

**ANALYSIS OF FACTORS AFFECTING THE MOTIVATION OF THE YOUNG
GENERATION TO WORK IN AGRICULTURE
AT SEMARANG REGENCY AGRICULTURAL VOCATIONAL SCHOOL**

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ABSTRACT

The decreasing number of young human resources in agriculture shows that the younger generation is less interested in working in agriculture. The continuation of this phenomenon can impact the food crisis due to the absence of humans who are willing to carry out agricultural cultivation. This study aims to analyze internal and external factors of the young generation of Agricultural Vocational School students, suspected to a construct of competence and motivation to work in agriculture. The research location is in the agricultural vocational school majoring in agribusiness of cash crops and horticulture in Semarang Regency, directly related to on-farm agricultural activities. To obtain qualitative data, the data collection method was carried out by distributing questionnaires to the XII grade students of agricultural vocational schools in Semarang Regency. The data were analyzed quantitatively using Partial Least Square (PLS) analysis. The results showed that family encouragement, support from educational institutions, farming skills, and job characteristics in agriculture significantly affected agricultural vocational students' competence in agriculture. Factors that significantly affect motivation to work in agriculture for vocational high school students are environmental factors, support from educational institutions, farming skills, characteristics of work in agriculture, and moral responsibility. Competence in agriculture has a significant effect on motivation to work in agriculture. Cooperation between families, schools, and communities is expected to increase the basis of the younger generation to work in the agricultural sector.

Keywords: *agriculture, motivation, work, youth*

BACKGROUND

The number of workers in agriculture (food crops, horticulture, plantations, and livestock) in February 2017 was recorded at 36.96 million people and became 35.88 million people in February 2018 (Ministry of Agriculture, 2018). Likewise, in February 2019, 35.4 million people (Ministry of Agriculture, 2019). These data indicate a decline in the number of workers in agriculture. The decrease in the number of workers in agriculture will have a significant impact on food availability. The labor problem in agriculture is related to the smaller number, which older workers also dominate. The 2018 Inter-Census Agricultural Survey (SUTAS) results show that around 62 percent of farmers are over 45 years old. It was recorded that until February 2018, 17.9 percent of the agricultural workforce were people aged 60 years and over (BPS, 2018), while in 2019, there were 6.54 million people aged 60 years and over who worked in the agricultural sector (Ministry of Agriculture, 2019).

The reluctance of the younger generation to enter the agricultural sector is caused by several factors, including because it is considered economically unprofitable, not a prestigious job, and only relies on physical activity. Susilowati (2016) and Nugroho and Waluyati (2018) stated that the factors causing the declining interest of the younger generation to work in agriculture were due to

diminishing land ownership, farmers' perceived lower social strata, higher education levels, income factors, which were not the regular jobs, and incentives did not directly touch the workforce. The reduced interest in labor in agriculture is also caused by the declining ability of the agricultural sector to absorb labor (Pranadji and Hardono, 2015).

We still meet several people who work in the agricultural sector. However, several factors cause the younger generation not to be interested in working in the agricultural sector. In general, they continue to do farming to meet food needs, and other family needs (Arwati, 2018). According to research by Aprildahani et al. (2017), the motivation of farmers to continue working in the agricultural sector is due to the comfort factor of working in the rice fields, being able to set their work rhythm, and being able to do other work in between agricultural work.

The motivation of farmers to persist in working in the agricultural sector as described above is more due to the fulfillment of their living needs and the convenience of working. The motivation for farming is also still owned by a small part of the younger generation today. According to Pujiriyani et al. (2016), the factors that can bind the younger generation to stay in the village and work as farmers include land ownership, marriage, farming expertise, and role models that inspire them to do farming. Hamyana (2017), states that the moral factor of responsibility for providing food for the community and culture is the motivation of the younger generation to work in the agricultural sector.

The existence of a young generation who is motivated to work in agriculture is essential for regeneration and agricultural development. This young generation will continue the agricultural relay in the future. According to Baso et al. (2018), the role of the younger generation in agriculture, among others, as a creator in the agricultural business, a facilitator for the development of potential and institutions in the region, an innovator of new ways of production and marketing. Therefore we need human resources who have these capabilities. Based on research by Muhibuddin et al. (2015), vegetable agribusiness farmers show that the higher the level of formal education, the better their knowledge, attitudes, and skills. In their research, Fathurrahman and Trimo (2019), concluded that education and access to information affect the younger generation accepting plant cultivation methods.

The ability in the form of knowledge and skills in agriculture supported by formal education is the capital for the younger generation to work in agriculture. This ability is often termed competence in a combination of knowledge, skills, and attitudes. Competence is an individual characteristic, namely knowledge, skills, nature, motivation, and self-control, so that his attitude follows the expected performance (Masdar et al., 2009). The competence of farmers consists of the ability to plan, identify and utilize production factors, grow crops, and understand marketing methods (Muhibuddin et al., 2015). The figure of the younger generation who has competence in agriculture is found in vocational schools in the agricultural sector (SMK).

SMK majoring in agriculture aims to produce graduates who are skilled in agriculture. To be able to achieve competence in agriculture, students follow a series of learning basics of cultivation, agricultural machine tools, plant breeding, food crop agribusiness, vegetable crop agribusiness, fruit plant agribusiness, ornamental plant agribusiness, nurseries and plant tissue culture, creative and entrepreneurial products (MoEC, 2017). These agricultural vocational students are expected to be the next generation of young people in the relay of agricultural activities in the future.

Competence in agriculture supported by parents, community, and educational institutions is expected to motivate students to work in agriculture. Previous research related to the younger generation in agriculture, such as research Pujiriyani et al. (2016), used more respondents from

farmers in villages with various educational levels, so they could not dig deeper into their competencies and motivations. In this study, we will analyze the factors that influence the motivation of the young generation of prospective farmers who have been studying agriculture, namely agricultural vocational school students, to work in agriculture and analyze how the influence of competence on the motivation to work in agriculture.

RESEARCH METHODS

The research locations in agricultural vocational schools in Semarang Regency include SMK SPP Kanisius Ambarawa, SMK N 1 Bowen, and SMKN H. Moenadi. The sample population to be studied is the younger generation who are currently taking formal education in vocational schools, especially in the field of food crop agribusiness and horticulture (on-farm) in class XII because they have studied agriculture for more than two years and have worked in industry/agricultural businesses for approximately three years. The total population is 297 people. Formulas for determining the number of samples include the Slovin. formula (Nurdin Hartati, 2019). Slovin's formula is as follows:

$$n = \frac{N}{1 + Ne^2}$$

Information:

- n : Minimum sample size
- N : Population Size
- e : Level of significance

Using the above formula at a significance level of 5%, samples from SMK SPP Kanisius Ambarawa 27 samples, SMKN 1 Bawen 77 samples, SMK N H. Moenadi 96 samples, a total sample of 200 samples. This research uses a quantitative survey method approach. Quantitative analysis is designed in a structured manner, then the data obtained is quantified to obtain generalizations (Ansori and Iswati, 2017). The survey method is a method that is carried out by giving questions to respondents to solve problems (Duli, 2019). The process of collecting data by distributing questionnaires to students in the form of a google form assisted by the school, especially the head of expertise competence and homeroom teachers. Observations were made to schools and started with interviews with the schools.

The study analyzed the influence of variables that were thought to build competence and motivation of vocational agricultural students to work in the agricultural sector. These variables exist within students and those in the student environment. The variables are the living environment, family encouragement, educational institutions, technical skills in farming, the characteristics of work in agriculture that he has seen or felt during PPL, and a sense of responsibility for food availability. Primary data was obtained by distributing questionnaires with the help of the Google Forms application and interviews with SMKs. For secondary data, information was obtained from related agencies such as the Department of Education and Culture of Central Java Province and the Semarang Regency Government.

Variables were measured using a Likert scale, where this scale is suitable for collecting data with a questionnaire. Answers on a Likert scale are graded from very positive to very negative. Solutions can be strongly agreed, agree, undecided/disagree, disagree, or strongly disagree (Sugiyono, 2011). Analysis of the data obtained by using Partial Least Square (PLS). PLS is a multivariate analysis technique that will explore the relationship between several independent

variables and the dependent variable, either only one or several variables (Hair et al., 2014). Analysis using PLS is simply grouped into two models: the inner or structural models and the outer or measurement models. The outer model of PLS shows the validity and reliability of the indicators on the latent variables. At the same time, the inner model serves to assess the influence between variables (Hair et al., 2014).

Tests for the outer model are carried out with Validity Test and Reliability Test. The validity test consists of a convergent validity test seen from the average variance extract (AVE) value. As for the reliability test using composite credibility and Cronbach alpha. A convergent validity test can show that several indicators can represent a latent variable. The representative can be tested by the mean value of the extracted variance or the AVE value (Sarwono and Narimawati, 2015). The AVE value resulting from the convergent validity test is at least 0.5 (Wong, 2019). A value of 0.5 can be interpreted as a latent variable that can explain more than half the variance of the indicators (Sarwono and Narimawati, 2015). Next, test the convergent validity of the measurement model with reflexive indicators based on the correlation between item scores/component scores. The size for individual intuitive indicators is significant if the factor loading value is 0.7 with the construct being measured. However, early research makes it possible to use a loading factor > 0.4 (Wong, 2019). The method for assessing reliability can be seen from Cronbachs Alpha (Sarwono and Narimawati, 2015).

Test the inner model to see the coefficient of the relationship between variables. Testing of the inner model or structural model is carried out to see the relationship between the construct, significance value, and R2 of the research model (Wong, 2019). The structural model can be evaluated using the t-test where $t \text{ count} > t \text{ table}$ and R2 for the dependent construct. R2 value greater than 0.7 indicates a strong relationship (Sarwono and Narimawati, 2015). The equation model is as follows:

$$Y1 = \gamma_1 X1 + \gamma_2 X2 + \gamma_3 X3 + \gamma_4 X4 + \gamma_5 X5 + \gamma_6 X6 + \zeta_1$$
$$Y2 = \beta_1 Y1 + \beta_2 X1 + \beta_3 X2 + \beta_4 X3 + \beta_5 X4 + \beta_6 X5 + \beta_7 X6 + \zeta_2$$

Information:

- Y1 : Competence in agriculture
- Y2 : Motivation to work in agriculture
- X1 : Living environment
- X2 : Family encouragement
- X3 : Educational Institution Support
- X4 : Farming technical skills
- X5 : Characteristics of work in agriculture
- X6 : Moral responsibility
- γ : Coefficient of exogenous variable
- β : Coefficient of endogenous variables
- ζ : Error

RESULT AND DISCUSSION

Respondent's Profile

The research results collected from 200 respondents can be seen that the respondents are aged 16-19 years. Which shows that they are people of productive age and are still young. Parents work as farmers 39 people (19.5%), traders/entrepreneurs 41 people (20.5%), carpenters/construction workers 13 people (6.5%), factory workers 33 people (16.5%), PNS/TNI/Polri 8 people (4%), the other 66

people (33%). The job data of the respondents' parents show that not all of them are farmers, so not all pass on agricultural knowledge to their children, but they still want to send their children to agricultural vocational schools. Regarding work experience in the agricultural business or industry, agricultural vocational students carry out Field Work Practice (PKL) activities. Implementation time is three months or more. Respondent data shows that they have done street vendors in 2019 totaling 32 people (16%), and in 2020 totaling 168 people (84%). Students who have experienced work in agriculture have the right experience and description of work in agriculture.

Respondents' Responses to Living Environment Variables (X1)

Respondents' responses to the X1 variable are shown in table 1. Respondents' responses indicate the average value obtained is above 4, meaning that the respondent agrees that their place of residence is an agricultural area with indications that there is still much agricultural land, there are farming activities, and many residents are farmers as well as easy access to agricultural production infrastructure.

The results of the study indicate the willingness of youth to be involved in agricultural activities such as maintaining irrigation canals, planting crops, maintaining plants, and utilizing organic waste so that it is expected to be able to make the area a sustainable agricultural area and be able to answer the availability of human resources in agriculture. The involvement of youth is still limited to helping more mature people. Tamara (2016), explained that the attitude of caring for the environment in high school students was formed because of the critical role (education) of the community environment.

Table 1. Description of Respondents' Responses to Residential Environment Variables (X1)

Variable Indicator	Frequency of Respondents' Answers					Average (Mean)
	1	2	3	4	5	
X1.1	0	4	19	94	83	4.3
X1.2	1	3	19	116	61	4.2
X1.3	0	4	26	108	62	4.1
X1.4	0	3	32	104	61	4.1
X1.5	0	8	31	96	65	4.1
X1.6	1	3	24	104	68	4.2

Source: Processed Data, 2020

Respondent's Responses to Family Encouragement Variables (X2)

Respondents' responses to the X2 variable are shown in table 2. Respondents' answers indicate that the average value obtained is above 4. This suggests that agricultural vocational students agree that their families support them to later work in agriculture. This family support cannot be separated from what they see daily, where the surrounding community can fulfill their daily needs despite farming traditionally, especially if they are equipped with agricultural knowledge through formal schools. This support was followed by sending the children to a vocational high school majoring in agriculture. This parental support will undoubtedly make it easier for them during their education. Research results from Wibowo (2016) and Prayoga et al. (2020), showed a strong relationship between the educational role of parents at home with high school students' career decisions.

Table 2. Description of Respondents' Responses to Family Encouragement Variables (X2)

Variable Indicator	Frequency of Respondents' Answers					Average (Mean)
	1	2	3	4	5	
X2.1	0	2	15	100	83	4.3
X2.2	1	3	20	107	69	4.2
X2.3	1	3	26	94	76	4.2
X2.4	0	4	22	100	74	4.2
X2.5	1	2	18	105	74	4.2

Source: Processed Data, 2020

Respondents' Responses to Educational Institution Support Variables (X3)

Respondents' responses to the X3 variable are shown in table 3. Respondents' answers show an average score of 4. This indicates that respondents think that schools can act as expected. The school is considered capable of equipping students to work in agriculture through learning theory (40%) and practice (60%), fieldwork practice, and introduction to the agricultural industry to become a bridge between students and the world of work. By its function, SMK is an institution that plays a role in meeting skilled workers' needs and keeping up with technological developments. Therefore, vocational education institutions have programs/curricula to provide knowledge/theories, train work skills, and experience in the world of work (Murniati and Usman, 2009).

Table 3. Description of Respondents' Responses to Educational Institution (X3)

Variable Indicator	Frequency of Respondents' Answers					Average (Mean)
	1	2	3	4	5	
X3.1	1	2	15	120	62	4,2
X3.2	1	2	21	103	73	4,2
X3.3	1	3	18	116	62	4,2
X3.4	0	3	22	114	61	4,2
X3.5	0	2	19	118	61	4,2
X3.6	1	1	17	97	84	4,3
X3.7	0	2	16	101	81	4,3
X3.8	0	1	13	111	75	4,3
X3.9	0	0	15	92	93	4,4

Source: Processed Data, 2020

Respondents' Responses to Variable Farming Technical Skills (X4)

Respondents' responses to the X4 variable are shown in table 4. Respondents' answers showed an average value of above 4, meaning that vocational agricultural students believe they have sufficient farming skills, especially on-farm, from seedling to post-harvest handling. This is by what they are learning in schools today with a more significant portion of practical activities, where learning is directed at producing human resources who have 21st-century skills or called 4C skills, namely communication, collaboration, critical thinking, and problem-solving, and creativity and innovation (Arnyana, 2019).

Table 4. Description of Respondents' Responses to the Variable Technical Ability of Farming Business (X4)

Variable Indicator	Frequency of Respondents' Answers					Average (Mean)
	1	2	3	4	5	
X4.1	1	2	20	102	75	4.2
X4.2	1	3	18	112	66	4.2
X4.3	1	3	24	102	70	4.2
X4.4	0	2	16	107	75	4.3
X4.5	0	1	3	114	82	4.4
X4.6	0	1	5	114	80	4.4
X4.7	1	1	7	103	88	4.4
X4.8	0	1	4	110	85	4.4
X4.9	0	1	13	111	75	4.3
X4.10	0	3	16	121	60	4.2
X4.11	0	0	3	122	75	4.4

Source: Processed Data, 2020

Respondents' Responses to Job Characteristics in Agriculture (X5)

Respondents' responses to the X5 variable are shown in table 5, with an average value above 4. Respondents think that current agricultural activities are suitable for rural areas because they are flexible in terms of time but are still capable of being a source of income. Source of income where is by the character of village community life. Compared to their peers, their family support, agricultural, environmental factors, and farming skills made them have a better view of work in agriculture than their friends.

But on the other hand, they hope that agriculture will be more able to adopt technological innovations in the future so that they do not only rely on physical labor. Technology in agriculture is in the form of mechanization technology or agricultural digitalization. Agricultural machinery is expected to be more efficient than using human power (Massinai and Hartono, 2004). The characteristics of modern agriculture that still pay attention to environmental sustainability are expected by the younger generation to be able to change the community's perspective that agricultural activities are not profitable to become economically promising activities and not only rely on physical strength but rely more on managerial abilities. Further Prayoga et al. (2020) also explained that young people want to become farmers because their job characteristics are in line with expectations, such as free time, not being ordered by other people, and being able to do what they want.

Table 5. Description of Respondents' Responses to Job Characteristics in Agriculture (X5)

Variable Indicator	Frequency of Respondents' Answers					Average (Mean)
	1	2	3	4	5	
X5.1	1	2	17	108	72	4.2
X5.2	1	2	22	98	77	4.2
X5.3	1	4	12	108	75	4.3
X5.4	0	2	18	118	62	4.2
X5.5	0	2	21	110	67	4.2
X5.6	1	2	12	104	81	4.3
X5.7	0	2	14	113	71	4.3

Source: Processed Data, 2020

Respondents' Responses to Moral Responsibility Variables (X6)

Respondents' responses to the moral responsibility variable are shown in table 6. Respondents' responses show an average answer above 4. This means that respondents feel responsible for food availability in the future. A sense of responsibility for the problems faced by the community is one of the characteristics that the younger generation needs to have. One that forms this character is life skills education, namely physical skills, positive mental thinking, effective communication, spiritual, vocational skills, and adversity (Ermayani, 2015).

Respondent's response to a sense of responsibility and moral responsibility cannot be separated from the character education background obtained in agricultural vocational schools that educate physically and mentally strong, moral and spiritual, entrepreneurial spirit, and ready to face challenges, especially in agriculture future. Agricultural vocational students feel how the business of producing food is and the various problems they face.

Table 6. Description of Respondents' Responses to Moral Responsibility Variables (X6)

Variable Indicator	Frequency of Respondents' Answers					Average (Mean)
	1	2	3	4	5	
X6.1	0	2	21	99	78	4.3
X6.2	2	2	14	100	82	4.3
X6.3	0	2	25	100	73	4.2
X6.4	0	3	24	103	67	4.2
X6.5	1	1	12	105	81	4.3

Source: Processed Data, 2020

Respondents' Responses to Competence Variables in Agriculture (Y1)

Respondents' responses to the competency variable in agriculture, as shown in Table 7, show an average value above four or most agrees with the statement regarding competence in agriculture. Respondents consider that they already have competence in agriculture so that they can work independently and face challenges when working. These abilities are related to substantial knowledge of identifying objects/problems, contextual understanding of the work environment, mental skills, alertness to difficulties faced with careful calculations, social skills that are shown to be easy to work with and trust each other, speaking skills, and physical manual skills, namely skills using the equipment and maintenance (Hartanto, 2009). This competency is very much needed in the world of work in the agricultural sector when agricultural vocational students have graduated and are working in this field.

Table 7. Description of Respondents' Responses to Competence Variables in Agriculture (Y1)

Variable Indicator	Frequency of Respondents' Answers					Average (Mean)
	1	2	3	4	5	
Y1.1	1	2	20	102	75	4.2
Y1.2	1	3	18	112	66	4.2
Y1.3	0	2	16	107	75	4.3
Y1.4	0	2	22	109	67	4.2
Y1.5	0	1	13	106	80	4.3

Source: Processed Data, 2020

Respondents' Responses to Motivation to Work in Agriculture (Y2)

Respondents' responses to the question of motivation to work in agriculture (Y2). Table 8 shows that an average value above four means that respondents have the motivation to work in agriculture. Motivation is related to the motive to want to apply the knowledge they already have. In addition, there is a motive to fulfill the necessities of life, namely by getting wages or benefits for working independently. More than that, they want to get the recognition that they are experts in agriculture. This is by Maslow's theory of motivation. Maslow's theory of motivation shows that there are levels of human needs ranging from basic needs such as food or so-called physiological conditions to self-actualization needs (Busro, 2018). This motivation is closely related to future changes in the perspective and work system in agriculture. There is hope that the future of agriculture is innovative, modern, and economically profitable agriculture.

Table 8. Description of Respondents Response to Motivation to Work in Agriculture (Y2)

Variable Indicator	Frequency of Respondents' Answers					Average (Mean)
	1	2	3	4	5	
Y2.1	1	1	21	103	74	4.2
Y2.2	1	2	20	100	67	4.2
Y2.3	1	3	19	105	72	4.2
Y2.4	0	4	29	121	46	4
Y2.5	0	4	22	105	69	4.2
Y2.6	1	3	19	109	68	4.2
Y2.7	0	3	16	121	60	4.2
Y2.8	0	1	13	111	75	4.3

Source: Processed Data, 2020

Part Least Square (PLS) Analysis Results

Test Outer Model

The outer model test consists of validity and reliability tests. The convergent validity test is seen from the value of variance extracted (AVE), while the reliability test uses composite credibility and Cronbach alpha. The results of the validity and reliability tests are shown in table 9.

Table 9. Validity and Reliability Test Results

Variable	AVE	Cronbach's Alpha	Composite Reliability
Living environment (X1)	0.69	0.91	0.93
Parental encouragement (X2)	0.64	0.86	0.90
Educational institution support (X3)	0.67	0.94	0.95
Technical business technical skills (X4)	0.58	0.93	0.94
Characteristics of agricultural work (X5)	0.66	0.91	0.93
Moral responsibility (X6)	0.64	0.86	0.90
Competence in agriculture (Y1)	0.65	0.87	0.90
Motivation to work in agriculture (Y2)	0.66	0.93	0.90

Source: Processed Data, 2020

The results of data analysis showed that the AVE value was above 0.5. This can be interpreted that half the variance of the indicators can explain the latent variable. Thus it can be said that all variables in this model are valid. The reliability test results using Cronbach alpha and composite reliability showed that all variables were above the number 0.7, so it was said that this model was

reliable. The loading factor value of each indicator is shown in table 10. The analysis results show that the loading factor value of all indicators is above 0.7, so individual reflexive indicators are said to be high. Based on all the results of the outer model test, it is said that the measurement indicators can measure the model validly and reliably.

Inner Model Test

The inner model test serves to measure the relationship between latent variables. Through this test, it can be known whether there is a significant correlation between variables. A hypothesis can be accepted at the 5% significance level if the t count is greater than the t table or 1.97. The test results are shown in Table 11. The relationship model is shown in Figure 1. Based on the results above, the relationship results between variables are based on the statistical T value. Almost all of the variable relationships have a T-statistical value above 1.97 except the relationship between X1 (living environment) with Y1 (competence in agriculture) and X6 (moral responsibility) with Y1 (competence).

The Influence of Living Environment (X1) on Competence in Agriculture (Y1) and Motivation to Work in Agriculture (Y2)

As the results of the analysis of the inner model test, it was found that the living environment did not have a significant effect on competence, where the t statistic was 1.32, which was smaller than 1.97. This shows that the live setting has not been sufficient to increase the competence of the respondents because forming farming competence requires a long time and intensive activities. The involvement of respondents who are still in school is usually only on holidays and only helps more mature people.

Table 10. Loading Factor Each Indicator

Variable→	Indicator	Loading factor	Variable→	Indicator	Loading factor	
X1	X1.1	0.85	X4	X4.9	0.80	
	X1.2	0.82		X4.10	0.77	
	X1.3	0.87		X4.11	0.72	
	X1.4	0.81	X5	X5.1	0.87	
	X1.5	0.80		X5.2	0.82	
	X1.6	0.82		X5.3	0.85	
X2	X2.1	0.81		X5.4	0.78	
	X2.2	0.77		X5.5	0.80	
	X2.3	0.84	X5.6	0.79		
	X2.4	0.78	X5.7	0.76		
	X2.5	0.81	X6	X6.1	0.86	
X3	X3.1	0.79		X6.2	0.81	
	X3.2	0.81		X6.3	0.78	
	X3.3	0.81		X6.4	0.78	
	X3.4	0.80		X6.5	0.78	
	X3.5	0.80		Y1	Y1.1	0.83
	X3.6	0.86			Y1.2	0.83
	X3.7	0.87			Y1.3	0.77
	X3.8	0.84			Y1.4	0.77
	X3.9	0.79	Y1.5		0.83	
X4	X4.1	0.79	Y2	Y2.1	0.83	

X4.2	0.79	Y2.2	0.82
X4.3	0.81	Y2.3	0.88
X4.4	0.75	Y2.4	0.76
X4.5	0.74	Y2.5	0.85
X4.6	0.74	Y2.6	0.79
X4.7	0.72	Y2.7	0.78
X4.8	0.73	Y2.8	0.78

Source: Processed Data, 2020

Table 11. Inner Model Test Results

Relationship between Variables	Original Sample	Mean	STDEV	T Statistics	P Values
X1 -> Y1	0.05	0.05	0.04	1.32	0.19
X1 -> Y2	0.12	0.12	0.03	3.29	0.00
X2 -> Y1	0.13	0.13	0.06	2.07	0.04
X2 -> Y2	0.19	0.19	0.04	4.74	0.00
X3 -> Y1	0.16	0.16	0.08	2.12	0.04
X3 -> Y2	0.32	0.31	0.05	5.30	0.00
X4 -> Y1	0.43	0.43	0.08	5.67	0.00
X4 -> Y2	0.21	0.21	0.05	3.20	0.00
X5 -> Y1	0.16	0.17	0.08	2.01	0.05
X5 -> Y2	0.12	0.12	0.05	2.12	0.02
X6 -> Y1	0.07	0.06	0.08	0.91	0.36
X6 -> Y2	0.09	0.09	0.03	2.58	0.01
Y1 -> Y2	0.11	0.10	0.05	2.35	0.02

Source: Processed data, 2020

According to Hartanto (2009), competence is achieved through honest work and is absorbed from the social and work environment. Even more, Nyoto (2019) states that competence is a combination of knowledge, skills, and personal attributes (creativity, curiosity, responsibility, intellectuality), which can be seen in work attitudes. In contrast to competence, the living environment variable (X1) has a significant effect on the motivational variable to work in agriculture (Y2) with a t-statistical value of 3.29, greater than 1.97. So that the stronger the role of the environment, the greater the motivation of the younger generation to work in agriculture. It can be understood that real work can increase competence, while this motivation can be just a desire because the community in the home environment does this. The social environment can influence the behavior of individuals and even groups in taking action. In addition, the social environment also plays a role in changing the behavior of each (Pitoewas, 2018).

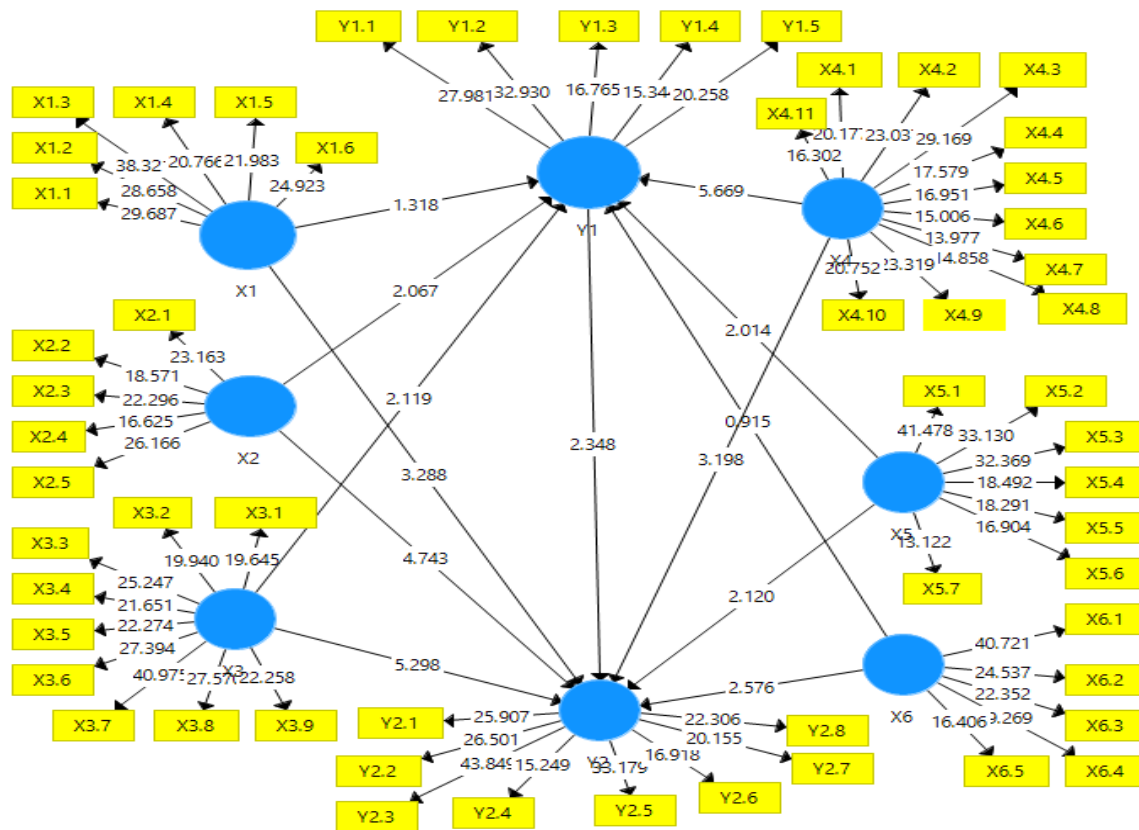


Figure 1. Relationship Model Between Variables

The Influence of Family Encouragement (X2) on Competence in Agriculture (Y1) and Motivation to Work in Agriculture (Y2)

The analysis results of family encouragement (X1) on competence in agriculture (Y1) showed a t count of 2.07. The effect of family encouragement (X1) on motivation to work in agriculture resulted in a t count of 4.74. This means that the greater the role of the family to their children related to agriculture, the higher the child's achievement in agricultural competence and motivation to work in agriculture. The role of the family in the formation of competence is related to the formation of character. As the most miniature environment, the family plays a role in introducing the rules that apply in society. Family education can be the basis for building a child's character (Yoga et al., 2015). Families also have a significant role in directing their children, especially school and work. Family encouragement is also able to increase youth motivation to work in agriculture. Of course, this was done in a short time, by example, and it could also be because of the family's economic success from farming. Research result from Rasmikayati et al. (2017), shows that family support has a role in the motivation of young farmers to carry out farming activities. In addition to moral encouragement, some families have provided assets for their children to carry out agribusiness activities.

The Effect of Educational Institution Support (X3) on Competence in Agriculture (Y1) and Motivation to Work in Agriculture (Y2).

The results of the analysis of the support of educational institutions (X3) on competence in agriculture (Y1) obtained a t-statistic value of 2.12, while the t-statistic value of 5.30 for the variable of motivation to work in agriculture was obtained. Both relationships show a value above 1.97. This means that educational institutions significantly affect competence and motivation to work in

agriculture. The higher the role of educational institutions, the greater the competence and motivation to work in agriculture.

This can be understood because educational institutions have intensively provided knowledge, trained skills, and educated attitudes to their students. As much as 40%, of theoretical activities, can provide the knowledge needed to work in agriculture both as workers and independently as entrepreneurs. Practice activities as much as 60% play a role in forming skills in the field of farming. Students are provided with field practice activities at companies in the agricultural sector for approximately three months to strengthen their skills. Research result from Yati and Ansofino (2014) shows that practical work experience significantly affects student competence. This is because fieldwork practice activities can increase students' knowledge and skills on things that have not been taught in school.

The Influence of Agricultural Business Technical Skills (X4) on Competence in Agriculture (Y1) and Motivation to Work in Agriculture (Y2)

The analysis results of the relationship between technical skills in farming (X4) and competence in agriculture (Y1) obtained a t-statistic value of 5.67. Between technical skills in farming (X4) and motivation to work in the agricultural sector (Y2), the t statistic was 3, 20. Based on these results, it can be explained that technical skills in farming significantly affect competence and motivation to work in agriculture. Skill is one element of competence. The higher a person's skill, the more competent he will be. The more skilled a person is in agriculture, the more capable he will be. A person who will enter the world of work will tend to be motivated to work according to his will and abilities (Tania et al., 2018). Therefore, someone who mastered agricultural skills would strongly desire to work in the agricultural sector. This is because it is driven by self-confidence to complete the job well.

Effect of Job Characteristics in Agriculture (X5) to Competence in Agriculture (Y1) and Motivation to Work in Agriculture (Y2)

The results of data analysis on the effect of job characteristics in agriculture (X5) on competence in agriculture (Y1) showed a t-statistic value of 2.01. In contrast, the correlation with motivation to work in agriculture (Y2) showed a t-statistic of 2.12. This indicates that work characteristics in agriculture have a significant effect on competence and motivation to work in agriculture. Characteristics of agriculture that students understand are jobs related to plant cultivation, located in rural areas, flexible working hours, can be developed in a modern way, and can be economically profitable. Jobs like this that students have studied during their education in agricultural vocational schools, the characteristics of this job certainly support students' competence in agriculture.

The characteristics of working in the agricultural sector are not foreign to students studying in the agricultural sector because they are supported by a large portion of practical lessons and work experience through the PKL program. Handoko (2011), states that a person's work experience shows the various jobs he has done, thus giving him a big chance to work better. The alignment of job characteristics with a current education is a strong reason why job characteristics in agriculture correlate with motivation to work in agriculture. This is by the study results by Sarwoko (2005), which states that job characteristics significantly affect work motivation.

The Influence of Moral Responsibility (X6) on Competence in Agriculture (Y1) and Motivation to Work in Agriculture (Y2)

The results of the analysis of the relationship between moral responsibility (X6) and competence in agriculture (Y1) obtained the value of t statistic 0.91 less than 1.97 and not enough pretty moral responsibility (X6) with motivation to work in the agricultural sector (Y2) obtained t statistic 2.58 greater than 1.97.

Competence is closely related to abilities or skills, so someone who has a high sense of responsibility cannot necessarily solve problems. On the other hand, this sense of responsibility can motivate someone to do something. The responsibility referred to here is a sense of guilt because it seems that people need agriculture to meet their food needs so that the younger generation is moved to overcome these problems. Awareness is to the Ritonga (2015) research results, which stated that youth believed in the importance of their role in agricultural development. They assume that they can act as agents of change, agents of action, and agents of modernization in the current state of agricultural development. However, this feeling has not been able to affect competence significantly.

This sense of responsibility can motivate the younger generation to work in agriculture. A sense of responsibility will inspire the younger generation to do something about the existing problems. Research results from Hamyana (2017), towards farmer youth groups show that their motivation to work in the agricultural sector is not only for profit but because of the moral impetus to overcome the community's food needs.

The Effect of Competence in Agriculture (Y1) and Motivation to Work in Agriculture (Y2)

The result of competency analysis in agriculture (Y1) on motivation to work in agriculture (Y2) obtained a t statistic value of 2.35, more than 1.97. So it can be explained that competence is significantly correlated with motivation to work in agriculture. The higher a person's competence in agriculture, the higher his motivation to work in agriculture. So it is natural that the higher the ability of agricultural vocational students to carry out agricultural activities, the higher their motivation to continue working in the agricultural sector. Competencies related to knowledge in agriculture, cultivation skills, and the ability to behave that should be carried out when conducting agricultural businesses will be closely associated with motivation to work in the agricultural sector. This is to the results of the study by Amrulah and Hermani (2018), which states a close relationship between competence and motivation. When a person has high competence, he will have increased motivation to complete work, and vice versa.

CONCLUSION AND SUGGESTION

Based on the description above, it can be concluded as follows:

1. Family encouragement, support from educational institutions, and characteristics of work in agriculture are external factors that significantly influence competence in agriculture and motivation to work in agriculture for agricultural vocational students, while internal factors that have a considerable influence are farming skills they already have.
2. External factors of the residential environment and internal factors of moral responsibility of agricultural vocational students have no significant effect on agricultural competence. Still, they have a substantial impact on motivation to work in agriculture.

3. Competence in agriculture has a significant effect on the motivation to work in the agricultural field of agricultural vocational students.

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