Analysis of social welfare program and married women labor participation in West Sumatra

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Abstract
Social welfare program from the government has a role in reducing poverty rates and improving the welfare of poor households. Through social assistance, it can increase household income and indirectly alleviate the need for women to work. This study aims to analyze the effect of government social assistance on the probability of married women participating in the labor market. This study uses secondary data from the National Socio-Economic Survey (SUSENAS) in 2019 in West Sumatra. Using the logit model, the results of this study show that married women who are receiving social assistance have a greater opportunity to participate in the labor market.

Keywords: Labor participation, Married women, Social welfare program

JEL Classification: D69, J16, J40

INTRODUCTION
Developing countries mostly carry out social assistance from the government to overcome poverty rates. This program continues to grow globally. Many kinds of social programs are provided, such as tuition fees, aid for pregnant women, early childhood development, health, consumption, empowering women, poverty, and reducing inequality (Baird et al., 2018). Various evidence (Fiszbein et al., 2009; Ibarrarán et al., 2017) shows that social assistance programs play an important role in reducing poverty in the short term and reducing income inequality and can promote the accumulation of human capital in low-income families.

Since 2013 the poverty rate has decreased compared to the previous year in Indonesia. This condition is supported by the program from the government that aims to reduce poverty in Indonesia. After the crisis in 1998, the government began issuing social assistance programs such as Social Safety Network (JPS) to alleviate the poverty rate. The government has also launched other subsidy programs to provide basic needs such as rice for the Poor known as Raskin, cash assistance funds due to the increase in fuel oil (BBM). In addition, the government also assists a student in need, such as Cash Transfers for Poor Students (BSM), National Health Insurance (JKN), and the Family Hope Program (PKH) (TNP2K, 2018).

Garganta et al. (2017) explain that social assistance from the government can increase household income and indirectly alleviate the need for women to work. The existence of social assistance can prevent married women from entering the labor
market. In addition to this, social assistance received by the mother can relieve the mother from the pressure to find work or work for longer hours. However, different from what is explained by De Mel et al. (2012), Fafchamps et al. (2014), and Mckenzie & Woodruff (2008), social assistance from the government can support poor households, especially for women to work in the informal sector such as small scale business activity.

The decision of a married woman to work and earn a living is flexible because married women are not the only breadwinners in the household (Garganta et al., 2017). The main role in earning a living is the husband as the head of the household, while the mother is responsible for taking care of the children and husband. The existence of a social assistance program from the government influences the decision of women to work or not work because the assistance from the government has reduced the burden in meeting their needs so that mothers can focus on taking care of the household. However, for some women, it uses to open a business so that it can increase income and reduce poverty (Baird et al., 2018)

LITERATURE REVIEW

Previous research about the relationship between social assistance from the government and opportunities for women to work or not work has not been established. However, some literature describes the effect of social assistance from the government on increasing the number of workers working in micro-enterprises (De Mel et al., 2012; Fafchamps et al., 2014; Mckenzie & Woodruff, 2008). Cash transfers have encouraged poor households to start small businesses and find work in the informal sector (Baird et al., 2018). Salehi-Isfahani & Mostafavi-Dehzooei, (2018), in their research, also explained that households that receive assistance from the government, such as cash transfer, remain in the labor market, so there is no significant effect between cash transfers from the government with the supply of labor.

Different studies are described by Hagen-Zanker et al. (2017). Her research explains that cash transfers increase women's empowerment and encourage women to work at home. However, when the woman is the head of the household, it has a different effect. Women who act as heads of households positively affect working as entrepreneurs after receiving cash assistance from the government. Another study (Garganta et al., 2017) explains that households that receive social assistance programs from the government reduce women's transition to being active in the labor market. It is because a mother receives assistance from the government is needed to take care of households.

The social assistance by the government can prevent women from participating in the labor market compared to other family members. This can be explained because (Baird et al., 2018) the income elasticity of the supply of female labor tends to be greater than that of male labor, especially for women who are married and act as secondary workers in the household (Das et al., 2019; Eissa & Hoynes, 2004; Kimmel, 1998; Naz, 2004; Ribar, 1995; Tamm, 2009). In addition, the role of women is flexible to enter the labor market so that women are not burdened with decisions to earn a living. In general, a household that receives cash assistance from the government is a mother (Fiszbein et al., 2009).

According to Garganta et al. (2017), based on administrative data from the AUH program (ANSES 2014), around 96 % of the households receiving assistance are mothers. Therefore, mothers as the main beneficiaries consider cash assistance as additional income earned to meet household needs. So that social assistance can increase the economic needs of mothers and reduce the activities of mothers to be actively involved in the labor market. On the other hand, the money transfer from the
government program allows mothers in poor households to avoid low-paying jobs and focus on their children's growth, development, and education because they have quality time with their mothers. On the other hand, Magnus & Henrekson (2018) explained that a housewife prefers to work flexibly, such as working as an entrepreneur rather than outside the home. It is because a mother wants quality time with her children.

Fernandez & Saldarriaga (2014) explains that households with parents can generate income from work and must be able to allocate their time more efficiently to be with the children. Therefore, cash transfer assistance to increase household income might encourage mothers to prefer not to work. When mothers are not working, mothers can allocate their time with children and take care of the household. However, it is different from the mother, who acts as the head of the household. Mothers who have the head of a household status will still be in the labor market even though they receive cash assistance from the government. On the other hand, mothers who benefit from social assistance can work in a small-scale business with flexible time.

Apart from social assistance from the government, demographic and socio-economic factors also affect mothers' opportunities to work or not work. The research described by Hu (2008) shows that the variables of husband's income, women's education, and the number of preschool-aged children affect women's decisions to choose to work or not. The high income of husbands encourages wives not to be in the labor market. The husband's household needs have been met so that the wife does not need to work anymore. Mother's education is also one variable that affects the chances of a mother working or not. Mothers who have higher education will tend to choose to enter the labor market because, with an increase in human capital, there will be an Opportunity Cost to be sacrificed if they do not work. The variable of preschool-aged children also influences the mother's decision not to work outside the home. Having preschool-aged children encourages mothers to choose more time with their children at home because the role of mothers is very much needed in child development.

Another study explains that the area of residence and the mother's working hours influence a mother to work or not work. Research conducted by Gündüz-Hoşgör & Smits (2008) explained that mothers living in urban areas had a greater chance of becoming housewives compared to mothers living in rural areas. Anqi (1989), Granro & Kaplan (1994), Hu (2008), and Treas & Tanja van der Lippe (2011) explain that the mother's working hours also influence the mother's decision to work or not work. Mothers who work longer hours or full time will have a greater chance of leaving the labor market than mothers who work more flexible hours.

Several debates regarding the effect of providing social assistance on the opportunities for mothers to choose work or not work causes researchers interested in analyzing the provision of social assistance by the government on the opportunities for mothers to choose to work or not work. The social assistance that will be used in this research is taken from SUSENAS data in 2019. This study also analyzes the influence of demographic, social, and economic factors on women's opportunities to choose to work or not work.

METHODS

This study aimed to analyze the effect of social assistance from the government on the chances of married women choosing to work or not. This study also looked at the influence of demographic, social, and economic factors on the opportunities for married women to work or not. To achieve this goal, the data used is secondary data from the National Socio-Economic Survey (SUSENAS) in 2019. The sample used is married women who are in households that receive social assistance from the government. The social assistance used is in the form of households that receive assistance from the
Family Hope Program (PKH), Receipt of the Smart Indonesia Program (PIP), Social Protection Cards (KPS)/Prosperous Family Cards (KKS), and social assistance/subsidies from the local government.

The logit model is used to analyze the effect of social assistance from the government on the opportunity for married women to choose to work or not. The results of the variables in the logit model are dichotomous or binary. The main variable used is social assistance from the government. The binary dependent variable in the estimation using the logit model is whether married women choose to work or not after receiving social assistance from the government.

The general specifications of the logit model are described by Gujarati (2004) in the form of the dependent variable equation as follows:

\[
P_i = \frac{1}{1 + e^{-z}} = \frac{e^z}{1 + e^z} \quad \text{(2)}
\]

Where, \(z = \beta_1 + \beta_2 X_i\). In equation 1, the \(P_i\) value is the chance for a married woman to work and the value \((1 - P_i)\) is the chance for a woman to work. So the value of \((1 - P_i)\) can be written as

\[
1 - P_i = \frac{1}{1 + e^{-z}} \tag{3}
\]

Then from the above equation becomes:

\[
\frac{P_i}{1 - P_i} = \frac{1}{1 + e^{-z}} = e^z_i \tag{4}
\]

The equation above explains that \(\frac{P_i}{1 - P_i}\) is the odds ratio, which is the chance for a woman to work or not work after receiving social assistance from the government. Furthermore, the 4th equation is changed using natural logarithms so that the Logit model can be written as follows:

\[
L_i = \ln \left( \frac{P_i}{1 - P_i} \right) = Z_i = \beta_1 + \beta_2 X_i + u_i \tag{5}
\]

Where the value of \(L_i\) is an odds ratio that is not only linear to the value of \(X_i\), but also linear to the parameters so that the equation \(L_i\) is called the Logit model.

The empirical equation based on the above description using the logit model to estimate the chances of married women choosing to work or not work after receiving social assistance from the government can be written as follows.

\[
L_i = \frac{P_i}{1 - P_i} = \beta_0 + \beta_1 \text{Social Assistance} + \beta_2 \text{Socioeconomic} + \beta_3 \text{Demographics} + u_i \quad \text{…… (6)}
\]

Equation 6 explains that the opportunity for women to work or not work is influenced by the main variable, namely government social assistance. The dummy dependent variable \(Y = 1\) is a married woman who chooses to work, while \(Y = 0\) is a married woman who chooses not to work. Other independent variables used are demographic vector variables and socio-economic vectors.
RESULTS AND DISCUSSION

Descriptive statistics in this study can be explained in Table 1. The dependent variable uses a dichotomy variable with a value of 1 if a married woman works and a value of 0 if a married woman does not work. The number of observations of married women was 12328 people. Of the total observations, 7,710 were married women who worked and as many as 4,618 married women who did not work. This figure explains that many married women choose to work rather than not work. The entry of working women into the labor market certainly has many reasons, namely gender equality, economic factors, and other supporting factors (Anqi, 1989; de Jong et al., 2017; Gündüz-Hoşgör & Smits, 2008; Hu, 2008; Hwang & Jisoo, 2014).

Table 1. Descriptive statistics

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Obs</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable Pr(Y)</td>
<td>12328</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Social assistance</td>
<td>12328</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Home Status</td>
<td>12328</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Women age</td>
<td>12328</td>
<td>15</td>
<td>60</td>
</tr>
<tr>
<td>Women Education</td>
<td>12328</td>
<td>0</td>
<td>22</td>
</tr>
<tr>
<td>Husband's Education</td>
<td>12775</td>
<td>0</td>
<td>22</td>
</tr>
<tr>
<td>Husband's occupation sector</td>
<td>12775</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Natural logarithm of expenditure per capita</td>
<td>12328</td>
<td>12.190</td>
<td>16.991</td>
</tr>
<tr>
<td>Number of household members</td>
<td>12328</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>Number of household members undef five years old</td>
<td>12328</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Region</td>
<td>12328</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

The independent variable in this study is social assistance from the government. The social assistance from the government that is received by households is in the form of assistance from the Family Hope Program (PKH), Receipt of the Smart Indonesia Program (PIP), the Social Protection Card (KPS) / the Prosperous Family Card (KKS), and social assistance/subsidies from the local government. The social assistance variable uses a dummy variable with a value of 1, namely households receiving social assistance, while 0 is households that do not. From 12,328 observations, 5,964 were observed who received social assistance from the government, and as many as 6,545 observations did not receive social assistance from the government. So it can be explained that quite a lot of households receive social assistance from the government.

The next variable is home status. Status of the house variable uses a dummy variable with a value of 1, namely the woman is in a household that owns a private house, while the value of 0 if the woman is in a household where the ownership of the house is contract / other. The number of households in the observation that had privately owned houses in West Sumatra was 9,043 observations. In comparison, the remaining 3,325 observations of their houses were contract/another status. From these observations, it can be explained that households in West Sumatra are more prosperous, with many owning houses under private ownership.

The age variable for married women was also used in selecting the sample. The observations in this study were women who were at the working-age that is 15-60 years. When viewed from the perspective of education (Years of Schooling), the total length of education taken by the observed women was 22 years. The most length of education for women was 8 years, with the number of observations of 9,368 women. This number explains that the education taken by women in the sample is still relatively low.

The next variable used in this study is the husband's education and the husband's occupation sector. The length of education of the husbands in the sample is 22 years. However, the number of tertiary education institutions is still small compared to those
of secondary school graduates. The length of education still dominated the husband's education in the sample for 8 years, with the number of husbands who had education for 8 years was 9,086 while the rest were college graduates and some did not go to school at all. The husband's occupation sector variable was also used in this study. The husband's work sector uses a dummy variable where the value is 1 if the husband works in the formal sector and is worth 0 if the husband works in the informal sector. The number of husbands who work in the formal sector is 3,329 people, while 9,481 husbands work in the informal sector.

Per capita income variable is one of the determining factors widely used by some researchers to see the relationship to the probability of married women working or not (Garganta & Gasparini, 2015). Thus this study also includes the per capita income variable. The per capita income variable used in this study shows that the maximum per capita income in the sample is Rp.23,941,845 per month and a minimum per capita income of Rp.196,889 per month. The minimum amount of per capita income in West Sumatra tends to be relatively small, so this amount is included in the category of underprivileged households.

The sample's maximum number of household members is 16, and the minimal number of household members is 1. The use of the number of household members under 5 years of age because they need the role of parents, especially mothers in the household, makes mothers have to decide whether to work. The last variable used in this study is the area of residence. The area of residence variable uses a dummy variable, with a value of 1 if the household is in an urban area and 0 when living in a rural area. Of the total observations, there were 4,773 observations in urban areas and 7,555 observations in rural areas.

**Logit model estimation results**

The logit model's estimation results show that the Pseudo R-square value is 0.0355 and the likelihood ratio test has a significant effect. This research estimate is feasible to be conducted and analyzed to explain the opportunities for women to participate in the labor market.

The estimation results are described in Table 2 using Equation 6. It shows that the variables of social assistance, women's age, women's education, husband's education, type of husband's work, expenditure per capita, number of household members, and number of household members under 5 years of age has a significant effect on women's opportunities to participate in the labor market.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Odds Ratio</th>
<th>Std.Err</th>
<th>z</th>
<th>P &gt; z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social assistance</td>
<td>1.171***</td>
<td>.046</td>
<td>4.01</td>
<td>0.000</td>
</tr>
<tr>
<td>Home Status</td>
<td>.935</td>
<td>.043</td>
<td>-1.44</td>
<td>0.149</td>
</tr>
<tr>
<td>Women age</td>
<td>1.020***</td>
<td>.002</td>
<td>9.19</td>
<td>0.000</td>
</tr>
<tr>
<td>Women Education</td>
<td>1.037***</td>
<td>.011</td>
<td>3.28</td>
<td>0.001</td>
</tr>
<tr>
<td>Husband's Education</td>
<td>1.022**</td>
<td>.011</td>
<td>1.98</td>
<td>0.048</td>
</tr>
<tr>
<td>Husband's occupation sector</td>
<td>.838***</td>
<td>.038</td>
<td>-3.90</td>
<td>0.000</td>
</tr>
<tr>
<td>Natural logarithm of expenditure per capita</td>
<td>1.433***</td>
<td>.065</td>
<td>7.92</td>
<td>0.000</td>
</tr>
<tr>
<td>Number of household members</td>
<td>1.031**</td>
<td>.013</td>
<td>2.43</td>
<td>0.015</td>
</tr>
<tr>
<td>Number of household members under five years old</td>
<td>.662***</td>
<td>.024</td>
<td>-11.35</td>
<td>0.000</td>
</tr>
<tr>
<td>Region</td>
<td>1.012</td>
<td>.043</td>
<td>0.30</td>
<td>0.768</td>
</tr>
<tr>
<td>_Cons</td>
<td>.003</td>
<td>.002</td>
<td>-8.83</td>
<td>0.000</td>
</tr>
</tbody>
</table>

***) Significant on $\alpha=1\%$, **) Significant on $\alpha=5\%$.

Logit model interpretation is seen based on the value of the odds ratio. The main variable affecting women's opportunities to participate in the labor market is the
variable social assistance from the government. Women in households receiving social assistance are 1.17 times more likely to participate in the labor market. The same result is explained by Corona & Gammage (2017), explaining that providing cash transfers from the government to the community helps overcome poverty and encourages women to enter into micro-businesses. The assistance received can be used by housewives to participate in the labor market, especially in micro-enterprises. However, different results were found by Garganta et al. (2017). He sees that social assistance from the government can increase household income and indirectly alleviate women's work needs. Social assistance received by households can free mothers from the pressure to find work or work long hours in the labor market.

The variable age of women also significantly affects women's opportunities to participate in the labor market. This study explains that the older women are, the greater the chance for women to participate in the labor market as much 1.02. The same result is supported by Ye & Zhao (2018). He explained that the increasing the age of women, the higher the chance for women to work or enter the labor market.

The next variable is women's education (Years of Schooling), significantly affecting women's opportunities to participate in the labor market. The results in Table 2 explain that the longer a woman takes education, the higher the chance to participate in the labor market than 1.03 times. Higher investment expenditures on higher education encourage women to choose to enter the labor market. The same result is also explained by Garganta & Gasparini (2015), women with low education had fewer opportunities to work than women with education. So that educated women have a greater chance of being in the labor market. The husband's education variable (Years of Schooling) also influences women's opportunities to participate in labor. Women whose husbands are highly educated are 1.02 times more likely to enter the labor market than women whose husbands have low education.

The husband's type of work significantly affects women's opportunities to participate in the labor market. In Table 2, it can be seen that the odd ratio value of the variable type of husband's occupation is 0.83. This explains that women whose husbands work in the formal sector are 0.83 times less likely to enter labor. This can be explained because husbands who work in the formal sector spend more time outside the home, so that the role of women in the household is very much needed, especially those who already have children under five years old. The same research was explained by Jaka & Mateja (2013), a husband who works in the non-governmental (informal) employment sector has a wife who also works in the same sector.

The next variable is expenditure per capita, which affects women's opportunities to participate in the labor market. The results showed that the higher the expenditure per capita, the 1.43 times greater for women to participate in labor. The increase in per capita expenditure encourages women to enter the labor market to meet household needs. The increase in the cost of living encourages women to enter the labor market to meet increasing household needs.

The number of household members also significantly affects women's opportunities to participate in the labor market. Based on the odds ratio value in Table 2, it is explained that the more the number of household members, the 1.03 times more women are participating in the labor market. The increase in the number of household members encourages women to enter the labor market. The study results explained by Garganta & Gasparini (2015) that other family members who do not work and are the responsibility of the head of the household encourage women to enter the labor market to help meet household needs.
The last variable that affects women's opportunities to participate in the labor market is the number of household members under 5 years old. The results explain that women in households with children under 5 years old have a 0.66 times smaller chance of participating in labor. The results of this study are supported by research conducted by de Jong et al. (2017) and Hu (2008). They explained that in East Asian Countries, more women are at home if they have preschool-aged children. The presence of children in the household encourages women to spend more time in the household. This is due to the important role of mothers in the development of children during the age of five or under 5 years. Hasibuan et al. (2019) and Holroyd et al. (2020) explained in their research that the presence of mothers is very important in supporting children's development well for long-term health.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions
This study explains that social assistance, women's age, women's education, husband's education, type of husband's work, expenditure per capita, number of household members, and number of household members under 5 years have a significant effect on women's opportunities to participate in the labor market. Several previous research results also support these results.

Social assistance is the main variable used in the model. This finding is quite interesting because women in households receiving social assistance have greater opportunities to participate in labor. Women's participation in the labor market can come from government social programs used by mothers in households to open small businesses that aim to increase household income in the future.

Recommendations
The findings in this study reveal that social assistance from the government can increase the number of women working, especially in the informal sector, so that this government policy can increase household income and reduce poverty. Policy recommendations from the government are expected to encourage women to participate in the labor market, enhancing social assistance from the government. On the other hand, local governments can also provide counseling to women who want to enter the labor market to help increase their incomes and get them out of poverty.

REFERENCES


https://doi.org/10.2139/ssrn.2371979


https://doi.org/10.18235/0000631


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