Analysis of Factors Affecting the Success of Onions Development Program in Kampar Regency

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Abstract. The purpose of this study is to analyze the factors influencing the success of the onion plant development program in Kampar regency. The research method used was the applied survey method using interview technique and observation or direct supervision on the location of the object. The briefing of the interviews as well as the accuracy of collecting the required data was guided by the structured questionnaires. Determination technique of location / region sampling was done purposively based on the potency and capacity of commodity development. While the respondents were taken by cluster purvosive sampling method in order to classify the samples in accordance with the purpose of the study, determined by as many as 100 people taken from members of the farmer group. Analytical technique used is by using Logic Regression Analysis to determine the factors that influence the success of the program seen from the characteristics of farmers. From the results of this study it can be concluded that the factors influencing the success of onion development program in Kampar regency were age (X1), education (X2), income (X3), ethnicity (X4), jobs (X5) And family responsibility (X6) could be made as follows:

\[ \log \frac{Y}{1-p} = -1.778 + X1^{0.021} + X2^{0.028} - X3^{0.213} + X4^{1.986} + X5^{2.930} - X6^{0.455} \]

From the above equation, it can be explained that the attributes that are positively related are X1 (age), X2 (education), X4 (ethnicity) and X5 (jobs) while the negative correlates are X3 (income) and X6 (family responsibility). From the logical regression result it can be seen that the significant value <0.05, then the independent variable influenced the dependent variable, so that when viewed from the table in the equation it was found that factors affecting the success rate of red onion development program in Kampar regency were X2 (education), X4 (ethnicity), X5 (jobs), and X6 (family responsibility).

Keywords: Development program, onion, factors affecting

1. Introduction
The various policies and development programs in Kampar regency, especially in the field of Agriculture and Food Security as outlined in the Strategic Plan (Renstra) are clearly designed by considering the amount, quality and distribution of potential resources. This situation is increasingly important in the era of regional autonomy which on the one hand provides opportunities and considerable flexibility for regions in designing the implementation of regional development area. But on the other side is a challenge in itself, as a result of the region should be able to grow creativity, especially in the form of concrete efforts in accelerating the progress of regional development.

The Government of Kampar Regency in efforts to improve the welfare of its people through the horticulture sub-sector has done the development of red onion cultivation, where red onion cultivation has never been developed in Kampar District, because most of the land in Kampar Regency is...
peatland. Related to red onion production, the Ministry of Agriculture has conducted various development and research to meet the needs of red onion production domestically including in the development of onion cultivation in peatlands. The onion planting in peatlands is a groundbreaking program to broaden the development of peatland specific to red onion inclusions, including in off-season conditions (high rainfall). In addition to looking at the territory of Kampar Regency that has the potential of lowland and wide peatlands.

Based on the findings of science and technology on the development of onion peatland agriculture, Kampar Regency government seize opportunities to improve the welfare of its people through the breakthrough of the development of onion cultivation in Kampar Regency. Until now, the production of onions in Kampar Regency is only for the purposes of the region only. But will slowly expand this commodity market to the District to neighboring provinces. Kampar regency government also targets to become the center of red onion crops in Sumatra in 2016. One of the largest land is located in Geringging Village Kampar Kiri District which has 13 hectares of onion land.

According to Titiek Purbiati (2012), in the cultivation of onion in peatland needs to adopt the research and modification so that according to its agro-ecosystem which include peat incision, soil processing, fertilizer application, weed cleaning, pH neutralizing and paving dams. The application of technology certainly requires a large cost, for that the government also helps the cost of development with APBD worth Rp.6 billion and APBN worth Rp.3 billion, while the ministry of agriculture will realize assistance Rp.2.5 billion for land in the village of Bima, Kampar Village and Nganjuk Village. Based on the research result of Yasid, H, and co. (2015) that in Geringging River Village Kampar Kiri Subdistrict Kampar Regency, the commodity of red onion has the potential to be the superior commodity in the area with the note of the need for continuous effort in bracing obstacles that still plagues such as related to infrastructure, cultivation technology, and farmer skill which should be continuously improved.

The number of farmers who cultivate red onion crops as a whole should be a benchmark that can provide significant value for the income of the community, but in line with the government program until now there has been no facts in the form of figures that will be the comparison of how much income is obtained by the community With the availability of existing land to produce red onion crops. Based on the detailed description, the research team is interested in conducting research entitled "Analysis of Factors Affecting the Success of Onion Development Program in Kampar Regency". The purpose of this study is to analyze what factors influence the success of the red onion plant development program in Kampar Regency.

2. Research Method
This research was conducted in March 2016 until September 2016. The type of data used in this study is Primary and Secondary Data. The research method used is the applied survey method using interview technique and observation or direct supervision on the location of the object of development of onions. The briefing of the interviews as well as the accuracy of collecting the required data is guided by a structured questionnaire.

Determining the technique of location / region sampling is done purposively based on the potency and carrying capacity of commodity development. While the respondent sample taken by cluster purposive sampling method to classify the sample in accordance with the purpose of the study, is determined as 100 people taken from members of farmer groups who receive the assistance of APBD and APBN each 50 farmers taken with probability sampling as a businessman of onion production.

The analysis used to determine the factors that influence the success of the program seen from the characteristics of farmers is logical regression analysis. Logistic regression is part of the regression analysis used when the dependent variable (response) is a dichotomous variable. Dichotomous
variables usually consist of only two values, representing the occurrence or absence of an event usually labeled 0 or 1 (Hosmer, Lemeshow, 1989). Logistic regression models can be established by looking at the estimation values of parameters in Variables in The Equation. Regression model that is formed based on parameter estimation value in Variables in The Equation is as follows.

\[
\log \left( \frac{P}{1 - p} \right) = \beta_0 + \beta_1X_1 + \beta_2X_2 + \ldots + \beta_kX_k
\]

Hypothesis testing is done by comparing the level of significance (sig) with the error rate (\(\alpha\)) = 5%.

3. Result and Discussion
Factors tested against the success of the development program of red onion crop in Kampar is age \((X_1)\), education \((X_2)\), income \((X_3)\), ethnicity \((X_4)\), jobs \((X_5)\), family responsibility \((X_6)\). The probability variable in this case consists of two alternative options: "Success" is coded \((1)\) and "Not successful" is coded \((0)\). After analyzing the results obtained as follows:

| Observed | Predicted | Percentage Correct |
|----------|-----------|-------------------|
|          | Success   | Not Successful    |        |
| Step 1   | Successful| Not Successful    | 86.4   |
| Successful| 51        | 8                 |
|          | Successful| 9                 | 32     |
| Overall Percentage | | | 83.0 |

a. The cut value is .500

From table 1 it is known that there are 59 respondents from Not Successful categories and among them there are 8 respondents who have the possibility to succeed and 51 respondents totally failed. So it is possible for this program to work if it is improved. From then there are 41 respondents who succeed, but it turns out there are 9 respondents who have a chance to fail, but these 9 respondents are trying so they will still succeed.

Attributes that become factors influencing the success of onion development program in Kampar regency are age, education, income, ethnicity, jobs, family responsibility. The equations are formed as follows:

\[
\log Y = \frac{P}{1 - p} = -1.778 + X_1^{0.021} + X_2^{0.028} - X_3^{0.213} + X_4^{1.986} + X_5^{2.930} - X_6^{0.455}
\]

From the results of the above equation can be explained what attributes are significant. Positively related are Age \((X_1)\), \(e(X_2)\), ethnicitly \((X_4)\) and jobs \((X_5)\), while Negative related are income \((X_3)\) and family responsibility \((X_6)\).

From the equation above it is known that if there is an age increase of respondents as much as 1 year then there is an opportunity for the respondents success rate in developing red onion will increase by 2.1%. This means that the chances of unsuccessful respondents will decrease with age, this is because the higher the age of respondents the tendency of respondents to develop onion will be more serious by following the advice of agricultural extension in planting onions.
If there is an increase in education level of 1 year then there is a chance of successful respondents in developing onion cultivation increased by 2.8%. This means that the higher the respondent's education, the easier it will be to absorb information and be more aggressive in finding information for success in developing red onion.

If the level of consumer income increased by Rp.1, then there is an increased opportunity for unsuccessful respondents as much as 2.13%. This is due to the higher consumer income than the respondent's only makes the onion development program just as a side income so that respondents tend to not be serious in managing the cultivation of onions.

From the above equation is known that if the Javanese is increased by 1 person then there is a chance for successful respondents in developing the red onion of 19.86%. This is because the Javanese ethnic has a better work ethic characteristics in onion cultivation.

From the equation is known that if the farmer's jobs increases then there is a chance for successful respondents in cultivating onions as much as 29.3% This is because the jobs of farmers to make respondents have experience in cultivating plants so that the success rate will be higher than other types of jobs.

From the above equation is known that if the responsibility of the respondent's family increased by one person, then there is a chance for respondents to not succeed in cultivating onion by 4.5%. This is due to the increasing number of responsibility in the families of respondents, the tendency to use government assistance is not in accordance with the recommendation because it diverted its use for consumptive costs, where the greater the responsibility of the family then the higher the daily needs. So there is a tendency of respondents to cover the cost of daily consumption by using government assistance funds.

4. Conclusion
From the results of this study, which affect the success rate of red onion development program in Kampar regency is X2 (education), X4 (ethnicity), X5 (jobs), and X6 (family responsibility). The most positive influence is the factor X5 that is equal to 29.3%, this is because the jobs of farmers to make respondent have experience in cultivating plants so that the success rate will be higher than other types of jobs.

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