Structural Equation Modelling to Measure Perceptions, Interests and Their Influence on Young People's Intention to Venture into Agriculture

Husnul Ika Safitri♥, Abdul Wahib Muhaimin, Tri Wahyu Nugroho

Agribusiness Postgraduate Study Program, Brawijaya University, Malang, Indonesia
♥Corresponding author email: husnulbjn@gmail.com

Abstract. The declining number of farmers is a prominent problem in the agricultural sector. On the other hand, interest in engaging in agriculture, especially among the younger generation, has also declined. The younger generation tends to perceive working in agriculture as unprofitable. The young generation's intentions can be influenced by their perception and interest. This study aims to analyze the effect of young people's perceptions on interest and intention to work in the agricultural sector, analyze the effect of interest on intention and analyze the effect of perception on intention mediated by interest. The research was conducted in Jampet Village, Ngasem District, Bojonegoro Regency. A survey of 100 youths aged 15-35 in Jampet Village explored their perceptions and interests in agriculture through distributed questionnaires. Informants were determined using the purposive sampling method, and data were analyzed using the SEM method. In accordance with the test results, perception has a positive and significant influence on interest of 78.2% with a coefficient value of 0.782, and directly has a positive effect of 48.2% on the intention of the younger generation in business in agriculture; in addition, the interest variable also has a positive and significant influence of 46% on the intention of the younger generation to go directly into the agricultural sector. In comparison, the effect of perception on intention mediated by the interest variable shows positive and significant results of 35.9%.

Keywords: intention;interest; perception; SEM; young generation

INTRODUCTION

Based on the results of the 2023 Agricultural Census in phase 1, it is stated that in the last ten years the number of young Indonesian farmers has decreased by 7.42%. Where as many as 42% are farmers with Generation X who are already 45-54 years old, and farmers aged 55-64 years who actually experienced an increase of 3.29%. This is inversely proportional to the fact that the number of millennial farmers has actually decreased in the last ten years with the proportion of farmers aged 25-34 years decreasing by 1.73% and the proportion of farmers aged 35-44 years decreasing by 4.34% (Prasetiawan, 2024).

Some of the factors that cause the decline in the interest of the younger generation to engage in agriculture are the assumption that working in the agricultural sector is not prestigious, with undeveloped technology and inadequate income (Qudrotulloh et al., 2022). Whereas the agricultural sector is promising because it is closely related to a country's need to fulfill its need for food and the agricultural sector is also one of the sectors that absorbs a large enough workforce. Therefore, there is a need for interest from the younger generation to be involved in the agricultural sector so that the regeneration of farmers can occur easily and new technologies in a more innovative agricultural system are created to support food productivity.

Economically, young people consider working in the agricultural sector less promising. The costs and labor incurred are not proportional to the results obtained, and climate risks and markets tend to be unstable. In addition, parents expect and encourage their children to work outside the agricultural sector. This is due to the lack of motivation provided by parents towards agricultural work and parents' expectations for their children to work outside the agricultural sector. Nugroho et al. (2018) added that the crisis of young farmers can further lead to a food security crisis, because farmers as the main actors of agricultural activities are decreasing in number, leading to unmet food needs and other food needs.

This is also the case in Jampet Village, Ngasem Subdistrict, Bojonegoro Regency, with an area dominated by rice fields with a percentage of 72% and the number of

residents based on employment as much as 57% of other jobs. However, the proportion of young farmers is still low, strategies to build the perception, interest and intention of the younger generation in the on-farm agricultural sector need to be created so that the regeneration of farmers is able to create millennial farmers who are able to compete and be able to maintain their parents' farming business. This study aims to analyze the effect of young people's perceptions on interest and intention to work in the agricultural sector, analyze the effect of interest on intention and analyze the effect of perception on intention mediated by interest.

METHODS

This research is an exploratory study using two research approaches: quantitative descriptive and qualitative descriptive research. Survey design is a non-experimental quantitative research technique in which questionnaires are distributed to a small group of people (sample) to describe the attitudes, opinions, behaviour, or characteristics of a larger group (population). Case study research design is a set of qualitative procedures used to study connected systems in depth (Tampi et al., 2022). The research was conducted in Jampet Village, Ngasem Subdistrict, Bojonegoro Regency starting from November to December in 2023. The research was conducted by distributing questionnaires to respondents, namely the younger generation with a vulnerable age of 15-35 years. Bojonegoro Regency became the research location with the consideration that Bojonegoro Regency is one of the best food barns in East Java, after Ngawi and Lamongan (BPS, 2023). Meanwhile, the sampling technique uses purposive sampling method Purposive sampling is a data collection technique with certain considerations (Sugiyono, 2019). The data collection method used by researchers is a questionnaire (questionnaire). The data analysis technique uses Structural Equation Modeling - Partial Least Squares (SEM-PLS) with WarpPLS to analyze data and hypotheses.

The data and facts from the collected questionnaires will be tested with the SEM-PLS data analysis technique. The stages of SEM analysis itself must go through at least five stages (Latan, 2013: 42), namely first determining the specification of the research model, namely determining the construct variables and manifest variables then formulating a model to describe the relationship. Second, identify the model in solving simultaneous equations. Third, perform model estimation. At this stage the researcher estimates the model to produce parameter values using the appropriate estimation method. Fourth, perform model evaluation. This stage tests how well the model built matches the existing data. Fifth, modify or respecify the model. If the results of the fit test show that the model does not fit, this stage involves modifying the model based on those results to improve the fit.

RESULTS AND DISCUSSION

Results of PLS-SEM Analysis (Partial Least Squares-Structural Equation Modeling)

Evaluation of the Measurement Model (*Outer model*)

1. *Convergent Validity*

Convergent validity testing is the first *outer model test* carried out, where the purpose of this test is to determine whether the variables used in the study are valid or not. *Convergent validity* testing is done by looking at the correlation value between the indicator score and the latent variable. An indicator is said to be valid or fulfill the *convergent validity* test if the value of the *factor loading is* more than 0.7 and the value below 0.4 requires the indicator to be removed (Ketchen, 2013). The following are the results of *convergent validity* testing in this study, which are divided into two, namely the *first order condition* and also the

second order condition considering that the research model used is *second order*. The loading factor results can be seen in **Table 1.**

Based on the results of *convergent validity* testing on the first-order condition in Table 1, it can be seen that all indicators have fulfilled the *convergent validity* test because the *factor loading* value is more than 0.7. Thus, it can be continued by looking at the value of *convergent validity* in the *second-order condition,* as shown in **Table 2**.

Table 1. *Test* Results *Convergent Validity First Order Condition*

Indicators	*Factor Loading*	*P-value*
X1.1.1	0.837	<0.001
X1.1.2	0.894	<0.001
X1.1.3	0.813	<0.001
X1.2.1	0.875	<0.001
X1.2.2	0.793	<0.001
X1.2.3	0.887	<0.001
X1.3.1	0.842	<0.001
X1.3.2	0.890	<0.001
X1.3.3	0.814	<0.001
X1.3.4	0.810	<0.001
Z.1.1	0.806	<0.001
Z.1.2	0.823	<0.001
Z.1.3	0.828	<0.001
Z.1.4	0.867	<0.001
Z.2.1	0.825	<0.001
Z.2.2	0.897	<0.001
Z.2.3	0.881	<0.001
Z.2.4	0.617	<0.001
Z.3.1	0.838	<0.001
Z.3.2	0.838	<0.001
Y1.1.1	0.940	<0.001
Y1.1.2	0.940	<0.001
Y1.2.1	0.855	<0.001
Y1.2.2	0.881	<0.001
Y1.2.3	0.870	<0.001
Y1.3.1	0.857	<0.001
Y1.3.2	0.885	<0.001
Y1.3.3	0.857	<0.001
Y1.4.1	0.865	<0.001
Y1.4.2	0.865	<0.001
Y1.4.3	0.848	<0.001
Y1.5.1	0.815	<0.001
Y1.5.2	0.905	<0.001
Y1.5.3	0.890	<0.001
Y1.6.1	0.923	<0.001
Y1.6.2	0.916	<0.001
Y1.7.1	0.753	<0.001
Y1.7.2	0.846	<0.001
Y1.7.3	0.862	<0.001

Based on the results of *convergent validity* testing with *second-order conditions, it can be seen that all indicators also have a value of more than 0.7, so* all indicators can be said to be valid and fulfill the *convergent validity* test.

Testing *convergent validity* can also be done by looking at the value of *Average Variance Extracted* (AVE). According to (Ketchen, 2013), the AVE value is acceptable when the value is more than equal to 0.5. This shows that the average construct used can explain more than half of the variance of the

indicators used and vice versa. The following presents the results of *convergent validity*

testing through AVE on the *first-order condition* in **Table 3.**

Table 2. *Convergent Validity* Test Results *Second Order Condition*

Indicators	Factor Loading	P-value
X1.1	0.796	<0.001
X1.2	0.865	<0.001
X1.3	0.879	<0.001
Z1.1	0.905	<0.001
Z1.2	0.907	<0.001
Z1.3	0.875	<0.001
Y1.1	0.803	<0.001
Y1.2	0.826	<0.001
Y1.3	0.898	<0.001
Y1.4	0.817	<0.001
Y1.5	0.861	<0.001
Y1.6	0.771	<0.001
Y1.7	0.705	<0.001

Table 3. *Convergent Validity* Test Results Based on *AVE* Value on *First Order Condition*

Latent Variable	AVE value
Individual (X1.1)	0.720
Economy (X1.2)	0.727
Social (X1.3)	0.705
Encouragement from Within the Individual (Z1.1)	0.692
Social Motives (Z1.2)	0.660
Emotional Factors (Z1.3)	0.703
Attitude (Y1.1)	0.884
Subjective Norms (Y1.2)	0.755
Perceived Desirability (Y1.3)	0.750
Perceived Feasibility (Y1.4)	0.748
Propensity to Act (Y1.5)	0.759
Need for Achievement (Y1.6)	0.803
Instrument Readiness (Y1.7)	0.676

Table 4. *Convergent Validity* Test Results *Based on AVE Value on Second Order Condition*

Latent Variable	AVE value
Perception (X1)	0.718
Interest (Z1)	0.803
Intention (Y1)	0.662

Based on **Table 3** it can be seen that the overall AVE value in the *first order condition is* more than equal to 0.5. Thus, it can be seen that all latent variables in the *first order condition* can explain more than half of the indicator variance well, so that the AVE value is acceptable. Then, next is testing *convergent* validity through AVE in the *second order condition* which can be displayed in **Table 4.**

Similar to the previous *first order condition* test, where in the *second order condition* the AVE value obtained is also more than equal to 0.5. Thus, it can be said

that all latent variables used in the study have passed the *convergent validity* test based on the AVE value obtained.

2. *Discriminant Validity*

The next step is to test the *outer model* by looking at the results of the *discriminant validity* test. According to Ketchen (2016), the *discriminant validity* test is carried out to see whether the constructs used in the study can actually describe the existing phenomenon or not (Ketchen, 2013). *Discriminant validity* testing can be done in two ways: the first is to compare the value of

loading with the cross-loading factor and the second is to see the comparison between the AVE root and the correlation coefficient

value. The following presents *discriminant validity* testing on the *first-order condition* in **Table 6**.

Table 5. *Discriminant Validity* Test Results *on First Order Condition*

Indicators	X1.1	X1.2	X1.3	Z1.1	Z1.2	Z1.3	Y1.1	Y1.2	Y1.3	Y1.4	Y1.5	Y1.6	Y1.7
X1.1	(0.849)												
X1.2	0.510	(0.853)											
X1.3	0.543	0.673	(0.840)										
Z1.1	0.530	0.649	0.591	(0.832)									
Z1.2	0.642	0.625	0.635	0.752	(0.813)								
Z1.3	0.506	0.573	0.556	0.677	0.682	(0.838)							
Y1.1	0.430	0.558	0.510	0.565	0.638	0.621	(0.940)						
Y1.2	0.482	0.536	0.560	0.523	0.641	0.643	0.722	(0.869)					
Y1.3	0.614	0.585	0.615	0.604	0.756	0.660	0.676	0.751	(0.866)	0.735			
Y1.4	0.630	0.536	0.581	0.553	0.678	0.547	0.507	0.598	0.735	(0.865)			
Y1.5	0.603	0.617	0.608	0.605	0.694	0.567	0.595	0.602	0.758	0.746	(0.871)		
Y1.6	0.520	0.844	0.681	0.645	0.638	0.553	0.566	0.533	0.608	0.541	0.623	(0.896)	
Y1.7	0.641	0.554	0.475	0.559	0.555	0.484	0.498	0.469	0.537	0.491	0.546	0.544	(0.822)

Table 6. *Discriminant Validity* Test Results *on Second Order Condition*

Indicators	X1	Z1	Y1
X1	**(0.847)**		
Z1	0.778	**(0.896)**	
Y1	0.811	0.812	**(0.814)**

Based on **Table 5** it can be seen that the overall AVE root value of each indicator has a value greater than the correlation coefficient value. Thus, it can be said that all indicators have fulfilled the discriminant validity test. Then, the discriminant validity test for the second order condition can be presented in **Table 6.**

Based on Table 6, it can be seen that all indicators have fulfilled the *discriminant validity* test just like the *first order condition*.

The next outer model test is reliability testing which can be done by looking at the value of composite reliability and Alpha Cronbach. According to Solimun, Fernandes and Nurjannah (2017), the composite reliability value must be more than equal to 0.70 and the *Cronbach Alpha* value must also be more than 0.6. The following are the results of reliability testing on the *first order condition* (Solimun et al., 2017b).

Table 7. Reliability Test Results on *First Order Condition*

Latent Variable	Composite Reliability	Cronbach alpha
Individual (X1.1)	0.885	0.805
Economy (X1.2)	0.888	0.811
Social (X1.3)	0.905	0.860
Encouragement from Within the Individual (Z1.1)	0.900	0.851
Social Motives (Z1.2)	0.884	0.821
Emotional Factors (Z1.3)	0.825	9.577
Attitude (Y1.1)	0.938	0.868
Subjective Norms (Y1.2)	0.902	0.838
Perceived Desirability (Y1.3)	0.900	0.833
Perceived Feasibility (Y1.4)	0.856	0.664
Propensity to Act (Y1.5)	0.904	0.840
Need for Achievement (Y1.6)	0.924	0.877
Instrument Readiness (Y1.7)	0.862	0.758

Based on **Table 7** it can be seen that all latent variables have fulfilled the reliability

test both from the *composite reliability* value and *Cronbach's Alpha*. Thus, all latent

variables in the *first order condition* can be said to be reliable. Then the reliability test on

the *second order condition* can be seen in **Table 8**.

Table 8. Reliability Test Results on *Second Order Condition*

Latent Variable	Composite Reliability	Cronbach alpha
Perception (X1)	0.884	0.802
Interest (Z1)	0.924	0.877
Intention (Y1)	0.932	0.914

Based on Table 8, it can be seen that all latent variables have fulfilled the same reliability test as in the *first order condition*, both from the *composite reliability test* and *Cronbach's Alpha*.

3. *Composite Reliability and Cronbach's Alpha*

The next *outer model* test is reliability testing which can be done by looking at the

value of *composite reliability* and *Cronbach's Alpha.* According to Solimun, Fernandes and Nurjannah (2017), the *composite reliability* value must be more than equal to 0.70 and the *Cronbach Alpha* value must also be more than 0.6. Below are the results of the reliability test on the first-order *condition* (Solimun et al., 2017b)*.*

Table 9. Reliability Test Results on *First Order Condition*

Latent Variable	Composite Reliability	Cronbach alpha
Individual (X1.1)	0.885	0.805
Economy (X1.2)	0.888	0.811
Social (X1.3)	0.905	0.860
Encouragement from Within the Individual (Z1.1)	0.900	0.851
Social Motives (Z1.2)	0.884	0.821
Emotional Factors (Z1.3)	0.825	9.577
Attitude (Y1.1)	0.938	0.868
Subjective Norms (Y1.2)	0.902	0.838
Perceived Desirability (Y1.3)	0.900	0.833
Perceived Feasibility (Y1.4)	0.856	0.664
Propensity to Act (Y1.5)	0.904	0.840
Need for Achievement (Y1.6)	0.924	0.877
Instrument Readiness (Y1.7)	0.862	0.758

Based on **Table 9**, it can be seen that all latent variables have fulfilled the reliability test both from the *composite reliability* value and *Cronbach's Alpha*. Thus, all latent

variables in the *first order condition* can be said to be reliable. Then the reliability test on the *second order condition* can be seen in **Table 10**.

Table 10. Reliability Test Results on *Second Order Condition*

Latent Variable	Composite Reliability	Cronbach alpha
Perception (X1)	0.884	0.802
Interest (Z1)	0.924	0.877
Intention (Y1)	0.932	0.914

Table 10 shows that all latent variables have fulfilled the same reliability test as in the *first order condition*, both from the *composite reliability test* and *Cronbach's Alpha*.

Structural Model Evaluation (Inner model)

After testing the *outer model is* complete, the next step is to test the *inner*

model which can be done by looking at the value of the *path coefficients, R-squares* and also *Goodness of Fit. The* first time *inner model* testing is done is by looking at the value of the *path coefficient*, where the value is used to see the direction of the relationship between the existing latent variables. According to Hair

Jr et al., 2017, if the *path coefficient value is* close to +1, then this indicates a positive and significant relationship direction and vice versa. Based on the results of the analysis conducted, the *path coefficients* value is obtained which is described in the existing structural model (Figure 1).
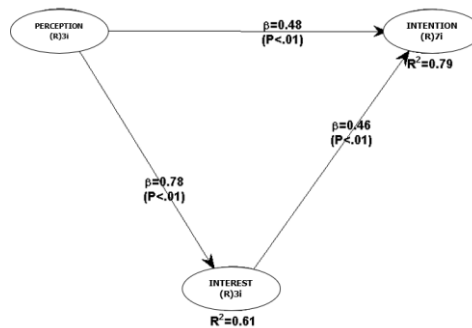
Figure 1. *Path Coefficients* in the Structural Model

Based on Figure 1 above, it can be seen that the overall *path coefficients value* shows a positive value. For example, the relationship between the Perception variable (X1) and Interest (Z1) shows a *path coefficient* value of 0.78, indicating that perception has a positive effect of 78% on interest. Thus, the better the perception of the younger generation in the field of agriculture, the more their interest in participating in the business in agriculture will increase.

Then the next step is to look at the value of *R-squares* or what is known as the coefficient of determination. According to (Ketchen, 2016) *R-squares is* used to assess how the influence of the independent variable on the dependent variable, with the *R-squares* value ranging from 0 to 1 where the higher the value, the higher the level of prediction accuracy. Based on the results of the analysis that has been carried out, the *R-squares* value is obtained as follows.

Table 11. *R-squares* Analysis Results

Response Variable	*R-squares* value
Interest (Z1)	0.608
Intention (Y1)	0.790

Based on **Table 11**, the *R-squares* value for the interest variable is 0.608. This shows that the contribution of perception, in which there are three dimensions including individual, economic, and social to interest, is 60.8%, and the remaining 39.2% is influenced by other variables outside the model and so on.

Then the last step in testing the *inner model* is to see the value of *Goodness of Fit.* As stated by Solimun et al. *The Goodness of Fit* is an index containing 10 indicators related to the goodness of the relationship between

existing latent variables and their assumptions and is a *rule of thumb* (Solimun et al., 2017b). Being a *rule of thumb* here means that all existing provisions do not apply rigidly and also absolutely so if there are one or two indicators that do not meet the criteria, the model can still be used. The following summarizes the *model fit and quality indices* which can be explained in **Table 12.**

Based on **Table 12**, it can be seen that all indicators of *Goodness of Fit* have been fulfilled in this study. Such as the APC, ARS and AARS indicators, all of which have a *p-*

value <0.001 so that these indicators can be said to be fulfilled. Likewise for the *Average Block VIF* (AVIF) indicator and the *Average Full Colinearity* VIF (AFVIF) indicator, where both indicators are used to measure the level of collinearity in a study. Both indicators have also met the AVIF value of 2.561 and the AFVIF value of 3.950, both of which have values below 5 as the standard. The next indicator is *Tenenhaus GoF* (TGoF), which is a measure of the strength of the model explanation that has been formed and in this study has a value of 0.713 which is included in the large category. Then next is Sympson's Paradox Ratio (SPR) indicator, R-squared Contribution Ratio (RSCR), Statistical Suppression Ratio (SSR), and Nonlinear Bivariate Causality Direction Ratio (NLBCDR), where all of these indicators have been accepted with a value of 1 each which has met the predetermined standards.

Table 12. *Model Fit and Quality Indices* Results

No.	Model Fit and Quality Indices	Fit Criteria	Results	Description
1.	*Average Path Coefficient* (APC)	p < 0.05	0.574	Fulfilled
2.	*Average R-Squared* (ARS)	p < 0.05	P<0.001	Fulfilled
3.	*Average Adjusted R-Squared* (AARS)	p < 0.05	0.699	Fulfilled
4.	*Average Block VIF* (AVIF)	Accepted if ≤ 5, ideally ≤ 3.3	P<0.001	Fulfilled
5.	*Average Full Collinearity VIF* (AFVIF)	Accepted if ≤ 5, ideally ≤ 3.3	0.698	Fulfilled
6.	*Tenenhaus GoF* (TGoF)	Small ≥ 0.1, medium ≥ 0.25, large ≥ 0.36	P<0.001	Great
7.	*Sympson's Paradox Ratio* (SPR)	Accepted if ≥ 0.7, ideally = 1	2.561	Ideal
8.	*R-Squared Contribution Ratio* (RSCR)	Accepted if ≥ 0.9, ideally = 1	3.950	Ideal
9.	*Statistical Suppression Ratio* (SSR)	Accepted if ≥ 0.7	0.713	Fulfilled
10.	*Nonlinear Bivariate Causality Direction Ratio* (NLBCDR)	Accepted if ≥ 0.7	1.000	Fulfilled

Hypothesis Test

Hypothesis testing is carried out to determine the relationship between one variable and another variable that has previously been proposed in the existing hypothesis. Hypothesis testing in the analysis using WarpPLS is carried out using the t test rule, which in this study uses the provisions if the *p-value* ≤ 0.05 with an alpha of 5%, then the hypothesis can be accepted. The following are the results of hypothesis testing in **Table 13**.

Table 13. Hypothesis Testing Results

Hypothesis	Coefficient	*P-values*	Results
H1: There is an influence of perceptions on the intention of the younger generation in the business of agriculture	0.482	<0.001	Accept
H2: There is an influence of perception on the interest of the younger generation in business in agriculture	0.780	<0.001	Accept
H3: There is an influence of interest on the intention of the younger generation in the business of agriculture	0.460	<0.001	Accept
H4: There is an effect of perceptions on the intention of young people in agricultural businesses mediated by interest.	0.359	<0.001	Accept

Based on the results of hypothesis testing in Table 13, it can be explained clearly and in detail the existing hypothesis testing as follows:

1. Hypothesis 1

H_0 = Perceptions do not have a positive influence on the intention of young people to venture in agriculture

H_1 = There is a positive influence between perceptions on the intention of

the younger generation in the business of agriculture

Based on the results of hypothesis testing that has been carried out, the *p-value* for the first hypothesis is <0.001 with a coefficient value of 0.482. This shows that perception has a positive influence of 48.2% on the intention of the younger generation in the agricultural business. Thus, it can be said that the first hypothesis is accepted and H_0 is rejected because the *p-value is* less than 0.05.

2. Hypothesis 2

H_0 = Perception does not have a positive influence on the interest of young people in business in agriculture

H_2 = Perception has a positive influence on the interest of young people in business in agriculture

Based on the results of the analysis that has been carried out, the *p-value* for the second hypothesis is <0.001 with a coefficient value of 0.782. Thus, H_0 is rejected and H_2 is accepted. Thus, it can be said that the better the perception that the younger generation has of the business in agriculture, it will also increase their interest in the business.

3. Hypothesis 3

H_0 = Interest does not have a positive influence on the intention of young people in agricultural businesses

H_3 = There is a positive influence between the interest and intention of the younger generation in business in agriculture

Based on the results of the analysis that has been carried out, it can be seen that the *p-value* for the third hypothesis is <0.001 with a coefficient value of 0.460 and a positive sign. Thus, it can be said that H_0 is rejected and H_3 is accepted. Therefore, it can be said that when the younger generation has a positive interest in agricultural businesses, their intention to go directly to businesses engaged in agriculture will increase.

4. Hypothesis 4

H_0 = There is no positive effect of perception on the intention of the younger generation mediated by interest in business in agriculture

H_4 = There is a positive effect of perception on the intention of the younger generation mediated by interest in business in agriculture

Based on the results of the analysis that has been carried out, the *p-value* for the fourth hypothesis is <0.001 with a coefficient value of 0.359. Thus, it can be said that H_0 is rejected and H_4 is accepted, which means that the interest variable has a mediating role in the relationship between perceptions and the intention of the younger generation to run a business in agriculture.

Influence of Perception on Young Generation's Interest and Intention in Agricultural Businesses

Based on the results of the analysis that has been carried out, it is found that there is a positive and significant influence between the perception variable on the interest variable and also the intention of the younger generation in the agricultural business shown in **Table 14**.

Table 14. Results of Analysis of the Effect of Perceptions on the Interest and Intention of the Young Generation in Business in Agriculture

No.	Relationship between Variables		Coef. Path	*p-value*	Description
	Explanatory Variable	Response Variable			
1.	Perception	Interests	0.780	<0.001	Significant
2.	Perception	Intention	0.482	<0.001	Significant

The analysis shows that individual, economic, and social perceptions significantly boost the agricultural interest of Jampet Village's youth in Bojonegoro Regency, influenced by internal motivation, social motives, and emotional factors. (Zhang et al., 2023) and authors in 2020 discuss how family, friends, and socio-economic factors shape individual perceptions and behaviors towards agriculture. Improved perceptions of

agricultural business opportunities among youth can enhance their engagement in the sector, critical for addressing the declining number of young farmers. The 2023 Agricultural Census indicates a 7.42% reduction in young Indonesian farmers over the past decade, with an aging farmer demographic increasingly out of balance with the younger generation (Prasetiawan, 2024). Misconceptions about agriculture's prestige and profitability, as noted by (Qudrotulloh et al., 2022), hinder youth interest. However, recognizing agriculture's vital role in food security and job creation is essential for rejuvenating the sector and fostering innovation and technology adoption among the new generation.

Likewise with the influence between perception and intention. As stated by (Haji Wahab, 2018) that perception has a strong relationship with one's intention. Similarly, what was conveyed by (Afandi et al., 2021), that perception affects the intention of individuals to behave. Thus, it can be concluded that perception has a positive and significant influence on the intention of the younger generation to go directly to business in agriculture. Therefore, efforts are needed from all parties to develop the agricultural sector to make it a more attractive, innovative and promising sector to be able to foster positive perceptions in the minds of the younger generation so that they want to contribute to agriculture. Not only that, if the younger generation is willing to look at the agricultural sector, the adoption of technology in agriculture will occur very quickly and there will be various creative innovations to support agricultural activities in meeting existing food needs.

Influence of Interest on Young Generation's Intention to Engage in Agricultural Businesses

Based on the results of the analysis that has been carried out, it is found that there is a positive and significant influence between interest and intention, which can be presented in **Table 15.**

Table 15. Results of Analysis of the Effect of Interest on the Intention of the Young Generation to Enterprises in Agriculture

No.	Relationship between Variables		Coef. Path	*p-value*	Description
	Explanatory Variable	Response Variable			
1.	Interests	Intention	0.460	<0.001	Significant

The table demonstrates that interest, comprising encouragement, social motives, and emotional factors, significantly impacts intentions, encompassing attitude, subjective norms, perceived desirability, feasibility, propensity to act, need for achievement, and instrument readiness. This aligns with (Erawati & Rahma Wati, 2021) findings that interest influences behavior intentions. Specifically, positive interest in agriculture among the youth in Jampet Village, Ngasem District, Bojonegoro Regency, motivates their direct involvement in agricultural businesses. Notably, social motives exhibit the highest loading value at 0.897, indicating their substantial influence on youth interest in agriculture. Therefore, fostering youth interest in agriculture necessitates creating a supportive social environment, such as organizing discussions with young entrepreneurs in agriculture or involving them in relevant agricultural activities, aiming to cultivate their enthusiasm for the agricultural sector (Dewi & Jumrah, 2023).

The Influence of Perceptions on the Intention of Young Generations in Agricultural Businesses Mediated by Interest

Based on the results of the analysis that has been carried out, it is found that there is a positive and significant influence between perceptions on intentions mediated by interest with the research results presented in **Table 16**.

Table 16. Results of Analysis of the Effect of Perceptions on the Young Generation's Intention to Enterprises in Agriculture Mediated by Interest

No.	Relationship between Variables			Coef. Path	*p-value*	Description
	Explanatory Variable	Mediating Variable	Response Variable			
1.	Perception	Interests	Intention	0.359	<0.001	Significant

Based on Table 16, it can be seen that interest mediates the relationship between perception and intention variables with a positive and significant coefficient value. This is in line with research conducted by Fatimatus Syahroq et al. (2021), that there is a positive and significant influence between perception and interest. Likewise with research conducted by (Erawati & Wati, 2021), there is also a positive and significant relationship between interest and intention. Thus, it can be concluded that when the younger generation, especially in this case those in Jampet Village, Ngasem Subdistrict, Bojonegoro Regency, have a positive perception of the agricultural sector, this will indirectly increase their interest in the agricultural sector and will later affect their intention to participate in the agricultural sector. Therefore, collaborative steps are needed by involving various parties to attract young people to the agricultural sector, including academics, private or business people, government, community or society, and social media (Saragih et al., 2023).

Where later, the government can act as a regulator as well as a controller in charge of making regulations and developing agriculture; businesses or industries act as enablers that provide infrastructure related to capital (Sumartono et al., 2019). Then academics act as concepts that standardize the process of activities carried out as well as certification and skills of human resources; the community acts as an accelerator who not only plays a supporting role by promoting products and services but also acts as a liaison between stakeholders.

The last is social media, which plays a role in building a brand image of the social change that is being built (Salamah, 2021). Thus, it is hoped that through the collaboration of various parties, various innovations in the agricultural sector can be realized that can encourage the interest of the younger generation to get involved, as well as in the Jampet Village area, Ngasem District, Bojonegoro Regency (Zakaria et al., 2023).

CONCLUSION

Regeneration of farmers, especially those in Jampet Village, Ngasem Sub-district, Bojonegoro District, can in fact be done by building positive perceptions in the minds of the younger generation about the agricultural sector. This positive perception can be done by looking at individual, economic and social factors. In accordance with the test results, the effect of perception on interest is 78.2%, with a coefficient value of 0.782. No different from the effect of perception on interest, the effect of perception also shows high results on youth intentions regarding businesses in the agricultural sector. With test results showing a coefficient value of 0.482. This indicates that perception has a positive influence of 48.2% on the intention of the younger generation in the agricultural business.

The interest variable in this study also has a positive and significant influence on the intention of the younger generation to go directly to business in the agricultural sector by 46%. In accordance with the results of the study, the coefficient value is 0.460 and has a positive sign. Likewise, the relationship between the perception variable and intention mediated by the interest variable also shows positive and significant results of 35.9% with a coefficient value of 0.359. Thus, support is needed by all parties to jointly build a positive image so that the perception of the agricultural sector in the minds of the younger generation can be very positive.

REFERENCES

Afandi, A., Fadhillah, A., & Sari, D. P. (2021). Pengaruh Persepsi Kegunaan,

Persepsi Kemudahan dan Persepsi Kepercayaan Terhadap Niat Menggunakan E-Wallet Dengan Sikap Sebagai Variabel Intervening. *Innovative: Journal Of Social Science Research*, *1*(2), 568–577.

BPS. (2023). *Laju pertumbuhan penduduk*. Badan Pusat Statistik. https://www.bps.go.id/indicator/12/1976/1/laju-pertumbuhan-penduduk.html

Dewi, S., & Jumrah, J. (2023). Persepsi dan Minat Generasi Milenial Terhadap Profesi Di Sektor Pertanian (Studi Kasus Di Desa Galung Lombok, Kecamatan Tinambung, Kabupaten Polewali). *Media Agribisnis*, *7*(1), 87–97. https://doi.org/10.35326/agribisnis.v7i1.3215

Erawati, T., & Rahma Wati, E. (2021). Pengaruh Niat, Modal Sosial Dan Peran Universitas Terhadap Minat Berwirausaha Di Kalangan Mahasiswa (Studi Kasus pada Program Studi Akuntansi Fakultas Ekonomi Universitas Sarjanawiyata Tamansiswa). *AKURAT: Jurnal Ilmiah Akuntansi FE UNIBBA*, *12*(2), 105–118. https://ejournal.unibba.ac.id/index.php/akurat/article/view/590

Erawati, T., & Wati, R. E. (2021). Pengaruh Niat, Modal Sosial dan Peran Universitas Terhadap Minat Berwirausaha di Kalangan Mahasiswa. *Ilmiah Akuntansi*, *12*(2), 105–118.

Fatimatus Syahroq, K., Purnomo, H., & Soejoko, D. K. H. (2021). Minat Beli Sebagai Mediasi Pengaruh Persepsi Harga, Citra Merek Dan Celebrity Endorser Pada Keputusan Pembelian Busana Merek 3second. *Jembatan : Jurnal Ilmiah Manajemen*, *18*(1), 137–150. https://doi.org/10.29259/jmbt.v18i1.14311

Hair Jr, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2017). Multivariate Data Analysis. In *Pearson Education Limited*. https://doi.org/10.4324/9781351269360

Haji Wahab, M. Z. (2018). Perception of the *takaful* operators' performance towards customers' intention in using medical *takaful* card among public sector. *Journal of Islamic Marketing*, *9*(3), 527–543. https://doi.org/10.1108/JIMA-10-2016-0076

Ketchen, D. J. (2013). A Primer on Partial Least Squares Structural Equation Modeling. *Long Range Planning*, *46*(1–2), 184–185. https://doi.org/10.1016/j.lrp.2013.01.002

Ketchen, D. J. (2016). A Primer on Partial Least Squares Structural Equation Modeling. In *Long Range Planning* (Vol. 46, Issues 1–2). https://doi.org/10.1016/j.lrp.2013.01.002

Maulidah, S. (2012). *Pengantar Manajemen Agribisnis*. UB Press.

Nugroho, A. D., Waluyati, L. R., & Jamhari, J. (2018). Upaya Memikat Generasi Muda Bekerja Pada Sektor Pertanian di Daerah Istimewa Yogyakarta. *JPPUMA: Jurnal Ilmu Pemerintahan Dan Sosial Politik Universitas Medan Area*, *6*(1), 76. https://doi.org/10.31289/jppuma.v6i1.1252

Prasetiawan, T. (2024). *Memantik Minat Petani Milenial*. https://pusaka.dpr.go.id

Qudrotulloh, H. M., Sumarsih, E., Nuryaman, H., Mutiarasari, N. R., & Hardiyanto, T. (2022). Persepsi Petani Muda Terhadap Wirausaha Di Sektor Pertanian (Kasus pada Petani Muda di Desa Tenjonagara, Kecamatan Cigalontang, Kabupaten Tasikmalaya). *AGRITEKH (Jurnal Agribisnis Dan Teknologi Pangan)*, *2*(2), 124–135. https://doi.org/10.32627/agritekh.v2i2.426

Salamah, U. (2021). Kontribusi Generasi Muda Dalam Pertanian Indonesia. *Journal Science Innovation and*

Technology (SINTECH), *1*(2), 23–31. https://doi.org/10.47701/sintech.v1i2.10 64

Saragih, J. R., Tamba, F. F., & Asaad, Mhd. (2023). The Role of Village-Owned Enterprises in Agriculture Sector in Enhancing Community Welfare in Tampahan District, Toba Regency, North Sumatra. *Agro Bali : Agricultural Journal*, *6*(2), 315–325. https://doi.org/10.37637/ab.v6i2.1317

Sjamsir, Z. (2017). *Pembangunan Pertanian dalam Pusaran Kearifan Lokal*. CV Sah Media.

Solimun, Fernandes, A. A. R., & Nurjannah. (2017a). Metode Statistika Multivariat Pemodelan Persamaan Struktural (SEM) Pendekatan WarpPLS. In *Metode Statistika Multivariat Pemodelan Persamaan Struktural (SEM) Pendekatan WarpPLS*.

Solimun, Fernandes, A. A. R., & Nurjannah. (2017b). *Metode Statistika Multivariat Pemodelan Persamaan Struktural (SEM) Pendekatan WarpPLS. In Metode Statistika Multivariat Pemodelan Persamaan Struktural (SEM) Pendekatan WarpPLS*. https://books.google.co.id/books/about/ Metode_Statistika_Multivariat_Pemode lan.html?id=GrRVDwAAQBAJ&redir_ esc=y

Sugiyono. (2019). *Metodelogi Penelitian Kuantitatif dan Kualitatif Dan R&D*. ALFABETA.

Sumartono, E., Yuliarti, E., & Nengsih, D. S. (2019). Perception of Millennial Generation of Farmer Children on Employment in Agricultural Sectors (Case Study of Farmer Children in Village Padang Cekur, Talo District,

Seluma District). *International Journal of Advances in Social and Economics*, *1*(1), 22–27. https://doi.org/10.33122/ijase.v1i1.33

Susilowati, S. H. (2016). Fenomena Penuaan Petani dan Berkurangnya Tenaga Kerja Muda serta Implikasinya bagi Kebijakan Pembangunan Pertanian. *Forum Penelitian Agro Ekonomi*, *34*(1), 35–55. https://epublikasi.pertanian.go.id/berkal a/fae/article/view/1150

Tampi, M. F., Kaunang, R., & Lolowang, T. F. (2022). Persepsi dan Minat Pemuda Terhadap Pekerjaan Sebagai Petani di Desa Wuwuk Kecamatan Tareran Kabupaten Minahasa Selatan. *AGRI-SOSIOEKONOMI*, *17*(3), 943–948. https://ejournal.unsrat.ac.id/v3/index.ph p/jisep/article/view/37249

Yuniarti, D., & Sukarniati, L. (2021). Penuaan Petani dan Determinan Penambahan Tenaga Kerja di Sektor Pertanian. *AGRIEKONOMIKA*, *10*(1), 38–50. https://doi.org/10.21107/agriekonomika. v10i1.9789

Zakaria, R. S., Rachmina, D., & Tinaprilla, N. (2023). Sharecropping and Production Risk of Rice Farming. *Agro Bali : Agricultural Journal*, *6*(2), 303–314. https://doi.org/10.37637/ab.v6i2.1203

Zhang, J., Quoquab, F., & Mohammad, J. (2023). The role of pandemic risk communication and perception on pro-environmental travel behavioral intention: Findings from PLS-SEM and fsQCA. *Journal of Cleaner Production*, *429*, 139506. https://doi.org/10.1016/j.jclepro.20 23.139506