THE PRODUCTIVITY OF WOMEN LABOR ON COCOA PLANTATION IN BANYUWANGI DISTRICT

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Abstract

Labor is the most important production factor in the production process because he/she coordinating the other production factors. Fee received is used for daily needs. Therefore, the government requires all enterprises to pay employees above the Regency Minimum Pay (Indonesia:*UMK*). In general, the wages of women labor in the agricultural sector is under the UMK. The purposes of this study are to determine the level of the labor productivity of women, to analyze factors associated with labor productivity of women in the cocoa plantations, and income contribution of women labor to income household. The research was conducted at PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Banyuwangi. The research methods used are descriptive and analytic method. The research result showed that (1) Labor productivity of women is low, (2) factors related to productivity are age, experience, skill, number of household members, and household income, and (3) the level of contributions women's labor income to household income is moderate. Suggestions are recommended to increase the productivity of women labor in order to their household welfare increase is labor payment of PT. Perkebunan Nusantara XII (limited) refer to government regulation, the government gave sanction to the company that hired under the UMK and the woman labor force continues to increase the skill of picking the cocoa.

Key words*: Labor productivity of woman, Cocoa plantation*

Introduction

Cacao (*Theobroma cacao L*) is one of plantation commodities of which contribution is big enough for the income of the country and it also provides job vacancies for people in the cacao production centre (Industrial Department, 2007). Agriculture Research and Development Department (2011) noted that cacao plantation has provided job vacancies and the income source for about 900 patriarchs in the area of cacao plantation.

Workers in cacao plantation are not only male, but also woman. Even, the number of woman workers in picking subdivision is more than the number of male workers. According to Prawoto et.al (2008), they commonly work based on their daily pay or work contract-based pay.

Law of Indonesian Republic Number 12 in 2003, Article 90, Subsection1 about manpower states that an entrepreneur is not allowed to pay lower than the minimum pay set by the government of the place where that company operates. It can be said that pay

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must not be less than Regency Minimum Pay (Indonesian: UMK). The result of a research by Masdianto (2009) and Astutik, NB (2011) suggests that the level of productivity of free woman workers in cacao plantation is considered low because the pay that they get is under UMK.

PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation is a labor intensive company owned by the country that has got cacao as its main commodity in its production activity. The production process still depends on the ability of human work. Until now, workers in cacao cultivation subdivision are about 700 people. The increase of the cacao productivity cultivated by PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation is really based on the height of the work productivity from workers factor, and it affects the pay got by the workers. The workers productivity level is influenced by sex, age, education level and the work experience from the workers themselves.

Based on the explanation above, it is clear that there is a big problem in the way of paying the workers, which is still under UMK. Therefore, this research aims to know the woman workers productivity in cacao plantation, factors that influence the productivity, and the contribution of woman workers to their household income.

Research Method

The research location is set using *purposive method* in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation that is located in Glenmore Sub District, Banyuwangi Regency. The research method used is descriptive and analytic. The population in this research is piece-work daily woman workers in cacao picking sub division. The number of samples is 100 people. The data used is primary and secondary data. According to Manpower Law, the workers pay must be equal to the Regency Minimum Pay (Indonesian: UMK). The approach to see the woman workers productivity uses pay per hour as what written by Herjanto (1999) like the following:

$$
\begin{aligned}
\text{Workers Productivity} &= \text{output/input} \\
&= \text{Pay/Time} \\
&= \text{Rupiah/Hour}
\end{aligned}
$$

Next, the value reached is compared to UMK in Banyuwangi in 2011 as big as Rp865.000,00/month or Rp5150,-/hour. The criteria of its decision making are:

1. If the workers pay in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation ≥ UMK in Banyuwangi, then the workers productivity is high.

2. If the workers pay in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation < UMK in Banyuwangi, then the workers productivity is low.

To know factors that influence the woman workers productivity in PT. Perkebunan Nusantara) XII (limited) of Kalisepanjang Plantation, multiple linear regression analysis with the model as follows is used (Hasan, 2001). :

$$Y = a + b_1X_1 + b_2X_2 + \alpha D + b_3X_3 + b_4X_4 + e$$

Explanation:

Y = woman workers productivity (Rupiah/Hour)
X_1 = age (year)
X_2 = work experience (year)
D = skill, D=1 means she has got skill, it is the opposite when D=0
X_3 = the number of family member (people)
X_4 = the household income (Rupiah/month)
a = Constanta
$b_{1, \ldots} b_4, \alpha$ = regression coefficient
e = error

The contribution of woman workers towards the household income is measured using pattern (Djarwanto, 2001):

$$Z = A/B \times 100\%$$

Explanation:

Z= the percentage of women income who work in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation towards the household income (%)

A= the amount of the income of woman workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation (Rupiah/month)

B= Household income Total (Rupiah/month)

The criteria of decision making:

1. Z < 35%, then the woman workers income contribution in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation towards the household income is low.

2. 35% ≤ Z ≤ 70%, then the woman workers income contribution in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation towards the household income is medium.

3. Z > 70%, then the woman workers income contribution in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation towards the household income is high.

Result and Discussion

Woman Workers Productivity in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation

The productivity average of woman workers in plantation sub division in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation is Rp 3.837,- per hour, meanwhile the Regency Minimum Pay (Indonesian: UMK) of Banyuwangi is Rp 5.150,- per hour (Table 1). This shows that the productivity of woman workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation during 2011 is considered **low**. There is difference about Rp 1.313,- per hour.

Table 1. The Productivity Average of Woman Workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation, 2011.

No	Description	Work Time (Hour/Day)	Pay Average (Rupiah/Hour)	Productivity Average (Rupiah/Hour)
1.	Woman Workers the company	7	26.861	3.837
2.	Regency Minimum Pay of Banyuwangi	7	36.040	5.150

From the working hour per day (Table 1), the working hour of woman workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation (7 hours per day) is appropriate to the standard of per day working hour in Banyuwangi.

Factors that Influence The Productivity of Woman Workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation

The regression analysis (Table 1) produced a model woman labor produktivity in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation (Y) as follows:

$$Y = -0{,}244X_{1(age)} + 0{,}237X_{2(work\ experience)} + 0{,}200\ D_{(skill)} + 0{,}224X_{3(the\ number\ of\ family\ member)} + 0{,}382X_{4(household\ income)} + e$$

With the value of $F_{test} = 15,545$ (α=0,000), which means that the independent variables (age, work experience, the number of family member, skill and household income jointly affect the productivity of woman workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation. $R^2 = 0,67$ means that variance of dependent variables can explain 675% for women labor productivity in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation. If seen from the value of Durbin Watson =1,063 (between -2 to 2) and Variance Inflation Factors/VIF (<10), then the model is not impaired autocorrelation and multicollinearity.

Partially shows that all independent variables (age, work experience, the number of family member, skill and household income) influence obviously (at level of confidence 95%) towards the productivity of woman workers. It can be explained in detail as follows:

Table 2. The Result of Regression Analysis towards Factors that Influence the Productivity of Woman Workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation, 2011.

Variable	Standardized Coefficients Beta	Sig.	Collinearity Statistics Tolerance	Variance Inflation Factors (VIF)
(Constant)		,000		
Age (X_1)	-,244	,022*	,530	1,885
Work Experience (X_2)	,237	,011*	,705	1,419
Skill (D)	,200	,020*	,807	1,239
The number of Family Member (X_3)	,224	0,50*	,461	2,171
Household income (X_4)	,382	,000*	,768	1,302

F	= 15,545, significance 0,000
R^2	= 0,67
Durbin-Watson	= 1,063

Explanation: * significance at level of confidence 95%

a. Age Variable (X_1)

Age variable has regression coefficient value as big as -0,244, it means that every addition of a year of the age of women who work in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation tends to decrease the productivity as high as Rp 0,244 per hour. This is because picking process activity needs strong workers. The age range of woman workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation is between 18 – 42 years old with the average of 31,45 years old.

b. Work Experience Variable (X_2)

Work experience variable has regression coefficient value as big as 0,237, it means that every addition of a year of the work experience of women who work in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation tends to increase the productivity of woman workers as high as Rp 0,237 per hour. The work experience range of woman workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation is between 1 – 6 years with the average of 3,2 years. The high productivity of woman workers has the work experience average as high as 3,8 years, meanwhile the low productivity has work experience as high as 2,5 years.

c. Skill Variable (D)

Skill variable has regression coefficient value as big as 0,200, it means that the productivity of woman workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation who studied skill (post-harvest management) tends to be Rp 0,2 per hour higher than the woman workers who do not have skill. Those woman workers got the post-harvest skill from friends or plantation party.

d. The Number of Family Member Variable (X_3)

The number of family member variable has regression coefficient value as big as 0,244, it means that every addition of a member of family tends to increase the productivity of woman workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation as high as Rp 0,244 per hour. The range of number of family member of woman workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation is between 1-6 people with the average of 3,8 people or equal to 4 people.

e. Household Income Variable (X_4)

Household income variable has regression coefficient value as big as -0,382, it means that every addition of Rp 1,- per month in a household income tends to decrease the productivity of woman workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation as high as Rp 0,382 per hour. It shows that the main purpose of woman workers to work in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation is to add the household income. The average of household income of woman workers is Rp 1.450.412, 29.

The Contribution of the Income of Woman Workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation towards the Household Income

The contribution of woman workers income towards the household income can be identified by comparing the income level earned by woman workers with the total of household income. The result of the measurement is shown in Table 3.

Table 3. The Contribution of the Income of Woman Workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation towards the Household income, 2011

Number	Income Source	Income Average (Rupiah/Month)
1.	The income of woman workers (a)	634.895
2.	Household income (b)	1.450.412,29
	Contribution (a/b)	44%

Based on Table 3, it is obvious that the contribution of woman workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation towards the total of Household income is considered **medium** because the contribution is 44%.

Conclusion and Recommendation

Conclusion

Based on the result of the research, it can be concultioned that:

1. The productivity of woman workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation is considered low. Their wage rate is Rp3.837,- per hour (Rp643.895 per mounth), while the Regency Minimum Pay (Indonesian: UMK) of Banyuwangi is Rp 5.150 per hour (Rp 865.000 per month).

2. Production factors that influence the productivity of woman workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation are age, work experience, the number of family member, skill and household income, where age and household income variables influence negatively, while work experience, skill and number of family member variables influence positively.

3. The contribution of the income of woman workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation towards the household income is considered medium, as high as 44%.

Recommendation

Based on the result of the research, it is suggested that:

1. PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation should attempt to pay the free daily workers based on Regency Minimum Pay (Indonesian: UMK) of Banyuwangi.

2. Woman workers in PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation should increase their post-harvest skill in order to increase their productivity.

3. PT. Perkebunan Nusantara XII (limited) of Kalisepanjang Plantation ought to remain to give work opportunity for women in the surrounding area of the plantation to increase their household income.

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