Determinants of Member's Participation on a Business Development of Processing Ceriping Puyur
(Case in Condongraos Business Group, Ngaditirto, Selopampang, Temanggung, Central Java)

Halimah Nur Hidayati, Rika Nalinda[✉], and Suharno Suharno

Yogyakarta Magelang Polytechnic Agricultural Development, Yogyakarta, Indonesia
rikanalinda@gmail.com

Abstract. Study aims to determine the influence of internal factors (age, level of education, motivation) and external factor (family support) on the participation of Condongraos Business Group's members in a development business of processing Ceriping Puyur. This study held on November 2020 to July 2021 in Ngaditirto Village, Selopampang Subdistrict, Temanggung Regency, Central of Java, by uses descriptive quantitative method. The data obtained by interviews with 20 members of Condongraos Business Group, as respondents who selected with saturated sample techniques. Then, the data had been analyzed with multivariant linear regression analysis by used SPSS 16 tools. The results showed that the influencing factors of member's participation in the business development of processing Ceriping Puyur was motivation. Member's motivation level was in the medium category, with the highest scores of motivation were do a self-development and be a part of a group activities.

Keywords: Business group · Business development of processing · Participation

1 Introduction

1.1 Background

Assessment Institute of Agricultural Technology (AIAT) Central Java as an institution under the Indonesian Ministry of Agriculture, has a task to disseminating the results of their technological innovation assessment, which practice by empowering to the agricultural sectors players. On the year of 2015, AIAT Central Java identified the adopters of technological innovations to participants of those empowering programs, and it was recorded that there were 24 fostered partners in 11 districts that were still implementing technological innovations and were even able to develop the innovations into economic activities. One of the fostered partners is Condongraos Business Group, from Ngaditirto Village, Selopampang District, Temanggung Regency in a Programs of Increasing Farmer Income Through Innovation or P4MI in Indonesian, which held in 2008–2013 [1].

Condongraos Business Group consists of women farmers group that processing agricultural products to get a higher product selling cost and increase family income. One of the agricultural product they processed is cassava. Cassava in raw material has a low selling price, so Condongraos Business Group's members processed them into Ceriping Puyur to get the higher selling price. Supported by the abundant availability of cassava in Indonesia, production of Ceriping Puyur can reach 360 kg a day with the segment market covering Temanggung, Magelang, Wonosobo, and Bogor areas [1]. However, on November 2020, it was known that the production capacity and market coverage have not been balanced. Product demand can reach 545 kg/month, and the average production only reaches 360 kg/month. The availability of Ceriping Puyur at Condongraos Business Group depends on the amount of production given by each member. The production activities that were initially carried out together at the same time and same place were then shifted to be handed over to each member, make the total production target become uncertain because the participation of members in these activities were decreased.

Participation is a person's right and obligation to contribute and share their initiatives and creativity for achieving group goals [2]. Participation can be realized within four stages, they are decision-making stage, activity implementation stage, activity control stage, and activity result utilization stage [3]. In an activity, person's participation is influenced by internal factors and external factors. Internal factors can be included by age, education level and motivation, while external factors can be included by family support [4].

Based on these explanations, this study was conducted to determine the factors that influencing member participation in the development business of processing Ceriping Puyur at Condongraos Business Group, Ngaditirto Village, Selopampang District, Temanggung Regency, Central of Java.

1.2 Issues

The main issues of this study is whether the internal factors (that include age, education's levels, and motivation) and the external factor (that include family support), partially or simultaneously have a significant or non-significant correlations to the member participation on business development of processing ceriping puyur in Condongraos Business Group.

1.3 Purposes

The goal to be achieved from this study is to know and analyze the influence of age, education's level, motivation, and family support on partial and simultaneous at the member participation on business development of processing ceriping puyur in Condongraos Business Group.

1.4 Advantages

This study conducted in order to be able to provide a solution for the business development of processing Ceriping Puyur in Condongraos Business Group.

2   Research Methods

This study was conducted from November 2020 to July 2021 at Condongraos Business Group, Ngaditirto Village, Selopampang Subdistrict, Temanggung, Central Java, by used descriptive quantitative method. The data obtained by interviews to 20 members of Condongraos Business Group, as respondents who selected with saturated sample techniques. The obtained data then have been analyzed descriptively to describe the variable's characteristics by presenting them into tables, frequency distributions, diagrams, average value, total score, and level of respondent's achievements and interpreting them [5]. And the data have also been analyzed by multiple linear regression to describe and test the hypothesis, so the correlation's effects of the independent variable to the dependent variable can be determined [6].

Multiple regression analysis was calculated using SPSS 16 with the formula:

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4$$

Description:

Y = dependent variable (participation in development business of processing ceriping puyur)

X_1 = independent variable (age)

X_2 = independent variable (education levels)

X_3 = independent variable (motivation)

X_4 = independent variable (family support)

a = constant

b_1 = coefficient variable X_1

b_2 = coefficient variable X_2

b_3 = coefficient variable X_3

b_4 = coefficient variable X_4

The existing regression equation then have been carried out with a feasibility test that includes:

2.1   Partial Influence Test (T-Test)

T-test is done to know the influence of each independent variable individually to the dependent variable If the value of $t_{count} < t_{table}$ and the significant value $> 0,05$, then H_0 is accepted.

2.2   Simultaneous Influence Test (F Test)

F-test is conducted to determine the influence of independent variables simultaneously to the dependent variable. Used the significance level specified 0,05, the critical F searched on the F table, guided by the formula:

$$F = \frac{R^2 (n - k - l)}{k(l - R^2)}$$

Which:

n: 20 (respondent)x′
k: 4 (independent variable)
Calculates F_{table} with the formula:
$F_{table} = F_{(1-)}(dk_{numerator}, dk_{denominator})$
$dk_{numerator} = k\ (4)$
$dk_{denominator} = n\ (20)$
Determine the decisions rule:
H_o: not significant
H_a: significant
If the value of $F_{count} < F_{table}$ and the value of significance level $> 0,05$, then H_o is accepted, and H_a is rejected.

If the value of $F_{count} < F_{table}$ and the value of significance level $< 0,05$, then H_o is rejected, and H_a is accepted.

2.3 *Coefficient of Determination Test (R^2)*

The coefficient of determination test (R^2) is used to know the percentage of contribution of independent variables simultaneously to the dependent variable which is marked by the amount of determination coefficient obtained. This coefficient shows how much percentage of independent variables used in the model are able to explain the variation of the dependent variable.

$$R_{count} = \frac{\sqrt{b_1 \sum x_1 y + b_2 \sum x_2 y + b_3 \sum x_3 y + b_4 \sum x_4 y}}{\sum y^2}$$

Then squared the R value to R2.

3   Results and Discussion

3.1 Respondent's Characteristic

Based on their age, 90,00% of 20 respondents were in the age of 22–54 years old, and 10,00% were in the age above 55 years old. Based on their formal educations, 65,00% respondents has graduated elementary school, and 35,00% has graduated from junior and senior high school.

3.2 Descriptive Analysis

3.2.1 Age

ILO or International Labour Office [7] classifies the worker ages in three categories, 15–24 years as young workers, 25–54 years as prime workers and 55–64 years as older workers. There were 18 respondents (19.00%) in the prime workers categories, 2 respondents (10.00%) in the older workers categories, and none was in the young workers category. The respondents' age average was 48 years old.

3.2.2 Education's Level

The level of education in Condongraos Business Group's member is categories into low, medium and high category. Low category was for who have and have not graduated yet from elementary school. Medium category for who have graduated from junior and senior high school. High category for who get finished college study. There were 65,00% respondents in low category, 35,00% in medium category and no one in high category. Most of respondent's category level was graduated elementary school.

3.2.3 Motivation

Motivation was grouped in to three categories, there were low, medium and high. 40,00% respondents had low category, 10,00% had medium category, and 50,00% respondents had high category. The average motivation level of Condongraos Business Group members were in medium categories.

3.2.4 Family Support

The family support received by members in processing ceriping puyur were grouped into three categories, there low, medium and high. 15,00% respondents had low category, 70,00% had medium category, and 15,00% respondents had high category. The average of family support level received by Condongraos Business Group members were 67,08% or categorized in medium category.

3.2.5 Participation in Business Development of Processing Ceriping Puyur

There were three categories for member participation in business development of processing ceriping puyur, there were low, medium, and high category. There were 30,00% respondents in the low category, 55,00% in the medium category, and 15,00% respondents in the high category. The average participation level of Condongraos Business Group members were 65,47% or medium categorized.

3.3 Multivariate Linear Regressions Analysis

3.3.1 T-Test

T-test is done to know the influence of each independent variable (age, education's level, motivation, family support) partially to the dependent variable (Participation in Business Development of Processing Ceriping Puyur). The results of T-test on this study showed in the Table 1.

Table 1 presented the constant and variable coefficient that can be made in the following equation:

$$2{,}594 - 1{,}470x_1 - 0{,}074x_2 + 0{,}650x_3 + 0{,}300x_4$$

Based on the data results, we can conclude that:

Table 1. Partial influence test (t-test)

Model	Unstandarized Coefficients		Standarized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (constant)	2.594	4.282		.606	.554
Age	−1.470	1.383	−.239	−1.062	.305
Education's level	−.074	1.293	−.016	−.057	.955
Motivation	.650	.262	.578	2.477	.026

Dependent variable: Participation

3.3.1.1 Age

Age had a significant negative influence to the member's participation on the business development of processing Ceriping Puyur in Condongraos Business Group. It means that every member who had older age will have lower participation on the business development of processing ceriping puyur. Constanta value was 1,470 which means the higher age of the member in one score, will decrease the score of participation by 1,470, without showing significant influence. Therefore, the result can be concluded that member's participation on the business development of processing ceriping puyur in Condongraos Business Group was not influenced by member's age. All members have the same opportunity to take lower or higher participation on their activity. Aniya [8] stated that age has positive significance influence to someone participation in an activity. Every person who has older age considered to have more life- experience, hence they will take higher participation. But this statement was not accordance with this study results.

3.3.1.2 Education's Level

Education's level had a negative significant effect to the member's participation on the business development of processing Ceriping Puyur in Condongraos Business Group. It means that every member who had higher graduate level will have lower participation on that activity. Constanta value was −0,074 which means the higher graduated level of the member in one score, will decrease the score of participation by 0,074, without showing significant influence. Therefore, the result can be concluded that member's participation on the business development of processing ceriping puyur in Condongraos Business Group was not influenced by member's graduated level, instead all of member have the same opportunity to take lower or higher participation on their activity. Payaman J Simanjutak [9] stated that graduate level has positive significant influence at someone decisions to work. Every person with a higher education level will consider their time preciously, and they will have higher desire to optimize the time for working. So that, the results of this study was not in accordance with his statement.

3.3.1.3 Motivation

Motivation had a positive significant effect to the member's participation on the business development of processing Ceriping Puyur in Condongraos Business Group. It means that every member who had higher motivation level will have higher participation on the

business development of processing ceriping puyur. Constanta value was 0,650 which means the higher motivation level of the member in one score, will increase the score of participation by 0,650. By showing significant influence. Therefore, the result can be concluded that member's participation on the business development of processing ceriping puyur in Condongraos Business Group was influenced by member's motivation, therefore member who has higher motivation level will take higher participation on their activity. Mardikanto [3] stated that the growth and development of community participation in an activity is influenced by the motivation behind them, and this statement was in accordance with this study results.

3.3.1.4 Family Support

Family Support received by members has a positive significant effect to the member's participation on the business development of processing Ceriping Puyur in Condongraos Business Group. It means that every member who received higher family support will take higher participation on the business development of processing ceriping puyur. Constanta value was 0,300 which means the higher family support received by the member in one score, will increase the score of participation by 0,300, without showing significant influence. Therefore, the result can be conluded that member's participation on the business development of processing ceriping puyur in Condongraos Business Group was not influenced by member's family support. Masithoh [10] stated that indicate family support are one of the external factor which has significant and positive effect correlation with participation, the higher level of family support, will increase participation level. But, although has positive effect, family support has not significant influenced at the member participation on the business development of processing ceriping puyur in Condongraos Business Group.

3.3.2 F-Test

This test is conducted to determine the influence of independent variables (age, education's level, motivation, family support) simultaneously to the dependent variable (Participation in Business Development of Processing Ceriping Puyur). F-test result of this study showed in the Table 2.

Based on the data results, it is known that H_0 was accepted, because $F_{count} < F_{table}$, and the significance value showed $0,098 > 0,05$. It means that the variabel independent age (X_1), education's level (X_2), motivation (X_3), and family support (X_4) simultaneously have no significant effect to the member's participation on the business development of processing Ceriping Puyur in Condongraos Business Group (Y).

Table 2. Simultaneous influence test (F-test)

Model	Degree of Freedom	F_{count}	F_{table} (0,05)	Signification Value
Regression	4	2,377	3,01	0,098

Significant at (0,05)

Table 3. Coefficient of determination (R^2)

Variable	R	R^2
Age (X_1)	0,628	0,388
Education's level (X_2)		
Motivation (X_3)		
Family support (X_4)		
Participation (Y)		

3.3.3 Coefficient of Determination Test (R^2)

The coefficient of determination test (R^2) is used to know the percentage of contribution of independent variables (X_1, X_2, X_3 and X_4) simultaneously to the dependent variable (Y) which is marked by the amount of determination coefficient obtained. This coefficient shows how much percentage of independent variables used in the model are able to explain the variation of the dependent variable. The result of this test shown in the Table 3.

Based on the Table 3, the coefficient of determination (R^2) was 0,388. It means that independent variable age (X_1), education's level (X_2), motivation (X_3), and family support (X_4) was only 38,8% effecting to the member participation on the business development of processing ceriping puyur in Condongraos Business Group (Y), and the 61,2% was influenced by the other variable outside of this study.

4   Conclusion and Recommendation

4.1   Conclusion

Internal factor that have a significant effect to the member participation on business development of processing ceriping puyur in Condongraos Business Group was motivation, then the other internal factors (age and education's level) have no significant effect.

Family support as the external factor have no significance effect to the member participation on business development of processing ceriping puyur in Condongraos Business Group.

Age, education's level, motivation, and family support simultaneously have no significance effect to the member participation on the business development of processing ceriping puyur in Condongraos Business.

4.2   Recommendation

Members of Condongraos Business Group have to up their motivation's level in participate the business development of processing ceriping puyur, by strengthening entrepreneurial behavior in their business activities.

The related government and stakeholder are expected to giving motivational support by conducting intensive mentoring and coaching both for KUB Condongraos, as well as business groups that require guidance and supervision, in addition to providing support in the form of supporting infrastructure for processing GroupA graph within a graph is an "inset," not an "insert." The word alternatively is preferred to the word "alternately" (unless you really mean something that alternates).

References

1. Noor Oktaningrum, G., Prihatin Mugi Oktaningrum, A. and Hermawan, A, Fostered Partners of AIAT Central Java. Assessment Institute of Agricultural Technology Central Java. Semarang, 2015.
2. D. Wiranti, The Correlations Between Participation Level and Productivity of The "Kania" Women Farmer Group's Member in Production Caramel Milk (Case of Tajur Halang Village, Cijeruk District, Bogor Regency, West Java. Thesis, Faculty of Human Ecology, Borgor Agricultural Institute. Bogor, 2016.
3. T. Mardikanto, Community Empowerment Concepts. UNS. UNS Press. Surakarta, 2010.
4. B. Febriline, Factors Influencing Member Participation in Joint Venture of Processing Dewa's Star Fruits Lunkhead (A Case Study In Kenanga Joint Venture, Sawangan Village, Subdistrict of Sawangan, Depok, West Java Province). (Doctoral dissertation), 2013.
5. S. Siregar, Statistics Descriptive for Research Equipped with Manual Calculations and SPSS Application Version 17. PT Raja Grafindo Persada. Jakarta, 2016.
6. Sugiyono, Quantitative, Qualitative, and R&D Research Methods. Alfabeta. Bandung, 2019.
7. ILO, World Employment Social Outlook: Trends 2016. In 2016/01. ISBN 978-92-2-129260-9, 2016.
8. R. Ainiya, Level of Participation and Effectiveness of Microfinance Institutions in Posdaya Sauyunan. Colloquium Papers, Volume I, 2014.
9. P.J. Simanjuntak, Economics Introduction of Human Resources. Jakarta: Publisher Institution of Economics Faculty, University of Indonesia, 1998.
10. S.H. Masithoh, Miftah dan A. Aina, Participation of Women Farmers Group (KWT) members in the Sustainable Food House Area Program (KRPL) in West Bogor District, Bogor City. Journal of Agricultural Agribusiness, University of Djuanda Bogor, 2017.