Tertiary Student Intention in Agricultural Sector Using Technology in Order to Maintain Food Security in West Java

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Abstract. *Food security is urgently needed in 2050. Facing current conditions, the agricultural industry in Indonesia no longer appeals to the younger generation, and many farmers are elderly; the challenge of limited land, human resources, and falling farmer regeneration is a global one. This study investigates the desire of tertiary students in West Java, Indonesia, to pursue a profession in agriculture. The study's goal is to identify the elements influencing tertiary students' intentions to contribute or pursue a profession in agriculture, the correlation between those factors, and the things that may boost tertiary students' desire in continuing their career in agriculture. The study will look at the effects of a student's income, land availability and ownership, the student's parents' background in a specific demographic, and the influence of contemporary agricultural technology and data. Using quantitative research design and ordinal logistic regression analysis method, the study found that the father's education, willingness lives in the village, and the data-driven agriculture variable influenced tertiary students' interest in the agricultural industry.*

Keywords: *Agricultural sector, food security, intention, technology usage, tertiary students.*

1. Introduction

The Indonesian agricultural industry continues to be one that benefits the country's economy today. This situation is evident from Statistic Indonesia Data, which demonstrates that the GDP from the agricultural sector still contributes significantly to the national GDP, making it the cornerstone of the Indonesia national economy. The human population is still expanding quickly on a worldwide scale. According to the United Nations around 9,3 billion people will live on earth in 2050. This implies the demand for food will also increase drastically while the amount of land, labor employed in the agricultural sector declines.

In Indonesia, where the agricultural industry no longer appeals to the younger generation and many farmers are elderly, the issue of limited land, human resources, and the declining regeneration of farmers is a global one. The age of farmers in Indonesia is dominated by the elderly (over the age of 54 years) and this is compounded by the educational background of farmers who are dominated only by elementary school graduates. According to data from the Ministry of Agriculture, the number of Indonesian farmers currently stands at 33.4 million. The proportion of older generations (91%) with ages ranging from 50 to 60 years. This older generation is technologically illiterate. Farmers in the younger age account for only approximately 9% of the total, or 2.7 million people. This younger generation ranges in age from 19 to 39 years old (Farizi, 2020). According to the data from Badan Pusat Statistik (2023), the number of millennial farmers aged 19–39 years is 6,183,009 people, or around 21.93 percent of farmers in Indonesia.

The agriculture industry in Indonesia also contends with the fact that 72.6% of its employees have just completed primary school and do not even have a high school diploma. This condition causes the transfer of knowledge and technology transfer to farming communities to be difficult because of the lack of knowledge they have. So that agricultural techniques and mechanisms in Indonesia tend to use old ways and are still unfamiliar with new ways.

However, based on OurWorldInData.org, there is a decrease in the percentage of workers in the agricultural sector and this labor crisis is a major problem that must be resolved by improving this aspect of agriculture in various ways. Not only that, this crisis occurs because there is no next generation of successors that must be carried out by young people today or the approach of retirement age factor. (Priani G et al., 2023). The number of farmers supports one of them, which is agricultural improvement. This indicates that when there are more farmers, the agricultural sector will be increasingly stretched.

(Sembara, 2009) explained that agriculture is not a part of their future for several reasons, including: (1) people are unfamiliar with agriculture specifically, where people know agriculture is only a cultivating activity, (2) there is still a negative stigma towards agriculture, so parents tend to prohibit their children from becoming "farmers," and (3) there is a thought that farmers are associated with villages and poverty.

Young farmers, or so-called millennial farmers, have the ability to quickly absorb technology and innovate in the agricultural business (Rokhati et al., 2022). However, the younger generation's desire to enter the agricultural industry is diminishing. The younger generation prefers to run businesses that are not related to agriculture. If left uncontrolled, this condition will have an impact on people's food availability and food sovereignty. (Nasution, 2013) emphasized that it is difficult to welcome young people to enter the world of agriculture directly, and that remarkable actions are required to transform the face of agriculture so that young people can look at it again.

In order to regenerate farmers in Indonesia, the best course of action is to increase youth interest in the agricultural industry, particularly among recent tertiary students.

To give emphasis to the study's dependent variable, this focuses on the students' intention to participate in the agriculture sector in terms of their demographic such as age, student education, income, parent education (father and mother), migration, willingness to live in rural area, and other variable related to technology advance and data driven.

The study examines the relationship between that 9 variable that motivates the participation of tertiary students to involved in the agriculture sector. The method to analysis this variable is using ordinal logistic regression analysis. Ordinal logistic regression analysis that is performed when the dependent variable (Y) on an ordinal scale that has more than two categories.

2. Literature Study / Hypotheses Development

Factors Influencing Tertiary Students' Intention In Agriculture
According to Statistics Indonesia (BPS), the country lost 5.1 million farmers between 2003 and 2013, bringing the total to 26 million. The upward trend is projected to continue in the next years. At this rate, Indonesia's farmers would be gone by 2063. (Iswara, 2020)

Several variables are used to see factors being triggered behind someone intentions in contributing themselves in agricultural sectors. Based on study by (Jose et al., 2022) age, student education and father education have positive relationship with student intention in participate agriculture sector. The author includes technology and data-driven

variables as one of the aspects to be evaluated. Technological in advancements in the agricultural sector have the potential to facilitate agricultural activities and boost the effectiveness of the agricultural sector.

Age

Agricultural occupations may be perceived and viewed differently by different age groups. Young people's views toward employment in agriculture are set at a young age, thus it is critical to analyze the reasons for encouraging a specific job choice. (Halbeisen, 2017). Younger students may be more receptive to investigating new career alternatives, such as agriculture, whereas older students may already have established professional goals. However, that the influence of age on students' intentions to engage in agriculture may differ based on cultural and contextual circumstances.

Student Education

Dreams and aspirations are impacted not only by students' talents, but also by their personal backgrounds and families, as well as the depth and breadth of their knowledge about the world of work. To summarize, students cannot be what they cannot see. (OECD, 2020)

Charles Yidan, Co-founder of Tencent, states that education is the primary driving force behind social progress. With the world of work changing so quickly, there are compelling reasons to assume that schools must reconsider how they can better educate students for their futures.

Limited access to education or a lack of understanding about agricultural employment options might have a negative impact on students' intentions to pursue careers in the industry. And the reverse, Students obtaining higher education, particularly in agricultural areas, are more likely to want to work in agriculture.

Income

Salary is an important aspect in determining a career. This becomes a benchmark for everyone to determine the career they want to choose. Salary and benefits are given as a guarantee for the work provided. Stable salaries and benefits provided such as insurance, housing costs, and so on are everyone's top priority for career choices (Nur'ain A., et al. 2019).

This also affects one's career choice to engage in agriculture. Due to unstable income, making a career choice as a farmer is not the first choice. The benefits given to farmers are also very minimal which results in a lack of interest for someone to become a farmer

Parent Education

Parental education and children's interest in the agricultural business sector may be related. According to studies, a parent's education level has a big impact on how well their kids do in school, what they want to be when they grow up, and how they view the world. Their interest in the agricultural business sector might be affected by this influence (Ikonen K, et al., 2017).

For instance, parents with higher education may be more likely to motivate their kids to go to college and pursue careers in fields like healthcare, law, or engineering that are regarded as prestigious or high paying. On the other hand, parents with less education may place more value on practical experiences and vocational skills, like farming and agriculture.

Parents with a background in agriculture may be more likely to pass on their knowledge, skills, and interest in farming to their children in the context of the agricultural business sector. This might encourage their kids to think about working in agriculture, including agribusiness (Anna L., Angela W., 2005).

Additionally, parental education may have an impact on the children's access to agricultural-related educational and career opportunities. For instance, parents with higher education levels might have more money to dedicate to their kids' education, training, and career advancement. Additionally, they might have a larger network of connections and resources

that could give their kids access to important data, role models, and opportunities in the agricultural industry.

Migration

The environment in which an individual grows up has a significant impact on their professional path choice. (Swanson and Fouad, 1999). Migration, particularly rural-to-urban migration, can have an impact on students' desire to work in agriculture.

Rural-urban migration had a huge impact on rural people's socioeconomic situations. The effects of migration on agriculture included a decrease in residence agricultural labor sources in both low- and high-migration communities, resulting in a significant reliance on hired labor for farm tasks. Migration has been shown to have a negative influence on agricultural productivity, resulting in poorer income and food output. (Dokubo, et.al., 2023)

Nonetheless, still there is positive impact on this. The experience of rural-urban migration enhances farmers' land for farming utilization by 22%. Meanwhile, the beneficial effect of rural-urban migration on agricultural land utilization varies by farmer age group and region. While rural-urban migration boosts arable land utilization by 29% for farmers under the age of 65, it has no meaningful effect on farmers 65 and older. (Chen Q, et. al., 2020)

To be able to capitalize on the good impact of the increase in agricultural land due to migration, resources are needed that can see this potential so that agricultural productivity can increase.

Willingness to live in rural area

Over the last four years, the agriculture sector's significance in the Indonesian economy has fallen, as has agriculture's value added (Girdziute, 2022). This was driven by the rural population decline: on average, 1 million individuals left rural areas for metropolitan areas each year.

The rural population is defined by national statistical offices as those who live in rural areas. According to the data by Macrotrends, the number of permanent residents in rural areas in Indonesia decreased by 0.81% (or 117 million people) between 2020 and 2021.

The decreasing population in rural areas is affected not only by urbanization, but also by the growing size of farms. (Girdziute, et. Al., 2022) The ability of young rural people to access resources such as land, finance, and farming skills is one aspect that shapes their opportunity space. (FAO, 2014; White, 2012).

Technology Advance

Technology has a major role in farming and agriculture practices and with the advance of digital technology, the scope has widened. According to worldbank.org, ICT has the potential to increase agricultural labor productivity in ways other than mechanization. ICT also aids in the improvement of agronomic practices by facilitating extension, and, more crucially, it increases farmers' access to markets (both old and new), allowing them to leverage their bargaining position and obtain a higher price for their produce. While the majority of young people want to view their future outside of agriculture, there are still many decent career prospects in agriculture, both on and off the farm. (Christiansen L, 2017)

There is a complex and promising relationship between new agricultural technology and young people's interest in becoming farmers. Traditional farming methods could be revolutionized by modern technology to become more effective, sustainable, and profitable. Tech-savvy youth may become fascinated by this transformation and be persuaded to think about farming as a career.

The incorporation of technology into agriculture also opens doors for innovation and entrepreneurship. Young farmers can experiment with various digital tools, develop cutting-edge farming techniques, and even find startups in agricultural technology. A new

generation of farmers who are looking for challenging and exciting careers may be inspired by the prospect of utilizing cutting-edge technologies like drones, robotics, and sensor systems.

Data Driven in Agriculture
According to Zia et al., 2021 was defined data driven farming systems as the application of data to support agricultural decision-making hence enhancing the result of the food system. The potential for data driven farming to improve food system has recently expanded due to advances in three key areas such as data generation, data processing and predictive analytics, and human computer interaction. With data analytics, IoT devices, drones, and other technologies revolutionizing agriculture, data driven agriculture has the potential to significantly influence students thoughts about becoming farmers in the nowadays. Data driven also presents a wealth of business prospects. Due to the possibility for innovation, process optimization, and the creation of new solutions in agriculture through data analysis and technology, students interested in business and entrepreneurship migh see farming as a feasible career option.
Research Gap

Previous study of Determinants of Tertiary students' Intention to participate in Agriculture Sector has the same similar objective in identifying tertiary student intention pursuing career in agriculture sector, held in Visayas, Region 8 Philippines. The result showed that there is a positive relationship between the intention of tertiary students participating in the Agricultural sector and father's education but negative to mother's education. Meanwhile, other factors have weak relations, including the income factor, migration, age, and student education.

The current study examines the views of certain tertiary students in West Java, Indonesia, on farming and their desires to become farmers. Our selection of West Java farmers as the focal point of this research stems from the significant presence of millennial farmers aged 19–39 years within this demographic, comprising approximately 6,183,009 individuals, which accounts for roughly 21.93 percent of the total farmer population in Indonesia. And how their intentions have been influenced by the present advancement of data and technology in agriculture.
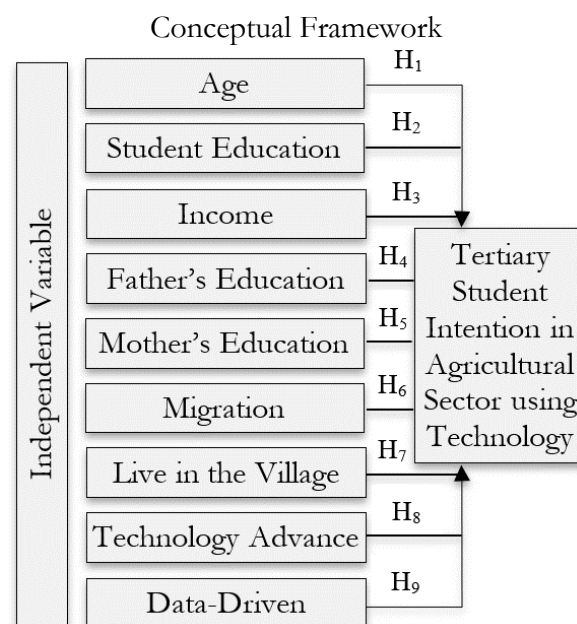

Figure 1.
Conceptual Framework
The figure above shows the conceptual framework of the research. Conceptual

framework is the flow of a research that will be carried out so that the research is on track. The proposed conceptual framework is built on a hypothesis the researchers developed based on West Java tertiary students' intention to involved in agricultural sector.

The following are the research-based hypotheses and their relationship:

1. Age
   H0: Age is not affected tertiary students' intention to involved in agricultural sector
   H1: Age is affected tertiary students' intention to involved in agricultural sector

2. Student Education
   H0: Student Education is not affected tertiary students' intention to involved in agricultural sector
   H2: Student Education is affected tertiary students' intention to involved in agricultural sector

3. Income
   H0: Income is not affected tertiary students' intention to involved in agricultural sector
   H3: Income is affected tertiary students' intention to involved in agricultural sector

4. Father's Education
   H0: Father's Education is not affected tertiary students' intention to involved in agricultural sector
   H4: Father's Education is affected tertiary students' intention to involved in agricultural sector

5. Mother's Education
   H0: Mother's Education is not affected tertiary students' intention to involved in agricultural sector
   H5: Mother's Education is affected tertiary students' intention to involved in agricultural sector

6. Migration
   H0: Migration is not affected tertiary students' intention to involved in agricultural sector
   H6: Migration is affected tertiary students' intention to involved in agricultural sector

7. Live in the Village
   H0: Live in the Village is not affected tertiary students' intention to involved in agricultural sector
   H7: Live in the Village is affected tertiary students' intention to involved in agricultural sector

8. Technology Advance
   H0: Technology Advance is not affected tertiary students' intention to involved in agricultural sector
   H8: Technology Advance is affected tertiary students' intention to involved in agricultural sector

9. Data Driven
   H0: Data Driven is not affected tertiary students' intention to involved in agricultural sector
   H9: Data Driven is affected tertiary students' intention to involved in agricultural sector

3.   Methodology

The method used is quantitative analysis to evaluate the variable that influenced the interest of tertiary students involved in agriculture. The online survey questionnaire consists of personal information form (profiling) of the respondents that can help contribute to the study. Questions from the survey were evaluated and derived from the various studies incorporated in the review of related literature review of the study, including questions related to age, student's education, father's education, mother's education, migration, income, technology advance, and data driven agriculture. All variables were measured as independent variables. The analysis method for this factor is using ordinal logistic regression since the data is in the ordinal form. The researchers compiled the data using Microsoft Excel, which were also used in succeeding tests and models presented together with SPSS software for further analysis of the data gathered for the study.

Data Collection
The study conducted a survey to determine the factors that influence the tertiary student's

intention to be involved in agriculture. The survey was executed using google form via digital online platform with the total of respondents being 110 tertiary students in West Java.

Ethical Considerations

The researchers are using online surveys to gather primary data. To serve the intended study participants, the survey questionnaire was made available on a digital platform. Before answering the survey, the participants were given an overview including the purpose, aims, and objectives of the study for the participant's knowledge. The participant's survey responses will be guaranteed the confidentiality of the data.

Variables Of the Study

The study's variables would be crucial in establishing how they related to one another. The dependent variable of the study would be the tertiary student intention to be involved in the agriculture sector. The research would assist in determining the variables influencing the steadily declining dependent variable, tertiary students' intention to engage in the agriculture sector through their family background, interest to migration, the technology advance and data driven in agriculture. Along with this, the independent variables of the study are age, students' education, income, father and mother's education, migration, live in the village, technology advance, and data driven. The age variable will determine the participants' (youth) level of maturity and whether they would participate in the agriculture sector. For both the student and their parents, education as human capital justifies whether having a high level of education would be a chance for the student to improve the agriculture sector or would drive the student to pursue a different career path other than agriculture. Income serves as a resources endowment that sheds light on whether or not the youth's agricultural pursuits would be sufficiently supported. Youth migration affects whether they choose to relocate from town to village in order to participate in the agricultural sector. Live in the village variable will

determine whether they choose to stay in a long time in the village in order to participate in the agricultural sector. Technology advance variable will determine the interest of participants to engage in the agriculture sector. Lastly, data driven variable will determine whether the participant would to participate in agriculture that provide the agriculture sector based on the data

Data Analysis

The main objective of the study is to identify and evaluate the factors that affect the decision of the tertiary students to engage in the agriculture sector in West Java Province. This study will assess some of their personal aspects such as age, student's education, parent's education, migration, income, technology advance, and data driven. The method to analysis this factor is using ordinal logistic regression analysis. Ordinal logistic regression analysis is a regression analysis that is performed when the dependent variable (Y) on an ordinal scale that has more than two categories. If the dependent variable has i (I = 1,2,3… j) category, then the ordinal logistic regression equation model that is performed is as many as j-1 categories.

Ordinal logistic regression equation form:

$$\text{Logit } (P1) = \log \frac{p1}{1-p1}$$
$$= \alpha1 + \beta'X$$
$$\text{Logit } (P1 + p2) = \log \frac{p1+p2}{1-p1-p2}$$
$$= \alpha1 + \beta'X$$
$$\text{Logit } (P1 + p2) = \log \frac{p1+p2+\cdots pj}{1-p1-p2\ldots-pj}$$
$$= \alpha1 + \beta'X$$

IBM SPSS is used by researchers to process data.

4.   Findings and Discussion

Based on data processed by 110 participants with a male percentage of 62% and 48% female, there were 84 participants who were interested getting involved in the agricultural sector.
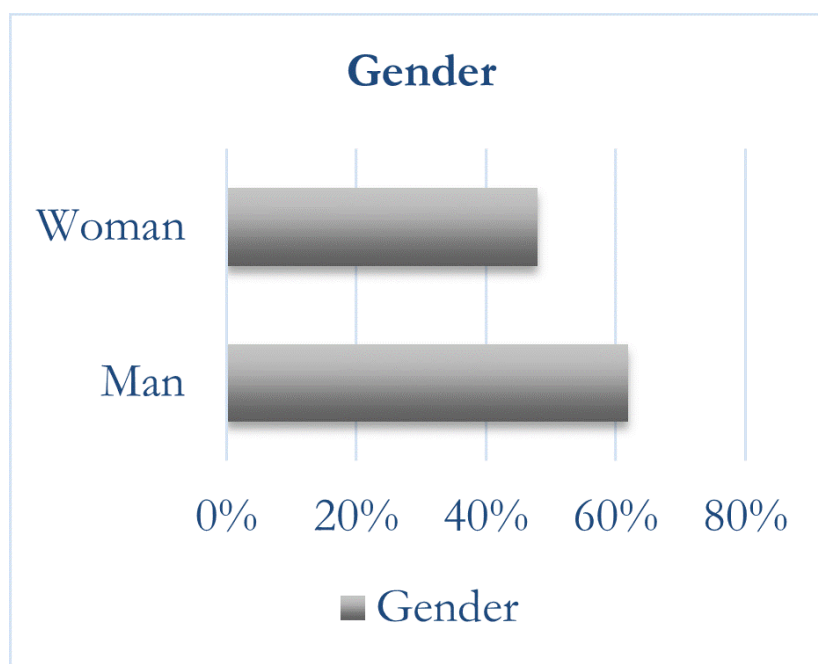
Figure 2
Profile Participants

The Result of Ordinal Logistic Regression Analysis
Model fitting information
The fitting information model is -2 log likelihood providing information whether the presence of independent variables in an ordinal logistic regression model results better than a model that only includes intercepts.

The basis for decision making is to see whether there is a decrease in -2 log likelihood from intercept only to final, if there is a decrease in the value it means the ordinal logistic regression model will produce better results.

Table 1
Model Fitting Information

Model Fitting Information			
Model	-2Log Likelihood	Chi- Square	df
Intercept Only	163.944		
Final	94.824	69.119	9

Based on the table above, it can be seen that there was a decrease in the -2-log likelihood value from intercept only to final 163,944 to 94,824 with a significance level of $p = 0,00$ which means that the model with the presence of independent variables is better than the model with only intercepts.

Hosmer and lessee method with a hypothesis H0= appropriate model, there is no difference between the observations and predicted possible values.
H1= the model is not appropriate, there is a difference between the observations and the probability of occurrence.

Goodness Of Fit Test
Goodness of fit test is a test to see whether the ordinal logistic regression fits the observation data. In this study, researchers use

If the significance value is $> 0,05$, the H0 hypothesis cannot be rejected, which means the model is able to predict the observed value hypothesis.

Table 2
Hosmer and Leeshawn Test

Hosmer and Leeshawn Test			
Step	Chi-square	df	Sig.
1	13.775	8	.088

Based on the table above, it can be seen that the significance value is 0,088 which means more than 0,05 (> 0,05), so that the model is accepted and able to predict the value of the hypothesis observation.

Pseudo r square
Pseudo r square is showing how much the independent variables (age, student's education, income, father's education, mother's education, migration, live in the village, technology advance, and data driven are able to explain the dependent variable (there is interest in engaging in agricultural sector)

Table 3
Pseudo R Square

Pseudo R-Square	
Cox and Snell	.467
Nagelkerke	.602
McFadden	.422

Based on the table above, it can be seen that the value of Cox and Snell is 0,467, which means that the independent variables are able to explain the dependent variable is 46,7%, the Nagelkerke value is 0,602 which means that the independent variables are able to explain the dependent variable is 60,2% and the value of Mc Fadden is 0,422 which means that the independent variables are able to explain the dependent variable is 42,2%. The highest value is Nagelkerke value which means that the independent variables are able to explain the dependent variable with amount 60,2% and 39,8% is other factors.

Test of Parallel Lines
Test of parallel lines is testing the premise that each category has an independent variable parameter that the logit is the same for all logit equations involved. If the significance value is more than 0,05 (>0,05) so accept H0 which means the model has the same parameters so that the link function is appropriate.

Table 4
Test of Parallel Lines

Test of Parallel Lines			
Model	-2Log Likelihood	Chi-Square	df
Null Hypothesis	94.824		
General	81.174	13.650	9

Based on the table above, it can be seen that the significance value is 0,2. This value is more than 0,05 (> 0, 05), it means that the resulting model has same parameters, so that the link function is appropriate.

Parameter Estimates
Estimates of the parameters are used to determine how independent and dependent variables interact. The basis for decision making is if the significance value is less than

0,05 (<0,05), it means that the independent variable has a partial effect on the dependent variable.

Table 5
Parameter Estimates

Parameter Estimates		Estimate	Std. Error	Wald	df	Sig.
Threshold	[Interest involved in Agriculture = 1,00]	11.704	3.998	8.570	1	.003
	[Interest involved in Agriculture = 2,00]	17.771	4.262	17.385	1	.000
Location	Age	-.096	.378	.064	1	.800
	Student Education	.412	.401	1.058	1	.304
	Income	-.167	.382	.191	1	.662
	Father's Education	-.912	.454	4.040	1	.044
	Mother's Education	.289	.439	.434	1	.510
	Migration	.613	.381	2.581	1	.108
	Live in the Village	1.705	.479	12.695	1	.000
	Technology Advance	1.532	.458	11.198	1	.001
	Data Driven	.562	.440	1.631	1	.202

Based on the table above, it can be seen that the significance value is less than 0,05 (<0,05), it indicates that the factors of father's education with the value is 0,044, willingness to live in the village with the value is 0,00, and technology advance with the value is 0,001 which means that affect students' interest involved to agricultural sector. Meanwhile, the others variable is not affecting students' interest involved to agricultural sector.

The three important factors will then be further analyzed using ordinal logistic regression equations to determine how big an impact they have on students' interest in engaging at agricultural sector.

1. Father's education Variable

$$P1 = \frac{Exp(11{,}704+(-0{,}912))}{1-Exp(11{,}704+(-0{,}912))}$$

$$= \frac{48.630{,}19}{(1-48.630{,}19)} = -1{,}0000206$$

$$P1+P2 = \frac{Exp(17{,}771+(-0{,}912))}{1-Exp(17{,}771+(-0{,}912))}$$

$$= \frac{20.978.318{,}29}{(1-20.978.318{,}29)}$$

$$= -1{,}000000048$$

So, the P2 value is = -1,0000000048 – (-1,0000206) = 0,0000205

Based on the results of the calculation, it was found that the higher the value of father's educational level, the more likely it would be to increase student interest into agriculture. For every 1% increase in father's education level variable, the probability of being disinterested decreased by 0,0000205 and increases the probability of being interested by 0,0000205

2. Live in the Village Variable

$$P1 = \frac{Exp(11{,}704+1{,}705)}{1-Exp(11{,}704+(1{,}705)}$$

$$= \frac{665.970{,}06}{(1-665.970{,}06)} = -1{,}0000015$$

$$P1+P2 = \frac{Exp(17{,}771+1{,}705)}{1-Exp(17{,}771+1{,}705)}$$

$$= \frac{287.389.219{,}6}{(1-287.389{,}219{,}6)}$$

$$= -1{,}0000000035$$

So, the P2 value is = -1,0000000035 – (-1,0000015) = 0,0000015

Based on the results of the calculation, it was found that the higher the value of willingness to live in the village, it tends to increase student interest in going into agriculture.

For every 1% increase in the willingness live in the village, the probability of being disinterested decreased by -0,0000015 and increases the probability of being interested by 0,0000015

3. Technology Advance Variable

$$P1 = \frac{Exp(11{,}704+1{,}532)}{1-Exp(11{,}704+(1{,}532)}$$

$$= \frac{560.172{,}47}{(1-560.172{,}47)} = -1{,}0000018$$

$$P1+P2 = \frac{Exp(17{,}771+1{,}532)}{1-Exp(17{,}771+1{,}532)}$$

$$= \frac{241.649.768{,}9}{(1-241.649.768{,}9)}$$

$$= -1{,}0000000041$$

So, the P2 value is = -1,0000000041

Based on the results of the calculation, it was found that the higher the value of technology advance level, the more likely it would be to increase student interest into agriculture. For every 1% increase in technology advance level variable, the probability of being disinterested decreased by -1,0000000041and increases the probability of being interested by 1,0000000041

5. Conclusions

In conclusion, was able to attain the research objective, to identify and evaluate the factors that affect the decision of the tertiary students' to involved in the agricultural sector in West Java Province. The study discovered that student college's interest in agriculture was highly influenced by their father's education, willingness to live in the village, and agricultural technology improvement. Higher levels of education and willingness to live in the village were linked to a higher likelihood of students being interested in agriculture. Additionally, as agricultural technology evolved, students' enthusiasm in participating agricultural sector increased.

Recommendation and Limitation
The study was limited to tertiary students in West Java Province, limiting the findings' generalizability to other demographics or localities. A sample size of 110 people should also be explored, as a higher sample size may yield more robust results. Furthermore, the study relied on self-reported data from an online survey, which is susceptible to response bias and may not fully represent the

intricacies of people's beliefs and motivations. Finally, the study concentrated on a narrow range of characteristics, and other elements that could influence students' interest in agriculture, such as socio-cultural aspects or employment options, were not taken into account.

Another future recommendation based on findings is to optimize Youth Entrepreneurship And Employment Support Services (YESS) programs to support the government initiatives. YESS is a collaboration program between the Ministry of Agriculture through the Agricultural Extension and Human Resources Development Agency (BPPSDMP) with the International Fund for Agricultural Development (IFAD) as an effort to develop young entrepreneurs and skilled workers in the agricultural sector.

For the future investigations, the authors suggested to do similar study in multiple locations or countries would be good to determine the generalizability of the findings. Cultural, social, and geographical differences may influence students' views and intentions differently in different circumstances. Furthermore, qualitative research methods such as interviews or focus groups can provide a more in-depth knowledge of the underlying motives and ideas that drive students' interest in agriculture.

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