

# Income Analysis of Paddy Farmers in Malang District

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**Keywords:** capital, arable land area, level of education, amount of labor, age, number of family dependents, income

**Abstract:** Factors that influence the income of rice farmers include capital, arable land area, level of education, number of workers, age, number of family dependents. The purpose of this study was to determine the size of the capital factor, the area of arable land, the level of education, the amount of labor, age, the number of family dependents significantly influence the income of rice farmers in Donomulyo Village, Malang Regency. This research was carried out by simple random sampling. In this study, the study population is the whole family of farmers who own agricultural land who have a livelihood in the agricultural sector in Donomulyo Village. To analyze the influence of these factors, multiple linear regression analysis is used. Data processing using SPSS 20 for Windows software. The results of this study indicate that the variables of capital, area of arable land, level of education, number of workers, and age have a significant positive effect on the income of rice farmers, while the variable number of family dependents used in this study has no significant positive effect on the income of rice farmers. From the analysis of 85.9% variables of capital, land area, education, number of workers, age, and number of family dependents used in this study can be used to predict the effect on farmers' income, while the remaining 15.1% is explained by variables others that were not examined in this study. This shows that there are other factors that influence the income of rice farmers in addition to capital factors, land area, education, number of workers, age, and a number of family dependents.

## 1 INTRODUCTION

The contribution of the agricultural sector to Indonesia's Gross Domestic Product (GDP) and employment is still very high. Based on BPS's 2010 statistic data the number of Indonesians aged 15 years and over and working in the agricultural sector is still quite large at 40.28%, while in the industrial sector 15.96%, trading 22.58% and other sectors 10.53 %. This shows that the agricultural sector is still the largest sector in absorbing labor in Indonesia. This is relatively smaller when compared to developed or industrial countries. In America the workforce in the agricultural sector is 3%, while in Japan it is 4.1% (Todaro, 2004). Similar to the situation in Indonesia, for the province of East Java with a population of 37,476,757 people (BPS 2010), the agricultural sector is still the largest sector in absorbing labor.

The development and modernization of agriculture in developing countries can contribute to increasing production, increasing farmers' incomes and providing markets for industrial sector production,

expanding employment opportunities, increasing exports and creating savings for development. The most vulnerable sector in most parts of East Java is the agricultural sector. One of the regions with the largest food agricultural production is Malang Regency, consisting of 33 sub-districts, and has an area of agricultural land around 14.31 percent (45,888 hectares) is rice fields, 35.45 percent (113,664 hectares). Following is a picture of harvested food crops in Malang Regency, Figure 1.

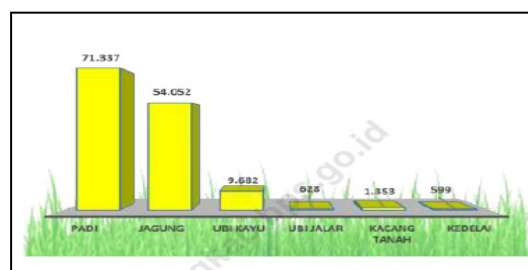


Figure 1: The extent of Harvesting of Food Crops in Malang Regency, 2016 (BPS, Kabupaten Malang in Figures 2017)

If viewed based on BPS data, Donomulyo Subdistrict is the largest sub-district with rice fields and fields harvested in Malang Regency, therefore this study focuses on the sub-district.

| Kecamatan<br>Subdistrict | Luas panen<br>Harvested Area (Ha) | Produktivitas<br>Productivity (Kw/Ha) | Produksi<br>Production (Ton)          |               |
|--------------------------|-----------------------------------|---------------------------------------|---------------------------------------|---------------|
|                          |                                   |                                       | Gabah Kering<br>Giling<br>Milled Rice | Beras<br>Rice |
|                          |                                   |                                       | (4)                                   | (5)           |
| (1)                      | (2)                               | (3)                                   | (4)                                   | (5)           |
| 010. Donomulyo           | 5 805                             | 69,27                                 | 39 051                                | 24 680        |
| 020. Kalipare            | 5 314                             | 69,69                                 | 37 169                                | 23 491        |
| 030. Pagak               | 1 513                             | 67,81                                 | 10 262                                | 6 485         |
| 040. Bantur              | 2 159                             | 66,93                                 | 14 448                                | 9 131         |
| 050. Gedangan            | 770                               | 64,42                                 | 4 959                                 | 3 134         |
| 060. Sumbermanjing       | 1 490                             | 68,03                                 | 10 137                                | 6 407         |
| 070. Dampit              | 3 636                             | 70,85                                 | 25 762                                | 16 282        |
| 080. Tirtoyudo           | 944                               | 70,21                                 | 6 629                                 | 4 189         |
| 090. Ampelgading         | 1 137                             | 67,38                                 | 7 664                                 | 4 844         |
| 100. Poncokusumo         | 1 387                             | 70,07                                 | 9 722                                 | 6 144         |
| 110. Wajak               | 1 699                             | 72,10                                 | 12 080                                | 7 634         |
| 120. Turen               | 3 441                             | 74,39                                 | 25 598                                | 16 178        |
| 130. Bululawang          | 1 549                             | 74,10                                 | 11 478                                | 7 254         |
| 140. Gondanglegi         | 1 836                             | 75,62                                 | 13 880                                | 8 772         |
| 150. Pagelaran           | 2 237                             | 75,25                                 | 16 836                                | 10 641        |
| 160. Kepanjen            | 4 073                             | 75,93                                 | 30 926                                | 19 545        |
| 170. Sumberpucung        | 2 834                             | 72,95                                 | 20 671                                | 13 064        |
| 180. Kromengan           | 2 453                             | 70,49                                 | 17 044                                | 10 772        |
| 190. Ngajum              | 1 946                             | 69,73                                 | 14 349                                | 9 069         |
| 200. Wonosari            | 1 238                             | 69,84                                 | 8 649                                 | 5 466         |
| 210. Wagir               | 726                               | 69,99                                 | 5 081                                 | 3 211         |
| 220. Pakisaji            | 2 650                             | 74,34                                 | 19 700                                | 12 450        |
| 230. Tajinan             | 1 734                             | 70,11                                 | 12 155                                | 7 682         |
| 240. Tumpang             | 2 604                             | 71,42                                 | 18 336                                | 11 588        |
| 250. Pakis               | 2 200                             | 74,58                                 | 16 407                                | 10 369        |
| 260. Jabung              | 2 093                             | 70,02                                 | 14 656                                | 9 263         |
| 270. Lawang              | 1 765                             | 75,32                                 | 13 296                                | 8 403         |
| 280. Singosari           | 4 037                             | 71,75                                 | 28 965                                | 18 306        |
| 290. Karangploso         | 2 201                             | 70,40                                 | 15 351                                | 9 702         |
| 300. Dau                 | 262                               | 71,20                                 | 1 869                                 | 1 181         |
| 310. Pujon               | 42                                | 62,64                                 | 265                                   | 167           |
| 320. Ngantang            | 1 661                             | 69,06                                 | 8 317                                 | 5 256         |
| 330. Kasembon            | 1 900                             | 70,70                                 | 13 433                                | 8 489         |
| Kabupaten Malang         | 71 337                            | 70,81                                 | 505 138                               | 319 247       |

Figure 2: Harvest area, productivity, and rice production (rice fields and fields) based on Districts in Kabupaten Malang, 2016 (BPS: Kabupaten Malang dalam Angka 2017)

Based on the results of the Population Registration at the end of the year, the total population of Donomulyo Subdistrict in 2015 was 62,548 people with a density of 325 people / km<sup>2</sup>. Population composition by sex shows that 50.45 percent are male population and 49.55 percent are a female population with sex ratio rate of 101.81 percent. In the economic structure of Malang Regency, the Agricultural Sector still has an important role in economic development. Judging from its contribution to the formation of Gross Regional Domestic Product in 2016, this sector contributed around 30 percent or ranked first. The absorption capacity of the Agriculture Sector towards employment opportunities in Malang Regency is also dominant compared to other sectors.

| Desa/Kelurahan         | Luas Lahan Sawah (Ha)      |                                   |                                  |                              | Jumlah   |
|------------------------|----------------------------|-----------------------------------|----------------------------------|------------------------------|----------|
|                        | Berpengairan<br>diusahakan | Tdk<br>Berpengairan<br>Diusahakan | Sementara<br>Tidak<br>Diusahakan | Lahan<br>Tidak<br>Diusahakan |          |
|                        | (2)                        | (3)                               | (4)                              | (5)                          |          |
| 1. Sumberoto           | 33,20                      | 156,60                            | -                                | -                            | 189,80   |
| 2. Purworejo           | 32,00                      | 148,00                            | -                                | -                            | 180,00   |
| 3. Mentaraman          | 28,90                      | 213,70                            | -                                | -                            | 242,60   |
| 4. Donomulyo           | 415,50                     | 307,80                            | -                                | -                            | 723,30   |
| 5. Tempursari          | 65,00                      | 185,90                            | -                                | -                            | 250,90   |
| 6. Tlogosari           | 24,50                      | 132,50                            | -                                | -                            | 157,00   |
| 7. Kedungsalam         | 77,00                      | 220,50                            | -                                | -                            | 297,50   |
| 8. Banjarjo            | 142,80                     | 178,70                            | -                                | -                            | 321,50   |
| 9. Tulungrejo          | 325,70                     | 235,50                            | -                                | -                            | 561,20   |
| 10. Purwodadi          | -                          | 249,60                            | -                                | -                            | 249,60   |
| Kecamatan<br>Donomulyo | 1 144,60                   | 2 028,80                          | -                                | -                            | 3 173,40 |

Figure 3: Area of paddy fields in Donomulyo Subdistrict, based on Villages (BPS, 2018)

In agriculture, production is obtained through a process that is quite long and full of risks. The length of time needed is not the same depending on the type of commodity being cultivated. Not only time, but the adequacy of the production factor also contributes to the achievement of production. In terms of time, plantation businesses need a longer period compared to food crops and some horticultural crops. Each type of plant also has a periodization that is different from each other.

Agriculture in a narrow sense is defined as the act of utilizing a plot of land to cultivate certain types of plants, especially those that are seasonal. Farming is organizing (managing) assets and ways in agriculture, or more precisely is the activity of organizing agricultural production facilities to obtain results or profits (Daniel, 2002).

There are two terms that need to know the difference in meaning clearly, one term is "farming" (farming) and the second is "agriculture" (agriculture). In subsistence agriculture, the two terms are synonymous. Every farmer uses his own land and family labor. He held his own food barn, provided his own seedlings, water or irrigation, fertilizer and working equipment, consumed his own crops, and exchanged some of the harvests with other materials or goods. Production initiatives are solely in the hands of individual farmers. The production is not affected at all by the market or development plan. A subsistence farmer is an independent person, who works according to his own plan, with the ingredients alone managing his business independently. Subsistence farmers can be

equated with craftsmen (Mosher, in Notohadiprawiro, 2006). If the main objectives of agricultural development and rural areas in developing countries are to improve the standard of living of rural communities through increased income, total production (output), and productivity of small farmers, then the governments of developing countries must first identify the main source of agricultural progress and basic conditions that would affect the success of the main goal. All these important elements are clearly related to each other so as to form a very complex relationship, but to facilitate understanding, it can be separated into three components, namely:

Sources of small-scale agricultural progress:

- a. Technological progress and innovation
- b. The right government economic policy
- c. Supporting social institutions

General requirements for rural progress

- a. Modernization of the farm structure in order to meet the increasing demand for food
- b. Creation of an effective support system
- c. Changes in rural social conditions to improve the living standards of rural communities

## 2 LITERATURE REVIEW

### 2.1 Capital

According to Mubyarto (1989), farming capital is goods or money that together factor in the production of land and labor and produce new goods, in this case agriculture. Farm capital goods are important in enhancing the efficiency of economic growth, in farming capital in the form of goods are livestock, hoes, plows and other agricultural equipment, fertilizers, seeds, crops that have not been sold, plants that are still in the fields and others.

Capital is a tool to foster income so there is interest or encouragement to create capital. Capital is created by farmers by refraining from consumption with the expectation of greater income.

### 2.2 Agricultural Land

According to Wirardi (in Susilowati, 2010), land tenure is an order and procedure that regulates the rights and obligations of individuals or groups in the use and supervision of land. Land tenure in Indonesia has various forms. The status of land rights stipulated by the LoGA are: (1) Property rights, (2) Cultivation rights, (3) Right to use

buildings, (4) Usage rights, (5) Rental rights, (6) Land opening rights, (7) Right to collect forest products, (8) Other rights not included in those rights that will be determined by law. With the enactment of the LoGA, several forms of traditional land tenure have been changed their legal status.

Diverse land tenure status will influence certain characteristics, including: (1) guarantees for access to land in the long term, (2) ease of access to credit institutions, (3) ease of making decisions regarding land use, (4) guarantees of encroachment from other parties, (5) guarantees to obtain all production results on land use, (6) ease of transferring tenure rights over land to other parties, (7) ease of participating in group formation, and (8) convenience government intervention in terms of extension of credit assistance and direct investment. (Pakpahan in Susilowati, 2010)

According to Soekartawi (2001), the land area is the area of land owned by farmers. Until now the area of land owned by someone reflects the economic status from a traditional point of view, especially in rural areas. The wider the land owned or controlled the higher the economic status.

Siagian (1982) explained that "narrow land ownership usually presents a problem for farmers, namely the difficulty of farmers to increase agricultural production, in addition to the narrow land that causes the position and life of farmers to weaken". The extent of land ownership in this case ownership of land affects the amount of household income from various sources, this condition means that farmers with narrow land who do not have land will be less able to find income outside the agricultural sector than large land farmers. (Mustofa and Utaya, 1990)

The results of the agricultural census show that during the period 1983-1993 there was a change in the structure of the control of agricultural households and the most prominent was the increasing number of smallholders with their narrowing tenure and on the other hand there was control of a small number of large-scale farmer households (Sumaryanto and Rusatra, in Budiman 2011). Inequality in land tenure structures has led to inequality in income structures, because large land farmers succeeded in accumulating capital and expanding businesses in both farming and non-agricultural businesses.

### 2.3 Level of Education

In 1993 GBHN explained that national education rooted in the culture of the Indonesian people and

based on Pancasila and the 1945 Constitution was directed to improve the intelligence and dignity of the nation, to realize the people and people of Indonesia who are faithful and fearful of God Almighty quality and independent so as to build themselves and the surrounding community and can meet national development needs and be responsible for nation-building.

In the opinion of SadonoSukirno (1994) from the effects of education, training, and work experience, productivity will increase, further increasing the production so that income will increase.

## 2.4 Labor

Labor in agriculture in Indonesia is divided into labor in small farms and labor in large farms namely; plantation, forestry, livestock, and so on. In small farms, the majority of the workforce comes from the farmer's own family, although occasionally paying the hired labor. In agriculture, farmers besides functioning as laborers and as farmer leaders (managers), and besides contributing energy, farmers also regulate the organization of production as a whole. The farmer decides the problem of fertilization, land management, and whether or not to use labor from outside in addition to labor from his own family. (Mubyarto, 1989)

## 2.5 Age

Age or age is the period of time in the year starting from the year of birth. Age is one of the identities that can affect workability and mindset. In general, young and healthy farmers have better physical properties than older farmers, young farmers are also quicker to accept the recommended things. This is because young farmers are more willing to take risks. Young farmers usually lack experience. To compensate for this shortage, he was more dynamic, so he quickly gained valuable experiences for the development of his life in the future. (Adhawati in Purwanti, 2007).

## 2.6 Number of Family Dependents

Family dependents are all people who live in one house or who are outside and are borne by the head of the family, which includes wives, children and other family members who take part in the ride. On the one hand, the large number of family dependents is a burden for the head of the family to finance all kinds of needs. The more family members who live together, the more the cost of living must be spent.

On the other hand, family members are assets for farmers, namely in the form of labor that can be utilized in managing farming. Thus the more family members owned by farmers, the more labor can be utilized. (Wahap in Purwanti, 2007)

## 3 METHODS

This type of research is quantitative. The purpose of this research is to find out the magnitude of the influence of capital factors, the area of arable land, level of education, amount of labor used, age, the number of family dependents on the income of farmers in Donomulyo Village, Malang Regency. With multiple linear analysis methods. The data in this study in the form of primary data and secondary data whose processing is done through the SPSS 20 for Windows program application. The sampling procedure is done by simple random sampling, which is a simple form of probability sampling, where each sample of the same size has a probability or equal opportunity to be selected from the population

1. Register the family of the farmer who owns the land in the sample village obtained from the village office.
2. Determine the number of families of farmers who own land, and obtain 511 families. Of the 511 households, 10% were taken, which would be used as respondents, namely 51 households.
3. Assign sample respondents using a random number table.

## 4 RESULTS

### 4.1 Capital

Of the 51 respondents selected as a sample, they issued capital for their farming business, between Rp. 300,000 - Rp. 3,500,000 each season.

Table 4.5 Distribution of Respondents by Capital

| No    | Capital                     | Res-pondent | %      |
|-------|-----------------------------|-------------|--------|
| 1     | < Rp 1.000.000              | 6           | 11,77% |
| 2     | Rp 1.000.000– Rp            | 15          | 29,41% |
| 3     | 2.000.000<br>> Rp 2.000.000 | 30          | 58,82% |
| Total |                             | 51          | 100%   |

Based on the table above, 51 respondents, mostly 6 respondents (11,765%) spent less than Rp 1,000,000. While as many as 15 respondents (29.41%) issued capital starting from IDR 1,000,000 to IDR 2,000,000, and a small portion of 30 respondents (58.82%) spent more than IDR 2,000,000

### 4.2 Cultivated Land Area

From the results of the study obtained data on the area of cultivated land of respondents amounting to varying between 0.13 - 3 hectares.

Table 4.6 Distribution of Respondents by Area of Cultivated Land

| No.   | land area (ha) | Respondent | %      |
|-------|----------------|------------|--------|
| 1     | >0,5           | 5          | 9,80%  |
| 2     | 0,5 – 2        | 14         | 27,45% |
| 3     | >3             | 32         | 62,74% |
| Total |                | 51         | 100%   |

Based on the table above, 51 respondents, mostly 32 respondents (62.74%) had arable land with an area of more than 3 ha. While 14 respondents (27.45%) had arable land with an area between 0.5 ha - 2 ha, while the remaining 5 respondents (9.8%) had arable land covering an area of 0.5 ha

### 4.3 Level of Education

Of the 51 respondents who were selected as the sample, the majority of respondents were of primary education level. More details about the respondent's education level are explained in the following table:

Table 4.7 Distribution of Respondents by Education

| No.   | level of education             | Respondent | %      |
|-------|--------------------------------|------------|--------|
| 1     | Primary school/ equivalent     | 11         | 21,57% |
| 2     | Junior school / equivalent     | 37         | 72,55% |
| 3     | High school / equivalent above | 3          | 5,88%  |
| Total |                                | 51         | 100%   |

Based on the results of the study of 51 respondents, most of them were 37 respondents (72.55%) with junior high school / equivalent education. While 8 respondents (21.57%) had an elementary / equivalent education, while the remaining 3 respondents (5.88%) had a high school / equivalent education and above.

### 4.4 Number of Workers Used

Based on the results of the study obtained data on the number of workers in each respondent's family ranged from 2 - 9 people. The following table shows the distribution of respondents according to the number of workers.

Table 4.8 Distribution of Respondents by Number of Workers Used

| No.   | Total manpower | Respondent | %      |
|-------|----------------|------------|--------|
| 1     | 1 – 3          | 14         | 27,45% |
| 2     | 4 – 5          | 24         | 64,7%  |
| 3     | 6 – 8          | 8          | 7,84%  |
| Total |                | 51         | 100%   |

Based on the table above, most of the respondents of farmers in Donomulyo Village use 4-5 workers to work on their farms. While farmers who use more than 9 workers are 2 respondents.

### 4.5 Age

A person's age affects the decision and ability of physical activity. Physical endurance affects the absorption of one's work time to work. Of the 51 respondents selected as samples aged between 39-60 years.

Table 4.9 Distribution of Respondents by Age

| No.   | Age Group (Year) | Respondent (Orang) | %      |
|-------|------------------|--------------------|--------|
| 1     | 36 – 54          | 16                 | 31,37% |
| 2     | 55 – 60          | 35                 | 68,63% |
| 3     | > 60             | 0                  | 0%     |
| Total |                  | 51                 | 100%   |

From these data it can be seen that more than 1% of respondents aged between 36 - 54 years are as many as 16 respondents (31.37), which is associated with aspects of Human Resources this indicates productive age. While the remaining 35 respondents (68.63%) aged 55-60 years.

### 4.6 Number of Family Dependents

The number of family dependents in this case is the number of family members who are economically still dependent on the head of the family. Based on the results of the research data, the number of family dependents is in the range of 0-6 people. The following table shows the distribution of

respondents according to the number of family dependents.

Table 4.10 Distribution of Respondents by Number of Family Dependents

| No.   | Number of family dependents | Respondent | %      |
|-------|-----------------------------|------------|--------|
| 1.    | 0 – 3                       | 15         | 29,41% |
| 2.    | 4 – 5                       | 31         | 60,78% |
| 3.    | >5                          | 5          | 9,8%   |
| Total |                             | 51         | 100%   |

From table data 4.10 it can be seen that as many as 15 respondents (29.41%) have family dependents between 0-3 people. While 31 respondents (60.78%) have family dependents between 4 people - 5 people, and the remaining 5 respondents (9.8%) have a family burden of more than 5 people.

#### 4.7 Income

Revenues from farms referred to in the study is income received by households from farming activities. From the results of the study, it was obtained data that most of the income from farming ranged between Rp. 1,000,000 - Rp. 14,000,000. More details about the income of respondents can be seen in the following table:

Table 4.11 Distribution of Respondents by Revenue

| No.   | Income (Rp)           | Respondent | %       |
|-------|-----------------------|------------|---------|
| 1     | 1.000.000 - 2.000.000 | 6          | 11,765% |
| 2     | 2.500.000 - 5.000.000 | 9          | 17,65%  |
| 3     | 5.000.000 - 7.500.000 | 26         | 50,98%  |
| 4     | > 7.500.000           | 10         | 19,61%  |
| Total |                       | 51         | 100%    |

Of the 51 respondents of farmers in Donomulyo Village, the amount of income earned by farmers was between Rp.1,000,000 - Rp.2,000,000, which was 6 respondents (11.765%). While farmers who earn more than Rp 7,500,000 are only 10 respondents (19.61%).

## 5 DISCUSSION

The results of this study are in accordance with the results of previous studies by Budiman.R.S. (2007) entitled "Analysis of Factors Affecting Farmer Income and Income Distribution of Farmers in RambaiKaca Village, PajarBulan District, Lahat

Regency, South Sumatra", which shows that capital has a significant influence on farmers' income.

Meanwhile, according to Mubyarto (1989), farming capital is goods or money that together factor in the production of land and labor and produce new goods, in this case agriculture. Farm capital goods are important in enhancing the efficiency of economic growth, in farming capital in the form of goods are livestock, hoes, plows and other agricultural equipment, fertilizers, seeds, crops that have not been sold, plants that are still in the fields and others. Capital is a tool to foster income so there is interest or encouragement to create capital.

Based on the research and some of these opinions about the influence of capital on the level of income, the capital indeed greatly influences the amount of income for farmers because capital is one of the factors of production from agriculture. If farmers who have high capital, the income will be greater than the farmers who have low capital, because with high capital farmers can run large amounts of farming so that it is possible to get income from larger crops.

Purwanti (2002), entitled "Revenue of the Sub Das Malino Farmers of Gantarang Village, Gowa Regency", which shows that the higher level of education can increase farmers' income (positive influence).Whereas according to SadonoSukirno (1994) from the effects of education, training, and work experience, productivity will increase, then it will cause additional production so that income will increase. The level of education indeed greatly affects the amount of income for farmers because education is one of the factors of production from agriculture. If the farmer has a high level of education, the income will be greater than the farmers who have a low level of education, with a high level of education, farmers can run a farm or plant rice with the theory and knowledge they have so that it is possible to earn income from crops the greater one.

Research conducted by Safaruddin, M. Shawwal and Muhammad Arsyad (2010) entitled "Contribution of Extension to Production Increases and Rice Farmer Income in North Luwu District", which shows that the variable number of family dependents contributes positively to rice farmers.

From the results of the research and various opinions about the effect of the number of family dependents on the level of income, the number of family dependents affects the amount of income for farmers because if farmers have a large number of family dependents, it will reduce their income more

than farmers who have a small number of family dependents.

Simultaneously, capital, land area, education, number of workers, age, and family dependents significantly affect the income of rice farmers. From the results of the analysis it is known that 85.9% of the variables of capital, land area, education, number of workers, age, and family dependents used in this study can be used to predict the effect on farmers' income. While the remaining 15.1% is explained by other variables not examined in this study. This shows that there are other factors that influence the income of rice farmers in addition to capital factors, land area, education, number of workers, age, and family dependents.

## 6 CONCLUSION

The higher the capital, the higher the income of farmers. So the capital positively significantly affects the income of rice farmers in Donomulyo Village.

Positive significantly the area of cultivated land affects the income of rice farmers. With large arable land, the income of rice farmers is also high.

Education level positively significantly affects the income of rice farmers. With the increasingly high level of education, productivity will increase, further increasing the production so that income will increase.

The amount of labor used is the higher the income of rice farmers, because they use their family members as laborers. So that the number of workers influences the income of farmers in the village of Donomulyo.

The older the farmer is, the greater the income. This is because older farmers have more experience in farming. So that the age factor also affects the income of farmers.

The number of family dependents does not have a significant effect on farmers' income. Because the number of family dependents or family members is a burden for farmers, namely by increasing the number of family dependents can reduce the level of income of farmers. Thus the more family members owned by farmers, the lower the income of farmers.

## 7 RECOMMENDATION

To improve the welfare of farmers, especially rice farmers, the regional government needs cooperation

with various parties, such as academics, practitioners, the ministry of agriculture. Agricultural development planning, especially food crop agriculture (paddy) requires long-term planning involving these various crops. From the conclusions in this study, the capital and education level of the farmers is still very low so it needs to increase the capital. Both of these are important factors in increasing income, besides regeneration in this sector is still very low. Agricultural technology, which is of course very much needed to increase productivity and income, must be applied and of course requires planning and collaboration of several parties.

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