming experience, number of family members, and land area. This is intended to determine the distribution of data and the diversity of farmers in analyzing their entrepreneurial competencies.

Age of respondents

Categories according to the Ministry of Health are as follows: 1) Toddler Age: 0–5 Years; 2) Childhood: 5–11 Years; 3) Early Adolescence: 12–16 Years; 4) Late Adolescence: 17–25 Years; 5) Early Adulthood: 26–35 Years; 6) Late Adulthood: 36–45 Years; 7) Early Old Age: 46–55 Years; 8) Late Old Age: 56–65 Years; and 9) Old Age: > 65 Years (Judge, 2020). The following is the distribution of respondents based on the age of coffee farmers in Kepahiang Regency.

Table 2
Characteristics of respondents by age

Age	Total (person)	Percentage (%)
17 – 25	13	4.71
26 – 35	118	42.75
36 – 45	91	32.97
46 – 55	39	14.13
56 – 65	14	5.07
>65	1	0.36
Total	276	100

(Primary data, 2022)

While the majority of respondents aged 26 to 35 years as many as 118 people with a percentage of 42.75% are early adulthood. At this time the individual is stable and begins to understand the direction of life and is aware of the purpose of his life and has a certain stance based on a clear pattern (Lerner, 2020). Farmers who have a productive age will work better and more optimally than farmers who are of unproductive age (Gusti et al., 2022). Sumekar et al., (2021) also stated that those of productive age usually have sufficient ability and energy as well as ease in understanding and absorbing information and technology.

Characteristics of respondents based on formal education

The following is the distribution of respondents based on the formal education of coffee farmers in Kepahiang Regency

Table 3
Characteristics of Respondents Based on Formal Education

Education	Number (persons)	Percentage (%)
Not Graduated Elementary School	44	15.94
Graduated Elementary School	69	25.00
Junior	55	19.93
Senior High School	91	32.97
Academy/College	17	6.16
Total	276	100

(Primary data, 2022)

Based on the table 3 explains that most of the respondents have a fairly high level of education that exceeds the government's minimum education recommendation, which is compulsory education up to 9 years. Education can have a big influence on a person's mindset. Farmers with a high educational background will have a tendency to think more advanced than farmers with a low educational background (Gusti et al., 2022).

Characteristics of respondents based on number of family dependents

Below is the distribution of respondents based on the number of dependents of coffee farmers' families in Kepahiang Regency.

Table 4
Characteristics of Respondents Based on Number of Family Dependents

Number of Dependents	Number (Percentage)	Percentage
One Family Member	9	3.26
Two Family Members	19	6.88
Three Family Members	87	31.52
Four Family Members	90	32.61
Five Family Members	43	15.58
Six Members Family	16	5.80
Seven Family Members	12	4.35
Total	276	100

(Primary data, 2022)

The average number of dependents is at least one family member, namely 9 people. The more the number of family members, the farmers will be more motivated in their farming, besides that

there will be family members who help with farming activities (Amir, 2018).

Characteristics of Respondents Based on Land Area

Below is the distribution of respondents based on the land area of coffee farmers in Kepahiang Regency.

Table 5
Respondents Based on Land

Category Land Area (Ha) Area	(Ha)	Percentage
0 - 1	204	73.91
1.1 - 2	45	16.30
2.1 - 3	6	2.17
3, 1 - 4	11	3.99
4.1 - 5	5	1.81
>5	5	1.81
Total	276	100

(Primary data, 2022)

The size of the farmer's land will affect the efficiency or not of a farm, because it is closely related to the costs incurred and the production received. The more land area and the production costs incurred are not balanced with the production obtained. In relatively narrow farming, although using appropriate innovations, it produces relatively wide production. This causes the tendency of farmers to prioritize farming to meet their daily needs, making it difficult to implement new innovations, because the land is not possible (Amir, 2018).

Condition of Entrepreneurial Competence of Coffee Farmers in Kepahiang Regency

Overview of coffee business in kepahiang

Kepahiang Regency is one of the areas designated as coffee development areas. Most coffee farmers cultivate robusta coffee so that the area of Robusta coffee plantations owned by Kepahiang Regency is wider than the area of Arabica coffee plantations. Robusta coffee is a leading plantation commodity in the highlands of Bengkulu Province, as one of the producers of robusta coffee in the golden triangle area covering the provinces of South Sumatra, Bengkulu, and Lampung. One of the centers for people's coffee plantations is Kepahiang Regency, Bengkulu Province, geographically located on the Bukit Barisan line at an altitude above 700 meters above sea level so it is very suitable for robusta coffee cultivation. People's coffee plantations involve 13,615 heads of families in Kepahiang Regency. The productivity of people's robusta coffee plantations is on average 0.893 tons per hectare.

Of the total respondents, the research produced four types of coffee products, namely coffee cherries, green beans, sangria coffee (roasting), and ground coffee. Most of the farmers in Kepahiang Regency sell coffee in the form of green beans. There are only 2 farmers who simultaneously produce coffee cherries/berries, green beans and produce roasted coffee and ground coffee which are sold directly to their shop. Green beans produced by farmers are sold to village collectors, then collected by district collectors who are then sent to Palembang or Lampung.

Entrepreneurship Competency Level

Farmers is expected to be able to manage farming activities well. As a farmer manager, he is required to be able to organize, organize and lead his farming so that it runs effectively and efficiently and achieves optimal results.

The detailed description of the eleven competency indicators that have an

influence on coffee farmer entrepreneurship is explained as follows:

Table 6
Indicators and Parameters of Entrepreneurial Competence of Coffee Farmers

No	Question
Y1. Skilled in coffee cultivation techniques	
1	Land preparation
2	Planting
3	Maintenance
4	Eradication of pests and diseases
5	Harvesting
6	Post-harvest handling
7	Marketing
Y2. Able to make and make decisions	
1	Ability to make decisions based on current situations and conditions
2	Ability to predict the impact of decisions made in the future
3	Assess a decision based on strategic considerations
4	Ability to make decisions in a short time
5	Viewing a problem from various angles
6	Responsible for all decisions made
Y3. Able to organize other people	
1	Delegate tasks to other people for farming business
2	Divide tasks effectively
3	Monitor progress of work plans
4	Improve work plans according to the latest information obtained
5	Evaluate the implementation of farming
6	Regulate and manage the activities of workers in farming
7	Supervise the achievement of goals, especially for work at risk
Y4. Able to manage marketing and finance	
1	Ability to determine where farm products will be sold
2	Sell farm produce with the highest price
3	Determine the right time to sell farm products
4	Determine how much farm produce to sell
5	Selling farm products according to consumer demand
6	Determining to whom farm products are sold
7	Preparation of financial reports for coffee farming
8	Calculating farm profits
9	Using capital for operational purposes Farming
10	Regulating fixed capital and variable capital for farming
11	Managing all farm production costs
Y5. Dare to take risks	
1	Courage to take risks from a farm
2	Ability to realize that there are negative risks from a job

3	Monitor the progress of work in order to achieve the goals set
Y6. Able to be creative and innovate	
1	Using unused resources for other farming branches
2	Farming livestock while running a coffee farm
3	Handling and utilizing coffee farming waste
4	Farmers' level of desire to experiment with innovation Individual or group
5	Be proactive and responsive to changes in farming
6	Ability to convey new ideas
7	Ability to innovate using new approaches
Y7. Oriented to the future	
1	Choose a branch of farming that can maintain land productivity and be profitable
2	Create a combination of other business branches related to coffee commodities
3	Establish relationships with other parties Important for the development of farmers' businesses
4	Maintain long-term relationships with various parties
Y8. Able to seize opportunities	
1	Looking for opportunities for farming development by utilizing existing natural resources
2	Producing other products made from coffee as another business
3	Actively seeking information about products desired by consumers
4	Seeing a problem as an opportunity
5	Providing a business opportunity to the surrounding community
Y9. Able to manage personal	
1	Ability to maintain high energy level
2	Confidence in yourself to always be at optimal performance
3	Maintain a positive attitude
4	Able to work independently
5	Learn as much as possible in the field experienced
6	Recognize your own shortcomings and try to overcome them
Y10. Able to lead	
1	Competence to provide direction and guidance to others
2	Delegating work tasks to colleagues and subordinates effectively
3	Motivate others to do their best
4	Willing and open accept criticism and suggestions from other parties
5	Establish a clear task relationship between one person and another
6	Inviting members to participate in setting and deciding a goal
Y11 able to communicate	
1	Competence/ability to present information individually in groups
2	Maintain good communication with other parties.

Score: 1-4

Based on the indicators above, the assessment criteria for the entrepreneurial competence of coffee farmers are obtained as follows;

Table 7
Assessment of the criteria and average for the entrepreneurial competency indicators of coffee farmers

No	Questions	ASSESSMENT CRITERIA			Average
		LOW	MEDIUM	HIGH	Result
Y1.	Skilled in coffee cultivation techniques	7-14	14.1-21	21.1-28	18.95 (Medium)
Y2.	Able to make and make decisions	6-12	12.1-18	18.1-24	16.52 (Medium)
Y3.	Able to organize others	7-14	14.1-21	21.1-28	17.47 (Medium)
Y4.	Able to manage marketing and finance	11-22	22.1-33	33.1-44	27.15 (Medium)
Y5.	Dare to take risks	3-6	6.1-9	9.1-12	7.94 (Medium)
Y6.	Able to create and innovate	7-14	14.1-21	21.1-28	15.62 (Medium)
Y7.	Future-oriented	4-8	8.1-12	12.1-16	9.26 (Medium)
Y8.	Capable of capturing opportunities	5-10	10.1-15	15.1-20	9.20 (Low)
Y9.	Able to manage personal	6-12	12.1-18	18.1-24	17.45 (Medium)
Y10.	Able to lead	6-12	12.1-18	18.1-24	13.60 (Medium)
Y11.	Able to communicate	2-4	4.1-6	6.1-8	5.26 (Medium)

(Primary data, 2022)

Skilled in Coffee Cultivation Technical
The average obtained from all technical indicators of coffee cultivation is 18.95 which is also in the medium category. This is in accordance with the information from respondents in the field who admit that they apply farming techniques that are hereditary so that there are no new techniques or innovations that they apply to improve their farming.

Able to Make and Take the Decisions
The average obtained from all technical indicators in decision making is 16.52 which is also in the medium category. In farming, the community has not implemented various innovations so that they are also minimal in decision making.

Able to Organize Others
The average obtained from all technical indicators in organizing other people is 17.47 which is also in the medium category. This is caused by the average area of coffee farming area is 0.89 Ha. Farmers have not integrated with livestock and most of them also have not done coffee processing business. So that in farming activities are carried out alone / have not organized other people in their farming.

Able to Manage Marketing and Finance
The average obtained from all indicators of managing marketing and finance is 27.15 which is also in the medium category. This is because farmers will follow the prices set at village collectors. Most of the farmers have not processed coffee so that the coffee products in the form of *green beans* are directly sold to village collectors following the set price.

Dare to Take Risks
The average obtained from all indicators in risk taking is 7.94 which is also in the medium category. This can be seen from the farming system which is still traditional, following a hereditary method and not processing coffee into its derivative products, this is done because farmers do not want to take risks.

Able to Create and Innovate
The average obtained from all indicators in innovating and creating is 15.62 which is also in the medium category. Most farmers are still reluctant to innovate, still apply traditional farming, follow hereditary methods and do not process coffee into its derivative products.

Oriented to the Future
The average obtained from all indicators in future orientation competence is 9.26 which is also in the

medium category. Farmers still focus on traditional farming and sell their products to collectors. From the data in the field, farmers want to improve their quality and market-oriented competencies in the future but have not had the opportunity to learn. The sustainability of how these commodities are produced, traded and consumed is at a tipping point with outcomes likely to be determined in the decades to come (Gardner et al. 2019).

Capable of Seizing Opportunities
The average obtained from all indicators in capturing opportunities is 9.20 which is also included in the low category. The coffee agro-industry business opportunity is actually very good in Kepahiang Regency, where we know Kepahiang is an agro-tourism area that is visited by tourists both from Bengkulu Province and from outside the Bengkulu region. However, most of the farmers have not exploited this opportunity.

Able to Manage Personal
The average obtained from all indicators in personal management is 17.45 which is also in the medium category. The farmers have managed personally for traditional farming, but have not been able to manage for opportunity-oriented and future-oriented farming.

Able to Lead
The average obtained from all indicators in leadership is 13.60 which is also in the medium category. Farmers have not integrated with livestock and most of them also have not done coffee processing business. So that farming activities are carried out alone or only involve the family, so that it has not stimulated leadership competence.

Able to Communicate
The average obtained from all indicators in communication skills is 5.62 which is also in the medium category. This is because one of the factors is farmer education. The average education level of farmers in the research area is 8.77 years, equivalent to grade 3 junior high school. At this level, the communication learning process is not complete. In addition, most farmers can only use the local language (rejang language).

Factors Affecting Farmers' Perceptions in the Extension Learning Process
Determinant coefficient test
Determinant coefficient test is used to see what percentage of significant independent variables have been included in the model. To see the results of the determinant coefficient test can be seen in the table 8. Based on the table, it can be seen that the value of R^2 (R Square) is 0.718 or 66.3%. This shows that the independent variable used in this model is able to explain 66.3% while the remaining 33.7% is explained or influenced by other variables not included in this study.

Table 8
Model Summary

Model	R	R Square
1.881	.663[a]	.649

(Primary data, 2022)

ANOVA test (f count)
The ANOVA test or known as the F test is an abbreviation of Analysis of Variance (analysis of variance), which is a test of differences in more than two groups. The ANOVA test is used to see the effect of the

variables together or as a whole (Idayani, 2020). This test was conducted to determine the effect of farmers' formal education, farming experience, work motivation, farmer participation in community institutions, access to information, farming environment and farmers' perceptions of government policies on farmers' perceptions of the learning process in coffee farmer counseling in Kepahiang Regency. To see the results of the Anova test can be seen in the table 9.

Table 9
Model Summary

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	75922,510	7	10846.073	33.031	.000[a]
	Residual	88000.226	268	328.359		
	Total	163922.736	275			

F Table = 1.94

(Primary data, 2022)

Based on the table 9, the results of the Anova test or F test can be seen by comparing the value of Fcount with Ftable. The Fcount value is greater than the Ftable value, namely the Fcount 33.031 > the Ftable value 1.94 and a significance of 0.000 <0.05 from the results of the data processing so that it can be concluded that farmers' formal education, farming experience, work motivation, farmer participation in institutions in the community , access to information, farming environment and farmers' perceptions of government policies have a joint effect on farmers' perceptions of the learning process in coffee farmer counseling in Kepahiang Regency.

Partial test (t test)

The T test is a partial test of the effect of the independent variable on the dependent variable. This test was conducted to determine the effect of farmers' formal education, farming experience, work motivation, farmer participation in community institutions, access to information, farming environment and farmers' perceptions of government policies on farmers' perceptions of the learning process in coffee farmer counseling in Kepahiang Regency. see the results of the T test regression can be seen in the following table 10.

Table 10
Factors Affecting Farmers' Perceptions in the Extension Learning Process

Model		Unstandardized Coefficients		Standardized Coefficients	t-count	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-9.666	-.845		11.440	.399		
	X1	.745	.567	.064	1.314	.190	.842	1.188
	X2	-.596	.119	-.229	-5.000	.000	.951	1.052
	X3	.691	.479	.072	1,440	.151	.802	1.246
	X4	.613	.203	.195	3.022	.003	.482	2,076
	X5	1,213	.204	.376	5,937	.000	.501	1,998
	X6	.183	.588	.557	.882	1.133	1.133	3.372
	X7	X	.028305	.551	11.041	.000	.805	1.242

T table : 1.960

(Primary data, 2022)

It can be seen that there are several independent variables that have a Tcount value greater than Ttable and a sig value < 0.05 which has a significant meaning and has a partial effect. These variables are;

1. X2 (Farming experience)
   The significance value is 0.000 <0.05 and the t-count value is greater than the t-table value (5,000>1.960) meaning that Ha is accepted and Ho is rejected. This explains that the farming experience variable significantly influences farmers' perceptions of the learning process in extension. Farming experience greatly affects the openness of farmers in their perceptions related to the learning process in extension. Respondents have a high level of experience in running their farms so that in managing their farms it can be said to be independent so that they are indifferent in giving perceptions of the role of extension workers (Sahripin & Puryantoro, 2020).
2. X4 (Farmers' participation in community institutions).
   The significance value is 0.003 < 0.005 and the t-count value is greater than the t-table value (3.022>1.960), meaning that Ha is accepted and Ho is rejected. This explains that the variable of farmer participation in institutions in the community significantly influences farmers' perceptions of the learning process in extension. The more active farmers are in participating in community institutions, the more insightful farmers will be in assessing the learning process in extension. Farmers who are more often present in extension activities will participate more in extension activities (Ali et al., 2018).
3. X5 (Access information)
   The significance value is 0.000 <0.005 and the t-count value is greater than the t-table value (5.937>1.960) meaning that Ha is accepted and Ho is rejected. This explains that the variable of access to information significantly influences farmers' perceptions of the learning process in extension. Access to information is very important for farmers. Many non-adopter farmers do not participate in producer organizations, such as farmer groups or cooperatives in Indonesia, so they have minimal access to information (Suprehatin, 2019).
4. X7 (Farmers' perception of government policies).
   The significance value is 0.000 < 0.005 and the t-count value is greater than the

t-table value (11.041>1.960), meaning that Ha is accepted and Ho is rejected. This explains that the variable of farmers' perceptions of government policies significantly influences farmers' perceptions of the learning process in extension. This is due to the belief in government policies related to coffee farming will increase the perception and participation of farmers in extension activities. This is supported by research conducted by (Jamil et al., 2021) which states that farmers perceive that extension workers play a very important role in helping groups collaborate with government agencies or the agricultural service. Because extension workers provide access to farmer groups related to government policies that can be in the form of cooperation in the form of direct assistance to the government or agricultural services.

The Influence of Farmers' Direct and Indirect Factors on Entrepreneurial Competence of Coffee Farmers

Determinant coefficient

Test This determinant coefficient test is used to see what percentage of significant independent variables have been included in the model. To see the results of the determinant coefficient test can be seen in the following table 11. Based on the table, it can be seen the value of R2 (R Square) which is 0.604 or 60.4%. This shows that the independent variable used in this model is able to explain 60.4% while the remaining 39.6% is explained or influenced by other variables not included in this study.

Table 11
Model Summary

Model	R	R Square	Adjusted R Square
2	.836[a]	.604	.587

F Table = 1.94

(Primary data, 2022)

ANOVA test (f count)

The ANOVA test or known as the F test is an abbreviation of Analysis of Variance (analysis of variance), which is a test of differences in more than two groups. The ANOVA test is used to see the effect of the variables together or as a whole (Idayani, 2020). This test was conducted to determine the influence of farmers' formal education, farming experience, work motivation, farmer participation in community institutions, access to information, farming environment, farmers' perceptions of government policies and farmers' perceptions of the learning process in counseling on the entrepreneurial competence of coffee farmers in the district. Kepayang. To see the results of the ANOVA test, see the table 12.

Table 12
ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	73170.228	8	9146.279	22.669	.000[a]
	Residual	107726410	267	403.470		
	Total	180896.638	275			

(Primary data, 2022)

Based on the table 12, the results of the Anova test or F test can be seen by comparing the value of Fcount with Ftable. The Fcount value is greater than the Ftable value, namely the Fcount value 22.669 > the Ftable value 1.94 and a significance of 0.000 <0.05 from the results of the data processing so that it can be concluded that the factors of farmers' formal education, farming experience, work motivation, farmer participation in institutions in Indonesia. community, access to information, farming environment, farmers' perceptions of government policies and farmers' perceptions of the learning process in extension have a joint effect on the entrepreneurial competence of coffee farmers in Kepahiang Regency.

Partial test (t test)

The T test is a partial test of the effect of the independent variable on the dependent variable. This test was conducted to determine the factors of farmers' formal education, farming experience, work motivation, farmer participation in institutions in the community, access to information, farming environment, farmers' perceptions of government policies and farmers' perceptions of the learning process in counseling about the entrepreneurial competence of coffee farmers in Kepahiang Regency. To see the results of the T test regression can be seen in the table 13.

Table 13
The Influence of Farmers' Direct and Indirect Factors on Entrepreneurial Competence of Coffee Farmers

Model		t-hitung	Sig.
1	(Constant)	-.845	.399
	X1	1.314	.190
	X2	-5.000	.000
	X3	1.440	.151
	X4	3.022	.003
	X5	5.937	.000
	X6	.588	.557
	X7	11.041	.000

T table : 1.960

(Primary data, 2022)

From the table above, it can be seen that there are several independent variables that have a Tcount value greater than Ttable and a sig value < 0.05 which has a significant meaning and partially influential. These variables are;

1. X1 (Farmers' Formal Education)
   The significance value is 0.000 <0.05 and the t-count value is greater than the t-table value (7.185>1.960) meaning that Ha is accepted and Ho is rejected. This explains that the farmer's formal education variable significantly influences entrepreneurial competence. The level of education will affect the adoption of innovation and technology. Currently in a system there must be an innovation to avoid being left behind, or in other words to strive for a sustainable business. The level of adoption is influenced by the relatively low level of education of farmers, resource constraints, lack of information about production (Suprehatin, 2019).
2. X3 (Work motivation)
   The significance value is 0.000 <0.05 and the t-count value is greater than the t-table value (7.202>1.960) meaning that Ha is accepted and Ho is rejected. This explains that the variable of farmer's work motivation has a significant effect on entrepreneurial

competence. Work motivation is very important in the success of farming. According to Dinar (2016) one of the efforts to motivate someone is to help develop individual thinking, by first raising their spirits.

3. X4 (Farmers' participation in community institutions)
   The significance value is 0.000 <0.05 and the t-count value is greater than the t-table value (5,853>1.960), meaning that Ha is accepted and Ho is rejected. This explains that the variable of farmer participation in institutions in the community significantly influences entrepreneurial competence. Participation in farming institutions is very important, in order to exchange information and innovations that will improve farming results (Suprehatin, 2019).

4. X8 (Farmers' perception of the learning process in extension)
   The significance value is 0.000 <0.05 and the t-count value is greater than the t-table value (5.407>1.960) meaning that Ha is accepted and Ho is rejected. This explains that the farmer's perception variable in the learning process in extension significantly influences entrepreneurial competence. The better the perception of farmers on the learning process in extension, the greater the competence received in the learning process.

Path *analysis*

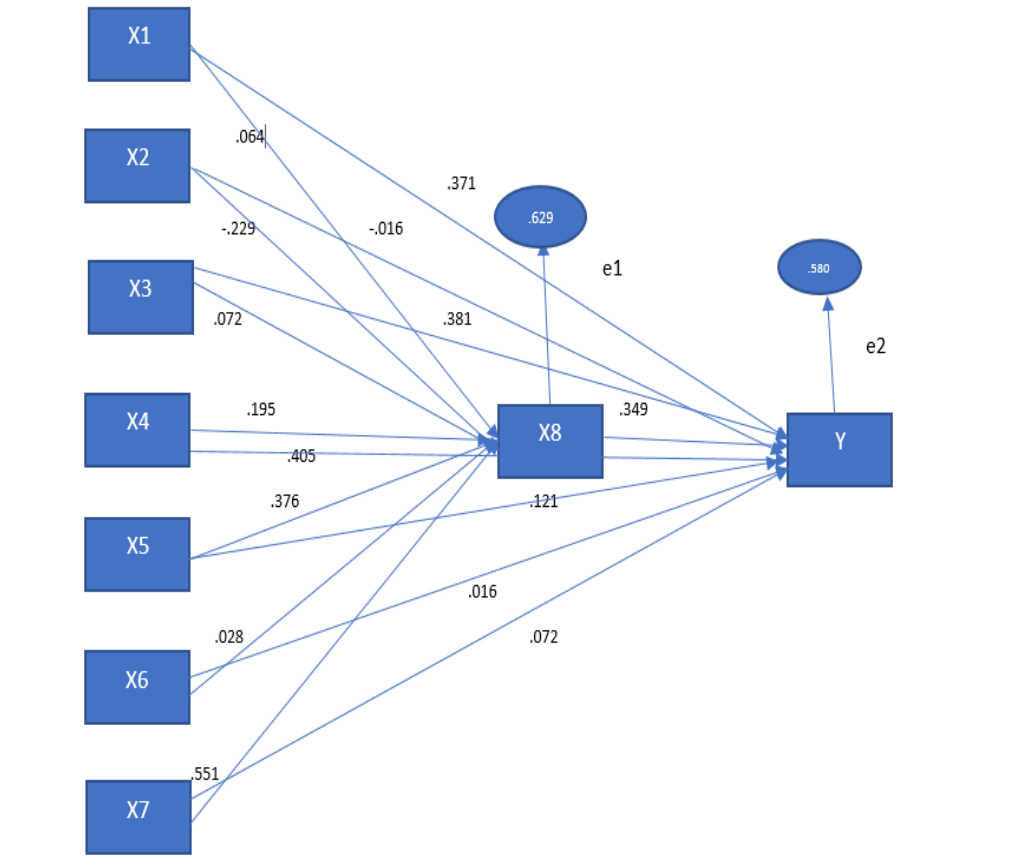

Figure 2
Path analysis chart of entrepreneurial competence

Based on the path analysis above, it can be concluded that the indirect effect is as follows;

Table 14
Line Analysis of Competence in Coffee Farming

VARIABLES	BETA MODEL 2	BETA MODEL 1	BETA X8 MODEL 1	BETA X8 TOWARDS Y	DESCRIPTION
X1	0.371	0.064	0.349	0.022	No Indirect Effect (Through X8)
X2	-0.016	-0.229	0.349	-0.080	NegativeDirectly (Through X8)
X3	0.381	0.072	0.349	0.025	Indirectly Influential (Through X8)
X4	0.405	0.195	0.349	0.068	Indirectly Influenced (Through X8)
X5	0.121	0.376	0.349	0.131	Indirectly Influential (Through X8)
X6	0.016	0.028	0.349	0.010	Indirectly Influenced (Through X8)
X7	0.072	0.551	0.349	0.192	Indirectly Influenced (Through X8)

Description: Indirectly influential if the beta value of X8 to Y is greater than beta model 2.

(Primary data, 2022)

From the table above, the following conclusions are obtained;

1. X1 (Farmers' Formal Education)
   In the formal education variable of farmers above, it can be seen that the direct effect is 0.371 and the indirect effect is 0.022, which means that the indirect effect is smaller than the direct effect. So indirectly the formal education variable does not significantly affect the entrepreneurial competence of coffee farmers in Kepahiang Regency. Education does not affect the entrepreneurial competence of farmers through farmers' perceptions of the learning process in extension. This is different from research conducted by (Aviati, 2016) which states that the indirect effect of farmer education is greater than the direct effect.
2. X2 (Farming Experience)
   In the farming experience variable above, it can be seen that the direct effect is 0.016 and the indirect effect is 0.080, which means that the indirect effect is greater than the direct effect. So indirectly, the farming experience variable has a significant effect on the entrepreneurial competence of coffee farmers in Kepahiang Regency. The negative sign means that farming experience indirectly has a negative effect on farmers' perceptions of the learning process in counseling on the entrepreneurial competence of coffee farmers in Kepahiang Regency. Farmers who have been involved in farming activities for a long time usually have a high level of experience and skills in carrying out their activities in farming (Gusti et al., 2022). So that the longer the experience of farming, the farmers are more closed and difficult to accept the perception of farmers in the learning process in extension.
3. X3 (Work Motivation)
   In the variable of farmer's work motivation above, it can be seen that the direct effect is 0.381 and the indirect effect is 0.025, which means that the

indirect effect is smaller than the direct effect. So indirectly the work motivation variable does not significantly affect the entrepreneurial competence of coffee farmers in Kepahiang Regency. This is different from research conducted by (Aviati, 2016) which states that the indirect effect of motivation is greater than the direct effect.

4. X4 (Farmers' participation in institutions in the community)
   In the variable of farmer participation in institutions in the community above, it can be seen that the direct effect is 0.405 and the indirect effect is 0.068, which means that the indirect effect is smaller than the direct effect. So indirectly the variable of farmer participation in institutions in the community does not significantly affect the entrepreneurial competence of coffee farmers in Kepahiang Regency. This is different from research conducted by (Aviati, 2016) which states that the indirect effect of farmer participation in institutions in the community is greater than the direct effect.
5. X5 (Access Information)
   In the variable of access to farmer information above, it can be seen that the direct effect is 0.121 and the indirect effect is 0.131, which means that the indirect effect is greater than the direct effect. So indirectly the variable of access to information has a significant effect on the entrepreneurial competence of coffee farmers in Kepahiang Regency. In other words, it means that access to information has a positive effect through farmers' perceptions of the learning process in counseling on the entrepreneurial competence of coffee farmers in Kepahiang Regency.
6. X6 (Farming Environment)
   In the farming environment variable above, it can be seen that the direct effect is 0.016 and the indirect effect is 0.010, which means that the indirect effect is smaller than the direct effect. So indirectly the farming environment variable has no significant effect on the entrepreneurial competence of coffee farmers in Kepahiang Regency. This is different from the research conducted by (Aviati, 2016) which states that the indirect effect of the farming environment on institutions in the community is greater than the direct effect.
7. X7 (Farmers' Perceptions of Government Policy)
   In the variable of farmers' perceptions of government policies above, it can be seen that the direct effect is 0.072 and the indirect effect is 0.192, which means that the indirect effect is greater than the direct effect. So indirectly, the variable of farmers' perceptions of government policies has a significant effect on the entrepreneurial competence of coffee farmers in Kepahiang Regency. In other words, it means that farmers' perceptions of government policies indirectly have a positive effect through farmers' perceptions of the learning process in counseling on the entrepreneurial competence of coffee farmers in Kepahiang Regency.

Coffee Farmer Extension Model Based on Increasing Entrepreneurial Competence

Based on the average value of each competency indicator of coffee farmers in Kepahiang Regency which is divided into 3 criteria. With a total of 64 indicators scored with a value of 1-4, the following criteria were obtained;

Table 15
Indicator Assessment

Category	Rating Criteria
Low (R)	1-2
Medium (S)	2.1-3
High (T)	3.1-4

Table 27. Average Value of Entrepreneurial Competence Indicator of Coffee Farmers in Kepahiang Regency

Indicators	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y21	Y22	Y23	Y24	Y25	Y26	Y31	Y32	Y33
Average	2.78	2.84	2.85	2.33	3.08	2.61	2.47	2.78	2.63	2.68	2.62	2.82	2.99	1.67	2.62	2.64
Description	S	S	S S	S	T	S	S	S	S	S	S	S	S	R	S	S
Advanced																
Y34	Y35	Y36	Y37	Y41	Y42	Y43	Y44	Y45	Y46	Y47	Y48	Y49	Y411	Y51	Y410	Y52
2.63	2.73	2.66	2.53	2.51	2.24	2.57	2.75	2.02	2.63	2.24	2.54	2.58	2.52	2.57	2.66	2.63
S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Advanced																
Y53	Y61	Y62	Y63	Y64	Y65	Y66	Y67	Y71	Y72	Y73	Y74	Y81	Y82	Y83	Y84	Y85
2.65	2.42	1.74	1.43	2.75	2.71	2.28	2.30	2.57	1.64	2.46	2.59	2.36	1.52	1.50	1.96	1.87
S	S	R	R	S	S	S	S	S	R	S	S	S	R	R	R	R
Advanced																
Y91	Y92	Y93	Y94	Y95	Y96	Y101	Y102	Y103	Y104	Y105	Y106	Y111	Y112			
2.35	2.63	3.21	3.16	3.16	2.95	2.04	1.94	2.17	2.77	2.39	2.29	2.43	2.83			
S	S	_	_	_	S	S	_	S	S	S	_	_	_			

(Primary data, 2022)
**Remarks:
Low = red
Medium = black
High = green

From the data in the table, it is obtained from the 64 indicators that there are 9 indicators of low competency level, 50 indicators and 5 high indicators. Indicators that have a moderate value need an increase in competence. Indicators that get low scores are competencies that are mandatory and important to receive training or counseling in order to increase the competence and independence of coffee farmers' entrepreneurship in Kepahiang Regency.

Nine indicators that are very important to improve their competence are; ability to delegate tasks to others for farming matters, cultivate livestock while running coffee farming, handling and utilization of coffee farming waste, making combinations of other business branches related to coffee commodities, producing other products made from coffee as a different business, active seek information about products desired by consumers, view a problem as an opportunity, provide a business opportunity to the surrounding community, delegate work tasks to colleagues and subordinates effectively.

From the data above, the agricultural extension model is obtained as follows:

1. Coffee Farmers → Waste (protective plants and coffee husks) → Livestock
2. Coffee Farmers → Kepahiang Regency (Agrotourism) → Various processed coffee products
3. Coffee Farmers → Coffee and Livestock Agroindustry → Absorb labor

With the lack of competence of farmers against the nine indicators, one of which is the lack of livestock farming while

running coffee farming and handling and utilization of coffee farming waste. So, it is necessary to provide counseling related to the integration of coffee plants with livestock. Livestock reared by farmers in the form of cows or goats are fed from cover crops and coffee husks. Animal waste or manure can be used as organic fertilizer for coffee plants.

Another important competency obtained by farmers is related to making a combination of other business branches related to coffee commodities and producing other products made from coffee as other businesses. So, it is necessary to introduce various processed coffee products such as ground coffee, palm coffee, coffee brownies, instant coffee, and various fast-food coffee drinks. This can be developed considering that Kepahiang is an agro-tourism area that attracts many tourists, both local and from outside the Bengkulu region. Diversification to agricultural tourism is increasingly seen as a viable development strategy to promote a more diverse and sustainable rural economy and to counter declining agricultural incomes (Phelan & Sharpley, 2012).

By developing the coffee agro-industry and the integration of coffee plants and livestock, it will increase farmers' income. In addition, it can absorb labor. It can also support farmers to improve competence in organizing others and effectively delegate work tasks to colleagues and subordinates. These efforts are intended to improve entrepreneurial competence. Entrepreneurial competence is an important and relevant aspect in business development, facing challenges with a high level of competition because a business or business depends on the ability of farmers (Aviati et al., 2016).

CONCLUSION

The eleven indicators of entrepreneurial competence have moderate competence, namely; (Y1) Skilled in coffee cultivation techniques, (Y2) Able to make and make decisions (Y3) Able to organize other people, (Y4) Able to manage marketing and finance (Y5) Dare to take risks, (Y6) Able to be creative and innovate, (Y7) Oriented to the future, (Y9) Able to manage personal, (Y10) Able to lead, (Y11) able to communicate, while (Y8) Able to seize opportunities included in low competence.

Variables that have a significant influence on farmers' perceptions of the learning process in extension are; X2 (Farming experience), X4 (Farmers' participation in community institutions), X5 (Access to information), X7 (Farmers' perceptions of government policies).

Variables X2 (Farming Business Experience), X5 (Access to Information), X7 (Farmers' Perceptions of Government Policy) have a significant direct and indirect influence on the entrepreneurial competence of farmers, while the variables X1 (Farmers' Formal Education), X3 (Work Motivation), X4 (Farmers' participation in institutions in the community), X6 (Farming Environment) does not affect indirectly through farmers' perceptions of the learning process in counseling the entrepreneurial competence of coffee farmers in Kepahiang Regency.

An agricultural extension model was obtained to improve entrepreneurial competence by introducing the integration of coffee plants with livestock, making a combination of other business branches related to coffee commodities and producing other products made from coffee as a side business which also supports the agro-tourism sector.

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