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Study of Determining Factors for the Adoption of Sustainable Agribusiness Practices among Organic and Inorganic Coffee Farmers in Kayumas Village, Situbondo Regency

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Abstract:
The coffee plantation sector holds a strategic role in Indonesia's economy, contributing to income, raw materials, and foreign exchange. In 2022, Indonesia had 1.29 million hectares of coffee plantations producing 794.8 thousand tons. East Java, particularly Kayumas Village in Situbondo with 1,500 hectares of land—partly certified organic—is a key production center. Growing environmental awareness has encouraged organic coffee cultivation, yet adoption of sustainable practices remains uneven as many farmers still apply inorganic systems. This study aims to identify the key factors influencing the adoption of sustainable agribusiness practices among organic and non-organic coffee farmers. Descriptive and analytical methods were used to systematically describe and analyze the relationship between variables using Binary Logistic Regression. The research location was purposively determined in Kayumas Village, Arjasa District. Respondents were purposively selected from two groups of organic and inorganic coffee farmers, using a quota sampling technique. The results show that, overall, the factors of land area, experience, business scale, partnerships, market access, and credit access influence coffee farmers' decisions to adopt sustainable agribusiness practices based on organic systems. However, in part, the variables of land area, experience, and medium and large business scale proved to have a significant effect. These findings confirm that farmers' resource and business capacity factors are the main determinants in the implementation of organic coffee farming systems.

Keywords: *coffe, organic, inorganic, sustainable, factors adoption.*

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1. Introduction

The agricultural sector, particularly the plantation sub-sector, plays a strategic role in supporting sustainable economic development in Indonesia. The plantation sector plays an important role and is a sector in the economy of developing countries that is capable of producing many commodities that can be offered and are the main choice for export to developed or developing countries, serving as a source of income, food security, a source of industrial raw materials, contributing to GDP, and operating in the export market, which can be a source of foreign exchange for the country in driving economic expansion (BPS 2023).

In Indonesia, coffee is the largest agricultural export commodity after palm oil and rubber. Based on data from the Central Statistics Agency (BPS) in 2022, there were 1.29 million hectares (ha) of coffee plantations in Indonesia, with a coffee production of 794.8 thousand tons. In terms of management, the majority of the land is owned by the people, covering an area of 1.26 million ha, while 23,200 ha is managed by the state and the private sector. East Java Province is one of the largest coffee producers in Indonesia, with a coffee production of 45 thousand tons in 2022. Coffee is one of the commodities in the world that is cultivated in more than 502 countries and is one of the national plantation commodities that plays an important role in the Indonesian economy. One of the plantation commodities that has a strategic role for the Indonesian economy is coffee (Shofwan, 2021).

In recent years, increasing awareness of environmental issues, climate change, and consumer demand for environmentally friendly products has encouraged the emergence of sustainable agricultural practices, including organic coffee cultivation. Organic farming is an integrated agricultural system that optimizes the productivity of agroecosystems naturally to produce high-quality and sustainable food (Sulaeman, 2008). Sustainable practices in agriculture cover various aspects, such as the use of environmentally friendly inputs, soil and water conservation, energy efficiency, and improving the socio-economic welfare of farmers. However, the adoption of sustainable practices among coffee farmers is uneven. This difference indicates that there are certain factors that influence farmers' decisions to adopt sustainable practices. Several previous studies have identified factors such as education level, farming experience, land area, access to extension services, and individual motivation as the main determinants in the adoption process (Sudarko, 2020). However, other factors such as market access, partnerships, and availability of credit also play a role and have not been comprehensively studied.

One of the coffee production centers in East Java, namely in Situbondo Regency, precisely in Kayumas Village, Arjasa District, has the opportunity to compete in the domestic and global markets in the marketing of organic coffee (Al Islami, et al. 2024). Based on data from the Situbondo Central Statistics Agency, the total area of plantations in Kayumas Village reaches 1,500 ha, of which 80% is Arabica coffee and 20% is Robusta coffee. A total of 41.8 ha of coffee plantations in Kayumas Village are certified organic. However, inorganic coffee is still the main choice for most farmers because the use of synthetic fertilizers and pesticides can increase productivity and crop yields in the short term. However, these unsustainable agribusiness practices can cause environmental degradation, decreased soil fertility, and potential negative impacts on human health and the surrounding ecosystem (Mutmainnah, et al. 2025).

Based on the above background, the problem formulation identified the determining factors for the adoption of sustainable agribusiness practices among organic and inorganic coffee farmers. The study of these determining factors is important as a reference for in determining policies and strategies for empowering coffee farmers, particularly in accelerating a sustainable coffee farming system. Furthermore, a deeper understanding of the differences in characteristics between organic and non-

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organic coffee farmers in the context of sustainability adoption can serve as further recommendations for the development of the coffee agribusiness.

2. Research Method

The methods used in this study are descriptive and analytical. The descriptive method aims to systematically, factually, and accurately describe the facts, characteristics, and nature of the phenomenon being studied. This approach is also used to explain the relationship between variables so that a deeper meaning can be obtained (Eliyin *et al.,* 2024). The research location was deliberately chosen (*purposive)* in Kayumas Village, Arjasa District, Situbondo Regency, considering that the village is the center of Arabica coffee production in Situbondo Regency. Respondents were selected *purposively* (Prasetyo, K., 2022) from two farmer groups that manage organic and inorganic coffee farms. The sampling technique used was quota sampling (Sugiyono, 2018), where the entire population was used as the sample, consisting of 60 coffee farmers, including organic and inorganic coffee farmers, with the number of respondents detailed in Table 1.

Table 1. *Sample Determination*

Farmer Group	Sustainable Practices	Population	Sample
Mulya Jaya	Inorganic	40	40
Sejahtera	Organic	20	20
Total Samples		**60**	**60**

This study utilizes two types of data, namely primary data and secondary data. Primary data is data obtained directly from respondents or research objects through specific data collection procedures such as interviews, observations, or questionnaires, while secondary data is data that is available in the form of documents or reports collected to complement the primary data (Rondhi, M., 2015). Primary data was obtained directly from organic and inorganic coffee farmers, as well as related parties, through structured questionnaires and field observations. Meanwhile, secondary data was collected from various official sources, such as the Situbondo Regency Food Crops, Horticulture, and Plantation Service, the Situbondo Regency Central Statistics Agency (BPS), as well as literature and books relevant to the research topic.

To answer the research objectives, the *Binary Logistic Regression* method was used (Puryantoro, 2024) (Katya, E., et al. 2025). This method was used to determine the relationship between factors that influence coffee farmers' decisions to adopt sustainable practices with organic or inorganic systems. *The Logit Model Regression test* with a dependent variable (Y) is a *dummy* variable that has a value of 1 and 0 with a statistical significance level of $\alpha = 0.05$. The equation is as follows:

$$Y = \ln (Pi/1-Pi)= \beta 0+ \beta 1X1 + \beta 2X2 + \beta 3X3+\beta 4D4 + \beta 5D5 + \beta 6D86+e \quad (1)$$

Explanation:
Y = Farmer Adoption (Pi = 1, adopts organic coffee farming, Pi = 0, adopting non-organic coffee farming)
X1 = Land Ownership Area (Ha)
X2 = Farming Experience (Years)
X3 = Business Scale (Score)
X4 = Coffee Farmer Partnership (1 = Participating in partnership, 0 = Not participating in partnership)
X5 = Market Access (1 = Wide, 0 = Limited)
X6 = Credit Access (1 = Easy, 0 = Difficult)
e = Error

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Parameter Testing:
1. G Test
The G-test is a test of the entire model, i.e., whether all parameters can be included in the model by looking at the -2 log likelihood. The hypothesis used in the G-test is as follows:
H0: 0β 1: 0β 2: ⋯ = 0β p = 0 suggests that variables X1 – X6 do not influence farmers' decisions to adopt organic or inorganic sustainable coffee practices
H1: At least oneβ j ≠ 0 → 0 dependent variable influences farmers' decisions to adopt organic or inorganic coffee sustainability practices. Statistics used:
2. Wald test
This test is used to test the significance of the logistic coefficient by comparing the Wald statistic obtained from logistic regression with the Chi-Square table.
a. Test statistics used:
H0 is rejected if$Wj \geq \frac{2}{\alpha 1}$; whereα is the selected significance level. If H0 is rejected, it means that variables X1-X6 are significant at the significance levelα . If H1 is rejected, it means that variables X1-X6 are not significant.

3. Results and Discussion

3.1 Characteristics of organic and conventional farmers

***Table 2**. Characteristics of respondents*

Description	Coffee Farmers	
	Number	Percentage
Age		
<15	0	0 %
15-49	31	52
>49	29	48
Education		
TS	3	5
Elementary	30	50
Junior High School	10	17
High School	15	25
Higher Education	2	3
Experience		
<5	33	55%
6-15	12	20
>15	15	25
Land Area		
<0.5	0	0
0.5-1	34	57%
>1	26	43

The characteristics of respondents in this study include age, education level, length of time farming, and coffee farm size, as shown in Table 2. Based on age group, the majority of respondents were of productive age, between 28 and 66 years old. Age is one of the important factors that can influence success in farming. Farmers of productive age generally have better physical abilities, high work

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enthusiasm, and quick responses to new things. These conditions encourage them to more easily adopt innovations even though they do not have much experience (Soekartawi, 2005).

Most respondents had attended school from elementary school to college, a factor that improved farmers' abilities and understanding of sustainable practices. Education plays an important role in the adoption of organic farming methodologies. Findings (Widijanto et al., 2024) show that a high level of education among farmers correlates with an increase in the adoption of organic practices, including the use of environmentally friendly fertilizers and pest control techniques.

The respondents' farming experience ranged from 3 to 13 years. The longer a person runs their business, the more experienced they are in managing it (Manulang, 2001). Meanwhile, work experience is a process of knowledge formation in the field. Some of the farmer respondents had only started their coffee business 3 years ago, while others had up to 13 years of experience. The largest area of land managed ranges from 0.5 to 1 hectare, with a percentage of ownership of 57%. Meanwhile, the largest area of land is > 1 hectare, ranging from 2 to 11 hectares.

3.2 Analysis of factors influencing farmers' decisions to engage in organic coffee farming

3.2.1 Data Analysis Results (Binary Logit Regression)

3.2.1.1 Hypothesis Testing

a. Nagelkerke R Square Test

The coefficient of determination (*Nagelkerke R Square*) is used to determine the extent to which independent variables contribute to the dependent variable. The coefficient of determination in logistic regression can be seen in the Nagelkerke R Square value as follows.

Table 3. *Model summary results (binary logit regression)*

-2 Log Likelihood	Cox & Snell R Square	Nagelkerke R Square
24.058	0.582	0.808

Based on the results in Table 3, the Nagelkerke R Square value is 0.808. The Nagelkerke R Square value indicates that 80.8% of farmers' decisions to engage in organic coffee farming are influenced by independent variables (land area, experience, business scale, partnerships, market access, and credit access), while the remaining 19.2% is explained by other variables outside the research model. This value indicates that there is a strong relationship between the predictors and the predictions.

b. Overall Model Fit Test

The G Test Analysis is used to determine whether the independent variables have a simultaneous effect on the dependent variable. If the significance value is < 0.05, then all independent variables have a significant simultaneous effect on the dependent variable. The results of the G test analysis and significance values can be seen in Table 4.

Table 4. *Results of the G test analysis (omnibus tests of model coefficients)*

		Chi-square	Df	Sig.
Step 1	Step	52,323	7	0.000
	Block	52.323	7	0.000
	Model	52.323	7	0

Table 4 shows a sig. value of 0.000 (< 0.05). This means that overall, the variables in the

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logistic regression model can explain the influence of land area, experience, business scale, partnerships, market access, and credit access on the decision of farmers to engage in organic coffee farming. The calculated $\chi^{(2)}$value is 52.323 and the $\chi^{(2)}$table with df = 7 and α = 0.05 is 2.279. The calculated $\chi^{(2)}$value is > $\chi^{(2)}$table, so it can be concluded that all variables can be included in the model.

c. Partial Test (Wald Test)

The results of the Wald test analysis are used to determine the partial effect of independent variables on dependent variables. The decision used is that if the Wald value is greater than the χ^2table value, then it can be said that the independent variable has a significant partial effect on the dependent variable. Meanwhile, if the Wald value is less than the χ^2table value, then it can be said that the independent variable does not have a significant effect on the dependent variable. The results of the Wald test can be seen in Table 5.

Table 5. *Wald Test Results*

Description	B	S.E	Wald	df	Sig.	Exp(B)
X1 Land area (ha)	3,447	1,557	4,905	1	.027 *	31,418
X2 Experience (years)	1,753	.747	5,509	1	.019 *	5,773
X3.1 Small business scale (<0.5)	-	-	4,637	1	.098	-
X3.2 Business scale (0.5-1 ha)	4,835	2,436	3,939	1	.047 *	125,901
X3.3 Large-scale businesses (>1ha)	4,032	1,958	4,242	1	.039 *	56,396
X4 Coffee partnerships (partnered 1, not partnered 0)	2,887	1,856	2,419	1	.120	.056
X5 Market Access (wide 1, narrow 0)	1,495	1,585	.890	1	.345	4,461
X6 credit access (easy 1, difficult 0)	- .315	1,083	.084	1	.772	.730
Constant	16,339	5,849	7,802	1	.005 *	.000

From the table above, it can be seen that the Wald test values greater than the χ2 table value (1.860) are the values for land area, experience, and medium and large business scale, which are 4.905, 5.509, 3.939, and 4.242, respectively. This indicates that these variables have a significant influence on farmers' decisions to engage in organic coffee farming. Meanwhile, the Wald test values for the variables of small business scale, partnership, market access, and credit access are below the χ2 table value with values of 4.637; 2.419; 0.890; and 0.084, which means that these variables do not have a significant effect on farmers' decisions to engage in organic coffee farming.

3.2.2 Discussion of Binary Logit Regression Results

3.2.2.1 Land Area

The Wald value for the land area variable is 4.905 (>1.860) with a significance of 0.027 (<0.05), which means that land area has a significant effect on farmers' decisions to engage in organic coffee farming. The Exp (B) value of 31.418 shows that for every increase in farmland area, the probability of farmers continuing organic coffee farming is 31.418 times greater than farmers who do not practice organic coffee farming, while the coefficient value of the variable is positive, meaning that for every increase in the farmland area variable, farmers will be more likely to choose to practice organic coffee farming.

The results show that farmers who practice organic coffee farming with an average land area

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of ≥ 1 ha generally own a large amount of land, between 2 and 11 ha. Meanwhile, farmers with smaller land areas (1–5 ha) tend to choose inorganic coffee farming. This is in line with the research (Belo et al. 2022) which states that non-physical factors , such as land area, significantly affect coffee growth and farmer productivity. Therefore, farmers with larger land areas are more encouraged to implement organic coffee systems. In addition, findings from (Nkurunziza et al. 2021) show that there are four factors, namely education, land area, experience, and gender, that significantly influence the adoption of organic coffee farming. Larger land areas provide greater opportunities to increase productivity and allow for more intensive management. Thus, land area is an important aspect in the development of organic coffee farming.

3.2.2.2 Experience

The Wald value for the experience level variable is 5.509 (>1.860) with a significance of 0.019 (<0.05), which means that the longer the experience in coffee farming, the more significant the influence on farmers' decisions to engage in organic coffee farming. The Exp (B) value of 5.773 indicates that for every additional year of experience, farmers are 5.773 times more likely to continue organic coffee farming than farmers who do not practice organic coffee farming, while the coefficient value of the variable is positive, meaning that with each addition to the experience variable, farmers will be more likely to choose to engage in organic coffee farming.

The level of experience of organic coffee farmers in this study ranged from 3 to 15 years, while that of inorganic coffee farmers was only around 3 to 5 years. This difference is due to the fact that some organic farmers have gained experience in implementing organic farming systems from generation to generation. They believe that organic systems can extend the life of plants, maintain soil quality, and ensure environmental sustainability. Research (Pradita & Sukardi 2024) confirms that farmer experience is an important element in achieving agricultural sustainability. Through experience, farmers can improve their skills in land management, dispose of waste properly, and take advantage of educational and social support from communities and community organizations. In line with this, (Karipidis & Karypidou 2021) states that the variable of farmer experience, both in terms of knowledge and attitude, has a significant effect on the decision to implement organic farming. Through their growing experience, farmers are becoming more aware of the positive impacts, particularly in maintaining coffee quality and increasing productivity amid high market demand that continues to increase every year.

Farming experience serves as social capital and practical knowledge that enhances farmers' ability to understand the benefits, reduce risks, and strengthen their confidence to adopt organic farming innovations consistently and sustainably. The findings (Belo et al. 2022) show that experience is not only related to the length of time spent farming, but also includes adaptation to land conditions, technical knowledge, and the ability to integrate innovations with local traditions, which will certainly make it easier for organic farmers to maintain sustainable productivity.

3.2.2.2 Business Scale

The Wald value for the medium-large business scale variable is 3.939 and 4.242 (>1.860) with a significance of 0.047; 0.039 (<0.05), which means that the larger the scale of the coffee farm, the more significant the impact on farmers' decisions to engage in organic coffee farming. The Exp (B) value of 125.901; 56.396 shows that for every 1 increase in the scale of the farmer's business, the chance of the farmer continuing organic coffee farming is 125.901; 56.396 times greater than farmers who do not practice organic coffee farming, while the coefficient value of the variable is positive, meaning that every increase in the business scale variable will make farmers more likely to choose to practice organic coffee farming.

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The business scale variable has been proven to have a significant effect on coffee productivity. On medium-scale farms (0.5–1 ha) to large-scale farms (> 1 ha), organic coffee production tends to be higher than inorganic coffee. The average production of organic coffee reaches 1,000–1,700 kg/ha, while inorganic coffee is only around 500–1,000 kg/ha. This difference in production yield s is mainly influenced by the use of seeds or seedlings. Organic coffee farmers generally use superior seedlings, such as the Cobra and USDA varieties, obtained from nurseries. In contrast, inorganic coffee farmers more often sow their own seeds to reduce production costs. These seeds are indeed cheaper, but their quality is not as good as the superior seedlings used in organic farming. According to the *Diffusion of Innovations* theory (Rogers, 2003), farmers with larger-scale businesses tend to have better financial resources, labor, and access to information. These conditions make it easier for them to take risks in trying new systems, including organic farming. In addition, larger land scales provide flexibility in the application of technology and sustainable agricultural practices.

These findings are in line with research (Poudel et al., 2017) which shows an increase in farm scale observed in 43.21% of organic farms. This proves that the larger the scale of the business, the higher the level of efficiency that can be achieved. Thus, the size of the land area not only affects productivity but also improves the economic performance of organic coffee farmers, as is the case in Nepal. Based on Rogers' theory (2003) and empirical findings (Nkurunziza et al., 2021; Poudel et al., 2017; Karipidis & Karypidou, 2021; Belo et al., 2022), it can be concluded that an increase in farm scale has a positive effect on farmers' decisions to choose organic farming systems. This is because a larger scale of operations increases economic capacity, efficiency, management flexibility, and encourages farmers to adopt sustainable innovations.

3.2.2.3 Partnership

The Wald value for the coffee partnership variable is 2.419 (>1.860) with a significance of 0.120 (>0.05), which means that coffee farmers who participate in partnerships do not have a significant effect on farmers' decisions to engage in organic coffee farming. The Exp (B) value of 0.056 indicates that every farmer who participates in a partnership will increase the chance of continuing organic coffee farming by 0.56 times greater than farmers who do not implement organic coffee farming, while the coefficient value of the variable is positive, meaning that every addition to the business scale variable will make farmers more likely to choose to engage in organic coffee farming.

The results show that the partnership variable does not have a significant effect on farmers' decisions to implement organic coffee systems. However, the value of this variable remains positive, meaning that partnerships can make it easier for farmers to adopt innovations. At the research location, organic coffee farmers have established partnerships in marketing their harvests, so that members of the farmer group have relatively equal selling power. In contrast, inorganic coffee farmers tend to sell most of their harvest to traders in the village, so partnerships do not play a significant role in their farming processes. However, according to (Astuti et al., 2022), participation in partnerships still has a positive impact, as evidenced in Simalungun Regency where agricultural partnerships have increased the productivity and income of coffee farmers.

Other findings support that strategic partnerships can encourage the adoption of sustainable agricultural practices because they are able to provide support, resources, and market access (Wibisono et al., 2024). Nevertheless, challenges remain, including increasing labor requirements, the need for trust in the cooperative system, and dependence on external factors such as government support and market development, which can hinder the effectiveness of partnerships (Rohma et al., 2023).

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3.2.2.4 Market Access

The Wald value for coffee market access is 0.890 (< 1.860) with a significance of 0.345 (>0.05), which means that coffee market access does not have a significant effect on farmers' decisions to engage in organic coffee farming. The Exp (B) value of 4.461 indicates that if market access is very easy, it will increase the chances of farmers continuing organic coffee farming by 4.461 times compared to farmers who do not practice organic coffee farming. Meanwhile, the variable coefficient value is positive, meaning that with easy access to the coffee market, farmers will be more likely to choose to practice organic coffee farming.

Organic coffee farmers market their harvest in the form of coffee cherries to traders who are partners of farmer groups. At the time of the study, the price of cherry coffee ranged from IDR 16,000 to IDR 17,000/kg. Meanwhile, inorganic coffee harvests are generally marketed directly by farmers to collectors in the form of coffee beans at a lower price, namely IDR 13,500 to IDR 15,000/kg. After being purchased by collectors, the Arabica coffee is processed into green beans and ground coffee. The green bean product is then marketed to coffee processing companies to be made into packaged ground coffee, while the ground coffee is marketed to coffee shops or cafes.

The results of the study show that the market access variable does not have a significant effect on farmers' decisions in marketing their coffee harvest. This is because organic and inorganic coffee farmers generally do not experience difficulties in selling their harvest. However, the market access variable remains positive, in accordance with the theory (Soekirno, 2001) which states that the existence of a market is an activity of determining the price of goods that takes place through a certain mechanism. The market mechanism occurs when supply and demand interact automatically without intervention from other parties. In this mechanism, the market serves to provide more accurate information about the price level and demand for a commodity, while encouraging business actors to continue developing their activities in line with economic dynamics. In contrast to the results of this study, the findings (Parrales-Reyes et al. 2024) highlight the economic dimensions that influence coffee farmers' decisions to switch to organic production. These factors include the effectiveness of sustainability certification, increasing market demand for organic coffee, and the potential for increased resilience and profitability in coffee-producing regions through the implementation of sustainable agricultural practices.

3.2.2.5 Credit Access

The Wald value for credit access is 0.084 (< 1.860) with a significance of 0.772 (>0.05), which means that credit access does not have a significant effect on farmers' decisions to engage in organic coffee farming. The Exp (B) value of 0.730 indicates that if credit access is very easy, it will increase the chances of farmers continuing organic coffee farming by 0.730 times greater than farmers who do not practice organic coffee farming, while the variable coefficient value is positive, meaning that with easy credit access, farmers will be more likely to choose to engage in organic coffee farming.

Overall, organic coffee farmers generally apply for capital through banks with a guarantee system in the form of a share of the harvest at the prevailing price. Meanwhile, some inorganic coffee farmers have difficulty accessing capital loans. This difficulty is mainly due to the obligation to provide collateral, while their production yields are relatively low, so they are considered unviable by financial institutions. This condition has led to a perception among farmers that access to credit, both for organic and inorganic coffee farmers, is still difficult. Limited access to credit is one of the main obstacles to increasing agricultural productivity. Credit plays an important role in helping farmers obtain better means of production, technology, and inputs, thereby encouraging increased crop yields. In addition, (Simanjuntak. 2010) emphasizes that adequate access to financing is a determining factor in the development of farming businesses, because without capital support, farmers tend to stick to

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traditional production patterns that are less efficient.

The results of the study show that access to credit does not have a significant effect on organic or inorganic coffee farmers. This finding is in line with the research (Puryantoro et al. 2024) on coffee farmer groups in Bondowoso, which also found that access to credit does not have a significant effect on small-scale coffee farmers, whether they are members of farmer groups or not. This can be explained by the fact that even if farmers are not members of farmer groups, they still have opportunities to obtain agricultural financing through various mechanisms outside of farmer groups, such as individual loans, village cooperatives, and informal financial institutions. Thus, the availability of credit access is not a major determining factor in farmers' decisions to develop their coffee farming businesses, whether organic or inorganic.

4. Conclusion

The results of the study show that the variables of land area, experience, business scale, partnerships, market access, and access to credit influence farmers' decisions to adopt sustainable agribusiness practices based on organic systems. Based on these findings, policy support such as strengthening farmer institutions and agribusiness partnership systems needs to be improved through collaboration between farmers, cooperatives, and marketing institutions so that small-scale farmers have access to assistance, technology, and markets. Human resource capacity building through technical training, extension, and continuous assistance in strengthening farmers' experience and skills. In addition, strengthening infrastructure and access to organic coffee markets should be a policy priority to ensure market certainty and increase the competitiveness of organic products at the national and global levels. Further research could expand the analysis variables by including social, institutional, and psychological factors such as the role of extension workers, policy support, education levels, and farmers' environmental awareness. Furthermore, comparative analysis between coffee-producing regions is important to identify differences in factors driving the adoption of organic practices based on diverse socioeconomic and agroecological conditions. Subsequent research can be directed toward value chain and market sustainability analysis to assess the role of partnerships and market structures in strengthening farmers' position in the organic agribusiness system.

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References

Central Statistics Agency (BPS). (2023). Analysis of Export Commodities, 2018-2022, Agriculture, Forestry, and Fisheries Sector; Manufacturing Industry; and Mining and Others.

Shofwan, M. e. (2021). Innovation of Coffee Bean Blenders "REMPAH" Healthy Herbal and Highly Competitive Based on Santripreneurs. *Jurnal Abadimas Adi Buana*, **4(2):**110-118.

Al Islami IL, Puryantoro P, Mayangsari A. Analysis of the Sustainability of Organic Coffee Farming in

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Arjasa District, Situbondo Regency. *J Ilm Membangun Desa dan Pertan*. 2024; **9(3)** :258–73.Muthmainnah HS, Amirah N, Yanti AR, Ramadhan P, Jayatalenta L.

Assistance in Marketing Strategies to Enhance the Competitiveness of Organic Agricultural Products (Case of the J. Agrokreatif Farmers Group in Ciaruteun Ilir Village) (Assistance in Marketing Strategies to Enhance the Competitiveness of Organic Agricultural Products (Case of the J. *Agrokreatif*.. 2025;**11(1):**154–65.

Soekartawi. (2005). *Agroindustry: From a Socioeconomic Perspective.* Jakarta: Pt Rajagrafindo Persada. 140 pp.

Sudarko S, Sumardjo S, Fatchiya A, Tjitropranoto P. The Influence of Smallholder Coffee Farmers' Decisions in Choosing Organic and Non-Organic Coffee Systems in East Java. *Agriekonomika*. 2020;**9(1)**:1–15.

Eliyin, Putri SM, Taufiqurrahman. A Study of Maintenance Techniques to Increase Gayo Arabica Coffee Production by Farmers in Belang Gele Village. Microbes in Plant Science, Science and Agricultural Technology. 2024;**01(03)**:148–62.

Prasetyo K, Cordanis A, Rachman M. Feasibility analysis of smallholder coffee farming in Cibal Barat Subdistrict, Manggarai Regency. Agrimansion. 2022;**23(3)**:145–53.

Rondhi Joni Murti Mulyo Aji M. *A Practical and Straightforward Approach*. UPT Penerbitan Unej; 2015. 1–230 p.

Puryantoro P, Hidayat MR, Aji JMM, Sari S. Does Credit Access Affect Decision-making within Farmer Groups? Evidence from Smallholder Coffee Farmers: Case Study in Bondowoso, Indonesia. *Asian J Dairy Food Res*. 2024;**43**(Of):594–9.

Katya E, Alfred K, David O, Daniel A, Okello M, Odongo W. Farmer perceptions and their implications for adoption of sustainable agricultural intensification practices. *Discov Sustain* [Internet]. 2025;**1:**1–15. Available from: https://doi.org/10.1007/s43621-025-00929-z

Widijanto, H., Marsal, C. J., Melati, A., Haq, G. Z. T., Adzhani, N. I., Ningrum, N. K. S., Prayoga, R. P., Andjani, S., Pramesthy, S. D., & Lathifa, M. N. (2024). Educational Attainment on the Production of Organic Fertilizer and Botanical Pesticides in Gumawang, Central Java, Indonesia: A Contribution to Sustainable Development Goals (SDGs) Number 2. *AgriHealth,* 5***(2),*** 101. https://doi.org/10.20961/agrihealth.v5i2.85885

Belo, A. A., Lobja, X. E., & Andaria, K. S. (2022). Factors Affecting Coffee Farming in Bolokan Lembang Tiroan Village, Bittuang District, Tana Toraja Regency. *Geographia*, ***3*****(2),** 74–79. https://doi.org/10.53682/gjppg.v3i2.1405

Nkurunziza, A., Mburu, D. M., Mulyungi, P., & Ntabakirabose, G. (2021). *Analysis of Socio-Economic Factors Influencing Farmers' Adoption of Coffee Organic Farming in Gakenke District of Rwanda*. ***6*****(4),** 145. https://doi.org/10.11648/J.IJAE.20210604.11

Pradita, N., & Sukardi, L. (2024). Determining Factors for the Sustainability of Arabica Coffee- based Eco-farming in Sembalun, Indonesia. *Asian Journal of Agricultural and Horticultural Research, **11(4),*** 191–198. https://doi.org/10.9734/ajahr/2024/v11i4353

Karipidis, P., & Karypidou, S. (2021). Factors that Impact Farmers' Organic Conversion Decisions. *Sustainability*, ***13*****(9)**, 4715. https://doi.org/10.3390/SU13094715

Poudel, K. L., Mishra, B., & Johnson, T. G. (2017). *Farm Efficiency and Its Determinants in Different Farm Size and Altitude Categories: A Case of Organic Coffee Cultivation in Nepal*. ***43*****(1),** 1–18. . https://ideas.repec.org/a/mve/journl/v43y2017i1p1-18.html

Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York: Free Press.

Wibisono, M., Nugroho, A. M., & Prabandari, S. P. (2024). Behavioral change and socio- economic impact from charcoal producers to eco-friendly coffee farmers in Jatiarjo Village Prigen, Pasuruan, Indonesia. *Agromix*, ***15*****(2)**, 262–271. https://doi.org/10.35891/agx.v15i2.5096

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Rohma, C. N., Nikmatullah, D., Soepratikno, S. S., & Hasanuddin, T. (2023). Farmers' Perceptions of Organic Robusta Coffee Innovation in West Lampung Regency. https://doi.org/10.37149/jia.v8i2.591

Astuti, L., Huitron Flores, D. S., Arman, I., Herawati, H., & Butarbutar, Y. L. (2022). The impact of farmer partnerships on Arabica coffee farming in Simalungun Regency, North Sumatra Province, Indonesia. *Agriekonomika,* **11(2),** 115–129. https://doi.org/10.21107/agriekonomika.v11i2.14810

Parrales-Reyes, J., Escobar-Molina, D., Rengifo-Lozano, R. A., Espinoza-Vásquez, G., Martínez-García, V., Díaz-Romero, Y., Saltos-Buri, V. del R., Salazar-Ponce, E., Cañarte-Quimis, L. T., & Rincón-Guio, C. (2024). Advancing Sustainability in Organic Coffee Production: A Comprehensive Analysis of Research Trends, Challenges, and Future Opportunities. *Academic Journal of Interdisciplinary Studies, **13(5),*** 91. https://doi.org/10.36941/ajis-2024-0153

Soekirno, S. (2001). Introduction to microeconomic theory. Jakarta*: PT RajaGrafindo Persada*.

Manulang. (2001). Fundamentals of Management. Yogyakarta: *Gadjah Mada University Press.*

Simanjuntak, P. J. (2010). Introduction to Human Resource Economics. *Jakarta*: LPFE-UI