



Understanding What Drives Youth Interest in Agribusiness Jobs: A Study from Dukuh Dempok Village

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ABSTRACT

Based on field observations conducted in Dukuh Dempok Village, Wuluhan District, Jember Regency, only about 20% of young people express interest in working in agriculture. This indicates a lack of interest among youth in agricultural professions, particularly in Dukuh Dempok Village. This study aims to analyze the characteristics of agribusiness jobs that appeal to young people in the area. The method used in this study is a survey approach. Sampling was conducted using probability sampling techniques, specifically proportionate stratified random sampling. The analysis involved examining various internal variables such as formal education, age, perception of parental background, and perception of farming efforts, along with external factors including social environment, the role of extension workers, and facilities and infrastructure. The data was converted into interval data using the Mean Score Index (MSI) and was then tested for validity, reliability, and classical assumptions with the assistance of SPSS 25 software. The data analysis employed a quantitative descriptive method, specifically multiple linear regression tests using SPSS. Hypothesis testing was performed using the t-test and F-test. The results of the study indicated that both internal and external factors significantly influence young people's interest in pursuing careers in the agribusiness sector.

Keywords — internal factors, external factors, interest in working in the agribusiness sector

1. Introduction

The regeneration of young farmers is an important factor in supporting agriculture in Indonesia. The level of success in agriculture depends not only on the availability of agricultural resources such as land and equipment, but also the knowledge and skills of farmers. Data from the Badan Pusat Statistik (BPS) in 2022 shows that only 8% of young farmers in Indonesia aged 20-39 years or equivalent to 2.7 million people. In Indonesia, the farming population is predominantly composed of individuals aged 40 and above (91%), with many approaching 50-60 years of age.

The lack of young farmers is not just a quantitative issue, it has become a complex problem. There is a significant gap between

agriculture in Indonesia and other countries due to the inadequate quality of human resources. The younger generation still considers the agricultural sector to be very outdated and far from modern and high-tech. Furthermore, the agricultural sector is perceived as financially and economically unattractive [1]. However, agricultural sector is one of the potential sectors in driving national economic growth and development, both in terms of income and employment [2].

Field observations conducted in Dukuh Dempok Village, Wuluhan Subdistrict, Jember Regency, reveal that there are 13,502 individuals engaged in agricultural professions. Among them, approximately 10,802 or 80%, are aged 40 years and older, while only 2,700 (representing 20%) are between the ages of 16 and 30. This

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data indicates a significant lack of interest among youth in pursuing careers in agriculture, particularly in Dukuh Dempok Village.

Research conducted by [3] in Bringin Village, Semarang Regency showed a significant impact of education level, land area, and perceptions on youth attitudes towards work in agriculture, while cosmopolitan factors did not show a significant effect. Additionally, [1] found that the social, economic, and technological environment can enhance the interest of young farmers by promoting agricultural development focused on coffee commodities in Temanggung Regency. Factors influencing youth interest in entering the agricultural sector include parental land area and parental income [4]. Furthermore, entrepreneurship training for millennial farmers in Central Java has been shown to improve the performance of this demographic [5].

This study aims to analyze the characteristics of agribusiness occupations that interest youth in Dukuh Dempok Village, Wuluhan Subdistrict, Jember Regency. The analysis involved examining various internal variables, including formal education, age, parental background perceptions, and perceptions of the farming business. Additionally, external factors such as social environment, the role of extension workers, and available infrastructure and facilities were also considered.

2. Method

The research design employs a quantitative approach. The method utilized in this study is the survey method, which aims to analyze the relationship between variables. Samples were drawn from the population using a questionnaire as the data collection tool.

2.1. Research Population and Sampling

The study was conducted in Dukuh Dempok Village, Wuluhan Subdistrict, Jember Regency, over a period of approximately six months. The sampling method employed a probability sampling technique using proportionate stratified random sampling. The population consisted of 2,700 youth aged 16-30 years from four hamlets: Gawok Hamlet, Wuluhan Hamlet, Purwojati Hamlet and Dukuh

Hamlet in Dukuh Dempok Village, Wuluhan Subdistrict, Jember Regency.

2.2. Research Variables

The variables considered in this study encompass both internal and external factors, as outlined below:

a. Internal Factors (X1)

- X1.1 Formal education
- X1.2 Age
- X1.3 Perception of parental background
- X1.4 Perception of the farming business

b. External factors (X2)

- X2.1 Social environment
- X2.2 The role of extension workers
- X2.3 Facilities and infrastructure

Attitudes, opinions, and perceptions of individuals or groups regarding social phenomena are measured by a Likert scale. The data will be converted into Interval data using the Method of Successive Interval (MSI) and subsequently tested for validity and reliability with the SPSS 25 software.

2.3. Validity and Reliability Test

To measure the validity of the research, a validity test was conducted. The questionnaire is declared valid if the significance level is <0.05 . The reliability test utilized the Cronbach Alpha (α) technique, with a threshold of > 0.60 .

2.4. Classical Assumption Test

The classical assumption test involves several assessments: normality test, multicollinearity test, and heteroscedasticity test.

2.5. Data Analysis

The data analysis method used is quantitative descriptive approach, specifically multiple linear regression test using SPSS. Hypothesis testing is performed using the T test and F test.

3. Discussion

3.1. Characteristics of Respondents



The study included 45 respondents, comprising both males and females. Table 1 shows that the majority of respondents were male (51.2%), while female constituted 48.8%. This distribution is likely due to the nature of work in agribusiness, which is often associated with the perception that it requires physical strength and is therefore more suited to men, resulting in a male-dominated field. The survey results indicate that most workers in the agribusiness sector are aged between 20 and 22 years, with the majority of the highest level of education is senior high school. Meanwhile, the most popular agribusiness jobs are hydroponics (35.5%) and rice farming (13.3%). Other occupations such as secondary crop cultivation, tobacco farming, and vanilla cultivation are less attractive to the younger generation. Hydroponics is particularly more attractive due to its more innovative and alignment with modern challenges, economic potential, and the fact that it requires less land.

Table 1. Characteristics of Respondents

	Number of respondents (individuals)	Percentage (%)
Gender		
Male	23	51.2
Female	22	48.8
Total	45	100
Age (years)		
17-19	5	11.11
20-22	28	62.2
23-25	12	26.6
Total	45	100
Highest Level of Education		
Junior High School	1	2.2
Senior/Vocational High School	35	77.7
Associate's/Bachelor's/Master's	9	20
Total	45	100
Occupation in the Agribusiness Sector		

Hydroponics	16	35.5
Rice Farming	6	13.3
Ornamental Plants	3	6.6
Organic Farming	3	6.6
Horticultural Plantations	3	6.6
Fruit Cultivation	2	4.4
Plant Seedlings	2	4.4
Fish Farming	2	4.4
Aquaponics	2	4.4
Herbal Plants	2	4.4
Vanilla Cultivation	1	2.2
Tobacco Farmers	1	2.2
Mushroom Cultivation	1	2.2
Intercropped Food Crops	1	2.2
Total	45	

Source: primary data (processed in 2024)

3.2. Validity and Reliability Test

The results of the validity test conducted using IBM SPSS Statistics 25 software indicate that all questionnaire items have a significance value below the 0.05 level. This confirms that the questionnaire items, answered by 45 respondents, are valid and therefore acceptable for data collection.

For the reliability test, the Cronbach's Alpha (α) value was found to be 0.896, which is greater than the threshold of 0.60. According to reliability standards, a variable is considered reliable if it has a Cronbach's Alpha (α) value greater than 0.60. This result demonstrates that all questionnaire items are reliable and trustworthy.

3.3. Normality Test

Based on the results of the Normality Test, the value of Asymp. Sig. (2-tailed) of 0.200 means that it is significantly normally distributed because the significance value is $0.200 > 0.05$. According to [6], normality can be detected by looking at the distribution of data (points) on the diagonal axis of the graph or by looking at the histogram of the residuals. If the data spreads around the diagonal line and follows the direction of the diagonal line or the histogram graph shows a normal distribution pattern, then the



regression model fulfills the normality assumption.

3.4. Multicollinearity Test

Based on the calculation results, the tolerance values and VIF (Variance Inflation Factor) for each variable are as follows: the tolerance value for formal education is 0.738 (> 0.1) and VIF is 1.356 (< 10); for age, the tolerance value is 0.728 (> 0.1) and VIF is 1.374 (< 10); for perceived parental background, the tolerance value is 0.421 (> 0.1) and VIF is 2.373 (< 10); for perceived farming business, the tolerance value is 0.497 (> 0.1) and VIF is 2.014 (< 10); for the social environment, the tolerance value is 0.560 (> 0.1) and VIF is 1.784 (< 10); for the role of extension workers, the tolerance value is 0.403 (> 0.1) and VIF is 2.482 (< 10); and for facilities and infrastructure, the tolerance value is 0.463 (> 0.1) and VIF is 2.161 (< 10). From these data, it can be concluded that there is no multicollinearity among the independent variables.

3.5. Heteroscedasticity Test

Based on the results of the Glejser Test, the significance values obtained are as follows:

for education, 0.509 (> 0.05); for age, 0.374 (> 0.05); for parents' perceptions, 0.885 (> 0.05); for perceptions of farm businesses, 0.134 (> 0.05); for the social environment, 0.932 (> 0.05); for the role of extension workers, 0.683 (> 0.05); and for facilities and infrastructure, 0.509 (> 0.05). Since all variables have significance

values greater than 0.05, it can be concluded that the variables do not exhibit heteroscedasticity.

3.6. Multiple Linear Regression Test

Based on the results of the analysis above, the following multiple linear regression equation has been obtained:

$$Y = 0.701 - 0.125X_{1.1} + 0.120X_{1.2} + 0.168X_{1.3} + 0.118X_{1.4} + 0.356X_{2.1} + 0.130X_{2.2} + 0.170X_{2.3} + e$$

Table 2 presents the constant value of the regression equation is 0.701, which is positive. This indicates that an increase in the independent variable (X) will lead to an increase in the dependent variable (Y). As both internal and external factors increase, so does interest in working in agribusiness.

The coefficient for the formal education variable (X1.1) is -0.125, indicating that lower levels of education are associated with reduced interest in working in agribusiness. The coefficient for the age variable (X1.2) is 0.120, suggesting that as age increases, interest in working in agribusiness also increases.

The coefficient for the parental background perception variable (X1.3) is 0.168, meaning that higher values of parental background perception are associated with greater interest in working in agribusiness. Similarly, the coefficient for the farm business perception variable (X1.4) is 0.118, indicating that higher perceptions of farm businesses correlate with increased interest in this field.

Table 2. Results of Multiple Linear Regression Analysis

Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error				Beta	Tolerance
(Constant)	.701	.334		2.037	.049		
X1.1 Formal education	-.125	.050	-.132	-2.508	.017	.738	1.356
X1.2 Age	.120	.068	.094	1.767	.086	.728	1.374
X1.3 Perception of parental background	.168	.035	.336	4.835	.000	.421	2.373



X1.4 Perception of the farming business	.118	.048	.159	2.481	.018	.497	2.014
X2.1 Social environment	.356	.076	.283	4.700	.000	.560	1.784
X2.2 The role of extension workers	.130	.052	.179	2.516	.016	.403	2.482
X2.3 Facilities and infrastructure	.170	.046	.245	3.687	.001	.463	2.161

Source: processed data from SPSS 29.0 (2024)

The coefficient for the social environment variable (X2.1) is 0.356, which means that a more positive social environment is linked to a higher interest in working in agribusiness. The coefficient for the extension role variable (X2.2) is 0.130, suggesting that a stronger extension role is associated with greater interest in agribusiness. Finally, the coefficient for the facilities and infrastructure variable (X2.3) is 0.170, indicating that improved facilities and infrastructure are related to increased interest in working in agribusiness.

The coefficient of determination (adjusted R^2) is 0.910, or 91.0%. This indicates that changes in the dependent variable, namely interest in working in agribusiness (Y), are influenced by changes in the independent variables: internal factors (X1), which include education, age, parental perceptions, and perceptions of farming; and external factors (X2), which encompass the social environment, the role of extension workers, and facilities and infrastructure. The remaining 9.0% (100% - 91.0%) may be influenced by other variables not included in this study.

3.7. Simultaneous Test (F Test)

The results of the data analysis carried out show a significant influence between the independent variables, namely internal factors (X1) which include education, age, perceptions of parents and perceptions of farming, and external factors (X2) which include the social environment, the role of extension workers, facilities and infrastructure with an Fcount of 64.782 and a significance value of Fcount of 0.000. So it can be concluded that the significance value of Fcount $0.000 <$ the significance level of 0.05, which means that the independent variables, namely internal factors (X1) and external factors (X2) simultaneously

have a significant effect on the dependent variable, namely interest in working in agribusiness (Y) in Dukuh Dempok Village, Wuluhan District, Jember Regency (Table 3).

Table 3. The results of the simultaneous tests (F-test)

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	55.282	7	7.897	64.782	.000
Residual	4.511	37	.122		
Total	59.793	44			

Source: processed data from SPSS 29.0 (2024)

3.8. Partial Test (t -Test)

Table 4 presents the results of the partial linear regression test (t-test), which yielded a t value of -2.508 and a significance value of 0.017. This indicates that the significance value is less than the 0.05 significance level. Therefore, it can be concluded that the formal education variable (X1.1) has a significant effect on interest in working in agribusiness (Y). These results align with the research conducted by Dharmawan, K. S., & Sunaryo, L. T. (2020), which also indicates that the t-test results for the formal education variable significantly affect interest in working in agribusiness.

The test results regarding the influence of the age variable on interest in working in agribusiness indicate that the age variable (X1.2) does not have a significant effect on interest in working in agribusiness (Y). The calculated t value is 1.767, and the significance value is 0.086. These findings are not consistent with research conducted by [7], which demonstrates the influence of age on the interest of the younger



generation in agricultural work. In agribusiness, there are no age restrictions, as jobs can be performed by individuals of all ages, although tasks and responsibilities may vary based on physical abilities and experience.

On the other hand, parents' backgrounds significantly influence interest in working in agribusiness. When parents are engaged in agribusiness, it increases youth interest in this sector. The results of the partial linear regression test (t-test) yielded a t value of 4.835 and a significance value of 0.000, indicating that this significance value is less than the 0.05 level. Therefore, it can be concluded that the variable of parental background perception (X1.3) has a significant effect on interest in working in agribusiness (Y). These findings contrast with the results of the research conducted by [7], which indicated that the perception of parental background does not have a significant effect.

The farming business perception variable (X1.4) has a significant effect on interest in working in agribusiness (Y), with a t value of 2.481 and a significance value of 0.018. According to [7], perceptions of farming significantly influence the interest of the younger generation in the agricultural sector. Positive perceptions of farming businesses can enhance a person's interest in working in agribusiness, as young people recognize the potential profitability of farming opportunities.

The social environment variable (X2.1) also has a significant effect on interest in working in agribusiness (Y). The t-test results yielded a t value of 4.700 and a significance value of 0.000. The social environment plays a crucial role in shaping a person's interest in agribusiness. This environment includes friends, community members, and media, all of which can provide perspectives, attitudes, and values related to careers in agribusiness. In Dukuh Dempok village, youth interest in working in agribusiness is influenced by peers and community members who hold positive perceptions of agribusiness as a profitable and vital occupation for the national economy, thereby increasing individual interest in pursuing careers in this field.

The extension role variable (X2.2) has a significant effect on interest in working in agribusiness (Y), with a calculated t value of 2.516 and a significance value of 0.016. Youth in Dukuh Dempok village believe that agricultural extension can significantly influence their interest in working in agribusiness. The role of extension is crucial in shaping individual interest and readiness to work in this field by enhancing knowledge through the provision of information on various aspects of agribusiness, including modern agricultural techniques, business management, market trends, and the latest innovations. These results align with research conducted by [8], which shows that extension workers play a vital role in increasing youth interest.

The extension role variable (X2.2) has a significant effect on interest in working in agribusiness (Y), with a calculated t value of 2.516 and a significance value of 0.016. Youth in Dukuh Dempok village believe that agricultural extension can significantly influence their interest in working in agribusiness. The role of extension is crucial in shaping individual interest and readiness to work in this field by enhancing knowledge through the provision of information on various aspects of agribusiness, including modern agricultural techniques, business management, market trends, and the latest innovations. These results align with research conducted by [8], which shows that extension workers play a vital role in increasing youth interest.

Table 4. Results of Partial Tests (t-test)

Model	Coefficients ^a			t	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
(Constant)	.701	.344		2.037	.049
X1.1 Formal education	-.125	.050	-.132	-2.508	.017
X1.2 Age	.120	.068	.094	1.767	.086
1 X1.3 Perception of parental background	.168	.035	.336	4.835	.000
X1.4 Perception of the farming business	.118	.048	.159	2.481	.018
X2.1 Social environment	.356	.076	.283	4.700	.000



X2.2 The role of extension workers	.130	.052	.179	2.516	.016
X2.3 Facilities and infrastructure	.170	.046	.245	3.687	.001

Source: processed data from SPSS 29.0 (2024)

Facilities and infrastructure (X2.3) also have a significant effect on interest in working in agribusiness (Y). Adequate facilities and infrastructure in the agribusiness sector can positively influence youth interest in pursuing careers in this field. The availability of resources such as modern agricultural tools and machinery, land, efficient irrigation systems, and advanced agricultural product processing technology can enhance interest by increasing the potential for productivity, efficiency, and sustainability in agribusiness operations. When agribusiness facilities and infrastructure are well developed, youth not only show increased interest in entering the sector but also contribute to creating a more sustainable and profitable environment for agribusiness stakeholders.

4. Conclusion

Characteristics of agribusiness jobs that interest young people include 14 types of farming businesses. Among these, hydroponics is the type that most young people in Dukuh Dempok Village aspire to manage. The results of the F-test indicate that both internal factor variables (formal education, age, perception of parental background, and perception of farming business) and external factors (social environment, role of extension services, and facilities and infrastructure) significantly affect interest in working in agribusiness when considered simultaneously. The results of the t-test show that formal education, perception of parental background, perception of farming business, social environment, role of extension workers, and facilities and infrastructure significantly influence young people's interest in pursuing careers in the agribusiness sector, while age does not have a significant effect.

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