Factors that influencing income in Merauke District, Merauke Regency, Papua Province

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Abstract. This study aimed to examine and prove the effect of formal education, non-formal education, and health on the income of poor households in Merauke District, Merauke Regency, Papua Province. The research method used quantitative descriptive research with a total sample of 130 poor households and multiple regression analysis techniques by using AMOS (Analysis of Moment Structures) analysis tools. The results of the study found that formal education has a positive and significant effect on the income of poor households. While non-formal education and health do not affect the income of poor families.

1. Introduction
Quality development is a planned process of activities in a better direction to improve the quality of life of the community. In the process not only prioritizes economic growth but the quality of human life. Lanjouw states that human development is more synonymous with poverty reduction in Indonesia [1]. Because one measure of success in development is also a reduction in poverty. While the main determinant of poverty is the capability factor to function [2]. There are two main causes of poverty in low-income countries, namely low levels of health and nutrition and slow improvements in the quality of education [3].

The essence of development is human development as a whole as the goal of development is to improve prosperity fairly and prosperously. Because the quality of human life must be fulfilled by basic needs such as education, health, and income because the development of the education and health sectors are two pillars to form human capital in economic development [4]. There are two sides to human development that can be seen from the economic and social aspects. Economic aspects such as income that can determine purchasing power for proper life and social aspects, namely education and health, determine the capacity for independence and healthy life.

Development in Merauke Regency, which consists of 20 districts, had a positive trend from year to year as seen from the human development indicator, which reached 67.75. However, it is still categorized as medium but above the Papua Province HDI, which is 57.25 in 2015. Based on the Indonesia economic 2016 report, the economic growth of the Merauke Regency is relatively high, reaching 7.04 percent per year above the national economic growth rate of 4.79 percent in 2015. As a
new economic growth area, this area has become a magnet for other residents to seek a better life. Especially in Merauke District as the district capital with a population of almost half of the total population of Merauke Regency. The population of Merauke District is 96,951 people with 25,104 households or 44.76 percent of the total population of Merauke Regency, which is 216,586.

As the capital city of Merauke Regency, Merauke District is inhabited by a variety of origins of both tribes and races that live in Merauke City. The plurality of the population in Merauke City is the driving force of the dynamics of development that can mix harmoniously in diverse ethnic groups (melting pot). As a dynamic city, it gives hope for citizens to try to earn a fortune in the city. But not all better life expectancies can be easily found. The development of economic progress and social dynamics in Merauke District because it demands a higher competition for life. The development of economic progress and social dynamics in Merauke District demands a higher competition for life. So those people who are unable to compete become more marginalized.

Competitive inability and limited ability to function cause low productivity. High competitiveness in the business sector and low quality of work as a result of low education, low knowledge, and unskill will cause labor productivity to become smaller. Because decreased productivity also causes declining income which can produce poverty.

In Merauke District, there are 9,163 poor people or 9.45 percent in 2015. Based on BPS data in 2015, the poverty line was set in Merauke Regency, which was Rp.294,257, - [5] the number of poor people in Merauke District is spread in 8 villages and 2 villages which can be seen in the table as follows:

**Table 1. Number of poor and poor households in the District Merauke in 2015**

| No | Sub District / Village | Number of Poor | Number of Households | Percentage (%) |
|----|------------------------|----------------|----------------------|----------------|
| 1  | Bambu Pemali           | 538            | 127                  | 7.04           |
| 2  | Mandala                | 1,029          | 249                  | 6.46           |
| 3  | Karang Indah           | 921            | 230                  | 10.94          |
| 4  | Seringgu Jaya          | 825            | 159                  | 10.73          |
| 5  | Kelapa Lima            | 1,570          | 373                  | 10.16          |
| 6  | Rimba Jaya             | 1,338          | 311                  | 7.07           |
| 7  | Maro                   | 3,617          | 344                  | 9.99           |
| 8  | Samkai                 | 694            | 215                  | 8.02           |
| 9  | Wasur                  | 379            | 102                  | 83.85          |
| 10 | Nasem                  | 482            | 98                   | 95.07          |
|    | **Total**              | **9,163**      | **2,210**            |                |

Source: Monografi, 2015

Based on the table above, Mandala Subdistrict is the lowest urban subdistrict with a poor population that is 6.46 percent with a total of 1,029 people or 249 households. On the contrary, the village has the poorest population is Nasem Village, which is 95.07 percent with a total of 482 people or 98 households. Then in Wasur Village, which was 83.85 percent with 379 inhabitants.

The general phenomenon of the poor in Merauke District is mostly settled in rural areas such as Nasem Village and Wasur Village and those who live in the city prefer to settle in the suburbs or near the port. They chose for the reasons the distance because they are closer to the place of job for earning a living as well as the reason closer to the location to sell their products such as fish, crabs, and others. They have more adjacent locations in an indigenous residential community such as on the outskirts of the city by building interconnected stage houses. They live in groups in a residential community. Whereas people who depend on livelihoods such as farming, hunting and fishermen prefer to settle around the forest and the coast.

Some of the indigenous Papuans in Merauke District are like the Marind Tribe. In general, the indigenous people, namely the Marind Tribe who settle in Merauke District, live in the suburbs of Merauke and in two villages such as Wasur Village (Marind Sub-Tribe, Marori) and Nasem Village.
The pattern of their livelihood in Nasem Village and Wasur Village is a life that is only enough to survive (subsistence). They are still mostly dependent on natural wealth surrounding. Natural resources, both from marine and forest wealth, become a buffer for the people living in the area. Various types of marine potential such as fish, crabs, shrimp, and availability of hunted animals such as deer, wild pigs, kangaroos, wallabies, cassowary birds can be obtained around the forest. The Marori Tribe are mostly as eucalyptus oil refiners, hunting and gathering food in the forest to fulfill their daily needs and the rest for sale. Whereas other Papuan tribes make settlements in groups. Settlements adjacent to workplaces such as the Mappi Tribe are in the port, who generally works as a porter and works as a transport worker in the Bulog warehouse. The Asmat people who are in the center of the city generally work as freelancers, any kind workers jobs and scavengers. While the Muyu tribe and the Wamena tribe are generally located on the outskirts of the city for gardening to plant sago and tubers as the fulfillment of food needs and the rest for sale on the market. But there are also those who catch fresh fish around swamps and rivers.

2. Methodology

The type of this research is quantitative descriptive research that seeks to describe the phenomena and data obtained in the field to be analyzed and interpreted. Whereas the research location was done in Merauke District, Merauke Regency, Papua Province. The selection of the research location was determined purposively, because of the Merauke District has the largest population and as the capital of Merauke Regency.

The population is all poor households in Merauke District, which are 2,210 households. While the number of samples in this study was 130 poor households. Sampling is based on cluster techniques by selecting samples using the probability principle by giving the possibility of all regional clusters, namely 8 sub-district and 2 villages. The sample distribution according to the sub-district and village is based on coincidence (accidental sampling), which is poor households who at that time met with researchers. This study accompanied by one of the government employees (subdistrict/village employees).

The data used are primary data, namely data obtained directly from poor households represented by the head of the family as respondents through direct interviews based on the questionnaire, structured interviews and also through observation directly in the field. Whereas secondary data is derived from data such as books, periodical books, urban and village monographical data and relevant data from official websites accessed from the internet.

The data analysis technique uses AMOS (Analysis of Moment Structures) analysis tools as follows:

\[ Y = f (X_1, X_2, X_3) \]  

With the multiple regression equation as follows:

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \mu \]  

Where:

- X1 = Formal Education
- X2 = Non-Formal Education
- X3 = Health
- Y = Income

Operational definitions are used to specify activities or provide an operation needed to measure these variables, namely:

1) Formal Education (X1) is the highest formal education measured by the length of school measured in years.
2) Non Formal Education (X2) is education pursued through additional education ways to increase knowledge, skills, and expertise by training, counseling, coaching, and courses which is measured by the length of training hours/courses in the past year.
3) Health (X3) is a person's health condition as measured by the number of sick days in the last year.
4) Household Income (Y) is the amount of income for those who work (husband, wife and child) in a household for one month as measured by rupiah.
3. Result and discussion

3.1. The effect of formal education (X1) on income (Y)

The results of the study found that formal education had a positive and significant effect on the income of poor households in Merauke District. Based on the data, there were 13 heads of households whose formal education was higher, namely high school graduates (SLTA) or above 12 or only 12 years old. Those with high formal education have an average income of Rp. 1,155,000. While other respondents as many as 117 respondents who had lower formal education under 12 years only had an average income of Rp. 991,396, - in one month.

Likewise with the results of the comparison of subdistrict with more education levels of poor households with the a much lower education level villages. Subdistrict such as in the Pemali Bambu, Mandala and Seringgu Jaya Subdistrict showed that the poor population had higher education on average, namely graduating junior high school or equivalent, while the poor population in Nasem Village and Wasur Village were mostly still only elementary school or equivalent to below which includes non-primary or elementary school residents such as people who have never attended school, people who have attended elementary school but drop out, people have not completed elementary education or those who are studying in elementary school and people in the category of children under school age.

The results of the comparison of these two locations also indicate that there are differences in education levels which also distinguish higher levels of income in Bambu Pemali Subdistrict, Mandala Subdistrict and Seringgu Jaya Subdistrict compared to the income of the average poor in Nasem Village and Wasur Village.

So that education, especially the formal sector has a vital role in shaping human capital to increase one's self capacity. Because someone who has a higher education will be more productive in producing goods and services. A person's work productivity is the ability to produce goods and services that are expected to meet the quality with a predetermined time. [6]

Therefore education will provide knowledge, improve skills and expertise in work. Likewise also, methods and ways of working that are easier to apply in work and daily life. So that it will increase work productivity higher, which will increase income as well.

The results of this study also found that formal education had a positive effect on income. This is in accordance with the Human Capital Theory, that s income can increase due to an increase in Education.[7] The level of education makes workers have skills that can increase productivity and income. Because education is one of the most important aspects in human life that can improve human survival.

3.2. The effect of non formal education(X2) on income (Y)

The results of the study found that non-formal education did not have a significant effect on income. The role of non-formal education does not have much effect in increasing the income of the family head. Although non-formal education should function as a complement to formal education to improve the ability to live better. Non-formal education is an organized educational activity that is outside of the education system formally with the aim of providing learner services. [8]

However, so far non-formal education provided to poor households is still mostly fulfilling the achievement of targets for the realization of activities or programs from each of the local government agencies and institutions. The implementation of these activities was carried out only in a relatively short time, not periodically and not sustainably, so that guidance and assistance was interrupted. So that many family heads who have received non-formal education do not feel the benefits of activities such as: training, courses and counseling and guidance. As there are some household heads who have participated in meuble training and courses, none of them has a profession and has a source of livelihood in this field.

One of the reason factors was that when they finished the course they did not have assistance from the relevant agencies to guide them in carrying out their business in the initial stages. Participants who
have taken non-formal education cannot apply and pursue work related to the field they have received. So that what is obtained by the head of the family is not much useful for developing their profession such as meuble, sewing, making meatballs and so on. They do not apply the results that have been trained and taught but they continue to re-apply the old ways while continuing to continue their previous job. They think that the training or counseling that was taught would be more difficult because new jobs that still needed to take time while for those previous jobs would be more likely to get money at that time.

Another factor also is that non-formal education activities are not maximally followed in every activity. Therefore, activities such as counseling in poor households are often carried out at inappropriate times such as in the morning as productive time because generally they are still working to find income and food to support their household life. So that some participants did not fully participate in non formal education activities. Many of them prefer to work to make a living on that day rather than taking part in the activity.

3.3. The effect of health (X3) on income (Y)

The results of the study found that health did not affect income in poor households in Merauke District. Health is a condition of the body that is free from various diseases so that health is a condition that is expected by everyone so it is very valuable to be maintained constantly. Health aspects are very important in the household. The head of a healthy household as a backbone in the family is certainly a beneficial thing for the family. Generally the heads of poor households and household members who work have jobs in the non-formal sector. Where the non-formal sector is not much based on the payroll system or rules that require a person's health condition to work. They work without looking at their health conditions, because their main goal is to be able to support other family members not only in cash, but also in the form of goods to meet their household needs at that time. Types of work such as catching fish and crabs, hunting and gathering food and gardening for their household consumption and the rest for sale as source of income.

4. Conclusion

Based on the results of the analysis and discussion, so it can be concluded that as follows: Formal education has a positive and significant effect on income. While non-formal education and health do not affect the income of poor household in Merauke District. Furthermore, as a recommendation, it is hoped that efforts will be made to improve the quality of formal education by encouraging children from poor background family to obtain quality education. Including paying attention to them as student participants with a background of short of nutritional food and school facilities but they have enthusiasm for school. It also requires attention to increase the intensity of sustainable non-formal education and relevant learning materials to the livelihood needs of poor households, improving their material quality while providing assistance.

References

[1] Mirza D S 2012 Pengaruh kemiskinan, pertumbuhan ekonomi, dan belanja modal terhadap indeks pembangunan manusia di Jawa Tengah tahun 2006-2009 Econ. Dev. Anal. J. 1
[2] Todaro, M. P., & Smith S C 1995 Pembangunan Ekonomi Di Dunia Ketiga (Jakarta: Erlangga)
[3] Samuelson W D N and A. P 2001 Macro Economic edisi Terjemahan (Jakarta: Erlangga)
[4] Herawati N and Sasana H 2013 Analisis Pengaruh Pendidikan, Upah Pengalaman Kerja, Jenis Kelamin Dan Umur Terhadap Produktivitas Tenaga Kerja Industri Shuttlecock Kota Tegal
[5] Badan P statistik K M 2017 Kabupaten Merauke Dalam Angka Tahun 2016 (Merauke)
[6] Arshad M N M and Ab Malik Z 2015 Quality of human capital and labor productivity: a case of Malaysia Int. J. Econ. Manag. Account. 23
[7] Becker G S 1975 Human Capital A Theoretical and Empirical Analysis, with Special Reference to Education, the National Bureau of Economic Research. london (New York: Columbia
[8] Rogers J 2007 *Adults Learning, Fifth Edit* (London: Open University Press)