

April 30, 2020

Contribution of Labor Allocations in the Development of Natural Silk Business Development (Case Study in Krenceng Village, Kepung District, Kediri Regency)

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Abstract

The objectives of this research are to identify: a) The contribution of income of natural silk farm on household income; b) The contribution of labors allocation of natural silk farm on the absorption of household labors; c) Factors affecting the net income of natural silk farm; d) Factors effecting labors allocation on natural silk farm. This research conducted at Krenceng Village, Kepung Subdistrict, Kediri District, East Jawa. The result of this research shows that total labor used on natural silk farm activities as much as 287,70 MDE per year, or have employe more than 28 percent of the potential household labor force. Net income of natural silk farm influenced by farmer age, the extent of farmer experience on natural silk farm, and extent of formal education. Labor allocation on natural silk farm influenced by planting area of murbei, a number of eggs, silk farm frequention and number of household members.

Key words: *natural silk farm, labor allocation, contribution on household income, contribution on labour employee.*

INTRODUCTION

Natural silk commodity is a strategic commodity that can be developed because it has a relatively long backward and forward environment, so silk is one of the mainstay commodities to be developed. The promising prospect of natural silk development activities is the opening of markets, both domestic and international markets. Utami (2010) states that based on data on domestic silk yarn demand and production in the 2000-2008 range information was obtained that silk production grew by 12.24 percent per year, while production was only 10.39 percent per year. with the assumption that the growth rate of production and consumption is fixed, it is estimated that for the coming year domestic silk thread production will still not be able to meet the needs of the domestic market.

The same conditions occur in foreign markets. The Food and Agriculture Organization (FAO) data cited by the Director of Greening and Social Forestry (2012) informs that in 2010 the world's demand for silk threads reached 92,743 tons per year. these conditions indicate that domestic and foreign market conditions are ready to receive production supplies from national silk farmers, provided the quality of the products produced is able to compete with similar products from other producers in the world.

In East Java, exploitation of silkworms in three locations, namely: Pare (Kediri), Sumberingin (Blitar) and Gerbo (Pasuruan). Perhutani as a vanguard in East Java has not been able to invite the private sector. Until 1998, the production of silkworm cocoons in East Java was quite significant, 3.7 percent of the total national production.

According to Suratiyah (2015), farming is an organization of nature, work, and capital aimed at the production in agriculture. In the calculation of family farm income, the value of factors of production (labor, capital, and land) originating from within the family or the family's own property is not included in the cost, because it is the income of the farmer's family. In the analysis of labor supply, the family plays an important role for individuals to choose to work or not. This means that a person's decision to enter the workforce is not solely determined by that individual, but together by family members. Labor supply is the result of simultaneous processes to achieve maximum satisfaction with limited resources.

April 30, 2020

Every household member of working age will be faced with two choices, namely working or not (choosing leisure time). If you choose to work, it means you will provide a higher income use value and will devote more time to achieving consumption needs. Conversely, if it does not work, leisure time will have more use value than income (Becker, 1996). In the context of expanding sectoral employment opportunities, the agricultural sector in addition to providing employment opportunities for a part of the Indonesian workforce also plays an important role in absorbing additional workforce. Job opportunities illustrate the large willingness of farming households to employ the labor needed in the production process of farming. The amount of willingness can be measured by the number of people or working hours used. The strength of demand and supply of labor, as well as institutional factors, determine the number of employment opportunities. In the agricultural sector, the size of employment is influenced by the area of agricultural land, soil productivity, cropping intensity and applied technology (Kasryno, 2013).

Komaliq (2014), the absorption of labor in the agriculture sector as a whole is determined by the food crops sub-sector. This is because traditionally, farmers in rural areas prioritize the farming of food crops from other types of plants. The amount of employment opportunities available to farm laborers in the food crops sub-sector is still dependent on rice farming and dry land farming, especially rice farming because other sub-sectors such as the plantation sub-sector are not well developed.

The outpouring of farmer household work is the amount of time (working hours) devoted by farmer households to producing activities in the agricultural sector within one year. Whereas labor potential is the number of potential workforces available to one farm family. Thus all types of labor existing work, namely men, women, children, livestock and mechanics can be counted. This means that by knowing the potential of the workforce we can also calculate the outpouring of farm household workers. measured by the unit of work day per person (HOK) per household per year. As for there are female or child laborers who work at the stage of work performed by men, then conversion to working hours is done by comparing the level of wages to paid laborers (Soekartawi, 1995).

Calculation of labor potential according to the international labor organization (ILO) standard cited by Suratiah (2015) states that in one year a man will work 300 days of work people (HKSP), women workers 220 days of work people (HKSP) and children 140 the day people work (HKSP). Information on workforce potential and labor flows and household flows are useful in determining alternative labor management.

The use of labor both farm laborers and farm families are influenced by wage levels, farm labor income, farm family income and the availability of employment in the agricultural sector. For farm laborers, the amount of time spent working to work in the agricultural sector is determined by the available employment opportunities. Agricultural workers work in the hope of earning income to buy food consumption goods. According to Komaliq (2014), the outpouring of work hours by farm families or farm laborers is influenced by the income of the head of the family, the number of family members to be borne, the level of wages, the area of arable land, the type of farming undertaken and gender. The objectives to be achieved in this study are: (1) Determine the contribution of natural silk farming labor allocation to the total labor potential of farmer households, (2) Determine the factors that influence the allocation of labor in natural silk farming activities.

RESEARCH METHODS

The determination of the research area was carried out intentionally (purposive) in the Krenceng Village, Kepung Subdistrict, Kediri Regency. The determination of the location of this research was based on the consideration that the area was one of the centers of mulberry and silkworm production as well as a cocoon processing plant into silk thread. In this study, the method used is the Contribution of Silk Farming to Total Household Income. To find the contribution of silk farming income to the total income of peasant households is done with the following calculation (Windarto 2007);

$$Yus = (PBUS/TPRTP)*100 \dots\dots\dots(2.1)$$

In calculating the allocation of labor, the first step is knowing the potential of household labor, that is, the amount of labor available to farm households. According to Suratiah (2015), the total potential of farmer household workers can be calculated using the following formula:

April 30, 2020

$$PTKRTP = \text{£ TK male} \times 300 \text{ HKSP} + (\text{£ TK female} \times 220 \text{ HKSP}) + (\text{£ TK TK} \times 140 \text{ HKSP Children}) \dots \dots \dots (2.2)$$

The allocation of labor in natural silk farming is all the workforce allocated to activities ranging from mulberry cultivation and continuing to the maintenance of silkworms to harvesting:

$$CTKUS = CTKm + CT \dots (2.3)$$

The contribution of silk farming to the absorption of peasant household labor is done by the following calculation (Windarto, 2007);

$$Wus = (CTKUS / PTKRTP) * 100 \dots \dots \dots (2.4)$$

The allocation of labor in natural silk farming activities is thought to be influenced by labor costs, mulberry land area, number of eggs as a representation of the main inputs, frequency of maintenance, number of household members, and total household income. Mathematically, the linear relationship between the factors that influence the allocation of labor in natural silk farming can be formulated as follows:

$$CTCUS = \beta_0 + \beta_1 UTKUS + \beta_2 LUS + \beta_3 JTLR + \beta_4 FREK + \beta_5 JAGRT + \beta_8 PTOT + ui_2 \dots \dots \dots (2.5)$$

RESULTS AND DISCUSSION

Socio-Economic of Household Farmers

Age of Farmer

Age is an important aspect to be considered in relation to being associated with the ability of farmers to manage farming activities. In general, younger farmers have productivity, aggressiveness and courage to face risks in business development and are more innovative and adoptive to new technologies that are developing. Life is so important because in a small-scale farming system, smallholder status is good, both business owners as well as managers (labor) are directly involved in farming activities.

Table 1. Distribution of Samples by Age Group

Age group (year)	amount Sample	Percent
35 – 40	5	16,67
41 – 45	6	20,00
47 – 52	11	36,67
53 – 58	6	20,00
> 59	2	6,67
AMOUNT	30	100,00

In Table 1, the age (heads of households) of silk farmers varies considerably, ranging from 35-59 years. Based on the grouping, the majority of farmers (29 percent) are in the age group of 47-52 years. Another thing that can be seen is that about 90 percent of silk farmers are in the productive age group. At that age farmers are a potential source of labor for farming activities because their physical abilities can still be improved. To support the improvement of farmers' productivity, a breakthrough in technological innovation in farming is needed more efficiently.

Farmer Education

Peasant education is intended as formal education, quantitatively measured from the length of years of attending education that is equated with the level of general education. Characteristics

Regarding education is intended to determine the ability of farmers to the possibility of absorption of silk farming innovation and the development of non-agricultural businesses in increasing household income.

Table 2. Distribution of Samples by Education Group

Level of education	Sample	Percent
Not completed in primary school	2	6,66
Graduated from elementary school	15	50,00
Graduated from junior high school	7	23,33
Graduated from high school	6	20,00
AMOUNT	30	100

April 30, 2020

In Table 2, the level of education of silk farmers is relatively very low, it can be seen that most of them only complete primary education (SD) followed by junior high school (SMP) and senior high school (SLTA) respectively with the proportions of 23.33 percent and 20, 00 percent of the total sample. Referring to educational level indicators, it can be stated that the introduction of peruteran technology will experience problems, especially in the effort of adopting new innovations in the development of farming murbet and maintaining silkworms. For this reason, a more directed and continuous coaching approach is expected to bridge the weaknesses of the educational aspect.

Silk Farming Experience

The length of experience of farmers in this regard is approached by the number of years a farmer manages silk farming. The experience of farming is believed to be a factor that is no less important as a determinant of the success of farming activities. From the continuous management of farming, it is very effective as a farmer institution to gain knowledge of the farming business it handles. The distribution of silk farming experience is presented in Table 3.

Table 3. Distribution of Samples by Group of Experiences of Silk Farming

Experience (years)	Sampel	Percent
11 – 17	5	16,66
18 – 24	6	20,00
25 – 31	10	33,33
32 – 38	8	26,66
> 39	1	3,33
Amount	30	100,00

In Table 3, the length of experience of farmers managing silk farming activities varies greatly, ranging from 11 to 39 years. The highest proportion of farmers experienced in silk farming for 25-31 years. From their experience, farmers understand the various characteristics of mulberry cultivation techniques, as well as the maintenance of silkworms whose maintenance requires intensive attention. With a continuous learning process, farmers are able to predict future business developments as a result of changes in the biophysical and socio-economic environment in order to minimize business failure.

Member of Farmer Household

One of the characteristics of agricultural households in developing countries is the high use of labor in the household compared to wage labor. Therefore the role of household members, especially those of productive age, is so important because it is a source of teurtama labor at a time when there is an increasingly expensive wage of farm laborers. The situation of the members of the silk farmers' households in Krenceng Village is presented in Table 4.

Table 4. Number and Spread of Farmers' Household Members by Gender

Description	Adult	Son	Amount	Percent
Male	1,70	1,00	2,80	60,87
Girl	1,20	0,70	1,90	41,30
Amount	2,90	1,70	4,60	100,00
	0,63	0,37	100,00	

In Table 4, the average farmer has a household member of 4.6 people (around 5 people). Of these, the majority of the sexes of household members are men of adult age. While female household members account for only 41 percent, and in the group of children it is recorded at 37 percent. It is necessary to explain that in recording the number of household members have counted the head and housewife as a member of the household. Grouping as adults is carried out on residents who have more than 15 years of age.

The results of the study in Table 4 show that in relation to the needs of farm labor, the number of household members of farmers is relatively small. This number is getting smaller because not all household members are in the productive age (adult). It was observed that farmers optimized the use of domestic workers more than wage laborers as a strategic step to continue to survive in managing silk farming while utilizing their resources.

Type of Farmer Work

April 30, 2020

No different from other communities who are always trying to increase their income, to be able to meet their needs, farmers and household members are trying to optimize the allocation of productive time, not only in farming or maintaining silk as a source of livelihood, but also in several types of activities productive, both in other commodity farming activities and businesses outside the agricultural sector at all. Such a strategy, in addition to increasing revenue at the same time also carried out to reduce the risk of failure due to depending on income only on one type of business alone.

Based on the results of field observations at the research location, in addition to silk maintenance activities, farmers also cultivate other commodities on land that is different from the land used for mulberry cultivation. Some of the commodities being cultivated are chili, papaya and among them are maize (Table 5).

Table 5. Distribution of Samples by Type of Work Outside the Silk Farm

Type of work	Number of Samples	Percent*)
A. Other commodity farming		
1. Chili	15	50,00
2. Papaya	14	46,70
3. Corn	15	50,00
B. Livestock business		
1. Beef Cattle	10	33,30
2. Dairy Cows	15	50,00
C. Non-Agricultural		
1. The Trader	11	36,70
2. carpenter	7	23,30
3. Taxibike	5	16,70

Note: *) is the percent of the total sample of each item to the total number of samples

In Table 6, the results from field data recording revealed that in addition to cultivating silkworms, 50 percent of farmers diversified their businesses in chilli and corn. While 46.70 percent of other farmers cultivate papaya commodities. In the livestock sector, half of the sample farmers observed attempted maintenance of dairy cows. Likewise, the beef cattle business was carried out by more than 30 percent of sample farmers in Krenceng Village. Outside the agricultural sector, farmers are also still working on non-agricultural activities. In the non-agricultural business group, there are several types of businesses carried out by farmers as support for their household life including trading businesses, both in the form of kiosks / village stalls and mlijo. The number of farmers who work as traders are 11 people (36.70 percent). Other work that is occupied by farmers is to work as a carpenter or construction worker daily, both in the local village and surrounding villages. In this type of work, there were 7 farmers (23.30 percent). In jobs as motorcycle taxis or other transport vehicles, the number is relatively small, only 5 people. From a variety of farmer jobs, opportunities for making income increases are not only dependent on silk farming.

Ownership and Use of Land Resources

Land ownership, until now, is an important indicator in relation to the social status of farmers because the land is the main agricultural resource. For farmers who have more land, the possibility of obtaining income from farming activities is greater, and in general farmers with more extensive land use workers outside the family so that they become "employers" in rural areas. Furthermore, the area of choice and use as well as the origin of silk farm households in Krenceng Village can be seen in Table 6.

Table 6. Ownership, Use and Origin of Land in Silk Farmers Households

Land Type	Land Area (ha)	Percent	Origin
Murbei Land	2,10	87,50	Perhutani Public Corporation
Other Plant Land	0,30	12,50	Perhutani
a. Chili	0,11	36,67	Public
b. Papaya	0,09	30,00	Corporation
c. Maize	0,10	33,33	
Total	2,40	100,0	

In Table 6, the average land owned by silk farmers in the study location is around 2.40 hectares. In that area, most of it is allocated for mulberry crop farming activities of 2.10 hectares (87.50 percent of the total land

April 30, 2020

area). Other uses are for chilli, papaya and corn commodity farming activities, each reaching 0.11 hectares (36.67 percent), 0.09 ha (30 percent) and 0.10 ha (33.33 percent).

According to its origin, mulberry crop farming land cultivated by farmers is land owned by the local Perhutani Corporation. The land is handed over to the farmer management especially for mulberry planted in order to maintain soil fertility and prevent erosion while increasing farm income. However, ownership rights remain on Perhutani's side fully, while the farmers are only given the right to work on.

In addition to acquiring land that is used for mulberry cultivation, farmers who are pursuing silk farming activities also acquire land as part of Perhutani which can be cultivated to grow other commodities so that it can bring additional income for farmers. For most farmers, the opportunity to work on a number of lands and Perum Perhutani for farming several commodities outside of silk as has been done so far is the dominant motivation that causes farmers to persist in cultivating silk. With the right to work on the land, farmers get the opportunity to increase their income to meet household needs.

Table 7. Distribution of Land Exploitation for Mulberry Cultivation

Land Area (ha)	Total Sample	Percent
2	26	88,41
2,5	4	9,15
Average	2,1	100

On land used for mulberry cultivation, the area of land between farmers is relatively not much different (Table 7). In general, each head of household receives 2 hectares of arable land (88.41 percent). While other sample farmers received more arable land reaching 2.9 ha (9.15 percent of the total sample), all of which were owned by Perum Perhutani.

In the interview results it can also be stated that apart from land owned by Perum Perhutani, no farmer has his own arable land. And the institutional relationship seems to be seen in such a high level of dependence of silk farmers' households on Perhutani in terms of business continuity.

Potential of Domestic Workers

In the agricultural household unit, time is an important resource, especially for household members of the productive age group. Household members at this age are significant because they are household assets as a source of labor, not only for farming activities but also for other business branches outside agriculture. Therefore, the availability or potential of home workers without being very important in relation to efforts to obtain household income. The potential of labor in farm households can be reflected in the size of the number of household members.

In this study, the measurement of the potential for the availability of household labor is done by using the measuring instrument set by the LIO cited by Hernanto (1991) which states that for adult male household members is equivalent to the number of 300HKSP workers per year, adult women are equivalent to 220 HKSP per year and children children are equated with 140 HKSP per year. Based on this measurement, it is obtained the potential availability of labor in the family in the silk farmers' household in Krenceng Village as shown in Table 8.

Table 8. Potential Availability of Labor in Farmers' Households

Description	Number of Member (person)	Workforce potential (HKSP/year)	Percent
A. Adult			
1. Man	1,70	520,00	51,25
2. Woman	1,20	256,67	25,30
B. Childhood	1,70	238,00	23,46
Total	4,70	1.014,67	100,00

In Table 8 it can be seen that the average total labor potential available to silk farm households in Krenceng Village is quite large. With an average number of household members of 4.70 people (consisting of 1.70 adult males; 1.20 adult females; and 1.70 children), there is sufficient potential availability of labor in the family in farmer households. large, reaching 1,014.67 HKSP per year. And the amount of potential, most of which is the potential of the male workforce, followed by the workforce of women and children.

April 30, 2020

From the number of potential workers available from within the family, it can be seen that there are great opportunities for households to develop various types of businesses. This potential can be increased if taking into account the availability of workers outside the family (or wage labor) which can be obtained at any time according to by necessity.

Allocation of Natural Silk Farmers

The existence of natural breeding in the Krenceng Village is a source of activity for the surrounding population, especially those who do not have arable land. The nature of natural promiscuity is the detention of the community, in addition to being a source of employment as well as a profitable source of income in order to increase household income. As a source of employment, manpower needs in the management of natural silk continue continuously throughout the year in accordance with the frequency of maintenance and stages of activities. The allocation of labor in natural silk activities is not only absorbed in the cultivation of mulberry plants as a source of food for caterpillars, but also in the stage of silkworm maintenance starting from eggs to producing cocoon as raw material for silk thread. For more details about the outpouring of labor in natural environment businesses in the village of Krenceng can be seen in Table 9.

In Table 9, the number of workers devoted to the natural silk business reaches 287.70 HKSP per year per land area. The allocation of the number of workers absorbed in the cultivation of mulberry plants amounted to 138.23 HKSP (48.05 percent) and at the stage of caterpillar maintenance to cocoon labor needed reached 149.46 HKSP (51.95 percent).

Table 9. Labor Allocation in Natural Silk Farming by Activity Phase

Type of activity	Total (HKSP/year)	Percent*)	
		a	b
A.Cultivation murbei plant	138,23	48,05	100,0
1. Land preparation	34,30		24,81
2. Planting	10,02		7,25
3. Irrigation	9,30		6,73
4. Fertilization	13,65		9,87
5. Eradication of pests and diseases	9,30		6,73
6. Harvest	61,67		44,61
B. silkworm maintenance	149,46	51,95	100,0
1. Preparation			10,58
2. Provision of small caterpillar feed	15,82		16,54
3. Maintenance of small caterpillars	24,72		25,77
4. Transfer / maintain large caterpillars	38,52		16,22
5. Provision of big caterpillar feed	20,62		13,79
6. Pengokonan and harvest			
C. total	287,70	100,0	

Information:

a = Percentage points A and B with respect to the amount.

b = Percentage of each item with respect to points A and B.

In mulberry cultivation, labor is absorbed more at the stage of land preparation activities, followed by harvesting activities respectively with contributions reaching 24.81 percent and 44.61 percent. Whereas at the other stages of the activity required a smaller number of relatit workforce. It can be explained that at the stage of land preparation activities the processing process involves cleaning and loosening the land and preparing the planting field which takes a lot of labor. In silkworm maintenance activities, most of the workforce is absorbed in the stage of moving caterpillars from small caterpillar maintenance to enlargement sites followed by large caterpillar maintenance activities, reaching a proportion of 25.77 percent, while other activities that use enough labor for feeding activities and maintenance, both when the caterpillars are still small and after becoming large caterpillars and harvesting cocoons.

April 30, 2020

Based on its origin, labor used in natural silk exploitation activities can be distinguished from domestic and non-domestic labor. Further information regarding the distribution of labor in natural business according to the source is presented in Table 10.

Table 10. Distribution of Natural Silk Farming Workforce by Source

Activity	TKDK	TKLK	Total	Percent
Murbei Plant Cultivation	114,61	23,62	138,23	48,05
silkworm maintenance	128,85	20,62	149,46	51,95
	243,46	44,24	287,70	100,00
Percent Total	84,62	15,38	100,00	

Information:

TKDK = labor in the family;

TKLK = Labor outside the family.

Based on the categorization, in Table 10 it appears that labor in the family dominates the allocation of labor, reaching a proportion of 84.62 percent of the total workforce needed, the rest is labor sourced from outside the household. At the stage of mulberry crop cultivation, labor outside the household is generally used at the stage of land preparation. Whereas at the stage of silkworm maintenance, labor outside the household is mostly used at the stage of pengokonan and harvesting activities that require more labor due to time constraints where harvesting must be completed within a certain period in order to obtain high quality cocoon products.

The data in Table 10 can be revealed that the exploitation of natural silk is still colored by the high dominance of labor in the household compared to outside the household or wage labor. the workforce in the household is not affected by an increase in labor wages. The high dominance of the outpouring of labor in this family also causes natural farming to look more profitable for farmers because in the analysis of farm income, time allocation of labor in the family is not included as a cost component cash by farmers.

Contribution of Natural Silk Farming to Manpower Absorption

The analysis of the contribution of natural silk exploitation to labor absorption is intended to determine the role of natural silk farming in providing employment opportunities for the community. This analysis is carried out by comparing the allocation of labor absorbed in silk exploitation to the amount of potential labor availability in farm households so that the level of labor absorption in natural silk farming. Complete information on the level of labor absorption in natural silk exploitation activities in Krenceng Village can be seen in Table 11.

Table 11. Contribution of Workforce Allocation of Natural Silk Farms to the Potential Availability of Household Workers

Description	Total (HKSP/year)	absorption rate (Percent)
A. Labor potential	1.014,67	
B. Employment		
1. Murbei plant Cultivation	138,23	13,62 14,73
2. silkworm maintenance	149,46 287,70	28,35
3. Total		

In Table 11, as explained earlier, natural silk farming absorbs labor reaching 287.70 HKSP per year; meanwhile, the potential workforce owned by households averaged 1,014.67 HKSP per year. Thus, the employment rate of natural silk farming in Krenceng Village reaches 28.35 percent, or almost one third of the total available workforce, consisting of 13.62 percent of the employment rate of mulberry farming and 14.73 percent absorption rate in silkworm maintenance activities. In the analysis results, it appears that the natural silk farming business absorbs quite a lot of labor from the aspect of the potential workforce owned by farm households. This shows that natural silk farming provides a positive role for the surrounding community in creating jobs, especially for farmers who do not have arable land. The results of the analysis also showed that the development of natural silk farming, both through increased capacity and frequency of maintenance, could be done considering that there was still a sizeable workforce.

Factors Affecting the Allocation of Natural Silk Farming Workers

April 30, 2020

Factors that influence the amount of labor allocation in nature's business activities in the village of Krenceng can basically be grouped into technical factors (land area, number of caterpillar eggs, and frequency of maintenance) and socioeconomic factors (number of household members and wages for tan workers). The results of the regression analysis of the factors that affect the allocation of labor to silk farming in logarithmic forms can be seen in Table 16.

The results of the analysis, all explanatory variables in the regression equation have a significant effect on the allocation of labor in the business of natural enterprises, it can be seen from the significant Fcount value at the 99 percent confidence level. The coefficient of determination obtained as a measure that the ability of the equation that was built to explain the empirical phenomenon is very good, amounting to 84.70 percent changes in variations in the allocation of labor in business activities can be explained by all existing independent variables.

Table 12. Regression Parameters of Factors Affecting Labor Allocation on Farming: Natural Silk in Krenceng Village

Variabel	Regresi Coefesien	standard error	t-count	Prob-t
Intercept	1,6860***	0,4800	3,510	0,002
LUTKUS	0,0696ns	0,1120	0,624	0,536
LLUS	0,1810***	0,0620	2,918	0,008
LJTLR	0,1330***	0,0530	2,492	0,020
LFREK	0,2080***	0,0890	2,338	0,028
LJAGRT	0,1210***	0,0470	2,582	0,016
R ²	0,847	F-hitung	26,62	
Adjusted-R ²	0,815	Prob > F	0,000	

Information:

****: Real at $\alpha / 2 = 0.01$;

***: Real at $\alpha / 2 = 0.05$;

ns: Not real;

LUTKUS: Log of farm labor wages: silk (Rp / HKSP);

LJTLR: Log number of caterpillar eggs (Box / year);

LJAGRT: Log number of members of household farmers (people);

LLUS: Log area of mulberry (ha);

LFREK: Logs for silk maintenance frequency (times / year).

Statistical analysis t (partial test) explains that a number of independent variables, except the variable wages of farm laborers, are each significant at a very high level of confidence, ranging from 95-99 percent. The variable area of mulberry farming is significant at the 99 percent confidence level with a t value of 2.9180. The value of the regression coefficient is as large as explaining that land area has a positive effect on labor allocation in silk farming. An increase in the mulberry farming area by 10 percent had a positive impact on an increase in total employment of 1.81 percent and an average value. The difference in the proportion of labor absorption causes an increase in the land area causes the addition of absorption of labor at the stage of maintenance of silkworms more than the absorption at the cultivation stage of Murbet.

The input variable number of silkworm eggs has a positive effect on the allocation of labor in natural clothing with a confidence level of 95 percent and a tcount of 2.492. The regression coefficient results of the analysis are in accordance with the expected theoretical expectations, with a magnitude of 0.1330. Changes in the number of silkworm eggs as production inputs stated in the unit box cause changes in the amount of labor allocation in the next stages of activity, ranging from changes in the number of mulberry leaves that must be prepared to the maintenance workers of small and large caterpillars, feeding and harvesting in a manner consecutive. The regression coefficient explains that the total allocation of labor to natural female entrepreneurs has increased by 1.33 percent as the number of eggs has increased by 10 percent.

The frequency of maintenance measured as the number of times a silkworm's maintenance period per year is an explanatory variable related to the analysis expressed in units of the year. The higher the

April 30, 2020

frequency of maintenance is expected to increase the total allocation of labor at all stages of the activity in one year.

In the analysis results, the frequency of maintenance significantly influences the total allocation of labor in natural silk farming in Krenceng Village at a 95 percent confidence level. The regression coefficient value of 0.2080 is in accordance with the expected sign, providing an explanation that each time the maintenance frequency is increased by 10 percent from the average value of the total frequency of maintenance in one year it will increase the total labor allocation by 2.08 percent in the year the same one

The number of household members as human resource assets owned by silk farmers is expected to contribute to the absorption of labor force given that with a large number of household members, the availability of manpower that can be allocated to the natural silk farming farm will increase. So that it is expected that the number of household members has a positive effect on the allocation of labor in the women's business. The results of the statistical test analysis for the variable number of household members indicate that the variable significantly influences the allocation of silk farming labor at a 95 percent confidence level. The magnitude of the regression coefficient indicates that an increase in the number of farmer household members causes an increase in labor absorbed in natural silk farming.

The results of this analysis can be understood considering that the labor component in the household dominates the total employment of workers in the business activities of wives compared to wage workers. The increase in the number of household members will therefore encourage households to increase the workforce allocation in the household in such a way as to minimize the expenditure of wage labor costs so that the profits or net income derived from the business of entrepreneurship will increase

The variable wage for workers (tan workers) is expected to have a negative influence on the total allocation of labor for the consideration that in conditions of limited household income that can be allocated to pay labor costs, an increase in wages will force farmers to reduce wage labor so that the total allocation of labor will decrease. However, the results of the analysis in Table 16 show that the allegation cannot be proven because in natural silk farming in the study location, the variable labor wage does not affect the total labor allocation. In the perspective of household economic theory this shows the substitution phenomenon between wage labor with the workforce in the rumah tangga. The substitutive nature between the two labor power sources enables farmers to reduce the use of wage labor when there is an increase in farm laborers' wages and replace them with the workforce in the household in such a way. so that the increase in labor wages does not have a significant effect on the total allocation of labor.

Based on the results of the analysis of the factors affecting the allocation of labor, it can be revealed that the positive role of the natural farming business in the village of Krenceng in terms of labor absorption for the surrounding community, especially farmers, can be improved further by increasing the number of egg inputs and the frequency of maintenance. In theory from the results of the analysis it can also be revealed that the increase in labor absorption in the natural silk business can also be increased by expanding mulberry plants and the number of ladder members. However, empirically the two things mentioned last become impossible because the available land area is very limited and the number is decreasing from year to year, whereas for farmer household members in the short term the amount is relatively fixed.

CONCLUSION

1. The total workforce absorbed in natural silk farming is quite a lot, reaching 287.70 HKSP per year, most of which are laborers at the caterpillar maintenance stage, reaching 51.95 percent while the rest is absorbed in the m.hap of activities mulberry farming. Compared to the potential labor available in silk farm households, which is 1,014.67 HKSP, natural silk farming activities contribute to the absorption of labor by 28.35 percent.
2. The income received by farmers from silk farming activities is influenced by the farmer's schedule, length of time managing silk business, formal education level. Meanwhile the price of caterpillar eggs has a negative influence on the income of silk farming.
3. Labor allocation in silk farming is influenced by the mulberry land area, a number of caterpillar eggs, frequency of maintenance and number of household members.

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