



Husband's and Wife's Housework Time Allocation among Fishery Households in Bengkulu City: Does Working Wife Have an Impact?

Ketut Sukiyono¹, M. Mustopa Romdhon¹, Basuki Sigit Priyono¹, Alia Azmi¹, Putri Suci Asriani¹ and Gita Mulyasari¹

¹ Department of Agricultural Socio-Economics, Faculty of Agriculture, University of Bengkulu, Bengkulu, Indonesia
ksukiyono@unib.ac.id

Abstract. This paper examined husband and housewife time allocation and analyzed the influence of wife status and attributes on time allocation devoted to domestic activities by focusing on husbands' time allocation on domestic works. Survey of 180 fishery households was conducted in Bengkulu city. Statistical Descriptive analysis and multi-regression equation approach were used to determine factors affecting housework time allocation of fishery households. The research found that time allocated by husband for domestic activities are higher in working wife household group than the nonworking wife. It is found that social status of women and time allocation for productive activities of the wife are significant variables affecting husbands' time allocation for domestic activities.

Keywords: Working Wife, Time Allocation, Husband, Domestic Activities.

1 Introduction

Technological changes, increased access to education, economic growth in developing countries have impacted on increasing number of women entering the workplace, including in Indonesia. This is indicated by the increasing number of women participation in employment. Data published by Biro Pusat Statistik (BPS = Central Bureau of Statistics) show that in 2013 the percentage of women's participation in the workforce was 50.28 percent compared to 29.23 percent in 1961 (BPS in various publications). This increased participation rate not only affects the welfare of the household and the women themselves but is also believed to have an impact on changing the role of women themselves in the household, particularly in the domestic and social roles of women. Many studies have shown that increased female labor participation has an impact on income distribution and welfare (see [1–3] studies), on childcare cost [4], and among others.

From literature survey, women studies on labor participation focus mostly on women themselves, their households, but less focus on the impact on her husband or partner especially when dealing with women labor participation. Women time allocation for productive activities, the impact of women labor market participation, impact of cultural value on women time allocation for their children and among others are a familiar

study on women. A study by Dewbre [5], for instance, focus on effects of various categories of farm program payments on time allocation by farm operators and spouses. They found that that agricultural market transition payments (AMTA) increase leisure hours for both farm operators and spouses, while Loan deficiency payments (LDP) are shown to reduce leisure. In Indonesian cases, for example, [6] used survey data to analyze fishery housewife time allocation on productive activities in Donggala district, central Sulawesi. While, [7] examined the effect of cultural values, the children value on mother's time allocation for children. The research concluded that mother's time allocation for children was influenced by the age of children, the length of mother's education, the mother's occupation, the uncertainty avoidance and power distance dimension of cultural values.

The effects of wife participation in labor markets may not be limited to their contribution to their family welfare. In addition to their contribution to family welfare, labor participation of wife may change reallocation of tasks from one spouse to another and the total amount of housework the couple does. For this reason, this paper was aimed at investigating and comparing time allocation between husband and working and non-working wife households and determining factors influencing husband time allocation for domestic activities.

2 Research Method

This research was conducted in Bengkulu city consisting of eight sub-districts. Among those sub-districts, three sub-districts, involving Sungai Serut, Kampung Melayu, and Teluk Segara, were selected based on their location closed to the coastal area and dominated by coastal communities (fishermen). Total of 180 households, consisting of 90 households with working wife and 90 households with nonworking wife, were selected randomly and interviewed. The main outcome of an interview was variable data on husband and wife attributes, wife social status, as well as husband and wife time allocation, especially on domestic activities.

In this paper, the quantitative descriptive analysis was used to explain households characteristics, wives' status, and time allocation. To determine factors influencing husbands' time allocation for domestic activities, multiple regression was used. This model was basically based on a theory of women's time allocation and household as a decision-making unit [8], known as the household model. In this model, the total utility is the sum of the utility utilization time of all family members either to work in the labor market to enjoy leisure time, work at home. To examine husbands' behavior, the household model was developed into an individual-base model. [8] noted that individual behavior models analyze the interaction of each family member and its role in decision making of each family member. In this paper, it was assumed that husband time allocation on domestic activities (DOMH) is function of wives' status, family size (SIZE) and a number of toddlers (TOD). Wives' status was measured as a comparison to her husband as suggested by Guha-Khasnabis [9]. Instead of using the degree of difference between husband and wife, this research used the ratio between wife and husband in term of education (EDUSTA), income (ECSTA), and productive time allocation

(PRODSTA), with exception of wives' social status (SOCSTA). The later was measured by wives' status on community organization or institution, not just a member. Statistically, the model can be written as follows:

$$DOMH_t = \alpha_0 + \alpha_1 EDUSTA_t + \alpha_2 ECSTA_t + \alpha_3 PRODSTA_t + \alpha_4 SOCSTA_t + \alpha_5 SIZE + \alpha_6 TOD_t + \varepsilon_t \quad \text{where } \alpha_i \quad (1)$$

Was estimated parameters, $i = 1, 2, \dots, 6$. ε_t was an error term, and t is the number of observation, i.e., 1, 2, 3 .. 180.

3 Results and Discussion

3.1 Household Characteristics

This research was conducted in Bengkulu city consisting of eight sub-districts. A description of household characteristics involved comparison on attributes of husband and wife between working wife households and nonworking wife. From the survey, there are no significant differences among those two types of households, with exception of family income variable. In term of age, both households have similarity, i.e, they were in productive ages to contribute to productive activities. In both households, husband and wife likely had similar education level, i.e., secondary school, indicated by the length of education time. In addition, both households have also quite a similar family size. The number of the family is approximately 3 person excluding husband and wife. Similarly with a number of the toddler, on average, they had 1 toddler.

Looking at household income, working wife households had the higher income than the non-working wife. This finding was reasonable since wife in working wife households also contributed significantly to household income. Wife had contributed approximately 37.44 % to total household income. This finding is quite similar to [10] 's finding in Bangka Belitung Province. They found that wife in fishery community contributes 39.45 % total household income. However, compared to other research, this contribution is quite small. Research by Sukiyono [11], for instance, a wife who works as vegetable traders, contributed nearly 46 % of total household income. While research by Suryani et al, found that fisherman wife, working as a rubber tapper, has contributed up to 44 % of total household income in Riau Province. These differences could be caused by differences in types of works entered by the wife that gives different level of income.

Table 1. Households Attributes.

Description	Working Wife		Nonworking wife	
	Average	Range	Average	Range
		Age (year)		
Husband	43,84	23 – 83	42,93	26 – 73
Wife	41,82	23 – 68	38,68	23 – 67
		Education (year)		
Husband	7,72	0 – 12	7,67	0 – 12
Wife	8,40	0 – 16	8,13	0 – 12
Family Size	3,00	0 – 8	2,44	0 – 7
Toddlers	1,00	0 - 2	1	0 - 2
		Income (IDR/month)		
Husband		1.965.243,90		1.913.538,46
Wife		1.176.255,81		0,00
Total		3.141.499,72		1.913.538,46

In term of work types entered by fisherman working – wife, fifty-four percent of working wives had fish-related works whether as fresh and dried fish traders or dried fish processors (see Figure 1). This finding was reasonable since its easiness to get inputs for dried fish production or fresh fish for trade. Another type of work entered is food and beverage traders. This work type is occupied by 32 % of total working wives, followed by 12 % wives entered freelance labor, such as household assistances. From these findings, it can draw conclusion that work types entered by fisherman women were low wages jobs which did not require any specific skill and education. Every single wife was likely able to enter into this job easily. From the survey, it was found that some working wives said that only eagerness and willingness to work were the main requirement to enter these jobs. Type of work that required certain education and skill level was teacher. This job is occupied only 3% of total working wives.

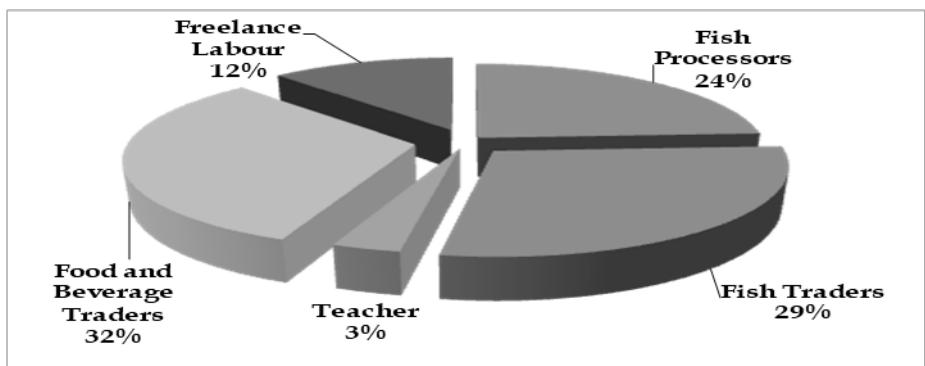


Fig. 1. Work types entered by working wives (n = 90 working wives).

Labor participation seemingly has an impact on women social status as indicated by wife participation in the formal and informal institution. Only 41 % of working wife did not participate compared to 57 % nonworking wives (Table 2). Some of working

wife become a leader, secretary or treasurer while 56 % just become a member of institutions at a village level, such as Family Welfare Program (Program Kesejahteraan Keluarga = PKK). An economic status could be the main determinant that working wives were more active to participate in social activities resulting in their high social status compared to the non-working wife. This conclusion is similar to Ferdoos [12] in Pakistan that women labor participation has changed their status in the family as well as in society. Meanwhile, compared to unemployment men, a study by Panhwar [13] also concluded that employment women have higher social status than unemployment men.

Table 2. Wife' Social Status .

No	Description	Working Wife		Nonworking Wife	
		Freq	%	Freq	%
1	Leader	1	1.11	0	0,00
2	Secretary	1	1.11	0	0,00
3	Treasurer	1	1.11	0	0,00
4	Member	50	55.56	39	43,33
5	Non-member	37	41,11	51	56,67
Total		90	100,00	90	100,00

3.2 Time Allocation

Household time allocation was categorized into 4 main activities, that was productive, domestics, leisure, and social activities, excluding time for sleeping. Generally, time spent for four activities in working wife households were higher than those of non-working wife households. On average, total time spent by husband and wife was 17.5 hours in working wife households compared to 13.5 hours in non-working wife households. This is reasonable finding due to the difference in the time allocated for productive activities (see Table 3). However, total time allocated for all activities, women still have longer time than men, whether the wife is employment or unemployment. This difference could be caused by the earning discrepancy between wife and husband. Many studies, such as Blair [14] and Shelton [15], concludes that division of household labor will be more alike when husbands' and wives' earnings are quite similar. This research also finds that when wife participates in labor work, her time allocation for domestic activities is relatively similar to her husband (Table 3), comparing to non-working wives.

Interesting findings are in term of time allocated for domestic activities. Husband in working wife households spent more time in domestic activities than the husband in non-working wife households. This fact indicated that husband and wife shared their time for fulfilling domestic duties when his wife participates in the labor market. In contrast to nonworking wife, husband spent less time in domestic activities. Nevertheless, wifes still spent more time than her husband for domestic. They spent twice and ten times than time allocated by husband for domestic in working and nonworking wife

households respectively. These findings also strengthened previous findings that wives spent more her time for domestic activities than her husband and time allocation is higher when they did not participate in labor market (See [16] and [17], for instance). Research by Nickols [18] and Walker [19] has shown that hours of paid employment has been found to be the most significant variable in determining housework time of wives. The fact that less time allocation of husband on domestic activities is due to many husbands disliked housework, such as cleaning, laundry, ironing, and food shopping and cooking, as also reported by Stratton [20].

Table 3. Time Allocation Distribution.

Activities	Working Wife		Nonworking Wife	
	Wife	Husband	Wife	Husband
Productive	10.06	9.14	0	9.95
Domestic				
Food Provision	1.86	0.01	2.05	0.10
Caring for Children	2.55	3.34	5.80	0.46
Cleaning the house	1.21	0.00	1.47	0.02
Washing and Ironing	1.31	0.02	1.36	0.02
Others	0.05	0.01	0.01	0.00
<i>sub total</i>	<i>6.98</i>	<i>3.39</i>	<i>10.69</i>	<i>0.61</i>
Leisure	2.70	2.37	2.79	2.31
Social				
Community service	0.09	0.12	0.12	0.15
Family Welfare Program	0.02	0.00	0.02	0.00
<i>Arisan</i>	0.05	0.00	0.06	0.00
Islamic religious teachings	0.11	0.10	0.10	0.10
Others	0.02	0.06	0.01	0.02
<i>sub total</i>	<i>0.28</i>	<i>0.28</i>	<i>0.31</i>	<i>0.27</i>
Total	20.02	15.18	13.81	13.14

Note: *Arisan* is social gathering in which a group of friends (neighbor) or and relatives meet monthly for private lottery

Findings that men were the wage-earners and women were home-makers likely also occurred in fishery households. This indicated from this survey that wife is paid less than husband or women are paid lower than men. This conclusion was drawn by looking at income contribution of wife that less than her husband. This research had also found that employment women worked longer than men (Table 3). Working women had more than 10 hours working hours per day compared to 9 hours per day for men. As result, working women tended to spend longer time for productive, domestic, leisure and social activities which in turn their sleeping time was shorter than their companions. Many types of research have concluded that there is inequality gender when dealing with women participation in the labor market. Women were not only paid lower than men, they also have longer working hours (see [21]).

For social and activities, both types of households spent their time approximately in a similar way per day. However, compared to her husband, wife relatively spent the longer time. Habits and preferences of most women to watch television, especially

telenovel program caused allocation for social and leisure activities longer than her husband. Even though, the difference is not really significance. From the survey, most wives said that their free time was spent to watch television compared to tourism activities due to limited financial resources or lack of budget allocation for tourism activities. This is reasonable because many research has found that fishery households, especially small-scale fisheries, were under poverty (see [22]). With their poverty condition, fishery households tend to meet their food needs firstly compared to the need for recreation.

3.3 Factors Affecting Husband Time Allocation for Houseworks

Based on regression model estimation as presented in Table 4, it is found that two variables, namely, wife social status (SOCSTA) and time allocation for productive role (PRODSTA), are significantly different from zero and positive. This result indicated that both variables were positive and important factors influencing time allocated by husband for domestic activities. The higher social status of his wife (indicated by his wife involvement in social activities whether as a leader or a member) resulted in higher or longer time allocated for domestic activities by husband, vice versa. The explanation for this finding is that with the higher social status of wife, more time allocated for social activities. This condition has forced her husband to handle their household domestic activities or to replace wife role in domestic activities. However, this explanation was unlikely supported by data on time allocation as presented in Table 3. Time allocated for social activities both husband and wife tended to have similar time allocation. However, time allocated for domestic activities by husband in employment wife was higher in which employment wife tend to have high social status.

The second variable that had significantly and positively affected husband time allocation for domestic activities was wives' time allocation in productive activities (PRODSTA). If his wife participated in the labor market, husband spent more time for domestic activities compared to unemployment wife. This finding corresponded to the theory of time availability in which couples rationally allocate time in housework on the basis of spouses' relative hours in the paid labor market and the amount of housework to be done [23]. In this case, wives with less time spent in paid labor were expected to take on the greater responsibility for housework, vice versa. Husband tended to allocate his time for domestic activities in order to help his wife duties in domestic activities. Domestic or housework sharing among husband, wife and other family members is familiar in rural and fishery community, especially when wife participate in the labor market. This finding also revealed the existence of gender equality among fishery community not only in term of women ability to access to labor market, but also in term of housework shares. This finding also confirmed gender relations within households through participation in houseworks and, as [24] noted, reasserting their feminine and masculine roles.

Table 4. Estimated Time Allocation Model for Domestic Activities.

Variable	Coefficient	Std error	Prob
CONSTANT	0.27118	0.8931	0.762
Wives' status			
Education (EDUSTA)	0.00241	0.2045	0.991
Economic (ECSTA)	0.54722	0.4638	0.240
Social (SOCSTA)	2.0342	0.6627	0.002
Productive (PRODSTA)	0.98601	0.3989	0.014
Family Size (SIZE)	-0.03252	0.2609	0.901
Number of Todler (TOD)	-0.00614	0.5868	0.992
F _{statistic}	2.880		0.011
R ²	0.1908		

Wives' education status (EDUSTA) was not significantly different from zero but it has a positive sign. This finding indicated that women education is not an important factor in determining husbands' share in housework. This finding reconfirmed a summary written by Ellis [17], in which education does not belong in the determinants of time use. Obviously, education is an important indicator of human capital but it would be difficult to translate into time use. In this case, high educated wives did not mean that they will spend more time to work, and less on domestic works. However, a positive sign of EDUSTA variable informed that the higher wives' education compared to her husband, the higher time allocated by her husband for housework. In other words, the less educated wives the more their time allocated for domestic activities, vice versa. This finding reconfirmed that women's level of education is negatively associated with their housework time [15].

Related to wives' economic status (ECSTA), measured by relative wives income to their husbands, the research found that this variable is statistically an unimportant factor influencing husband time allocation for housework. This finding is similar to [25] and [26] in which relative income is unrelated or nearly related to household labor allocation. In fact, many research has concluded that wives' labor participation is consistently shown to increase husbands' participation in household duties and to further egalitarian roles, as summarized by Szinovacz [1]. In addition, study by Bittman [27], also concluded that husbands do less housework than one might expect from either a time availability or relative resources perspective when wives out-earn their husband. Hence, the influence of wives' economic status is inconclusive. The domestic labor division of domestic duties did not seem to be based on differences in income levels, but it was more likely to be due to the tolerance between husband and wife in carrying out domestic work. At a time when husbands are not busy, there are habits of husbands who will always help his wife when his wife works hard for domestic works. These are also the reason why wives' time allocation for productive activities (PRODSTA) was a significant factor to influence husbands' time allocation for housework.

Family size (SIZE) and a number of toddlers (TOD) were statistically insignificant and had a negative sign. These finding informed that SIZE and TOD are not important

factors to affect husbands' time allocation for domestic works while a negative sign informed that increasing SIZE and TOD will lessen husbands' time allocation. There was a limited or no one publication on how a number of family member and number affect husbands' time allocation on housework. Many researches were focused on influence of these variables mostly on wives time allocation (see for example [28]) However, this finding did not mean that fathers or husbands did not contribute on childcare or family responsibilities. A study by Baxter [29], for instance, concluded that while, on average, fathers spend less time than mothers with children and are less involved in tasks associated with the childcare activities, fathers do not necessarily leave all family and childcare responsibilities to their spouse. In addition, Dribe [30], suggested that many fathers increase their time with their child while continuing to work for a similar amount of time after the birth of a child.

4 Conclusion

The access of women, including the fishermen's wife to the labor market, is increasing along with the improvement of education, technology, and economic growth in Indonesia. In addition to their involvement in the labor market, many jobs can be entered by the fishermen's wives, especially those related to capture fisheries, such as fish processing, and fish traders. The reason women or wives choose to work as informal sector workers is the unavailability of employment in accordance with the level of women's education. Therefore, they take the decision to enter mostly into the informal sectors. The inclusion of women in economic activity also reflects women no longer dependent on men.

The extension of the wife's job role relates to their spending on domestic work. The amount of time they allocate for housework becomes less than the unemployed wife. However, their time contribution to domestic employment is longer than their husbands. What is clear, when the wife works, there is a certain amount of time allocated by the husband to domestic work where the allocation is much more than the fisherman's household where the wife is not working. The results of this study found that working wives have an impact on the husband's time allocation for domestic work, such as caring for children, cooking, and among others.

The involvement of wives in the labor market not only contributes to the increase in household incomes but also affects the allocation of time to home activities, especially the allocation of husbands' time. More husbands do housework compared to couples where the wife is not working. Nevertheless, wives still dominate domestic work even if she works or participates in the labor market. By participating in the labor market, in addition to the time allocated for productive activities, the wife's social status also increases. As a result, the time allotted by husbands for domestic work increases. That is, the productive time and the wife's social status are the most important factors to influence the husband's time allocation for domestic activities. Nevertheless, the study also found that the number of family members and the number of children under five years and the wife's economic status did not affect the husband's time allocation to do the domestic work.

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