Factors Affecting the Working Time of Female Crystal Guava Farm Woman Laborers in Gadingrejo Village, Umbulsari Sub-district, Jember Regency

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Abstract: Jember Regency has high potential in developing horticultural crop cultivation, especially fruit crops. One of the fruit commodities in Jember Regency is crystal guava. In crystal guava farming activities require labor, where labor is divided into two, namely male labor and female labor. Farming activities carried out by farm laborers are influenced by the outflow of work time. The purpose of this study was to analyze the factors that influence the work time of female crystal guava farm laborers in Gadingrejo Village, Umbulsari District, Jember Regency. The results showed that the factors that were significant in influencing the labor time of female crystal guava farm laborers in Gadingrejo Village, Umbulsari District, Jember Regency were age (X1) and education level (X2) while the factors that were not significant were work experience (X3), number of family members (X4) and husband's income (X5).

Keywords: Factors that influence, Female labor, Women's working time

INTRODUCTION

Agriculture is one of the most basic activities for humans, because it can provide food which is a basic human need. The horticulture sub-sector is an important component in agricultural development which has the opportunity to compete in the market and prospects to be developed so that many create jobs for the community and of course unemployment can be reduced. In general, the types of horticultural crops cultivated are vegetable crops, fruit crops and ornamental plants. There are various benefits obtained from horticultural crops, namely as a source of income, additional food sources, and others.

Guava is one of the leading fruits that has the potential to be developed and compete in the global market, besides that the fruit has high nutritional value. Based on the Ministry of Agriculture Decree No. 540/Kpts/SR.120/9/2007 crystal guava is a cultivar of guava. Crystal guava has several advantages, namely the number of seeds that are less than 3%, a thick waxy layer, large fruit size and crunchy fruit texture. This guava is classified as having a high selling value compared to other guava varieties, besides that it is easy to cultivate and bear fruit throughout the year. Crystal guava plants are planted in all provinces in Indonesia, based on BPS statistics (2023), crystal guava production in Indonesia in 2022 increased by 470,237 tons. In Indonesia, Java Island is the center province of crystal guava cultivation. In 2020 crystal guava production in Indonesia was 393,380 tons and increased in 2021 by 419,261 tons. While in 2022 East Java Province became the highest crystal guava production in Java Island which increased to 117,919 tons (41%) and second place

was in West Java Province which reached 79,961 tons (15%), while Central Java Province decreased to 91,293 tons (-18%).

Jember Regency has high potential in developing horticultural crop cultivation, especially fruit crops. One of the fruit commodities in Jember Regency is the crystal guava commodity. The productivity of fruit commodities in Jember Regency in 2020 amounted to 26.69 kw/tree with the number of trees 4,966,352 and production reaching 5,689,164 kw. The crystal guava commodity ranks tenth in the leading commodities in Jember Regency after bananas, siam oranges, papaya, mangoes, rambutan, dragon fruit, salak, durian, and jackfruit. Based on its productivity, crystal guava is still relatively small, which is in the range of 1.38 kw/tree and allows for increased productivity. Productivity is very influential in a farm. One way to increase productivity is with labor.

Farmers in the agricultural sector are common among the community, especially rural communities. In the development of the agricultural sector, the main human resources are farmers and their families as well as labor or farm laborers. Farming activities carried out by farm laborers are influenced by the allocation of work time. Male farm laborers can generally do all farm work, especially the type of work that requires muscle skills that women are not able to do, such as planting and fertilizing. Female farm laborers also play an important role in crystal guava cultivation, namely by carrying out lighter activities but requiring more accuracy and tenacity such as maintenance and fruit packing.

The working time of female farm laborers depends on the factors of age, education level, work experience, number of family members, and husband's income. Therefore, this research was conducted to find out what factors influence the work time of female crystal guava farm laborers in Gadingrejo Village, Umbulsari District, Jember Regency.

METHOD

The methods used in this research are descriptive and quantitative research. Descriptive research is known as a study conducted to characterize certain symptoms, conditions, or events that exist in the population in an area. Quantitative research is research that uses numerical data and statistical analysis to explain an event (Rukminingsih et al., 2020).

The research location was determined purposively and selected, namely in Gadingrejo Village, Umbulsari Subdistrict, Jember Regency. The determination of the research location was based on primary data and secondary data which showed that the research area was chosen with the consideration that the area was one of the crystal guava producing centers in Jember Regency based on the Central Bureau of Statistics in 2022. The research was conducted from January 2024 to February 2024.

The sampling method in this study uses snowball sampling. Snowball sampling is a sampling technique that initially amounts to a small number then the selected sample chooses its colleagues who have the same characteristics and characteristics as it, so that the number of samples obtained will be more and more like a snowball that keeps rolling. The snowball sampling method is used because of the lack of information on the desired sample size. The sample in this study was crystal guava farm laborers in Gadingrejo Village, Umbulsari Subdistrict, Jember Regency. The sample of this study was 30 female farm laborers.

Data analysis used to test the factors that influence the work time of female farm laborers in crystal guava farming is using multiple linear regression analysis. However, before the test, the classical assumption test is carried out first as one of the requirements before using multiple linear regression analysis. The classical assumption test consists of normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test. The following is a multiple linear regression analysis model.

$$Y = a + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + e$$

Description:

Y	= Women's work time in crystal guava farming
A	= constant
$\beta_1, \beta_2, \beta_3, \beta_4, ..$	= Regression coefficient of each variable
X_1	= Age of female farm laborers in crystal guava farming (years)
X_2	= Education level of female farm laborers in crystal guava farming (years)
X_3	= Women's work experience on crystal guava farms (years)
X_4	= Number of family members of female farm laborers in crystal guava farming (people)
X_5	= Husband's income of female farm laborers in crystal guava farming (IDR)
e	= Error

RESULTS AND DISCUSSION

Based on the normality test using the Kolmogorov-Smirnov test, it shows a value of 0.110 with a significance value of 0.200. Because the significance value shows above 0.05 (0.200 > 0.05), it can be concluded that the residual value data is normally distributed.

The results of the multicollinearity test obtained from the calculation of the tolerance value of each variable are none less than 0.10 (> 0.10) and the VIF value shows that there are no independent variables that have a VIF value of more than 10 (< 10.00). So, it can be concluded that there are no symptoms of multicollinearity between independent variables in regression or in this study.

The heteroscedasticity test shows that the calculation results of each independent or independent variable have a significance value above 0.05 (> 0.05), so it can be concluded that there are no symptoms of heteroscedasticity in this study.

Based on the results of the autocorrelation test, the Durbin-Watson (d) value of 1.796 is greater than (dL) which is 1.0706 and less than (dU) which is 1.8326. So based on the decision-making criteria in the Durbin-Watson test it can be concluded that there is no conclusion in this study.

The coefficient of determination obtained a value of 0.900. This shows that the amount of influence given between the variables of age, education level, work experience, number of family members, and husband's income on the factors affecting the allocation of women's working time is 90.0% while the remaining 10.0% is influenced by other factors.

The results of the F test obtained a significance value of 0.000 < 0.05 and a calculated F value of 43,340 > 2.621 (F Table). Thus it can be concluded that all independent variables (age, education level, work experience, number of family members, and husband's income) in this study jointly or simultaneously affect the dependent variable (women's working time).

Table 1 Results of t-test (Results of analysis of factors affecting the working time of female farm laborers)

Model		Unstandardized Coefficients		Standarized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.941	2.146		-1.370	.183
	Age	.180	.023	.772	7.786	.000*

Education Level	-.199	.093	-.263	-2.137	.043 *
Work Experience	-.029	.149	-.025	-.195	.847
Number of Family Members	.197	.167	.087	1.183	.249
Husband's Income	-.002	.002	-.072	-.833	.413

Description: * : Significant at the 5% level (0.05) and 95% confidence level.

Source: Primary Data (2024).

Based on Table 1, it can be seen that the results of regression analysis affecting the work time of women crystal guava farm laborers in Gadingrejo Village, Umbulsari District, Jember Regency. The independent variables of age (X1) and education level (X2) partially have a significant effect on the work time of female crystal guava farm laborers in Gadingrejo Village, Umbulsari District, Jember Regency. These variables are said to have a significant effect because they have a significance value of less than 0.05 (< 0.05). Independent variables that have a significance value of more than 0.05 (> 0.05) partially have an insignificant effect on the work time of women crystal guava farm laborers in Gadingrejo Village, Umbulsari District, Jember Regency. These variables include work experience (X3), number of family members (X4) and husband's income (X5).

Based on Table 1 above, the results of multiple regression analysis obtained the following regression equation:

$$\hat{Y} = -2.941 + 0{,}180\ (X1) - 0{,}199\ (X2) - 0{,}029\ (X3) + 0{,}197\ (X4) - 0{,}002\ (X5) + e$$

The equation above shows a constant value of -2.941, meaning that if the independent variable factor (age, education level, work experience, number of family members, and husband's income) on the dependent variable (women's work time) is zero, then the work time of women crystal guava farm laborers in Gadingrejo Village, Umbulsari District, Jember Regency will remain at -2.941 if the independent variable on the dependent variable is equal to zero.

As seen from the regression equation above, it can be explained as follows:

1. Age (X1)

The age variable (X1) has a regression coefficient with a positive value, meaning that there is a positive influence between the independent variable of the age of the female farm labor force and the work time of the crystal guava farm laborer in Gadingrejo Village, Umbulsari District, Jember Regency. The regression coefficient value obtained is 0.180, which means that every addition of the age of female labor by 1 year will add 0.180 HKO of women's working time with the assumption that other variables remain. The statistical test results show that the age factor of female farm labor partially has a significant effect on the allocation of women's working time with a 95% confidence level (significance 0.000 <0.05), so Ha is accepted.

Based on the results of the analysis of the age variable of female crystal guava farm laborers, it shows that female workers who have 40-45 years of age are in the high category (age distribution), where this age is a productive age for a woman to work. This shows that the more women have a productive age, the more time they devote to work even though in certain circumstances with increasing age it will increase one's skills. In addition, the younger the age of a person, the more enthusiastic they will be in working because the energy produced is stronger than that of an older age. The results of this study are in line with the research of Anggreni et al (2022) which states that age is one of the factors that influence the outpouring of women's working hours. While still in productive age, increasing economic demands require women to devote their working hours to increase income to meet the needs of their family.

2. Education level (X2)

The variable level of education (X2) has a regression coefficient with a negative value, meaning that there is a negative influence between the independent variable of the education level of female farm laborers and the work time of female crystal guava farm laborers in Gadingrejo Village, Umbulsari District, Jember Regency. The value of the regression coefficient obtained is -0.199, meaning that every addition of the education level of female labor by 1 year will reduce the devotion of women's working time by -0.199 HKO with the assumption that other variables remain. The statistical test results show that the factor of education level of female farm labor partially has a significant effect on the women's working time with a confidence level of 95% (significance 0.043 <0.05) then Ha is accepted.

Based on the results of the analysis of the variable level of education of female crystal guava farm laborers, it shows that the higher the level of education, the less time women devote to working as farm laborers. While the lower the level of education, a person cannot choose his job and in certain circumstances they work anything just to get income according to what they do. The results of this study are in line with research by Setiawan (2010) which states that the higher the level of education, the longer the job search will be related to the high aspirations to get a job that is suitable and comparable to the return on the cost of education. A person who has a higher education will be more flexible in choosing a suitable job and more selective in finding a suitable job, so it takes longer.

3. Work Experience (X3)

The work experience variable (X3) has a negative regression coefficient, meaning that there is a negative influence between the independent variable of work experience of female farm laborers with the work time of female crystal guava farm laborers in Gadingrejo Village, Umbulsari District, Jember Regency. The regression coefficient value obtained is -0.029, meaning that every additional 1 year of work experience of female laborers will reduce the amount of women's work time by -0.029 HKO with the assumption that other variables remain. The statistical test result shows that the work experience factor of female farm labor partially has an insignificant effect on women's work time with a 95% confidence level (significance 0.847> 0.05), so Ha is rejected.

Based on the results of the analysis of the work experience variable of female crystal guava farm laborers, it shows that the longer people work and have work experience, the more skills to support the time spent working and the more people to use their services or the longer the work experience on crystal guava farming, the respondents, especially women, tend to experience a saturation point so that they tend to devote their working time and consider choices in other types of work. The less work experience the more time they devote to work because experience and skills are still lacking with those who have more work experience but it can happen the other way around. The results of this study contradict the research of Selan & Hutapea (2019) which states that work experience has a positive effect on the outflow of women's working hours with a value of 0.28. This shows that if the experience increases by 1 year, the outpouring of working hours increases by 0.28 hours.

4. Number of Family Members (X4)

The variable number of family members (X4) has a regression coefficient with a positive value, meaning that there is a positive influence between the independent variable number of family members of female farm laborers with the work time of female crystal guava farm laborers in Gadingrejo Village, Umbulsari District, Jember Regency. The value of the regression coefficient obtained is 0.197, meaning that every addition of the number of family members of female laborers as much as 1 person will add to the women's work time by 0.197 HKO with the assumption that other variables remain. The statistical test results show that the factor of the

number of family members of female farm laborers partially has an insignificant effect on the allocation of women's working time with a 95% confidence level (significance 0.249> 0.05), so Ha is rejected.

Based on the results of the analysis of the variable number of family members, it illustrates that one of the causes of women voluntarily making decisions to leave the house to work in order to get more income for their families so that their family's basic needs are met, so that the more the number of family members, the more time they spend working and vice versa. The results of this study are in line with the research of Rungkat et al (2020) which states that the greater the number of family members, the greater the needs that are met, thus forcing labor to devote time to work.

5.   Husband's income (X5)

The variable husband's income (X5) has a negative regression coefficient, meaning that there is a negative influence between the independent variable of the income of the husband of the female farm laborer with the work time of the crystal guava farm laborer in Gadingrejo Village, Umbulsari District, Jember Regency. The regression coefficient value obtained is -0.002, meaning that every additional income of the husband of female labor as much as Rp. 553,907,122 will reduce the amount of women's work time by -0.002 HKO with the assumption that other variables remain. The statistical test results show that the husband's income factor partially has an insignificant effect on the extent of women's working time with a 95% confidence level (significance 0.413 < 0.05), so Ha is rejected.

Based on the results of the analysis of the husband's income variable, it illustrates that the higher the husband's income, the woman's decision tends not to work, because the husband's income has been able to meet the needs of his family. However, if the husband's income is deemed insufficient to meet the needs of the family, women will help their husbands to meet the needs of the family, so that women devote a lot of time to work. The results of this study are in line with the research of Anggreni et al (2022) which states that some working women in Denpasar city choose to work because if they only rely on husband's income it is not enough to meet their family's needs and can also have a high number of family dependents.

CONCLUSION

Based on the results of the data analysis of the research conducted and the discussion, it can be concluded in this study as follows: the factors that are significant in influencing the labor time of female crystal guava farm laborers in Gadingrejo Village, Umbulsari Subdistrict, Jember Regency are age (X1) and education level (X2) while the factors that are not significant are work experience (X3), number of family members (X4) and husband's income (X5). So for female farm laborers, because the level of education has a negative and significant effect on the work time of female crystal guava farm laborers, it is expected that female farm laborers with higher education can add skills such as making processed foods or side businesses that can provide additional income to meet family needs and help husbands.

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