Analysis of socio-economic characteristics That Affect the level of income of farmers in the district budget gambier raft banjarnegara districtcentral java

Sarno[1] *Bondan Hary Setiawan
[1] Polytechnic Banjarnegara
* nano_agrotek@yahoo.com
(Received: May 3, 2018, approved: 10 September 2018)

ABSTRACT

This study aims to analyze social characteristic economics farmer of jasmine of Gambir that is farmer age, other production contribution, amount of family responsibility, wide is ownership of the farm, and production storey level Able to influence storey level of earnings of the farmer in the District of Raft Sub -Province of Banjarnegara. Research executed by using the method of survey with especial targets is all farmer of jasmine of Gambir in District of rafts. Analysis of data the used is analysis of regression doubled linear with Test-T, Test-F as well as the coefficient of determination (R2). Result of research show pursuant to Test-T in the social reality characteristic of old age farmer economics, amount of family responsibility, and other production contribution do not have an effect on reality to storey level of earnings of the farmer of jasmine of gambier. While production and wide of the farm have an effect on reality to storey level of earnings of the farmer of jasmine of gambier. Test-F show all characteristic of social economics in the reality have an effect on reality to storey level of earnings of the farmer of jasmine of gambier. Coefficient analysis of determination (R2) indicate that storey level of earnings of the farmer of jasmine of Gambir in District of Rafts Sub-Province of Banjarnegara 74.9% influenced by variables old age farmer, other production contribution, family responsibility, wide of the farm, and production. While the rest 25.1% influenced by other variables roomates do not check. Test-F show all characteristic of social economics in the reality have an effect on reality to storey level of earnings of the farmer of jasmine of gambier. Coefficient analysis of determination (R2) indicate that storey level of earnings of the farmer of jasmine of Gambir in District of Rafts Sub-Province of Banjarnegara 74.9% influenced by variables old age farmer, other production contribution, family responsibility, wide of the farm, and production. While the rest 25.1% influenced by other variables roomates do not check. Test-F show all characteristic of social economics in the reality have an effect on reality to storey level of earnings of the farmer of jasmine of gambier. Coefficient analysis of determination (R2) indicate that storey level of earnings of the farmer of jasmine of Gambir in District of Rafts Sub-Province of Banjarnegara 74.9% influenced by variables old age farmer, other production contribution, family responsibility, wide of the farm, and production. While the rest 25.1% influenced by other variables roomates do not check.

***Key words**: Economic Social, Farmer, Jasmine, Earnings, Banjarnegara*

INTRODUCTION

sub-district Raft is false one districts in Banjarnegaara District and is the only districts that seek or develop jasmine farming Gambir. The Gambir jasmine is one of the commodities that are developed in addition to coconut deres Banjarnegara district, robusta coffee, arabica coffee, cardamom, sugar, pepper, kapok, nutmeg, quinine, tobacco, patchouli kemukus, clove, and tea. Gambir jasmine farming in the District Raft is a type of tree or shrub that can be harvested throughout tahun.Selain it easy gambier jasmine plant species to be cultivated. Gambir jasmine development efforts in Sub Raft in 2012 showed a condition that the land is getting narrower. This shows that there has been over the land of jasmine Gambir into other plants. It is more driven because prices always fluctuate Gambir jasmine or has not been stable,

Social and economic characteristics that can affect the income of farmers in the district Gambir jasmine Raft farmers such as age, income obtained from cultivation of jasmine gambier and other income, number of dependents, land ownership and production. It is certainly an impact on household income levels of farmers. Social and economic characteristics of farming communities in the District Raft of course be different with areas or other districts, especially socio-economic characteristics of farmers jasmine Gambir. Therefore, the existence of socio-economic characteristics of farmers jasmine Gambir supposedly had an influence on the income level of farmers. Efforts to develop intensive farming Gambir jasmine should begin to be improved. Moreover for the farmers with land holdings are relatively narrow. Farmers should seek to allocate the factors of production are owned and try to understand the influence of socio-economic characteristics of the level of income generated.

RESEARCH METHODS

The basic method of research used in this study is a survey method that observation or investigation activities are carefully and thoroughly to obtain a clear and well on a particular issue and in a region tertentu.Tujuan of the survey is to obtain a representative picture of the area with the right (Sugiarto et al, 2003).

The research was conducted in 2013 in the District of Banjarnegara District Raft covering 10 villages, namely Situwangi, Bracelet, Pingit, Comparative, Raft, Adipasir, Kincang, Tanjunganom, Badamita, and Lengkong. Goal of this research is the farmers of arable land owners jasmine Gambir of each village in District rafts expanses of land for farming jasmine Gambir. The sampling method or design of sampling this study using stratified random sampling, ie taking samples by dividing

population into strata then the sample was selected randomly from each stratum (Sugiarto et al, 2003). Determination strata based on the number of farmers land owners jasmine (population) amounted to 676 people. Sample size determination using the formula Slovin; Setiawan (2007) in Umar (2004):

$$n = \frac{\quad}{\quad}$$

Description: n (sample size), N (population size), d (prediction error). The results of the sample size calculation that is used by 87.

Methods of data collection in this research was conducted through interviews, which is taking the data directly (primary) by way of question and answer to the farmers of respondents using the instrument questionnaire has been provided, registration activities are secondary data bari various sources of literature, scientific journals, reference sources relating to research, and observation of data collection by means of direct observation of the object studied. Variables used in this research are: a). Age Farmers (X1) is aged farmers who grow jasmine Gambir in units (Year), b). Contributions Other Income (X2) is the contribution of income derived from the income of farmers in addition to the main (jasmine Gambir) in units (IDR), c). Number of Dependent Family (X3) is the number of family dependents jasmine gambier farmers in units (People), d). Land (X4) is an area of land owned by farmers who used the jasmine farming Gambir in units (hectare), e). Production (X5) is the number of results from Gambir jasmine farming activities acquired during the harvest period in units (Kg / hectare), and f). Farmer income is the net revenue derived from the farmers'

Gambir jasmine farming in units (Rupiah).

Method analysis data that be used is as follows :

Multiple Linear Regression Analysis

analysis regression linear multiple is

a statistical technique used to

analyze the effect of the relationship between a variable dependent and some variable independent (Gujarati, 2003). social characteristics

economy that is age farmers, contribution

other income, number of dependents,

large land, and production otherwise as

independent variable, while the value of income expressed as the dependent variable. The

the formulation can be written as follows:

Y =

Information :

Y	= Level Farmers Income (Rp)
X1	Farmers = Age (years old)
X2	= Contributions Other Income (Rp)
X3	= Number of Dependents Family (Org)
X4	= Land Farmers (Ha)
X5	= Production Budget Gambir (Kg / Ha)
β0	= constant
β1	Regression Coefficients Factor = X1
β2	Factors X2 = Regression Coefficients
β3	Regression Coefficients Factor = X3
β4	Regression Coefficients Factor = X4
β5	Regression Coefficients Factor = X5
e	= Variable Disruptors

Testing the hypothesis of the characteristics

social economy affecting the level of

income of farmers, processed and analyzed through

partial test and simultaneously.

According to Bowo (2010) in Widarjono (2007)

The following test:

1. Partial Hypothesis Testing (Test-T)

Partial testing using T-Test is a test for significant influence of independent variables on the dependent variable individually. Significance test is

procedure in which the sample results are used to determine decision for receive or Ho refused based on the value of statistical tests obtained from the data.

$$t = \frac{\quad}{\quad}$$

Information :
bi = Coefficient of Free All i
b = Value hypothesis Nol
Sb = Standard Deviation (Standard Deviation) of Variables All i

Finding the critical value t of table t with df = nk and α is certain. The decision to accept or reject Ho is based on a comparison of t arithmetic and t table (critical values).

If: t> t table, then Ho is rejected and Hi received and vice versa if t <t table, Hi Ho accepted and then rejected.

2. Hypothesis Testing In Unison (Test-F)

Testing simultaneously use F-test aims to test the effect of all independent variables dependent terhadapvariabel together (simultaneously).

$$Fhitung = \frac{\quad}{\quad}$$

Information :
R2 = Coefficient of Determination
k = Number of Independent Variables n = Total Sample

Looking for a critical value (F table); df (k-1, nk) where k = the number of parameters including the intercept. The decision to accept or reject Ho is based on comparison of the calculated F and F table. If: F count> F table, hence Ho refused and Hi accepted and vice versa if F arithmetic <F table, the Hi Ho is accepted and rejected.

3. The coefficient of determination (R2)

According to Bowo (2010) in Widarjono (2007) coefficient of determination is to determine how much percentage of donations the independent variable on the dependent variable that can be expressed as a percentage. The percentage of the effect of all of the independent variable on the dependent variable values can be known from the magnitude of the coefficient of determination (R2) of the regression equation. The closer to zero the coefficient of determinsi a regression equation, the smaller the influence of all independent variables on the dependent variable and vice versa.

RESULTS AND DISCUSSION

Social and economic characteristics that affect farmers' income, namely Gambir jasmine; age of farmers (X1), the contribution of other income (X2), the number of dependents (X3), land area (X4), and production (X5). Obtained multiple regression equation is written as follows:

Y = 555025.286 - 5664.444 X1 - 0.004X2 - 52562.300X3 + 1208570.155X4 + 9090.741 X5

1. Hypothesis Testing Using Test-T

Table 1. Analysis of Regression Coefficients with Test-T

No.	variables	Koef. Regression	thitung
01	age farmers	- 5664.444	-1569
02	Contribution Income	- 0.004	-0111
03	Other amenability Family	- 52562.300	-1832
04	Land area	1208570.155	2,244
05	Production	9090.741	10 964

be explained based on Table 1 that the results of analysis of the age variable-T Test farmer have T count of -1569. T count <T ***table or -1569 <2.132, then Ho is accepted and***

Hi denied, This means that the variable age ***farmers do not significantly affect the level of income*** Gambir jasmine growers in District rafts. Regression coefficient value of - 5664.444 and the negative sign, meaning that farmers age variable effect is inversely proportional to the level of farmers' income in the District Raft Gambir jasmine. If the age of farmers increased by 1%, it will reduce the income of farmers amounted to 5664,444%. Signs negative regression coefficient indicates that the older, the income of farmers is getting smaller or reduced. This condition is due to the relatively old age of farmers and relatively uniform so that variations in age does not affect the income of farm households.

Based on the results of T-test analysis, other income contributing variables have a count of -0111 T while T table for 2132. This means that the T count - 0111 <T table 2,132 which means Hi Ho accepted and rejected. This means that the variable contribution of other income did not significantly affect the level of income of farmers in the district Gambir jasmine Raft. The regression coefficient is negative shows that its effects are inversely related. Ie, the greater the contribution of income from outside jasmine gambier, the less the income of farmers. This indicates that the greater the contribution of revenue from outside the farmer's total income received will be smaller.

Variable dependents have T value calculated at -1832 and 2132 T table. This means that T Calculate -1567 <T table 2132 so that the Hi Ho accepted and rejected, meaning that the family responsibility variables did not significantly affect the level of income of farmers in the district Gambir jasmine Raft. Regression coefficient value is negative, which means the effect is inversely proportional to income. Every additional dependents amounted to 1%, it can decrease the income of 52562,300%. Findings Suryani (2012) mentions that the labor supply significantly affected the income of farmers crops on dry land in Wonogiri. That is more or less the amount of labor will affect the income of farmers. At the study site,

eventually affect the level of the income of farmers is low.

Variable land area by t-test analysis results obtained T count of 2,244 is greater than T table 2132. This means that T ***2244 arithmetic> T table 2,132, which means that Ho refused and Hi accepted. It turned out that the land area variable real impact on farmers' income*** jasmine Gambir in District rafts. The regression coefficient is positive, meaning that the variable has a land area of influence is directly proportional to income. Every additional land area of 1%, it will increase revenue by

1208570.155%. This is in line with the results of research conducted by Suryani (2012), the area real impact on farm income food crops because of the increasing area of land cultivated by farmers for cultivation of food crops then the higher the production of farm crops, causing a growing number of income received by farmers.

The results of T-test analysis shows that the variable production has T 10 964 count greater than 2,132 T table. Therefore

T 10 964 arithmetic> T table 2,132, means that Ho refused and Hi accepted. This means that production variables significantly affect farmers' incomejasmine Gambir in District rafts. While the value of the regression coefficient indicates a positive value, it means that production variables affect directly proportional to income. Every increase production by 1%, it will increase revenue by 9090,741%. Increased production of jasmine gambier caused more by the wider land area and the nature of the jasmine plant annual or every day can be learned so that productivity increased and farmers' income earned will increase.

2. Hypothesis Testing Using Test-F Based on Table 2 can be explained that the F count obtained at 48 337 while the F table 1.973823. It is proved that 48 337 F count> F table 1.973823, which means that Ho refused and Hi accepted. All socio-economic variables such as age ***farmers, the contribution of other income, dependents, land use, and the production turned out to have real impact on farmers' income***jasmine Gambir in District rafts.

Based on Table 3 can be explained that the accuracy of the regression model used can be shown by the coefficient of determination (R2) were very close to 100% is equal to 0749, which means variations in the value of income jasmine Gambir in District rafts can be explained 74.9% by the variable age of farmers, the contribution other income , dependents, land use, and production while the remaining 25.1% is influenced by other variables outside the model or other variables not studied.

Table 2. Analysis of Variance Farmers Bed Gambir Using Test-F

Source variance	number Squares	db	the mean RataKuadrat	F Count	F Table 10%
Regression	$3{,}078x10^{13}$	5	$6{,}155x\ 10^{12}$	48.337	1.973823
residual	1,031x1012	81	1,273x 1011		
Total	4,109x 10 13	86			

Table 3. Analysis The coefficient of determination (R2)

Model	R	R2	adjusted R2	Std. Error of the Estimate
1	0.865	.749	0.733	356,847.252

Sources: Primary data is processed, 2013

CONCLUSION

result analysis relationship relatively between

socio-economic characteristics such as age of farmers,

contribution of other income, dependents,

large land, and production that influence

Gambir jasmine farmers' income levels are

partial (analysis Test-T) is:

a. variables age farmers, total amenability family, and contribution income other

evidently not take effect real to

Gambir jasmine farmers' income.

b. variables production and large land evidently

significant effect on the level of income

Gambir jasmine growers.

result analysis relationship relatively between

socio-economic characteristics such as age of farmers,

contribution of other income, dependents,

large land, and production that influence

Gambir jasmine farmers' income levels are

simultaneously or together (analysis Test-F)

show that all variable social

The economy all influence

significant effect on farmers' income jasmine

Gambir.

result analysis coefficient determination (R^2)

show that level income farmer

jasmine gambir in sub-district Raft districts

Banjarnegara 74.9% explained or influenced

by farmers age variable, contribution earnings

other, amenability family, large land, and

production. While the remaining 25.1% is influenced

by other variables not examined.

BIBLIOGRAPHY

Andre S, Leo, 2012. Influence Analysis on Production Production Input Cassava Farm in the village of the District Sukasari Pegajahan Bedagai Serdang. Essay. Faculty of Agriculture. University of North Sumatra, Medan (unpublished).

Arikunto, S., 1997. Research Procedure A Approach Practice. Rineka Create. Jakarta.

The Central Bureau of Statistics Banjarnegara, Banjarnegara 2012. In Figures. Banjarnegara district. 289 p.

Bowo, Tri. 2010. Analysis of Factors Affecting the Production of Belimbing (Studies Case Village Betokan Demak Subdistrict Demak.Skripsi district. Faculty of Economics. Diponegoro University, Semarang. Central Java (unpublished).

Cahyono, Andy, Nur Ainun Jariyah and Yonky Indrajaya, 2010. Socioeconomic Characteristics Economy Affecting Household Income pine sap tappers in the village Somagede Kebumen in Central Java.

Gujarati, Damodar (2003), Econometric. Publisher, Jakarta.

Setiawan, Nugraha, 2007. Sample Size Determination Using Formulas and Tables Krejcie Slovin-Morgan: Assessing Concepts And Application. Faculty Animal Husbandry, Padjadjaran University, Bandung.

Sinaga, Azul S. 2009. Socioeconomic Differences in characteristics, Resources and Farmers Income Arabica with Robusta Coffee Farmers. Essay. Faculty of Agriculture. Social Department of Economics, University of North Sumatra (unpublished).

Sugiarto, Dergibson S., Lasmono TS, Deny SO, 2003. Technique Sampling. PT Gramedia Pustaka Utama. Jakarta.

Suryani, 2012. Socioeconomic Analysis of Factors Affecting Revenue Farming Farmers Plant Food On The Dry Land districts Wonogiri. Essay. Faculty of Agriculture. Eleven University in March, Surakarta (not published)