Model of Domestic Economic Value by Application of the Supply Chain Strategy for Case of Indonesia
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Abstract—The NED Case Indonesia Model is a study that analyzes the economic value of the time allocation of mothers working in the domestic economy in helping families based on the supply chain strategy. The core of this research is the contribution of mothers working in Palembang City, Indonesia and the supply chain strategy for their sourcing management. This study aims to look at the contribution of mothers working on the family economy and responsibilities as a mother through time allocation in the domestic sector and using the semi log regression method, cross tabulation and opportunity cost. Respondents from mothers who worked as laborers, office workers, food vendors and others, were scattered in South Sumatra, Indonesia. The analysis results, first, the economic value of the average time allocation in the domestic sector Rp. 2,497,000, - per month, above the minimum wage of Rp. 2,294,000 per month. Second, the average allocation of time mothers in the public sector to 37 hours per week and the allocation of time mothers in the domestic sector 48 hours, more than 35 hours per week. Third, using supply chain strategy to increase higher maternal income, the need for increased time allocation efficiency in the domestic sector.

Keywords—Economic Value, Time Allocation, Supply chain strategy, Domestic Sector, Working Mother, NED.

1. Introduction
Supply chain managers have a responsibility to be internal business resources. Mothers working in Indonesia in 2013 amounted to 44,006,692 people, this number decreased by 1.91% in 2014 to 43,164,719 people. Different conditions occur in South Sumatra and especially in Palembang, the number of working mothers has increased. In South Sumatra there was an increase of 9.1% where in Palembang it increased by 13.7% from 233,191 people in 2013 to 265,791 people in 2014 Mother must domestic work [1- 5].The allocation of time for this type of work aims to achieve maximum utility, not only utilities for oneself but utilities for the family. Thus mothers who work domestically make a significant contribution to supporting family life not only from an economic point of view but also from the perspective of a mother's responsibility. Work in the domestic sphere is considered not formal work [2, 6-10]. Domestic work is considered economically unproductive. Domestic work in traditional families is considered the main task and responsibility of the mother [2].

Domestic work turns out to provide a substantial contribution to state revenues. The results of a study in America conducted by Robeyns show that economically household work contributes to state income is quite large, which is around 9 percent - 35.6 percent of GNP [3, 11-15]. Nurlina study in South Sumatra with mother respondents as family workers (defining workers who help the family economy but did not get a salary) found that if the mother did not work, the output produced decreased, in the rice agriculture sector it fell 5.84%, in rubber sector 1.34%, in the coffee sector 5.16% and in the agricultural sector pepper fell 5.11%. Nurlina's research does not specialize in the domestic sector, but from this study it can be seen how much the role of a mother in increasing the family's economic value[4, 16-20].

This study seeks to determine the effect of the influence of the level of education, number of dependents and age on the value of time allocation for working mothers in the domestic sector and...
how much the economic value of time allocation in the public sector and the domestic sector produced by working mothers.

2. Literature Review

This study shows that a large and dynamic supply chain economy plays a crucial role in innovation and in the creation of well-paid jobs. Conducted a study on the allocation of time for job seekers in the United States, finding that at middle age the time spent looking for work was 3 times greater than youth unemployment. Home production absorbs around 30 percent of working hours in the public and resting time absorbing 50 percent of work time in the form of sleep, and watching television and the allocation of time spent on shopping, child care, education and health and job search absorbs between 2 and 6 percent from working hours in the public [5]. Analyzed time and probability use values, where one can influence policies for changing behavior in reducing working hours, in Japan a reduction in work time is used to relax while a reduction in working hours in Korea is used for domestic production [6, 21-26].

Freemen and Schettkat, examined work in the domestic sector, concluding that there were differences in domestic work between the European Union and the United States on women's working hours, finding constraints on transportation from residential areas was suggested to the government to make a policy in developing convenience for women to work in the public sector in replacing goods and services produced domestically [7], [27-29]. Using Becker's theory states that by utilizing technology in domestic production [8]. Kooreman and Kapteyn in their study concluded that the use of time by housewives in the domestic sector dominates with the supporting variables of education, the number of dependents and wages [9]. Becker's (1965) study of the time allocation theory in the United States states that the primary responsibility of married women in traditional views is domestic care and work [10], [28].

2.1 Household Production

Households in producing output combine capital goods and raw goods, labor and time. Utilities (satisfaction) directly obtained by the household through the consumption of various final goods. Satisfaction maximization is done by combining goods input (Xi) and time input (Ti) with production function (fi) to produce goods (Zi). The function of household satisfaction in the theory of domestic production time allocation according to [10], namely:

\[ U = f (Z_1, ..., Z_n) \]  

Z is denoted for commodities produced on domestic (i = 1,2, ..., n).

Becker's theory (1965) was developed by Gronau where it was stated that not all goods and services are produced by households, but also bought in the market and Gronau still includes breaks (L) as factors that also affect satisfaction levels, thus utility functions (2.4) [10]-[12]:

\[ U = f (Z_1, Z_2, L) \]  

Z1 goods and services produced at home, Z2 goods and services purchased on the market and L = breaks.

2.2 Allocation of Time-Income and Domestic Work

Equation 3 shows the function of Utility in general while equation 4 is a utility function of domestic work. The combination of these two utility functions produces a new utility function in equation 13 as follows:

\[ U = f (C, L_1, L_2, L_3) \]  
\[ U = f (Z_1, Z_2, L) \]  
\[ U = f (C, L, Z_1, Z_2) \]

where C = consumption, L = rest, Z1 goods / services produced at home and Z2 are goods / services purchased in the market.

Thus the constraints faced are:

\[ L + Z_1 + Z_2 + h = T \]  
\[ L + Z_1 + Z_2 + h = 24 \text{ hours} \]  
\[ C = wh + wZ_1 + wZ_2 \]

In terms of time to rest it is not fully used for rest but is more used for domestic.

2.3 Human Capital (Human Capital)

The concept of human capital according to the modern view began to be pioneered by Theodore [13],[14]. In its development, the concept of human capital can be explained as abilities or capacities
from birth or descent or collection formed during the age of working productively accompanied by forms of capital or other inputs aimed at achieving economic ability. The main concept of human capital according to Becker (1993) is that humans are not just of resources but is capital (capital), which produce returns (returns) and every expenditure made in order to develop the quality and quantity of capital is an investment activity[15]. Based on the perspective of human capital investment, the decision to work directly or continue education in Higher Education is based on the benefits received compared to the costs incurred while continuing education in Higher Education.

2.4 Value

Homework activities should have valuable value and need to be taken into account as national income, even though the measurement of quantity or quality is relatively difficult [16]. The economic value of domestic work is calculated as a product of the use of time for domestic work and shadow price domestic work which is estimated from hourly wage rates. Market wage rates are the right measure for the opportunity cost of working at home. The opportunity cost every hour is the same for all hours of paid work as well as those not paid [11],[17],[18]. Opportunity costs are used as an approach, because it is difficult to determine market-equivalent prices[19].

The time used to work at home is housework and childcare. Domestic work is the time spent preparing food, washing food / processing equipment, cleaning the house, washing clothes, shopping, gardening. The use of time for childcare is a time used for education and childcare such as wearing clothes, feeding children, taking school or doctor, reading stories, accompanying school-age children, doing homework, educating children, chatting, playing with children [17],[18].

In the opportunity cost approach, input time not market is assessed from the multiplication of the use of productive activity hours with hourly wage rates of activities carried out by individuals (actual wages for jobs in the labor market and wages associated with workers who perform the same task). The idea behind the use of the average wage is that wages reflect the balanced costs of resources not the markets used in an activity. Each individual can use the same time to generate income both in the public sector and in the domestic sector. Another alternative method of valuing working production activities is to assess the time taken at home based on the average hourly market wages of a professional working on the same [19]-[24].

Figure 2. The Research Framework of the Economic Value of Working Mothers Time Allocation in, both the Public and Domestic sectors in Palembang

3. Research Methode

The scope of this study is on the economic value of time allocation for working mothers in the public sector and the domestic sector in supply chain management. The use of time in this study was especially for unpaid work in the home, and was known as housework, the 16 sub-district study sites in South Sumatra in 2015 and used cross tabulation procedures and semi-log regression simultaneously on the value of the domestic economy;

Data collected in this study are primary data and secondary data. Primary data obtained from surveys by observing, visiting home and direct interviews through prepared questionnaires. Primary data includes data about education, number of dependents, age, allocation of domestic time, economic value of domestic time allocation and other supporting data. Secondary data was taken from the South Sumatra BPS Office, Sumatra in Figures. Secondary data includes data on the number of female workers in South Sumatra Indonesia.

3.1 Samples

Respondents were working mothers who lived in Palembang City. Working mothers in question are working mothers who help their husbands to work for a living in the public sector and also work in households. Therefore the primary data needed is data on working mothers living in the city of Palembang.

The sample selection is done by Probability Sampling, in which the sampling is proportionally
stratified random sampling which takes sample members from the population based on the proportion of proportional or proportional allocation of all stratum having a large sample size that is proportional to the number of stratum members. In Proportional stratified Sampling of members of a population is classified into strata and the number of units selected from each stratum is directly proportional to the size of the population in the stratum. The right sample size is by making population assumptions about the process of selecting random samples and making assumptions about the degree of confidence (or number of errors) that can be accepted and the degree of variation in the population. Specifically for the selection of random samples following the provisions, first determine the following sample size:

\[
s = \frac{3.841 \times 544843 \times 0.5}{0.05^2} = 399.89 = 400
\]

So for a population of 544843 with a degree of error of 5 percent, the sample size is 400.

<table>
<thead>
<tr>
<th>No.</th>
<th>sub-district</th>
<th>Population</th>
<th>Percentage</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Alang Alang lebar</td>
<td>20772</td>
<td>3.81</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>Bukit kecil</td>
<td>10274</td>
<td>1.89</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>Gandus</td>
<td>24145</td>
<td>4.43</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>Ilir Barat I</td>
<td>51873</td>
<td>9.52</td>
<td>38</td>
</tr>
<tr>
<td>5</td>
<td>Ilir Barat II</td>
<td>35389</td>
<td>6.50</td>
<td>26</td>
</tr>
<tr>
<td>6</td>
<td>Ilir Timur I</td>
<td>23018</td>
<td>4.22</td>
<td>17</td>
</tr>
<tr>
<td>7</td>
<td>Ilir Timur II</td>
<td>85777</td>
<td>15.74</td>
<td>63</td>
</tr>
<tr>
<td>8</td>
<td>Kalidoni</td>
<td>11763</td>
<td>2.16</td>
<td>9</td>
</tr>
<tr>
<td>9</td>
<td>kemuning</td>
<td>5503</td>
<td>1.01</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>Kertapati</td>
<td>39712</td>
<td>7.29</td>
<td>29</td>
</tr>
<tr>
<td>11</td>
<td>Plaju</td>
<td>32254</td>
<td>5.92</td>
<td>24</td>
</tr>
<tr>
<td>12</td>
<td>Sako</td>
<td>31422</td>
<td>5.77</td>
<td>23</td>
</tr>
<tr>
<td>13</td>
<td>Seeberang Ulu I</td>
<td>63957</td>
<td>11.74</td>
<td>47</td>
</tr>
<tr>
<td>14</td>
<td>seberang Ulu II</td>
<td>41454</td>
<td>7.61</td>
<td>30</td>
</tr>
<tr>
<td>15</td>
<td>Sematang Borat</td>
<td>12342</td>
<td>2.27</td>
<td>9</td>
</tr>
<tr>
<td>16</td>
<td>Sukarami</td>
<td>55188</td>
<td>10.13</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>544843</td>
<td>100.00</td>
<td>400</td>
</tr>
</tbody>
</table>

Source: District in Figures 2014

3.2 Procedure for collecting data

Primary data was collected using survey methods (survey method) and in-depth interviews (depth interview) using questionnaires. The use of both methods is intended to obtain accurate data from respondents about the contribution of mothers about the perception of mothers about the lives of jobs in the public sector and the domestic sector [12]. Decision making of mother/father in household work, allocation of time for housework, the economic value of maternal
household work, and factors that influence the value of time usage. Also, it is to find out the contribution or contribution of working mother income to the total family income.

In primary data collection also carried out by field observations in order to obtain additional information from the opinions of leaders who are seen as competent and can complement information that supports this research.

While secondary data was collected through the research phases of various publications of the Central Statistics Agency of the Province of South Sumatra, the Central Statistics Agency of the City of Palembang, the Manpower Office of Palembang City, 16 sub-districts of Palembang City, Palembang in numbers and related institutions and institutions.

The measurement scale of the time allocation value variable through its indicators, the method used is the Differential Semantic scale where this scale can measure the assessment of the score more deeply.

### 3.3 Analysis technique

This research, in its analysis, uses qualitative variables and quantitative variables. Qualitative variables include gender, mother, father, and daughter. Quantitative variables include: working hours of mothers working in the public sector, the number of adult girls, the income of the head of the family, the number of wages received by mothers from the public sector such as main work in offices, work as laborers and stalls / business work, economic value of work mothers in the domestic sector such as providing food consumption, clothing care, home care, caring for children, caring for the elderly.

The analysis with the quantitative approach in this study is divided into two parts, namely: (1) analyzing how much time is allocated by mothers working in the public sector and the domestic sector; Quantitative analysis is used in order to identify various factors that influence the allocation of working mothers' time in economic activities, as well as how much influence these factors have and to determine the allocation value of working mothers in the domestic sector. The parameter estimation technique is used. First, the multiple regression analysis techniques are to analyze the factors that influence the allocation of time for working in the domestic sector, and analyze the factors that influence family income and second, logistic regression

### 3.4 Logistic Regression

Logistic regression is interpreted as a measure of regression that is used if it is based on 'dichotomous' (for binomial logistics) and is not allowed to be based on numerical, category or a combination of the two. This study groups in two schemes. The first scheme is not allowed to be numerical and categorical. Whereas in the second scheme is a category. In other words, logistic regression interpretation to make projections such as linear regression or Ordinary Least Square (OLS) regression. The difference is in logistic regression; the researchers project the dependent variable that is duality-sized, the size of the duality in question is the nominal data size with two categories, such as: yes and no, high and low or good and bad.

### 3.5 Linear Regression Model

The linear regression model in this study to see the relationship between the economic value of working time allocation and other variables with the amount of income on the rules of this model is the 'comparison' of the binominal logistic analysis.

### 3.6 Operational Definition of Variables

The limits of the variables to be measured and analyzed in this study include:

a. Education (PDK) is a formal education that has been completed by respondents. This variable is measured using a Dummy variable, D2 (Dummy) 1 if graduating from high school; 0 if Other, D3 (Dummy) 1 if you pass PT; 0 if other.

b. Dependent Amount (JT) is the number of children and other families that are still in the respondent's dependents, ratio measuring scale.

c. Age (USIA) is the age of the respondent calculated from birth to the time of observation, interval measuring scale.

d. The allocation of domestic work sector time (AWD) is the number of working hours of working mothers in one month used to work in the domestic such as: preparing food consumption, clothing
maintenance, home care, caring for children and caring for the elderly, interval measuring scale.

e. Economic Value, the allocation of time for working in the domestic sector (NED), is the exchange rate/price equal to money from domestic work such as serving food, clothing maintenance, home care, caring for children and caring for the elderly. Economic value in the domestic sector is calculated by the opportunity cost (market wages in the city of Palembang), ratio measuring scale.

3.7 Equality of Economic Value Allocation of Domestic Mother Time by SCS

The economic value of working mothers in the domestic sector is the calculated economic value of the domestic sector (opportunity cost): preparing cooking/food, clothing maintenance, home care, caring for children and caring for the elderly. Mathematically the income equation model of working in the domestic sector (NED) used in this study is education (PDK), the number of dependents (JT), age are as follows:

\[ \text{NED} = f(PDK, JT, AGE) \]

From the above function equation, it is transformed into a semi-log regression equation to make it easier to see the response of the independent variable to the dependent variable to estimate the economic value of allocation when working in the domestic sector, if expressed in the semi-log regression model equation:

\[ \ln \text{NEP} = \alpha_0 + c_1\text{PDK} + c_2\text{JT} + c_3\text{USIA} + b_4\text{D}^2 + b_5\text{D}^3 + e_1 \]

3.8 Testing Hypothesis

The variable number of dependents has a positive effect, while for the education variable and the age variable negatively affect the economic value of time allocation in the domestic.

4. Result

Referring to the research objectives that have been stated regarding cross-tabulation analysis, estimation analysis and influence from; education (PDK), number of dependents (JT), age, on the economic value of domestic time allocation (NED) in Palembang City. The discussion will include a semi-log regression which includes the economic value of time allocation in the public sector, economic value in the domestic sector, cross tabulation, test models, and estimation results of the model.

4.1 Income

The income of working mothers received, originating from; labor, office, food and other sales, both in the form of money and non-money.

Table 2. Percentage of Domestic Economic Income the number of respondents based on education

<table>
<thead>
<tr>
<th>Income Group</th>
<th>Education</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>≤ Middle School</td>
<td>High school</td>
</tr>
<tr>
<td>&lt;1,618,000</td>
<td>10.75</td>
<td>4.00</td>
</tr>
<tr>
<td></td>
<td>43</td>
<td>16</td>
</tr>
<tr>
<td>1,618,000-3,007,000</td>
<td>19.50</td>
<td>10.50</td>
</tr>
<tr>
<td></td>
<td>78</td>
<td>42</td>
</tr>
<tr>
<td>&gt;3,007,000-6,479,000</td>
<td>8.50</td>
<td>8.50</td>
</tr>
<tr>
<td></td>
<td>34</td>
<td>34</td>
</tr>
<tr>
<td>Total</td>
<td>38.75</td>
<td>23.00</td>
</tr>
<tr>
<td>Total N</td>
<td>155</td>
<td>92</td>
</tr>
</tbody>
</table>

Source: Research Results (processed)
then Table 2 shows that a large percentage of domestic economic value in all education SM P lies in revenue between 1618000-3007000.

Table 3. Percentage of Domestic Economic Income the number of respondents based on the number of dependents

<table>
<thead>
<tr>
<th>Income Group</th>
<th>The number of dependents</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>4-6</td>
<td>7-9</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>&lt;1,618,000</td>
<td>24.75</td>
<td>1.50</td>
<td>0.00</td>
<td>26.25</td>
</tr>
<tr>
<td></td>
<td>99</td>
<td>6</td>
<td>0</td>
<td>105</td>
</tr>
<tr>
<td>1,618,000-3,007,000</td>
<td>42.75</td>
<td>5.00</td>
<td>0.00</td>
<td>47.75</td>
</tr>
<tr>
<td></td>
<td>171</td>
<td>20</td>
<td>0</td>
<td>191</td>
</tr>
<tr>
<td>&gt; 3,007,000-6,479,000</td>
<td>23.75</td>
<td>2.00</td>
<td>0.25</td>
<td>26.00</td>
</tr>
<tr>
<td></td>
<td>95</td>
<td>8</td>
<td>1</td>
<td>104</td>
</tr>
<tr>
<td>Total</td>
<td>91.25</td>
<td>8.50</td>
<td>0.25</td>
<td>100.00</td>
</tr>
<tr>
<td>Total N</td>
<td>365</td>
<td>34</td>
<td>1</td>
<td>400</td>
</tr>
</tbody>
</table>

**Source:** Research Results (processed)

Table 3 shows a large percentage of dependents ≤ four on revenues of 1,618,000-3,007,000.

Table 4. Percentage of Domestic Economic Revenue by the number of respondents based on Age

<table>
<thead>
<tr>
<th>Income Group</th>
<th>AGE</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>20-34</td>
<td>35-49</td>
<td>50-65</td>
</tr>
<tr>
<td>&lt;1,618,000</td>
<td>7.75</td>
<td>9.25</td>
<td>9.25</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>37</td>
<td>37</td>
</tr>
<tr>
<td>1,618,000-3,007,000</td>
<td>11.75</td>
<td>23.50</td>
<td>12.50</td>
</tr>
<tr>
<td></td>
<td>47</td>
<td>94</td>
<td>50</td>
</tr>
<tr>
<td>&gt; 3,007,000-6,479,000</td>
<td>10.50</td>
<td>12.75</td>
<td>2.75</td>
</tr>
<tr>
<td></td>
<td>42</td>
<td>51</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>30.00</td>
<td>45.50</td>
<td>24.50</td>
</tr>
<tr>
<td>Total N</td>
<td>120</td>
<td>182</td>
<td>98</td>
</tr>
</tbody>
</table>

Table 4. shows the highest percentage at the age of 35-49 in domestic income 1,618,000-3,007,000. This means that age has an influence on the value of the domestic economy, where other conditions also affect the time allocation of working mothers in both the public
and domestic sectors, with productive age working mothers can at the same time carry out household chores but as time goes on it decreases energy and sensory function in themselves and this is a natural law that cannot be resisted for that spelling that all can be overcome now cannot, the solution is to find a household assistant or work alone with limited conditions, to find an assistant would certainly have to be paid, of course, mothers must look for additional work or skills.

**Table 5.** Average allocation of time Domestic mothers works by type of domestic work (in hours) per month.

<table>
<thead>
<tr>
<th>Type of domestic work</th>
<th>Average</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparing Food</td>
<td>65 hours/month</td>
<td>393</td>
</tr>
<tr>
<td>Clothing Care</td>
<td>55 hours/month</td>
<td>380</td>
</tr>
<tr>
<td>Home Care</td>
<td>40 hours/month</td>
<td>385</td>
</tr>
<tr>
<td>Caring for Children</td>
<td>85 hours/month</td>
<td>285</td>
</tr>
<tr>
<td>Caring for the Elderly</td>
<td>47 hours/month</td>
<td>40</td>
</tr>
</tbody>
</table>

**Source:** Research Results (processed)

Next in Table 5 shows that donation highest maternal time in the allocation of time to care for the child 85 per hour, and the lowest is the allocation of time for mothers to care for the elderly 47 per hour. Means that mothers who still spend their time in domestic work.

**Table 6.** Average allocation of domestic time for mothers working per month based on the type of domestic work (in IDR)

<table>
<thead>
<tr>
<th>Type of domestic work</th>
<th>Average</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparing Food</td>
<td>685,000 / month</td>
<td>393</td>
</tr>
<tr>
<td>Clothing Care</td>
<td>665,000 / month</td>
<td>380</td>
</tr>
<tr>
<td>Home Care</td>
<td>309,000 / month</td>
<td>385</td>
</tr>
<tr>
<td>Caring for Children</td>
<td>1,096,000 / month</td>
<td>285</td>
</tr>
<tr>
<td>Caring for the Elderly</td>
<td>727,000 / month</td>
<td>40</td>
</tr>
</tbody>
</table>

**Source:** Research Results (processed)

Table 6 shows that the average economic value of workshopping, cooking, preparing food is Rp. 685,000 per month; the economic value of clothing maintenance work Rp. 665,000 per month; economic value for home care Rp 309,000 per month; the economic value of the work of caring for children is Rp. One million ninety-six thousand per month and the economic value of the work of caring for the elderly is Rp. 727,000 per month.

The meaning, that. **First,** a mother wants to work in public, so she has to compare how much income she will receive with her devoting time in the country (paying household assistants). **Secondly,** he can remain in the country while planning and making work innovations that can generate money to increase his final income to help with family needs.

4.2 Estimated Domestic Economic Value Model (NED)

Approach function of family income is used to describe the sum of income either from the livelihood of all members of the family or alone. Education (PDK), Number of Dependents (JT), Age, Education high school graduation (D2), and
the Education passed PT (D₃) is the independent variable on the dependent variable is the allocation value of the time the mother works in the domestic sector (NED).

The estimation results obtained by the equation of the economic value of the time allocation of working mothers in Palembang City are as follows:

\[
\ln \text{NED} = 14,852 + 0.017 \text{JT} - 0.011 \text{AGE} + 0.290 \text{D₂} - 0.023 \text{D₃} \\
(124.284) \quad (0.864) \quad (-3.818) \quad (4.140) \quad (-0.385)
\]

R-Square = 0.091

Adjusted R-Square = 0.081

F-statistic = 9.829

DW statistic = 1,205

The regression model results with a coefficient of determination \( R^2 \), which is 0.091. Shows that 9.1% of the proportion of independent variables used can explain the dependent variable with the model, while the remaining 90.9% is explained by other independent variables outside the model.

The variable number of dependents is positive and not significant to the economic value of time allocation in the domestic sector of working mothers in Palembang because the t-count value is smaller than the t-table value 0.864 < 1.652 at the significance level \( \alpha = 5\% \). This means that every increase in the number of dependents has an impact on the increase in the allocation of time for working in the domestic sector.

Age variable has a negative and significant effect on the economic value of the allocation of time for working in the domestic sector; this can be seen from the t-count value greater than t-table 3.818 > 1.652 with a significance level of \( \alpha = 5\% \). This shows that mothers with increasingly mature age will have low economic value in the domestic, in other words, that the current age will determine the size of the economic value in the domestic sector.

The variable \( \text{D₂} \) (high school education) shows that the t-count value is greater than the t-table value 4.140 > 1.652 at the significance level \( \alpha = 5\% \). Means that 4,140 high school graduates contribute more than other education.

The variable \( \text{D₃} \) (PT education) shows that the t-count value is greater than the t-table value 0.385 < 1.652 at the significance level \( \alpha = 5\% \). Means that 0.385 PT graduates have less contribution from other education.

4.3 Analysis of Value of Allocation When Mothers Work in the Domestic Sector

The economic value of the work of working mothers in the domestic sector is calculated as a product of the use of time for work to work and shadow price of work which is estimated from an hourly wage rate. Market wage rates as the right measure for working hours Opportunity in domestic. Opportunity Cost per hour is the same for all hours of paid work as well as unpaid work [11], [17], [18]). . . Opportunity Cost is used as an approach because it is difficult to determine market-equivalent prices (Juster and Stafford, 1985) [19].

In general, the mother will work if the family contribution does not meet economic needs, family income is felt less, or the labor market wages received are greater than staying at home. Another alternative method of valuing production activity works is by assessing the time taken at home based on the average hourly market wages of a professional working on the same activity [19] - [26].

According to Gauger and Walker (1980), the calculation of the monetary value of the time contributed by each family member is determined by the wage rate of their working hours. Pricing or wage rates per hour of work assignments need to be identified, by comparing workers in the labor market who are in charge of serving jobs similar to work tasks carried out by family members [20], [27].

The results of the research estimation seen in Table 4.22 show that the total average allocation value of working time for mothers working in the domestic sector is Rp. 2,497,566, - per month, where the economic value in domestic is greater than the Palembang MSE of Rp. 2,249,000 per month. On the other hand, the economic value of the time allocation for working mothers in the domestic sector is smaller than the economic value of the
time allocation for working in the public sector based on the estimated economic value of working in the public and domestic sectors in Palembang City. Domestic sector.

5. Conclusion

Based on the results of the estimation and testing of hypotheses under the supply chain strategy obtained several conclusions explained based on each research variable, are as follows:

1. In the city of Palembang, in general, all working mothers contribute through the time allocation devoted to the public and domestic sectors. Seen from a large constant value NED (7,014).

2. Educational variable factors, number of dependents, age affect the economic value of maternal time allocation in the domestic sector in Palembang City.

3. The variable time allocation for mothers in the public and domestic sectors, the mother's response to using her time in the domestic sector, which is an average of 52 hours per week.

4. The variable $D_3 (PT)$ and the economic value of time allocation in the domestic education variable do not affect, this means that in the domestic sector the level of education does not have to be demanded domestic work.

5. The maternal contribution of this type of work shows that in the domestic economic value, 48% of mothers work as laborers and other jobs.

6. The number of dependents has a positive and significant effect on the economic value of a mother's time allocation in the domestic; this is precisely the reason for mothers to allocate more time in the domestic sector. The existence of children under five turns out to affect the allocation of working time. Therefore family planning needs to be considered.

7. The economic value of the time allocation for working mothers in the domestic sector on average is Rp. 2,511,564 per month, (42.92%) to family income.

6. Suggestions

Some policy recommendations or recommendations that will be submitted are based on the results of the research, and the conclusions outlined are as follows:

1. Referring to the role of working mothers in assisting the economy in helping families, it is suggested that the policies taken be directed more at empowering women to utilize their potential by their respective fields and the creation of skilled and productive women workers in the hope of forming business institutions independent.

2. Disarankan untuk memahami dan menelusuri lebih jauh bahwa peran seorang wanita di era modern sekarang ini telah berkembang, tidak hanya peran sebagai ibu rumahtangga, namun telah berkembang menjadi peran sebagai wanita karir (kerja).

3. Salah satu fokus perhatian adalah bagaimana meningkatkan pendapatan ibu yang diperoleh dengan memberikan kesempatan kerja dan kesempatan berusaha.


5. Peningkatan pendapatan ibu yang bekerja, dapat dilakukan pada: pekerjaan yang lama atau dengan start up bissines.

6. Keberadaan anak balita ternyata mempengaruhi alokasi waktu ibu bekerja oleh karena itu diperlukan perencanaan yang matang dalam menentukan jumlah anak setelah pernikahan (memasuki keluarga baru).

Adanya komunikasi ekonomi yang sinergis antara pihak-pihak terkait seperti Pemerintah, negara, perguruan tinggi, swasta, dunia usaha/pelaku bisnis dan masyarakat dari berbagai kalangan komunitas.

References
