Social Demography and Poverty in Pidie Jaya, Indonesia

Ferayanti, Chenny Seftarita*, Talbani Farlian, Fitriyani
Department of Development Economics, Faculty of Economics and Business, Syiah Kuala University, Indonesia
*Corresponding author: chennyseftarita@gmail.com

Abstract - This study aims to study the relationship between social demography variables with the level of poverty in Pidie Jaya. The method in this study uses a quantitative descriptive approach with correlation through secondary and primary data-based analysis. The results show that the number of family members and expenditure on cigarettes are closely related to Pidie Jaya's poverty. Therefore it is suggested for the government to increase the income of households by increasing the quality of human resources and natural resources.

Keywords - Social Demography; Poverty

I. INTRODUCTION

The poverty trend tends to decrease over year. However, poverty gap between rural and urban areas is still very high. Rural poverty is quite higher than urban poverty which shown in Figure I. Bahrun (2014), examined the analysis of income and expenditure patterns of poor households in Sarolangun District. Factors that explain the poverty level in five sub-districts in Sarolangun district are low level of education, working as a laborer, or a farmer without side jobs, low access to information, lack of government assistance, and lack of skills, no assets (houses, processed land, and livestock).

Nurwati (2008) also stated that that poverty is a multidimensional problem because it relates to the inability to access in society. The forms of poverty that exist in Indonesia are greatly influenced by the formulation of policies made. The various policies are still less effective in an effort to reduce the number of poor people. This is evidenced by the tendency in increasing the number of poor people.

Source: Badan Pusat Statistik (BPS) Banda Aceh, 2010

FIGURE I. POVERTY RATE IN RURAL AND URBAN AREAS (PERCENT)

If we compare it to the national level, the poverty rate in Aceh is also above the national average. Aceh is at number 7 (seven) poorest province in Indonesia and the number 2 (two) poorest in Sumatra. This condition shows the increasing in inequality that occurs both between regions in Aceh itself and between provinces in Indonesia.
During the period 2014-2015, per capita income in Aceh Province experienced a decline, and some economic sectors grew negatively. The closure of several processing industries and the decline in mining sector on per capita income over the past few years have had an impact on the reduction of per capita income in Aceh Province. The export showed a negative growth. On contrary, the agriculture, fisheries and maritime sector recorded a positive growth and sustained GDP growth this period. Aceh's non-oil and gas per capita GRDP in 2015 was recorded to have decreased slightly compared to the previous year. However, Pidie Jaya is classified as having a low GRDP contribution, even including the lowest number 2 (two) after Aceh Singkil. The primary sector which consists of agriculture, fisheries and mining is still the dominant sector and contributes greatly to the Gross Regional Domestic Product (PDRB) of Aceh based on regencies/cities. The most dominant primary sector contributions are seen in Nagan Raya District, Aceh Tamiang, East Aceh, and North Aceh.

 pidie jaya regency is the number three district with the highest poverty rate. the low level of grdp income is closely related to the high rate of poverty. the majority of the population works in the agricultural sector where many poor households work in this sector. the poverty level in aceh has increased again in 2015. some districts/cities that have the highest poverty rates in 2015 are include bener meriah, aceh barat, pidie jaya. these areas have become the highest poverty pockets in the past five years. on the other hand, the regions with the lowest poverty rates include: banda aceh, langs, and lhokseumawe.
Education is expected to be one of the main factors that influencing the poverty level. The relatively low level of education in Pidie Jaya is also likely to be the cause of low skill of human resources in this area, so it is very difficult to escape from poverty. Pidie Jaya District is one of the regency which low education level, where the average length of school years is 8.45 years or equivalent to completing junior high school education.

Number of populations also influences the poverty rate. The increase in the urban population occurs due to natural increase (the difference between birth and death) and the migration from rural areas to the city. This is due to the fact that the city provides more job opportunities and income compared to villages so that more people move to cities. Pidie Jaya is classified as having fewer urban populations than other districts/cities. The majority of occupation in Pidie Jaya works as farmers.
Therefore, it is important to study how social demographic variables relationship with the level of poverty in Pidie Jaya Regency. It is also important to analyze what factors which are most dominantly related to the level of poverty in Pidie Jaya.

II. LITERATURE REVIEW

A. Poverty

To measure poverty, Central Bureau of Statistics uses the concept of the ability to fulfill basic needs. With this approach, poverty is seen as an economic inability to meet basic food and non-food needs measured in terms of expenditure. Therefore, the poor are people who have an average per capita expenditure below the poverty line. Nasional Economics-Social Survey explains that: 1) Poverty Line (GK) is the sum of the Food Poverty Line (GKM) and Non-Food Poverty Line (GKNM). Residents who have an average per capita expenditure per month below the Poverty Line are categorized as poor. 2) Food Poverty Line (GKM) is the expenditure value of the minimum food requirement which is equal to 2100 kilocalories per capita per day. Packages of basic food needs commodities are represented by 52 types of commodities (grains, tubers, fish, meat, eggs and milk, vegetables, nuts, fruits, oils and fats, etc.) 3) Non-Food Poverty Line (GKNM) is the minimum requirement for housing, clothing, education and health. Commodity packages for basic non-food needs are represented by 51 types of commodities in urban areas and 47 types of commodities in rural areas.

B. Social Demography

In general, residents of Third World countries live and work in rural areas. More than 65 percent of the population of developing countries live permanently in the village. Meanwhile, residents in developed countries occupy villages less than 27 percent. Similarly, around 58 percent of the workforce in Third World countries makes a living in the agricultural sector, while in developed countries only around 5 percent. The contribution of the agricultural sector to GNI in developing countries as a whole is still around 14 percent while in developed countries only 3 percent. (Todaro: 2001).

High population growth is closely related to poverty. Economic growth will occur if income growth exceeds the population growth rate. To realize a high rate of economic growth requires a large investment. Many developing countries lack funds for investment. Ironically, at the same time the developing country also experienced high population growth so that its per capita income declined. Many developing country governments promote family planning projects to increase per capita income. Only if the population growth rate is lower than the rate of production growth, can the country increase per capita income. (Nopirin, 2008).
III. METHOD

A. The scope of research

This study explains the relationship between social demography and the level of poverty in Pidie Jaya District and what factors that are mainly related to the level of poverty in Pidie Jaya District.

B. Data and resources

This study uses secondary data and primary data. Primary data are collected by depth interviews, especially on problems that require in-depth explanation. In addition, data was obtained from the results of discussions in the form of seminars and Focus Group Discussions (FGD) with relevant institutions and community conducted in Pidie Jaya. The secondary data used are obtained from Central Bureau of Statistics and other local government data.

C. Research methods

This study uses a descriptive quantitative approach with correlation method. This approach used data-based analysis concept. The Quantitative data is important to understand the phenomenon. The quantitative analysis method used is the correlation method, which analyzes the phenomena about various factors related to the level of poverty in Pidie Jaya.

IV. DISCUSSION

Pidie Jaya Regency is one of the districts in Aceh that was established in 2007. The agricultural sector is the leading sector contributing to Own Source Revenue in this district. The number of poor people and the poverty line of this district can be seen in Table I below:

<table>
<thead>
<tr>
<th>Years</th>
<th>Number of Poor Population (Thousand Million)</th>
<th>Percentage of the Poor</th>
<th>Poverty Line (Rupiah)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>42.69</td>
<td>30.26%</td>
<td>274,078.01</td>
</tr>
<tr>
<td>2009</td>
<td>39.93</td>
<td>27.97%</td>
<td>309,857.00</td>
</tr>
<tr>
<td>2010</td>
<td>38.83</td>
<td>26.08%</td>
<td>337,211.00</td>
</tr>
<tr>
<td>2011</td>
<td>34.80</td>
<td>25.43%</td>
<td>365,477.00</td>
</tr>
<tr>
<td>2012</td>
<td>34.15</td>
<td>24.35%</td>
<td>369,439.50</td>
</tr>
<tr>
<td>2013</td>
<td>32.59</td>
<td>22.70%</td>
<td>373,497.00</td>
</tr>
<tr>
<td>2014</td>
<td>31.87</td>
<td>21.78%</td>
<td>376,795.00</td>
</tr>
<tr>
<td>2015</td>
<td>31.81</td>
<td>21.40%</td>
<td>380,371.00</td>
</tr>
<tr>
<td>2016</td>
<td>31.94</td>
<td>21.18%</td>
<td>399,377.00</td>
</tr>
</tbody>
</table>

Source: BPS Aceh, 2017

Based on the table above, it can be seen that in 2008 the number of poor people was 42.69 thousand people and the percentage of poor people was 30.26 percent with a poverty line of Rp. 274,078. In 2009 the number of poor people decreased to 39.93 thousand and the percentage of poor people was 27.97 percent with a poverty line of Rp. 309,857. In 2010 the number of poor people also experienced a decline, namely at 38.83 thousand people and the percentage of poor people at 26.08 percent with a poverty line of Rp.337,211. In 2011 the number of poor people continued to decline, namely to 34.80 thousand people and the percentage of poor people by 25.43 percent with the poverty line of Rp.365,477. In 2012 the number of poor people also continued to decline to 34.15 thousand people but the percentage of poor people rose to 24.35 percent with the poverty line which also increased to Rp.369,439. In 2013 the number of poor people still declined, namely to 32.59 thousand people and the percentage of poor people fell back to 22.70 percent with the poverty line which continued to rise to Rp.373,497. In 2014 the number of poor people fell again to 31.87 thousand people and the percentage of the poor fell to 21.78 percent with the increase in the poverty line to Rp. 376,795. In 2015 the number of poor people decreased slightly to 31.81 thousand people and the percentage of poor people to 21.40 percent with the poverty line rising to Rp.380,371. In 2016 the number of poor people became 31.94 thousand people with a percentage of 21.18 percent and a poverty line of Rp. 399,377. From the description above shows that the number of poor people experience a trend that tends to decline with the poverty line that tends to increase.
A. Characteristics of Respondents

1. Age of Respondents

Pidie Jaya Regency is the third poorest district in the province of Aceh in 2015. Therefore, the reviewer conducted a random selection of 71 respondents from several sub-districts. The age of the respondents ranged from 21 years to 76 years, which can be classified as shown in Figure VII below:

![Figure VII: Number of Respondents According to Age Classification](source)

It can be explained that the majority of respondents are 30 to 39 years old, namely 43 percent, and respondents aged 50 to 59 years are the fewest respondents. In this case, it can be concluded that the respondent is a population of productive age. The productive age is the most effective and efficient age of the population to carry out productivity in order to improve their welfare and can increase Gross Domestic Product (GDP) in their country. This productive age is expected to be utilized by the population as well as possible. If the productive age is not used properly, the welfare of the population in a country will be poor (poor), thereby reducing GDP in the country.

2. Gender

The result of the research in this study as shown in Figure VIII below.

![Figure VIII: Gender of Respondents](source)

The number of female respondents was slightly greater than the number of male respondents. Male respondents were 49 percent, and female respondents were 51 percent.

3. Occupation

Pidie Jaya residents have various types of work both formal and non-formal jobs. Non-formal jobs such as farmers dominate the work of the poor in Pidie Jaya. The difference in this type of work can affect the income and expenditure of respondents. It can be seen that most of the respondents work as farmers, which is 92.96 percent. Respondents who make a living as laborers are 1.41 percent, and the others are 5.63 percent.
Most farmers in Pidie Jaya are farm laborers who do not own their own agricultural land, they work by renting land or as farm laborers. As shown in Figure X below, there are 25.76 percent of farmers who own the land. There are 27.27 percent of farmers who work by renting land. Most of the poor people in Pidie Jaya make a living as farmers by working as farm laborers which are 46.97 percent. Therefore, the government is expected to be able to provide agricultural land suitable for farmers in Pidie Jaya who do not have their own land.

4. Education Level

Higher education level, it is expected to get higher return of income. Based on Figure XI, there are 2.82 percent of respondents who did not complete their education at the Elementary School level. Respondents who only graduated from elementary school were 30.99 percent. Moreover, respondents who only completed junior high school (SMP) amounted to 39.44 percent. Then followed by a high school education level (equivalent) as much as 23.94. Respondents who took the undergraduate were 2.82 percent.
5. Respondent’s working Hours

The number of working hours can also affect income. The respondent will be able to generate higher income when working more hours. Based on Figure XII, it can be seen that respondents who worked less than 6 hours a day were only 43.66 percent. Respondents who worked 6 to 10 hours a day were 56.34 percent. Thus, there were still 43.66 percent of respondents who had to increase the number of hours worked per day so that the economic life of their families could be increased. There were 56.34 percent of respondents who worked more than 6 hours a day.

![Working Hours 1-5 / day; 44%](image)

Source: December 2017 research results (data processed)

**FIGURE XII. RESPONDENTS’ WORKING HOURS**

6. Number of family members

Figure XIII shows that the average respondent has 3 family members. The least number of family members is 1 person and 12 people.

![Number of family members to percent of respondents](image)

Source: December 2017 research results (data processed)

**FIGURE XIII. NUMBER OF FAMILY MEMBERS**

7. Expenditures of Respondents

<table>
<thead>
<tr>
<th>No.</th>
<th>Family Expenditure</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&lt;1000.000</td>
<td>1</td>
<td>1.41</td>
</tr>
<tr>
<td>2</td>
<td>1.000.000-1.499.000</td>
<td>3</td>
<td>4.23</td>
</tr>
<tr>
<td>3</td>
<td>1.500.000-1.999.000</td>
<td>42</td>
<td>59.15</td>
</tr>
<tr>
<td>4</td>
<td>2.000.000-2.499.000</td>
<td>13</td>
<td>18.31</td>
</tr>
<tr>
<td>5</td>
<td>2.500.000-2.999.000</td>
<td>4</td>
<td>5.63</td>
</tr>
<tr>
<td>6</td>
<td>&gt; 3.000.000</td>
<td>8</td>
<td>11.27</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>71</td>
<td></td>
</tr>
</tbody>
</table>

Source: December 2017 research results (data processed)
Table II shows that most of the respondents have income approximately Rp1,500,000 to Rp1,999,000 or as 59.15 percent of total respondents. Respondents who have the smallest income are 1.41 percent, where their incomes are Rp1,000,000 per month. Respondents who have the largest income are 11.27 percent, which is greater than Rp3,000,000 per month.

Total Expenditures per Commodity per Month.

Total food expenditure per commodity for a month can be seen in the picture below:

![Total Expenditures of Food Per Commodity for a Month](image1)

Source: December 2017 research results (data processed)

**FIGURE XIV. TOTAL EXPENDITURES OF FOOD PER COMMODITY FOR A MONTH**

Figure XIV shows the contribution of expenditure to fish expenditure is 27.33 percent of total food expenditure. Expenditures on rice are 22.71 percent of total food expenditure and almost close to spending on cigarettes which is 21.37 percent of total food expenditure. Expenditures on eggs/tofu are 0.33 percent of total food expenditure. Expenditures on eggs/tofu are 7.36 percent of the total food expenditure. Followed by expenditure on vegetables is 7.22 percent of total food expenditure. Furthermore, expenditure on Sugar/Oil is equal to 14.00 percent of the total food expenditure.

The data shows that the highest expenditure on food for a month is on fish expenditures, followed by expenditure on rice. While the expenditure on vegetables is the smallest. From this consumption pattern, it appears that cigarette consumption is greater than consumption of eggs/tofu, sugar/oils and vegetables. Expenditures on cigarettes are almost equivalent to spending on rice.

**B. Total Non-Food Expenditures per Commodity during a Month**

Total non-food expenditure per commodity is the minimum requirement for housing, clothing, education and health, etc., as shown in Figure XV below:

![Total Non-Food Expenditures Per Commodity](image2)

Source: December 2017 research results (data processed)

**FIGURE XV. TOTAL NON-FOOD EXPENDITURES PER COMMODITY**
Figure XV shows that non-food expenditure per respondent's commodity for a month, where expenditure on clothing needs is 10.67 percent of the total non-food expenditure for a month. Followed by spending on the board of 1.13 percent. Expenditures in education are Rp. 16.00 percent. Then the expenditure on fuel oil (BBM) is 17.43 percent. Followed by spending on electricity amounting to 6.04 percent. Gas expenditure is 4.67 percent. Expenditures on fulfilling the need to eat outside the home, including eating in a shop is 0.99 percent, eating in a restaurant is 0.07 percent, eating in a coffee shop is 9.38 percent, and for other needs is 33.63 percent.

The highest non-food expenditure is on expenditures on other expenses, in addition to clothing, housing, education, health, fuel, electricity, gas, and eating outside the home. Other expenditures are in the form of expenses for children's snacks, bathing needs, donations to receptions, and so on. While the lowest expenditure is on food needs in restaurants.

C. Factors that are Related to the Poverty in Pidie Jaya

**TABLE III. THE RELATIONSHIP BETWEEN SOCIAL DEMOGRAPHY AND THE LEVEL OF POVERTY IN PIDIE JAYA REGENCY**

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Income</th>
<th>Number of Family Members</th>
<th>Cigarettes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>.379**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.001</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>71</td>
<td>71</td>
</tr>
<tr>
<td>Family member</td>
<td>Pearson Correlation</td>
<td>.379**</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.001</td>
<td>.019</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>71</td>
<td>71</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>Pearson Correlation</td>
<td>.493**</td>
<td>.277**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.019</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>71</td>
<td>71</td>
</tr>
</tbody>
</table>

Note: ** and * Correlation is significant at the 0.01 and 0.05 levels (2-tailed).

- Two-tailed probability value of 0.001 is smaller than 0.05, so it can be concluded that there is a relationship between the number of family members and income.
- Two-tailed probability value of 0.000 is less than 0.05, so it can be concluded that there is a relationship between cigarettes and income.

D. The Relationship between the Number of Family Members and Income

The relationship between the number of family members and income can be shown by table below:

**TABLE IV. CORRELATIONS**

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Family Members</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Income</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>

Note: **. Correlation is significant at the 0.01 level (2-tailed).

Two-tailed probability value of 0.001 is smaller than 0.05, so it can be concluded that there is a relationship between the number of family members and income.

E. Relationship between Cigarettes and Income

**TABLE V. CORRELATIONS**

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigarettes</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Income</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>

Note: **. Correlation is significant at the 0.01 level (2-tailed).
Two-tailed probability value of 0.000 is less than 0.05, so it can be concluded that there is a relationship between cigarettes and income.

V. CONCLUSION

Based on the results of the study and discussion it can be concluded, among others:

1. Most of the population in Pidie Jaya has livelihoods in the agricultural sector, where 74.24 percent do not own their own land.
2. The number of family members and expenditure on cigarettes are closely related to poverty in Pidie Jaya.
3. The education level of the poor in Pidie Jaya is still very low (on average only junior high school education).
4. The largest total expenditure of food for the poor population per month is expenditure on fish commodities, which is 27.33%.
5. Based on interviews in the field, the government has planned on "home gardens", so that people can grow vegetables in their dwellings so they don't have to buy in the market and can reduce spending. But this has not been effective because there are still many livestock roaming and eating vegetable vegetables.
6. Regarding community income, after conducting interviews it can be seen that the prices of agricultural commodities of farmers in Pidie Jaya are valued very cheap or not in accordance with the costs they incur, such as the price of chocolate.
7. With the existence of health assistance funds from the government, many poor people are helped, so the costs incurred for health are reduced. However, for people who live far from health centers do not get sufficient access to health.

Based on the above findings, we suggest:

1. More creative, innovative and explorative efforts from the government are needed to increase farmers' income, by increasing the quality of human resources in the face of current globalization and demographic bonuses that are expected to occur in the next few years.
2. The government is expected to maintain the stability of the prices of cocoa and areca nut and other commodity prices in Pidie Jaya.
3. The role of the government is needed to motivate the poor especially farmers to be able to allocate their income efficiently, such as avoiding spending on cigarettes.
4. The government is expected to increase the productivity of the community in the fisheries sector because the expenditure of the poor on food, the biggest is to buy fish.
5. The government is expected to be able to increase its role in the education sector so that the education of the poor in Pidie Jaya, which on average can only finish until junior high school (SMP) will later be able to reach education up to the undergraduate level.
6. Distribution of suitable agricultural land for farmers needs to be increased because many farmers do not have their own land so farmers' inadequate income.
7. In addition to the agricultural sector, government support is also needed for the creation of businesses in the household industry sector such as training in Small and Medium Enterprises (SMEs), capital assistance and marketing of household handicrafts owned by the community.

REFERENCES

Badan Pusat Statistik. Aceh Dalam Angka, 2010
Badan Pusat Statistik. Aceh Dalam Angka, 2014
Badan Pusat Statistik. Aceh Dalam Angka, 2015
Badan Pusat Statistik. Aceh Dalam Angka, 2016