The Determinants of Female Labour Supply in Makassar City

Muhammad Hidayat[1], Fatmawati[2], Sanusi Fattah[3]

[1,2,3] Economic Department, Economic and Business Faculty, Hasanuddin University, Indonesia

Abstract: *This paper attempts to identify the determinants of female labour participation in the labour market. The data employed based on 96 participants from informal sector which processed by using Ordinary Least Square (OLS). The results from this study show that age, women's wage, and non-labour income are major determinants of the supply of female labour. However, Education is insignicantly determined the supply of female labor in this Research.*

Keywords: Female Labour Supply, Age, Wage, Non-Labour Income, Education

1. Introduction

One of the most controversial global issues is the issue of working women. A survey by the International Labor Office (ILO) notes that, in 2003 in the world, the Female Labor Force Participation Rate (FLFPR) reached 53.9 %. East Asian countries have the highest FLFPR with 73.1 %. In the Middle East and North Africa countries, FLFPR are the lowest at 28 % (ILO, 2014).

In Indonesia, based on the Population Census (SP) in 1980, female labor reached 33 per cent of all labor force working actively. While in 1990, the active workforce reached 34.5 percent. There was a slight increase in labor growth during the period 1980 - 1990. Entering February 2014, Indonesian LFPRs increase with increasing female LFPRs, where female and female LFPRs reach 85.0 % and 53.4% (ILO, 2014). This indicates that the role of women in building the economy is also very large.

The increase in the percentage of working women is caused by two main factors, namely the increase in supply and demand side. Firstly, in terms of supply increase is attributable, among others, by the increasing level of education of women and accompanied also by the decline in the number of births. It is also encouraged by the increasingly large social acceptance of women working outside the home. Second, from the demand side, economic development (from the production side) requires female labor.

According to Anwar (Sumarsono, 2009), the participation of women in economic activity also cannot be separated from changes in economic structure. In the early stages of development implementation, employment in the agricultural and other traditional sectors will decrease faster than the increase in employment in the modern sector. This resulted in reduced employment opportunities among women. At the same time, the development process increases family income so as to reduce the economic pressures that previously encouraged women to work. However, once development reaches a certain stage accompanied by a desire to enjoy the luxury of life as a result of development, encourage women to re-enter the workforce and ultimately the participation of women in productive work performance will increase.

Women can function as grandchildren, children, wives, mothers, and grandmothers. All types of women whose functions can play a role in the family. One of the women's roles in the family is to earn a living, whether for herself or for her family. A woman who has a family and work must organize their work to fit the needs of other family members and in accordance with the demands of other social institutions, adapted to standards that are spread indirectly through, for example, the family ideology (Outhwait, 2000)

The implications of the role of women in the family will spread to changes in family functions. The family is the smallest institution in society or country. In the family, there are various aspects and functions. Aspects of the family are husband, wife, and child. While the functions in the family include social function, affection function, and economic function. A wife or housewife has a domestic role; take care of the household, take care of the child, wash, and cook (Prabowo, etc, 2001)

The occurrence of women's dual role in the household will affect the level of satisfaction (utility). In Becker's analysis (Fatmawati, 2014), to maximize household satisfaction, family members must allocate their time between work in the labor market and home production. Labor supply theory explains, there are two things that must be decided by someone. First, whether to participate in labor market activities (work) or not in labor market activities (not working). Second, the decision to determine how much time is provided for labor market activities (number of hours worked) when deciding to participate in the labor market (Madris, 2011). When it comes to leisure, the question then arises, how does a female worker offer her hours of work?

This study discusses the supply of female workers as measured by the number of working hours offered in the labor market. Economic variables that play a very important role in the concept of labor supply namely income (wages and non-labor income).

In Makassar City, even though the participation of female labor in all Economic sectors is increasing over years, but their labor force participation rate decrease. The statistics show in 2014 to 2015, female labor in all Economic sectors increase 192.477 to 198.465 people. While the labor force participation rate decrease 42,25 to 40,84 % (BPS,

2015;2016)

2. Methodology

The data used in this reasearch is primary data obtained from women's worker respondents. The analysis and Research estimation is done by using cross seaction data with 96 samples of women's workers who work in informal sector of Makassar city. In this study, Simulataneous Equation Model can be seen in the following functional equations and Figure 1:

$$y = f(x_1, x_2, x_3, x_4)$$

Where Y is female labour supply measured by hour, x_1 is age, x_2 is women's wage, x_3 is Education, and x_4 is non-labour income measured by rupiah.
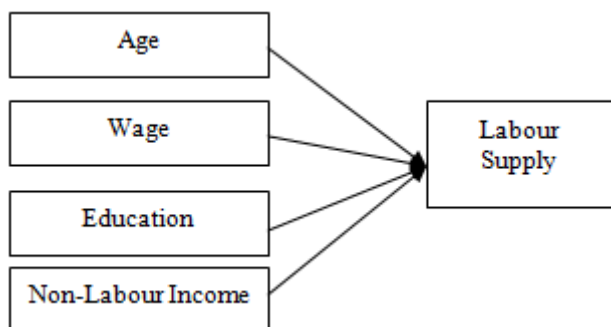

Figure 1: Model of the Research

The reduced form based on Equation can be described as follows:

$$y = \partial_0 + \partial_1 x_1 + \partial_2 x_2 + \partial_3 x_3 + \partial_4 x_4 + \mu$$

Where, ∂_0 is constant; $\partial_1 x_1 \ldots, \partial_1 n$ are the total effects of variable; μ is random error.

3. Results and Discussions

The result of the study can be seen in Table 1. The R-Square value of the labour supply is very low. It means that there are still some variables other the age, wage, Education, and non-labour income affecting female labour supply.

Table 1: The Estimate Results

Variable	Regression Coefficients	t-Statistic	Probability
Age	-0,458*	-2,179	0,032
Wage	-0,001*	-3,402	0,001
Education	-0,768	-1,003	0,319
Non-Labour Income	1,315**	1,723	0,088
Aplha Constant: 100,119 R-Square: 0,159 *) Significant at $\partial = 5\%$ **) Significant at $\partial = 10\%$			

The results from the estimation of regression model are show in Table 1. The Alpha Constant is 100,119 which means that if age, wage, Education, and non-labour income are constant, the labour supply is 100,119 hours/week. Another results, the

R-Square is 0,159 which implies that about 15% of the variation in the dependen variables can be explained by independent variables. The results show that Three variables significantly influence the female labour supply. Namely, age, wage, and non-labour income. Age and wage are found to have a negative impact on the labour supply and are significant at 5%. Non-labour income have a positive impact on the labour supply and is significant at 10%. The results show that one-year increase in age decreases the female labour supply 0,458 hours. While, Rp 1.000 increase in wage decreases the female labour supply 0,001 hours. Another result shows, Rp 1.000 increase in non-labour income increases the female labour supply 1,315.

4. Conclusion

This study shows that the important determinants are age, wage, and non-labour income. Age and wage negatively affect the supply of labour whereas non-labour income has a negative impact. Education is not proven to be significant from this study.

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