Research Article

Facility and Technological Supports, and Information Transparancy to Improve the Success of a Contract Farming between Farmers Group and Company

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ABSTRACT

Contract farming is carried out to encourage the improvement of economic and social condition of farmer community so it can increase their income and achieve more equitable and sustainable development. The process of contract farming is affected by various factors, internal factors or external factors. This sudy aims to (i) describe contract farming between PT Bloom Agro and Bangkit Merbabu farmer group, (ii) describe the challenges and benefits of contract farming, and (iii) analyze the factors that effect the success of contract farming between PT Bloom Agro and Bangkit Merbabu farmer group. The research was conducted in Desa Batur, Kecamatan Getasan using the cencus method with the total population of 35 organic vegetable farmers in Bangkit Merbabu farmer group. The analysis method in this research was descriptive analysis and multiple linear regresion. The data analysis showed that the F test result of variable education, farming experience, production input, technological support and information transparancy simultaneously have a significant effect on the success of contract farming betwen PT Bloom Agro with Bangkit Merbabu farmer group. The t test result showed production input, technological support and transparancy of information individually have a significant efect on the success of contract farming. Pattern of contract farming that was applied between PT Bloom Agro and Bangkit Merbabu farmer group is a general trading contract. Covid-19 pandemic, climatic condition and limitation of education were found to be the inhibiting factors that farmers faced in the implementation of contract farming. PT Bloom Agro can provide more intensive assistance and training about contract farming to increase farmer's knowledge and skill for sustainability of contract farming.

INTRODUCTION

The contribution of the agricultural sector to the country's economy is quite large, where the GDP contribution of the plantation sub-sector reaches 387.502 trillion rupiah, the food sub-sector is 298.201 trillion rupiah and the horticulture sub-sector is 145.134 trillion rupiah (Central Bureau of Statistics, 2018). Efforts

need to be made by all agricultural business actors ranging from large, medium to the smallest ones to be well coordinated so that the atmosphere in the agricultural sector can survive and continue to grow in terms of profits. However, agricultural development in Indonesia is faced with several problems, especially for small-scale farming actors, where often their land tenure, cultivation technology and capital are very limited. Islam et al. (2021) argue that agriculture on a small scale is affected by natural factors and is faced with problems of market uncertainty, high costs, and limited market information. In addition, small farmers are still limited in the availability of agricultural inputs.

Based on the problems described above, it is necessary to make an effort to integrate all agricultural business actors both small, medium to large scale. Sebhatu et al. (2021) mention that farmers get many benefits through cooperation with outside parties. Those benefits may include the increase of income, farming productivity, technical efficiency of farming, and product quality so that they become acquainted with and can apply modern farming technology. In line with that, Zakaria et al. (2019) contend that it is important to integrate small farmers into more modern sectors, such as the industrial sector, so that their farming is no longer just for fulfilling food needs but can also provide more benefits. This is the background for the emergence of the concept of contract farming which in the Regulation of the Minister of Agriculture (Permentan) Number 39 of 2010 states that the implementation of contract farming is carried out as an effort to utilize resources and to increase added value for large-scale to small-scale farmers who tend to have narrow land. This contract farming also has an impact on the surrounding community which is based on benefit, mutual advantages, respect, responsibility, strengthening and sustainability.

Sulistiyani (2017) defines contract farming as a cooperative activity that is forged by two or more parties based on an agreement and mutual need to increase resource capabilities in a particular business so that the results obtained can be improved. A contract farming in agriculture can help integrate various agricultural business actors. Small entrepreneurs as part of the national business world have an existence, potential and an important role in realizing economic development and must take an active role together with large companies Rohmat et al., (2016).

The Minister of Agriculture Regulation (*Permentan*) Number 39 of 2010 has stipulated that every contract farming is carried out based on the principles of benefit, advantage, respect between parties, responsibility, mutual reinforcement and sustainability. Contract farming is implemented on the principles of equality, transparency, result-orientated, responsibility and complementarity Musthofa et al., (2019). Based on these principles, contract farming are established as a step to develop a business, both small and large-scale businesses. Each partnering party has a perspective of the benefits derived from this contract farming activity, such as the contract farming run by PT Bloom Agro together with the Bangkit Merbabu farmer group, which has been going on since 2012 until now. In this contract farming, the Bangkit Merbabu farmer group produces and sells agricultural products in the form of organic vegetables, thus they obtaine income from it, and then PT Bloom Agro will obtain a supply of organic vegetables to be marketed.

The parties doing the contract farming basically have their own interests so that the bargaining positions between the parties are often in an unbalanced state. This is like what Asiati & Nawawi (2017) said that in a contract farming, differences in interests can affect the occurrence of imbalances between the partnering parties, where the company that acts as the core usually has a stronger bargaining position than the community as the plasma party. This will then trigger a conflict which will eventually result in the termination of the contract farming.

The success of the implementation of a contract farming is influenced by many factors, such as things that come from the partnering parties itself or other things from outside. According to Dzulkarnain et al. (2020) there is a need for an understanding of things that can affect the continuity of a contract farming to increase production, product quality and sustainability in a contract farming. According to Hermawan & Heri (2017), there are many factors that influence the running of a contract farming such as age, education level,

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experience, support facilities, adequate technological support and information transparency in the contract farming. Research conducted by Ramadhanty (2019) shows that the attitudes and skills of farmers have a significant influence in the realization of the success of a contract farming, while the results obtained by Astriawati (2015) show that the level of education and selling price are factors that influence the success of the contract farming. These studies, howwever, have not shown how the facilities or technology support that farmers get from implementing a contract farming affect the success of a contract farming. In addition, previous research has not analyzed how transparency of information in a contract farming is applied so that the contract farming can run well.

Based on the previous explanations about how important a contract farming is and how a contract farming continues to run, it is necessary to study the factors that influence the sustainability of a contract farming in realizing the success and sustainability of a contract farming. The purpose of thi research is to describe the pattern of implementation of the contract farming established by PT Bloom Agro with the Bangkit Merbabu Farmers Group, describe the obstacles and benefits felt by the Bangkit Merbabu Farmer Group in a contract farming done with PT Bloom Agro and analyze factors (education level, farming experience, support facilities, technology support and information transparency) which can affect the success of contract farming between PT Bloom Agro's and the Bangkit Merbabu Farmers Group.

RESEARCH METHODOLOGY

The study was conducted in Desa Batur, Kecamatan Getasan, Kabupaten Semarang, especially in the Merbabu farmer group which was selected through a purposive method with the consideration that the Bangkit Merbabu farmer group is one of the farmer groups whose members cultivated organic vegetables in Kecamatan Getasan and they are in contract farming with PT Bloom Agro from 2012 until now to market their products abroad, especially to countries in Southeast Asia.

The method used to conduct this study is a census method in which the entire group is selected to be the research sample and a questionnaire is used as a tool to obtain the required data and information. Respondents in this study were determined using the total sampling technique, which is a technique for determining research respondents in which the number of respondents is equal to the total population (Carsel, 2018). The population of the Bangkit Merbabu farmer group currently amounts to 35 people.

The data used in this study are sourced from primary data, namely data from interviews using questionnaires about farmers' education level, farming experience, facility support and technological support that farmers received from the implementation of contract farming and information transparency in the contrCT farming, as well as obstacles and benefits experienced by farmers during the implementation of the contract farming. To analyze the data that has been obtained, it is carried out through descriptive analysis in describing the pattern of contract farming applied by PT Bloom Agro with the Bangkit Merbabu Farmers Group and describing the obstacles and benefits felt by the Bangkit Merbabu Farmers Group from the contract farming established with PT Bloom Agro. Quantitative analysis conducted to analyze the factors that influence the success of the contract farming between PT Bloom Agro and the Bangkit Merbabu Farmers Group is through multiple linear regression with the equation model:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$
where:
Y = The success of contract farming
X_1 = Level of education
X_2 = Farming experience
X_3 = Facility support
X_4 = Technological support

X_5= Information transparency
α= Constant
e= Standard error

Variable Measurement

1. Level of Education (X1)
The level of education is measured by a score based on the latest education taken by the farmers, namely SD/Elementary School = 1 (very low), SMP/Junior High School = 2 (low), SMA/Senior High School = 3 (medium), Diploma = 4 (high) and University = 5 (very high).

2. Farming Experience (X2)
Farming experience is measured by a score in which a farming experience of less than 10 years = 1 (very low), 10-13 years = 2 (low), 14-17 years = 3 (medium), 18-20 years = 4 (high) and more than 20 years = 5 (very high).

3. Facility Support (X3)
Facility support is measured by a score based on several indicators, including availability of seeds, availability of agricultural equipment, availability of capital, human resource development, organic certification financing, market facilities and bonuses. If the respondent mentions 7 indicators, it will be given a score of 5 (very high category), 6 indicators will be given a score of 4 (high category), 5 indicators will be given a score of 3 (medium category), 4 indicators will be given a score of 2 (low) and 3 indicators will be given a score of 1 (very low category).

4. Technological support (X4)
Technological support is measured by scores based on indicators which include providing superior varieties, teaching vegetable planting techniques, applying fertilization techniques, teaching pest and disease control techniques, teaching harvesting techniques and providing modern farming tools. If the respondent mentions 6 indicators, it will be given a score of 5 (very high category), 5 indicators will be given a score of 4 (high category), 4 indicators will be given a score of 3 (medium category), 3 indicators will be given a score of 2 (low category), and 2 indicators will be given a score of 1 (very low category).

5. Information Transparency (X5)
Information transparency is measured by a score based on indicators which include information about product prices, information about the market, information about technology, information on production quantities, information about income and information about product quality, that is clear and known by all parties. If the respondent mentions 6 indicators, it will given a score of 5 (very high category), 5 indicators will be given a score of 4 (high category), 4 indicator scores will bigen a score of 3 (medium category), 3 indicators will be given a score of 2 (low category) and 2 indicators will be given a score of 1 (very low category).

6. The success of contract farming (Y)
The success of the contract farming is measured by the success in aspects of the management process which includes planning, organizing and implementing the contract farming. In addition, the success of the contract farming is also measured through the success in terms of benefits which include economic, technical and social aspects.

    a. Contract Farming Planning
    Contract farming planning is measured by a score based on indicators which include the existence of a agreement note, the preparation of plans carried out by involving various parties, the preparation of plans by taking into account the capabilities of each party, the preparation of plans by covering various aspects and certain guidelines owned in its implementation. If the respondent mentions 5 indicators, it will be given

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a score of 5 (very high category), 4 indicators will be given a score of 4 (high category), 3 indicators will be given a score of 3 (medium category), 2 indicators will be given a score of 2 (low category) and 1 indicator will be given a score of 1 (very low category).

b. Organizing Contract Farming

The organization of contract farming is measured by a score based on indicators which include the existence of special fields/units to assist the sustainability of the contract farming, the existence of a clear job description for each special unit/field, the existence of rights and obligations that are determined for each party and the existence of a written contract between the company and the farmers. If the respondent mentions 5 indicators, it will be given a score of 5 (very high category), 4 indicators will be given a score of 4 (high category), 3 indicators will be given a score of 3 (medium category), 2 indicators will be given a score of 2 (low category) and 1 indicator will be given a score of 1 (very low category).

c. Implementing Contract Farming

The implementation of the contract farming between PT Bloom Agro and the Bangkit Merbabu Farmers Group is measured by a score based on indicators which include whether each party has carried out its rights and obligations, whether the special fields/units that have been formed have carried out their duties properly, whether the company and farmers help each other in achieving organic vegetable production, whether all parties feel benefited from the contract farming and whether the audit process is carried out in an open and transparent manner. If the respondent mentions 5 indicators, then it will be given a score of 5 (very high category), 4 indicators will be given a score of 4 (high category), 3 indicators will be given a score of 3 (medium category), 2 indicators will be given a score of 2 (low category) and 1 indicator will be given a score of 1 (very low category).

d. Economic Benefits

The economic benefits of the contract farming are measured by a score based on indicators that include increased income, reduced production costs, increased selling prices, market certainty and lower business risk. If the respondent mentions 5 indicators, it will be given a score of 5 (very high category), score indicators will be given a score of 4 (high category), 3 indicator will be given a score of 3 (medium category), 2 indicator will be given a score of 2 (low category) and 1 indicator will be given a score of 1 (very low category).

e. Technical Benefits

The technical benefits of the contract farming are measured by scores based on indicators that include improved product quality, increased knowledge and skills of farmers in organic vegetable cultivation, farmers being familiar with new technologies, farmers being able to work according to procedures provided by the facilitator and increased farmer productivity. If the respondent mentions 5 indicators, it will be given a score of 5 (very high category), 4 indicator will be given a score of 4 (in the high category), 3 indicators will be given a score of 3 (medium category), 2 indicator will be given a score of 2 (low category) and 1 indicator will be given a score of 1 (very low category).

f. Social Benefits

The social benefits of the contract farming between PT Bloom Agro and the Bangkit Merbabu Farmers Group are measured by scores based on indicators which include the contract farming being well received by the surrounding community, the contract farming strengthening the relationship between farmers, growing motivation to continue the farming, the contract farming providing public facilities that can be used together and increasing the potential and capabilities of farmers. If the respondent mentions 5 indicators, it will given a score of 5 (very high category), 4 indicators will be given a score of 4 (high category), 3 indicators will be given a score of 3 (medium category), 2 indicators will be given a score of 2 (low category) and 1 indicator will be given a score of 1 (very low category).

g. Categorization of Contract Farming Success

The categorization of contract farming success, both from the aspect of management processes and aspects of benefits, is carried out based on the calculation of the score interval from the responses given by 35 respondents, namely:

Very Low Category → Score = 6 – 10,7   High Category → Score = 20,4 – 25,1

Low Category→ Score = 10,8 – 15,5   Very High Category → Score = 25,2 – 30

Medium Category → Score = 15,6 – 20,3

FINDINGS AND DISCUSSION

The Pattern of Contract Farming between Bangkit Merbabu Farmer Group and PT Bloom Agro

Contract farming PT. Bloom Agro and Bangkit Merbabu Farmers Group started by making a written contract agreement which contained the main points which would later be carried out by both parties, both PT. Bloom Agro as well as members of the Bangkit Merbabu farmer group, and PT. Bloom Agro would also conduct direct audits of farmers' land. In the agreed written contract, the roles of each party, both PT Bloom Agro and the Bangkit Merbabu farmer group, can be identified. PT Bloom Agro would provide facilities to farmers in the form of training and assistance on organic farming and would buy organic vegetables belonging to farmers that had met the standards, while members of the Bangkit Merbabu farmer group would sell the organic vegetables they produced, cultivate organic vegetables in accordance with organic principles and were willing to take part in trainings held by PT Bloom Agro to assist farmers in producing organic vegetables with good quantity and quality

Based on the data obtained from the research, it can be concluded that the pattern applied in the contract farming between the farmers of the Bangkit Merbabu farmer group and PT Bloom Agro is a general trading contract which refers to the notion of general trading contract pattern as said by Amam et al. (2019) that the general trading contract pattern system is often carried out in terms of the products selling and the usage of products as supply to the processing industry. Harisman (2017) also added that in a general trading contract pattern, partner companies only provide seeds according to the specified specifications, while the provision of production and cultivation facilities is done by farmers themselves and the company's involvement is limited to coaching or providing trainings. In a general trading contract pattern, farmer groups have an obligation to supply products with mutually agreed terms and quality (Asiati & Nawawi, 2017).

Challenges and Benefits of the Contract Farming

A contract farming is basically a relationship between two or more parties in achieving a specific objective. In this relationship, there are obstacles that can come from the partnering parties themselves or from outside. The Covid-19 pandemic, which has an impact on all economic business sectors, resulted in reduced demand for organic vegetables from PT Bloom Agro during May to July 2020. This means that the contract farming was in vacuum due to the Covid-19 pandemic. The contract farming started running again in mid-August 2020, when PT Bloom Agro began to receive demand of organic vegetables and members of the Bangkit Merbabu farmer group started producing organic vegetables again, although the demand was not as high as prior to the Covid-19 pandemic.

Another challenge in the implementation of contract farming between PT Bloom Agro and the Bangkit Merbabu farmer group is the unpredictable climate. The unpredicatable climate caused an impact on organic vegetable products produced by group member farmers who sometimes did not fully meet the target both in terms of quantity or quality in accordance with the expectations set by PT Bloom Agro, which could ultimately hamper the supply of organic vegetables. The condition of farmers, who on average have a low level of

education, became another challenge in the sustainability of the contract farming, especially in terms of understanding and application of organic vegetable cultivation technology. New things related to organic vegetable cultivation that were delivered by companies to farmers through training often could not be properly absorbed and applied by farmers, resulting in low quality and quantity of organic vegetables produced by farmers. This is in line with what Ramadoan et al. (2013) found that farmers who have a low level of education will affect their ability to absorb and apply new technologies.

Besides, members of the Bangit Merbabu farmer group also benefited from the contract farming done with PT Bloom Agro. The higher price of organic vegetables in the contract farming as compared to when farmers sold to other parties had an impact on increasing farmers' income. PT Bloom Agro had also provided seeds to farmers for free and financed organic certification for the Bangkit Merbabu farmer group, thus helping farmers to minimize expenses for organic vegetable cultivation activities. PT Bloom Agro also provided facilities in the form of mentoring and training related to matters relevant to organic vegetable cultivation to members of the Bangkit Merbabu farmer group, so that farmers would gain deeper knowledge and better skills in cultivating organic vegetables to improve the quality of organic vegetables produced.

The Success of Contract Farming

Berdasarkan penelitian yang telah dilakukan, didapatkan persentase pada variabel keberhasilan kemitraan dari 35 orang anggota Kelompok Tani Bangkit Merbabu seperti yang terlampir pada Tabel 1.

Based on the research that has been done, the percentage of the success of the contract farming variable is obtained from 35 members of Bangkit Merbabu farmer group, as attached in Table 1.

Table 1. The Success of Contract Farming between Bangkit Merbabu Farmer Group and PT Bloom Agro

Category	Score	Frequency	Percentage
		--persons--	---%---
Very Low	6 – 10,7	0	0
Low	10,8 – 15,5	1	2,85
Medium	15,6 – 20,3	3	8,57
High	20,4 – 25,1	17	48,58
Very High	25,2 – 30	14	40,00
Total		35	100

Source; Primary Research Data, 2020.

Based on the results in Table 1, it can be seen that 48.58% of the Bangkit Merbabu farmer group members stated that the success rate of the contract established with PT Bloom Agro was high, 40% of farmers said it was very high, 8.57% of farmers said it was moderate/medium and 2.85% of farmers stated that it was low. Hence, it can be concluded that the success of the contract farming established between PT Bloom Agro and the Bangkit Merbabu farmer group is in the high category.

Akdogan & Dinc (2019) mentioned that planning is one of the functions in management which is important to explain goals, strategies and to develop work plans in a contract farming. The success of the contract farming in terms of planning is achieved because this contract has a contract memorandum (MoU) which includes important aspects of the contract such as aspects of facilities, price, quality and marketing. All plans that would be carried out in the contract farming were prepared by involving PT Bloom Agro, Bangkit Merbabu Farmers Group and Extension Officers based on the capabilities of each party, both members of the Bangkit Merbabu Farmers Group and PT Bloom Agro.

Akdogan & Dinc (2019) defines organizing as the whole process of grouping people, tools, tasks, responsibilities and authorities into a single unit in order to achieve a predetermined goal. The success of the contract farming in terms of organization is achieved because in the implementation of the contract farming,

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the production sector, quality control (QC) sector, packaging sector and product storage sector worked together to assist the smooth implementation of the contract farming. Before farmers become partners, they must sign a written contract that contains the obligations that must be carried out as a partner. The Bangkit Merbabu farmer group also recorded the quantity, quality and price of organic vegetables delivered to PT Bloom Agro

The implementation in the management function is any efforts that are done to mobilize human resources so that the goals of an organization can be realized (Chandler, 2019). The success of the contract farming in terms of implementation could be achieved because in the continuity of the contract farming, the Bangkit Merbabu farmer group had produced organic vegetables with the quality and quantity required by the company, while PT Bloom Agro then paid for the farmers' production and then marketted it. PT Bloom Agro also conducted audits on the Bangkit Merbabu farmer group, which were usually carried out at the end of the year. The renewal of the written contract was also carried out simultaneously with the implementation of audit activities. The results of the audit conducted by PT Bloom Agro were also given to farmers, so that the Bangkit Merbabu farmer group and PT Bloom Agro could jointly evaluate things that needed to be maintained and improved for the sustainability and continuation of the contract farming.

The contract farming established with PT Bloom Agro then brought in various benefits that can be felt by members of the Bangkit Merbabu Farmers Group. Economically, this contract farming made farmers feel that their income had increased, the selling price of farmers' products was higher, production costs were reduced and there was market certainty for organic vegetables produced by farmers. Technically, from the implementation of the contract farming, farmers gained more knowledge and skills in cultivating organic vegetables so that the quality of organic vegetables produced was better and farmer productivity increased. Socially, the benefits of the contract farming felt by farmers included making the relationship between farmers closer and growing motivation in farmers to continue their farming.

An Analysis on Factors Contributing to the Success of Contract Farming

Based on data analysis on factors that influence the success of a contract farming with the SPSS program, the results are attached in Table 2.

Table 2. The result of analysis on factors contributing to the success of contract farming

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(*Constant*)	2.299	.343		6.703	.000
Level of Education	-.073	.093	-.078	-.785	.439
Farming Experience	-.025	.082	.-.043	-.309	.759
Facility Support	.451	.111	.591	3.062	.006
Technological Support	.286	.136	.233	2.678	.008
Information Transparency	.308	.109	.457	2.830	.008

Adjusted R*square* = 0,689
R*Square* = 0,735
F_{count} = 16,089 , Sig. = 0,000[a]
F_{table} = 2,53
t_{table} = 2,0425

Source; Primary Research Data, 2020

1. Simultaneous Test (F)

The simultaneous test (F) will later be carried out in order to find out the how influence of the independent variable (X) on a dependent variable (Y) is simultaneously. Based on the results of data analysis obtained in Table 1, the F_{count} value is 16.089 (the value is greater than the F_{table} value which is 2.53), meanwhile the significance value of F is 0.000 (the value is smaller than the alpha value of 0.05). Yusuf & Ramadhani (2011) state that when the value of F_{count} is greater than the value of F_{table} while the significance value of F is smaller than the alpha value (0.05), it means that an independent variable can have a simultaneous effect on a dependent variable. Thus, the conclusion that can be drawn is that there is an effect of education level, farming experience, facility support, technological support and information transparency on the success of the contract farming between the Bangkit Merbabu Farmers Group and PT Bloom Agro.

2. Partial Test (T)

The t-test is carried out in order to find out how far an independent variable (X) individually (partial) has an influence on a dependent variable (Y), while the other independent variables can be said to be constant. The t-test was carried out by looking at the comparison between the t_{count} and t_{table} values with a significance value of $t < 0.05$ (5%). If an independent variable shows a t-count value that is greater than the t-table value while the significance value of $t < 0.05$, then the variable can be said to have partially affected the dependent variable or the opposite can be true.

a. Level of Education (X_1)

Based on the results of data analysis obtained in Table 1, it can be seen that the education level variable (X1) has a t_{count} value of -0.785 (the value is < than the t_{table} value, which is 2.0452) while the significance value is 0.439 (value > than 0.05). Thus, the conclusion obtained is that the variable of education level (X1) individually does not have a significant effect on the success of the contract farming.

b. Farming Experience (X_2)

Based on the results of data analysis obtained in Table 1, it can be seen that the farming experience variable (X2) has a t_{count} value of -0.309 (the value is < than the t_{table} value, which is 2.0452). The significance value is 0.759 (the value is > from .0.05). Thus, it can be concluded that individually, farming experience variable (X2) does not have a significant effect on the success of the contract farming.

c. Facility Support (X_3)

Based on the results of data analysis obtained in Table 1, it can be seen that the facility support variable (X3) has a t_{count} value of 3.062 (the value is > compared to the t_{table} value, which is 2.0452), while the significance value is 0.006 (the value is < of at, 0.05). Thus, it can be concluded that the facility support variable (X3) has a significant influence on the success of the contract farming.

d. Technological Support (X_4)

Based on the results of data analysis obtained in Table 1, it can be seen that the technological support variable (X4) has a t_{count} value of 2.678 (the value is > than the t_{table} value of 2.0452), while the significance value is 0.008 (the value is < of at 0.05). Thus, it can be concluded that the technological support variable (X4) has a significant influence on the success of the contract farming.

e. Information Transparency (X_5)

Based on the results of data analysis obtained in Table 1, it can be seen that the information transparency variable (X5) has a t_{count} value of 2.830 which is greater than the t_{table} value of 2.0452, while the value of Sig. which is 0.008 is smaller than 0.05. Thus, it can be concluded that the information transparency variable (X5) has a significant influence on the success of the contract farming.

3. The Results of Multiple Linear Regression Analysis

Based on the results of multiple linear regression analysis related to the factors that influence the success of contract farming using SPSS, the following equation mode is obtained:

$$Y = 2{,}229 - 0{,}73X_1 - 0{,}25X_2 + 0{,}451X_3 + 0{,}286X_4 + 0{,}308X_5$$

The equation above shows that the value of the constant is 2.229, which means that when the variables of education level (X1), farming experience (X2), facility support (X3), technological support (X4) and information transparency (X5) are constant, then the value of the contract farming success variable (Y) is 2.229.

The results of the analysis show that the education level (X1) of the Bangkit Merbabu Farmers Group members had no significant effect on the success of the contract farming established with PT Bloom Agro. Members of the Bangkit Merbabu farmer group were dominated by farmers with low levels of education (elementary and junior high school graduates). According to Tambunan et al. (2018), the low level of education of farmers can be caused by economic limitations or farming activities which tend to be passed down from generation to generation and must be continued. Although the education level of members of the Bangkit Merbabu Farmers Group tends to be low, this does not hinder the sustainability of the contract farming. In the group, farmers learned together and exchanged information with other farmers to broaden their knowledge. In addition, PT Bloom Agro also provided training and coaching to members of the Bangkit Merbabu Farmer Group on matters related to organic vegetable cultivation in order to improve farmers' knowledge and insight so that even though Bangkit Merbabu Farmers Group farmers had a low level of education, contract farming could still be carried out under the agreed terms. This is in line with what is stated by Rustandi & Suhadji (2017) that the existence of farmer groups can be used as a medium for learning, a medium for collaboration and a production process unit, so that farmers can become more advanced and continue to develop in farming. This is also supported by the opinion of Emiria & Purwandari (2015) which state that the limitations of formal education can be balanced through non-formal education, such as field schools and coaching or trainings that can come from the government or the private sector.

The results of the analysis show that the farming experience (X2) of the Bangkit Merbabu Farmers Group members had no significant effect on the success of the contract farming established with PT Bloom Agro. Adequately long farming experience makes farmers have knowledge and skills in their farming (Fadhilah et al., 2018). The length of experience that a group member has is no longer a problem, because farmers believe that through the formed group, they can share information, solve problems together and determine the steps to be taken to make the contract run as expected. This is as stated by Prasetyo et al. (2019) that in the group, farmers can exchange information with each other, share experience in solving a problem that is faced together. This is supported by the opinion of Effendy & Apriani (2018) which argues that farmer groups can be a learning forum for the members to improve knowledge, skills and independence in farming so that productivity and income can increase.

The results of the analysis show that the facility support (X3) received by members of the Bangkit Merbabu Farmers Group had a significant effect on the success of the contract farming established with PT Bloom Agro. The value of the influence of facility support on the success of the contract farming is 0.451, which means that every addition of 1 unit of facility support (X3) will increase the success of the contract farming (Y) by 0.451. The provision of agricultural facilities in a contract farming aimed to motivate farmers to

improve their farming for the sustainability and continuation of the contract farming (Suminah et al., 2017). In the contract farming, PT Bloom Agro assisted with seed provision, certification fees and assistance to help farmers produce organic vegetables so that the contract could continue running smoothly and sustainably. Nanur et al. (2016) state that in addition to facilities and infrastructure, financial support can also be a determining factor for the success of a contract farming. This is also supported by the opinion of Utami (2016) which states that the existence of facility support can improve business sustainability and continuity of results to achieve effective contract.

The results of the analysis show that the technological support (X4) received by members of the Bangkit Merbabu Farmers Group had a significant effect on the success of the contract farming established with PT Bloom Agro. The value of the influence of technology support (X4) on the success of the contract farming is 0.286, which means that every addition of 1 unit of technology support (X4) will increase the success of the contract farming (Y) by 0.286. Technological support was needed by farmers in dealing with things that can hinder farmers from producing good quality organic vegetables, such as climatic conditions and pest and disease attacks on plants, such as training in the manufacture of vitamins and organic plant medicines, planting techniques, maintenance and harvesting of organic vegetables. The application of technology is intended so that farmers can quickly adapt to the conditions of the area where plants grow so that they can produce good plant growth and later provide maximum results (Utami et al., 2016). The existence of technology in the contract farming will help the sustainability of the contract. This is as intended by Purwanti et al. (2019) that the use of appropriate technology in accordance with the circumstances of the partner's business will help create the optimization of resources with innovative activities. Farmer groups can also assist farmers in the application of agricultural technology. The existence of farmer groups can motivate their members to adopt and apply agricultural technology (Hadi et al., 2019).

The results of the analysis show that the transparency of information (X5) from both PT Bloom Agro and the Bangkit Merbabu Farmers Group had a significant effect on the success of the contract farming. The value of the influence of information transparency (X5) on the success of a contract farming is 0.308, which means that every addition of 1 unit of information transparency (X5) will increase the success of the contract farming (Y) by 0.308. According to Nasution et al. (2020), the principle in information transparency is to be open in carrying out every decision-making process and open in providing correct material information and according to existing facts. In the implementation of the contract farming between PT Bloom Agro and the Bangkit Merbabu Farmers Group, important information such as product prices, production quantities, product quality and audit results in the PT Bloom Agro contract farming had clear and open records for all parties so that both PT Bloom Agro as well as the Bangkit Merbabu Farmers Group coud access and find out. Transparency of information in a contract farming is important for the success of the sustainability and continuation of the contract farming. The transparency of information implemented by each partnering party will increase mutual trust so that the contract can run well. According to Kucherova et al. (2019), mutual trust and responsibility will increase as information transparency increases, while fraud and risk will decrease. This is supported by the opinion of Wulandari & Murwani (2018) which states that information transparency in a contract farming is needed to avoid suspicion between partnering parties, which includes transparency of information and disclosure in terms of financial management.

4. R² Test (Coefficient of Determination)

Based on the results obtained in Table. 2, it can be seen that the value of Adjusted R Square is 0.689 or 68.9%. This figure shows the influence of the independent variables (education level (X1), farming experience (X2), facility support (X3), technology support (X4) and information transparency (X5)) on the success variable of the contract farming implemented and the rest (31.1%) is influenced by other variables or factors outside this research such as communication, price, attitude and behavior.

CONCLUSION

Based on the results of the research that has been carried out, it can be concluded that:

1. The pattern in the contract farming conducted by the Bangkit Merbabu Farmers Group with PT Bloom Agro is a general trading contract.
2. Challenges faced by farmers in implementing the contract are climate conditions that are difficult to predict in organic vegetable cultivation and the state of the Covid-19 Pandemic. The benefits obtained from the implementation of the contract farming are increased income as well as knowledge and skills of farmers.
3. Facility support, technological support and information tranparency are factors that have a significant influence on the realization of the success of the contract farming, while the level of education and farming experience has no significant effect on the success of the contract farming established between the Bangkit Merbabu farmer group with PT. Bloom Agro.

RECOMMENDATION

Based on the results of the research above, the following things can be recommended;

1. For Bangkit Merbabu Farmers Group to maintain and continue to improve coordination among group members in running the contract farming with PT Bloom Agro for the sustainability of the contract farming which can be done through the provision of more intensive group activities.
2. The results of research data analysis show that farmers' education level and farming experience negatively affect the success of the contract farming so that PT Bloom Agro can provide more intensive assistance and training which is related to the contract to increase farmers' knowledge and skills for the sustainability and continuation of the contract farming.

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