The Effect of Human Development Index and Net Participation Rate on the Percentage of Poor Population: A Case Study in Riau Province, Indonesia

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Abstract

This study aims to determine the factors that can affect the percentage of poverty in the province of Riau Indonesia. This study using variables that are considered to affect the Poverty Percentage, namely; Human Development Index and Net Participation Rate. This study has 3 interrelated variables, including the human development index and the net participation rate which have an effect of 83.6% on the poverty level in Riau Province while the remaining 16.4% is influenced by other variables. From the data above, it can be explained that the Pearson Human Development Index (APM) to the Net Participation Rate (NER) of 0.161 is positive, there is no correlation. Human Development Index to Poverty Percentage -0.660 strong correlation although the form of the relationship is negative. This study uses secondary data from the Central Bureau of Statistics of Riau Province by looking at 12 districts in Riau Province. This study uses quantitative research where the data analysis technique uses SPSS software. Hopefully, in the future, there will be research that looks at other factors that cause poverty levels in the Riau province of Indonesia.

Keywords: Percentage of Poverty, Human Development Index, Net Participation Rate

Jel Codes: I3, O15, I24

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Introduction

Riau is one of the largest provinces on the island of Sumatra with a variety of very strong Malay cultures. In this province, the strength of history and cultural acculturation is a distinguishing feature from other provinces. Located in the middle of the island of Sumatra, Riau Province is now one of the most strategic areas with very good development acceleration. Until now, Riau has 12 cities and regencies, namely (Statistik, 2020):

1. Pekanbaru City (provincial capital)

2. Kampar District

3. Rokan Hulu Regency

4. Rokan Hilir District

5. Pelalawan District

6. Siak District

7. Dumai City

8. Bengkalis Regency

9. Kuantan Singingi Regency

10. Indragiri Hulu Regency

11. Indragiri Hilir Regency

12. Meranti Islands Regency

On the island of Sumatra, the population growth of Riau Province during the period 2010 - 2020 is relatively high. Based on the 2015 population census, the population of Riau province was 6.35 million people, and based on the 2020 population census it increased to 6.39 million people or an average yearly growth of 3.58%. On the other hand, during the implementation of regional autonomy, there has been a significant change in the increase in regional spending, especially in oil and gas producing regions. For example, Bengkalis Regency in 2000 had a regional expenditure of Rp. 143.45 billion and in 2010 increased to Rp. 3,010.87 billion. Likewise, Siak Regency in 2000 had a regional expenditure of Rp. 63.02 billion increased to Rp. 1,942.62 billion in 2010. Regencies/cities that are not oil and gas producers in Riau Province also receive the blessing of share for oil and gas revenue. For example, the Indragiri Hilir Regency at the beginning of regional autonomy had only Rp. 57.31 billion and increased to Rp. 954.10 billion in 2010. The increased fiscal capacity of regional finance should have a positive correlation with increasing the ability of local governments to provide services to the population (Syahza & Asmit, 2020).

The National Long-Term Development Plan 2005-2025 to realize the nation's competitiveness, in building quality human resources, among others, is focused on increasing the Human Development Index (HDI). The achievement of human development in Riau Province in 2020

was 72.71 points, an increase of 0.27 points compared to the previous year, which was 72.44 points. The HDI achievement of the city area is relatively better than that of the district. For example, Pekanbaru City and Dumai City in 2018 had HDIs of 81.32 points and 74.40 points, respectively. Meanwhile, regencies are mainly oil and gas producers with higher financial capacity, for example, the HDI of Bengkalis Regency is 73.46 points, Siak is 73.68 points, and Rokan Hilir is 69.15 points. Meanwhile, districts with relatively lower regional financial capacity, such as Indragiri Hilir Regency, achieved Human Development Index of 66.54 points, Kuantan Singingi of 70.31 points, Indragiri Hulu of 69.83 points, and Pelalawan of 71.56 points (Statistik, 2020).

Table 1: District Human Development Index in Riau Province

District	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Kuantan Singingi	65.07	65.72	66.31	66.65	67.47	68.32	68.66	69.53	69.96	70.78	70.31	70.60
Indragiri Hulu	65.10	65.93	66.50	66.68	67.11	68.00	68.67	68.97	69.66	70.05	69.83	70.01
Indragiri Hilir	61.98	62.82	63.04	63.44	63.80	64.80	65.35	66.17	66.51	66.84	66.54	66.63
Pelalawan	65.95	66.58	67.25	68.29	68.67	69,82	70.21	70.59	71.44	71.85	71.56	72.08
Siak	69.78	70.20	70.45	70.84	71.45	72.17	72.70	73.18	73.73	74.07	73.68	73.98
Kampar	68.62	69.64	70.08	70.46	70.72	71.28	71.39	72.19	72.50	73.15	72.83	73.02
Rokan Hulu	63.59	64.20	64.99	66.07	67.02	67.29	67.86	68.67	69.36	69.93	69.38	69.67
Bengkalis	69.29	69.72	70.26	70.60	70.84	71.29	71.98	72.27	72.94	73.44	73.46	73.58
Rokan Hilir	64.13	64.76	65.09	65.46	66.22	66.81	67.52	67.84	68.73	69.40	69.15	69.34
Kepulauan Meranti	59.71	60.38	61.49	62.53	62.91	63.25	63.90	64.70	65.23	65.93	65.50	65.70
Pekanbaru	77.34	77.71	77.94	78.16	78.42	79.32	79.69	80.01	80.66	81.35	81.32	81.58
Dumai	69.55	70.43	71.07	71.59	71.86	72.20	72.96	73.46	74.06	74.64	74.40	74.75

Sources : Central Bureau of Statistics of Riau Province

When talking about the human development index it is also related to the education sector in a country. Especially in Riau Province which has a fairly high dropout rate nationally. Based on research from the central government, namely the Ministry of National Education, the percentage of dropout rates, Riau ranks third or 44.37 percent, first and second, namely Banten 49.53 percent and Jambi 46.36 percent (Statistik, 2020). This should be a serious concern for the Riau Provincial Government, especially the Education Office. Following the orders of Law No. 23 of 2014 concerning Regional Government (Susilowanto & Muhammad, 2011).

One of the causes of the high dropout rate is the limited number of public schools and the lack of classrooms. According to Central Bureau of Statistics of Riau Province, not all parents can send their children to private schools. Based on data from the Education Balance of Riau Province 2019, the Gross Enrollment Rate (GER) and Pure Participation Rate (APM) are still low. The data shows that the Gross Enrollment Rate / Pure Participation Rate for Riau Province Senior High Schools in 2018/2019 is 82.54 (APK) and 63.81 (APM). While nationally in 2020 the National APK is 97% (quoted from Permendikbud number 80 of 2013 article 2 paragraph 2). This means that the APK/APM of Riau Province is still low below the National.

Meanwhile, based on the objective of providing competitive quality education, it is to increase the Pure Participation Rate and Gross Enrollment Rate. As well as reducing the dropout rate and increasing the Human Development Index (HDI) in the education sector.

The Pure Enrollment Rate (NER) is the percentage of the number of children in a certain school age group who are currently attending school at the level of education that is following their age to the total number of children in the school-age group concerned (Kusniawati, 2017). The net enrollment rate (NER) is used to determine the coverage of education services for each level of education according to age at each level of education. The higher the NER, the more school-age children attend school according to the official age at that level of education. If all school-age children can attend school on time, the NER will reach the ideal figure of 100 percent.

The net participation rate and the human development index are some of the most important things in every country to see how the quality of the population is. Riau Province has a population of more than 6 million which is one of the largest on the island of Sumatra and has an education level that can still be said to be quite low nationally.

The number of poor people in Riau Province in September 2020 reached 491.22 thousand people. This figure jumped by 7.30 thousand people when compared to the same period in 2019. According to the Head of the Central Statistics Agency (BPS) of Riau Province, the percentage of poor people with a per capita monthly expenditure of Rp. 524,861, in Riau Province in September 2020 was 7.04 percent. An increase of 0.14 percentage points when compared to September 2019. Meanwhile, for the March 2020 September 2020 period, the percentage of the poor increased by 0.22 percentage points.

Table 2: Number of poor people per district in Riau Province

District	2019	2020	2021
Kuantan Singingi	31.22	29.34	28.90
Indragiri Hulu	26.66	26.66	27.35
Indragiri Hilir	48.29	44.29	44.61
Pelalawan	35.98	45.88	49.30
Siak	24.49	25.38	25.77
Kampar	66.81	65.30	68.74
Rokan Hulu	72.21	73.35	74.43
Bengkalis	35.83	36.96	37.66
Rokan Hilir	49.80	48.85	51.97
Kepulauan Meranti	49.89	47.10	48.50
Pekanbaru	28.60	30.40	32.73
Dumai	10.95	9.88	10.57

To measure poverty, BPS uses the concept of the ability to meet basic needs (basic needs approach). With this approach, poverty is seen as an economic inability to meet basic food and non-food needs as measured from the expenditure side. So the poor are people who have an average monthly per capita expenditure below the poverty line.

It is known, in the period September 2019 to September 2020, the Gini Ratio of Riau Province decreased from 0.331 in September 2019 to 0.321 in September 2020. When compared to March 2020, there was also a decline, where the Gini Ratio in March 2020 was 0.329. The head of BPS revealed that the surge in the poor in Riau was not only caused by the price of basic commodities but also the influence of the COVID-19 pandemic (Statistik, 2020).

Therefore, researchers are interested in examining how the relationship and influence of the Human Development Index and the Net Participation Rate on the poverty level in Riau Province, Indonesia. Hopefully, this paper can contribute to the world of education, not only in Riau Province in particular but also in Indonesia in general.

1. Literature Review

Humans are the wealth of a country. According to Gamlath (2013), the main focus in development is improving human quality. In the basic concept of Islamic economic development, human resources are also the main focus besides monotheism, *tazkiah an-nafs*, and the role of the government. Likewise, according to Tilak (1992), humans are development creatures who are divine mandates in managing natural resources and the environment. The definition of the divine mandate in question is in carrying out development. The benchmark of human quality can be seen from the production and the work of humans themselves so that the quality Humans must be considered for the essence and progress of the nation (Hasan, The Effect of Economic Growth and Human Development Index on Poverty in Indonesia, 2021).

In 1990, Pakistani economists named Mahbubul Haq dan Indian Nobel Prize winner Amartya Sen stated that measuring development is not only seen from income but there are other indicators, namely human development Aydin (2017). Sen stated that economic growth should not be seen as the main goal, but development must be able to improve the quality of life and freedom enjoyed by humans. To determine human quality, the United Nations Development Program (UNDP) uses the Human Development Index (HDI).

The composition of the HDI is based on three indicators, namely health, education, and standard of living (purchasing power) or income. An increase in a person's education is often associated with an increase in income or wages earned. If wages reflect productivity, the more people who have a higher level of education or training experience, the higher the productivity, and the result will be higher national economic growth. In addition to education, health also has a role in increasing income. The effect of health on income, among others, by improving the health of the population will increase labor force participation. Improvements in health can also lead to improvements in education levels and the development of self-potential which then contributes to economic growth by increasing incomes (Zangoueinezhad & Moshabaki, 2011).

Several studies have proven that HDI affects poverty levels include: research Gamlath (2013) shows that HDI has a negative and significant effect on poverty levels in the districts/cities of Papua Province (Sofilda & Eleonora, 2013). Likewise with Silswanto's research that HDI plays a very important role in tackling poverty levels in Indonesia. Although there are several

studies that state that HDI does not have a significant effect on poverty and it is stated that there is no causal relationship between HDI and poverty in Indonesia in the period 1990-2013 (Susilowanto & Muhammad, 2011).

The potential for economic growth in a country is strongly influenced by the resources it has, both human capital, physical capital, and resource endowments. Harbison (1973) states that human resources are capital the basis of the wealth of a nation. physical capital and natural resources are only passive factors of production, humans are active; Humans are the active agents who will raise capital, exploit natural resources, build various social, economic, and political organizations, and carry out national development. Schultz (1961) argues that in a society, its members can be invested through spending on education, training, research, and health to increase its production capacity.

Empirical research linking education and quality human resources has been done a lot. Many variables that affect education have been conveyed by various researchers. The variable income per capita, population growth rate, level of government spending on the education sector, total population, and total urbanization are variables that have a significant influence on the level of adult education in developing countries Mazumdar (2005).

On the other hand, (Farguet & Sanchez, 2008) provide more diverse variables to see the effect on education. These variables are expenditure per capita for public education costs, government spending on the education sector, growth in local government spending, teacher-to-student ratio, politics, household demographics, and socioeconomic status.

Furthermore, the condition of poverty has also had a wide impact on the lives, not only of those who are poor but also of those who are not classified as poor. Poverty is not only a personal burden but also the burden and responsibility of society, the state, and the world to be able to overcome it (Peneva & Ram, 2013) (Maipita, 2014). One way that is believed to be very effective in reducing poverty is through education. Empirical evidence shows that increasing the access of the poor to education, health, and reducing inequality in access is important in poverty alleviation. Poverty can be caused by: (a) the low quality of the workforce due to low levels of education, (b) difficult and limited access to capital ownership, (c) low levels of mastery of technology, (d) inefficient use of resources, and (e)) high population growth (Sharp, Register, & Grimes, 2000). The results of various studies have found that economic growth will increase per capita income and ultimately lead to a reduction in poverty (Dollar & Kraay, 2001); (Fields, 1989).

2. Human Development Index

The HDI concept was first published by UNDP through the Human Development Report in 1996, which then continues every year. In this publication, human development is defined as "*a process of enlarging people's choices*". improve aspects of people's lives. The most important aspect of life is seen from a long and healthy life, the level of adequate education, and a decent standard of living. Specifically, UNDP stipulates four main elements in human development, namely productivity, equity, sustainability, and empowerment.

Table 3: Human Development Index Development of Riau Province Indonesia

No	Year	HDI	No	Year	HDI
1	2011	68.90	6	2016	71.20
2	2012	69.15	7	2017	71.79
3	2013	69.91	8	2018	72.44
4	2014	70.33	9	2019	73.00
5	2015	70.84	10	2020	72.71

Source: Statistik, 2020.

From the table above, it can be seen that the HDI of Riau Province from 2011 to 2019 has increased, only for 2020 there is a decrease from 73.00 to 72.71 (Statistik, 2020). Among the determining factors is the result of the COVID-19 outbreak that hit Indonesia and Riau Province in particular. The reason is that many jobs are also considering the impact of this pandemic.

The Human Development Index (HDI) is a single composite indicator which, although it cannot measure all dimensions of human development, measures three main dimensions of human development which is considered capable of reflecting basic capabilities of the population. The three basic abilities are long and healthy life, knowledge and skills, and access to the resources needed to achieve a decent standard of living. UNDP defines human development as a process of expanding choices for people in terms of income, health, education, physical environment, and so on. Four main things that need to be considered in human development are productivity, equity, sustainability, empowerment (UNDP, 1995: 12).

The emphasis of Indonesia's national development has embraced this concept, namely the concept of human development who wants to improve the quality of life of the population, both physically, mentally, and spiritually. HDI is calculated by the following formula:

$$HDI = \frac{(\text{Index X1} + \text{Index X2} + \text{Index X3})}{3}$$

Information:

X_1 = length of life, X_2 = education level, and X_3 = decent standard of living.

According to the (Statistik, 2020), in measuring the health dimension, life expectancy is used, then to measure the knowledge dimension, the indicator for the length of school expectancy is used. As for measuring the dimensions of decent living, indicators of people's purchasing power are used for several basic needs seen from the average amount of per capita expenditure as an income approach that represents development achievements to be able to live decently.

According to (Napitulu, 2007), the human development index contains three important dimensions in development, which are related to aspects of fulfilling the need for a long and healthy life, gaining knowledge, and being able to meet a decent standard of living. The better the level of health of the workforce, high knowledge and obtaining a decent life, then the work results will be better and of higher quality, on the contrary, the worse the condition of the workforce, the results of the work will be even worse or of poor quality. This shows that three important dimensions in human development are indicators for assessing the quality of human resources that are ready to work to reduce the high level of unemployment in a region.

3. Net Participation Rate

The Net Enrollment Rate (NER) is the proportion of the population in a certain age group at a certain level of education to the population in that age group. Since 2007, Non-Formal Education (Package A, Package B, and Package C) is taken into account. To show how large the population is on time, or to show the large number of people whose population is following the age following the provisions of the school-age group at the level of education achieved.

Formulas :

1. Primary School Net Enrollment Rate =
$$\frac{\text{Number of Elementary/Equivalent students aged } 7-12 \text{ years}}{\text{Total Population Age } 7-12 \text{ years}} \times 100\%$$

2. Junior High School Net Enrollment Rate =
$$\frac{\text{Number of junior high school/equivalent students aged } 13-15 \text{ years}}{\text{Population Age } 13-15 \text{ years}} \times 100\%$$

3. High School Net Enrollment Rate =
$$\frac{\text{Number of junior high school/equivalent students aged } 13-15 \text{ years}}{\text{Total Population Age } 16-18 \text{ years}} \times 100\%$$

4. University Net Enrollment Rate =
$$\frac{\text{Number of University/Equivalent students aged } 19-24 \text{ years}}{\text{Total Population Age } 19-24 \text{ years}} \times 100\%$$

The APM value ranges from 0-100. The APM has shown how many school-age facilities can be utilized according to the level of education. If children of all school-age can be on time, the NER will reach 100 percent. In general, the NER will always be lower than the GER because the GER takes into account the number of people outside of school age at the education level concerned.

Table 4: Riau Province Net Participation Rate

Regency	Primary School					Junior High School					Senior high School				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
Kuantan Singingi	97,77	95,28	97,15	100,00	99,57	82,88	84,33	83,64	84,53	84,49	69,04	61,49	61,50	64,79	64,59
Indragiri Hulu	99,15	98,78	99,17	99,53	98,44	73,12	77,52	76,53	75,92	76,33	52,94	58,56	57,73	58,85	59,70
Indragiri Hilir	96,87	96,20	94,62	94,92	95,34	79,12	80,19	79,96	82,39	81,26	44,32	49,60	51,38	51,90	51,66
Pelalawan	98,46	97,84	99,80	99,25	99,44	70,35	70,68	72,62	75,61	76,93	44,83	57,23	59,42	57,50	58,27
Siak	93,03	97,48	100,00	99,16	99,25	79,91	78,73	78,33	80,69	81,58	78,26	71,83	70,89	70,66	71,23
Kampar	98,59	98,37	97,27	97,60	97,47	76,36	83,39	84,03	83,74	84,99	68,86	58,07	59,05	60,12	59,86
Rokan Hulu	96,95	96,57	95,86	98,10	98,40	78,42	77,61	79,28	81,11	83,20	65,07	61,64	63,44	68,16	68,56
Bengkalis	98,05	97,49	98,54	98,33	97,91	87,89	82,20	82,03	84,35	85,70	69,27	64,61	63,95	66,46	66,07
Rokan Hilir	97,38	94,88	96,09	98,14	98,20	79,67	74,84	75,36	72,17	71,65	60,57	60,77	59,80	57,46	56,89
Kepulauan Meranti	88,48	94,06	100,00	100,00	99,25	72,71	88,13	88,68	86,24	87,70	64,98	73,75	73,23	69,89	69,03
Pekanbaru	94,25	95,88	94,50	92,34	92,77	77,01	70,88	71,93	71,35	72,74	69,18	70,84	70,51	71,06	70,96
Dumai	96,37	96,54	99,46	98,77	98,93	76,99	88,53	87,66	84,73	84,19	57,67	69,15	70,35	72,42	71,08
RIAU	**96,63**	**96,74**	**97,08**	**97,26**	**97,32**	**78,22**	**78,53**	**78,87**	**79,12**	**79,94**	**62,60**	**62,76**	**63,02**	**63,47**	**63,55**

From the table above, it can be seen that at the elementary school level the net enrollment rate is greater than the high school level. For 2019 the NER for Elementary School is 97.32 points, for SMP level is 79.99 points and for SMA level is 63.55 points.

4. Research Methodology

The research was conducted with a quantitative approach through secondary data analysis from data from the Central Statistics Agency of Riau Province with 12 districts. This study uses Structure Equation Modeling method to see the relationship between the Human Development Index and the Pure Participation Rate of Riau Province on the percentage of poverty. Does it have an influence or not, and whether other variables influence the poverty level. In this research, the author only looks the effect of human development index and net participation rate on the percentage of poor population in Riau Province, by taking data from the Central Statistics Agency of Riau Province.

In analyzing the data, the Ordinary Least Square (OLS) method is used, namely Multiple Linear Regression analysis with the following equation, (Armstrong & Everett, 1990):

Y = α1 + β1X1 + β2X2 + ε

Where

Y	= Poverty Percentage
$\alpha1$	= Konstanta
β1, β2	= Regression coefficient
X1	= Human development Index
X2	= Net Participation Rate
ε	= Residue

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This type of research is quantitative descriptive research, namely: his research is based on data in the form of numbers, to obtain the mean, standard deviation (Singh & Rathi, 2021). The research subjects used in this study were districts in Riau Province.

Table 5: District Human Development Index in Riau Province 2016-2020

No	Kabupaten	2016	2017	2018	2019	2020
1	Kuantan Singingi	68.66	69.53	69.96	70.78	70.31
2	Indragiri Hulu	68.67	68.97	69.66	70.05	69.83
3	Indragiri Hilir	65.35	66.17	66.51	66.84	66.54
4	Pelalawan	70.21	70.59	71.44	71.85	71.56
5	Siak	72.7	73.18	73.73	74.07	73.68
6	Kampar	71.39	72.19	72.5	73.15	72.83
7	Rokan Hulu	67.86	68.67	69.36	69.93	69.38
8	Bengkalis	71.98	72.27	72.94	73.44	73.46
9	Rokan Hilir	67.52	67.84	68.73	69.4	69.15
10	Kepulauan Meranti	63.9	64.7	65.23	65.93	65.5
11	Pekanbaru	79.69	80.01	80.66	81.35	81.32
12	Dumai	72.96	73.46	74.06	74.64	74.4

Table 6: Regency Pure Participation Rate in Riau Province 2016-2020

No	Kabupaten	2016	2017	2018	2019	2020
1	Kuantan Singingi	83.23	80.37	80.76	89.67	76.32
2	Indragiri Hulu	75.07	78.28	77.81	83.93	72.33
3	Indragiri Hilir	73.44	75.33	75.32	86.19	66.3
4	Pelalawan	71.21	75.25	77.28	83.93	71.74
5	Siak	83.73	82.68	83.07	87.14	80.38
6	Kampar	81.27	79.94	80.12	88.78	72.48
7	Rokan Hulu	80.15	78.61	79.53	87.47	78.37
8	Bengkalis	85.07	81.43	81.51	89.46	76.81
9	Rokan Hilir	79.21	76.83	77.08	80.65	70.85
10	Kepulauan Meranti	75.39	85.31	87.3	91.31	79.39
11	Pekanbaru	80.15	79.2	78.98	78.81	78.26
12	Dumai	77.01	84.74	85.82	89.23	80.81

Table 7: District Poverty Percentage in Riau Province 2016-2020

No	Kabupaten	2016	2017	2018	2019	2020
1	Kuantan Singingi	10.8	9.85	9.96	9.92	9.56
2	Indragiri Hulu	7.76	7.15	6.94	6.3	9.06
3	Indragiri Hilir	8.11	7.99	7.7	7.05	9.54
4	Pelalawan	12.09	11	10.25	9.73	9.62
5	Siak	5.67	5.52	5.8	5.44	5.03
6	Kampar	9.17	8.38	8.02	8.18	7.71
7	Rokan Hulu	11.05	11.05	10.91	10.95	10.53

8	Bengkalis	7.38	6.82	6.85	5.22	6.27
9	Rokan Hilir	7.67	7.97	7.88	7.06	7.01
10	Kepulauan Meranti	34.08	30.89	28.99	27.79	26.93
11	Pekanbaru	3.27	3.07	3.05	2.85	2.52
12	Dumai	5.26	4.74	4.57	3.71	3.56

5. Data Analysis

Based on information from the data that has been collected from the Central Statistics Agency of Riau Province, it can be analyzed using SPSS as follows:

Table 8: Pearson Correlation Test

Correlations		Human Developmnet Index	Net Participation Rate	Poverty Percentage
Human Developmnet Index	Pearson Correlation	1	.161	-.660*
	Sig. (2-tailed)		.618	.020
	N	12	12	12
Net Participation Rate	Pearson Correlation	.161	1	.242
	Sig. (2-tailed)	.618		.448
	N	12	12	12
Poverty Percentage	Pearson Correlation	-.660*	.242	1
	Sig. (2-tailed)	.020	.448	
	N	12	12	12
*. Correlation is significant at the 0.05 level (2-tailed).				

From the data above, it can be explained that the Pearson Human Development Index (APM) to the Net Participation Rate (NER) of 0.161 is positive, there is no correlation. Human Development Index to Poverty Percentage -0.660 strong correlation although the form of the relationship is negative.

N = 12, R table = 0.576

0.660 > 0.576 means that the Pearson Correlation > r table has a relationship. The Pure Participation Rate to Poverty Percentage (0.242) has a positive form, where the correlation is weak, 0.242 < 0.576 means that there is no relationship.

Validity and Reliability. Sig < 0.05 = valid, > 0.05 = invalid.

The value of the Pearson Correlation for the Net Participation Rate is 0.161, meaning that the relationship between the Net Participation Rate and the Human Development Index is very strong. So, if there is an increase in the Net Participation Rate, it will cause an increase in the Human Development Net Index.

The Pearson Correlation value for the Poverty Percentage is -0.660, meaning that the relationship between the Human Development Index and Poverty Percentage is very strong. So, if there is an increase in Poverty Percentage it will cause an increase in the Human Development Index.

Table 9: Correlations Every Variable

HDI 2016	0.999 > 0.576	Valid (2017) >> HDI
HDI 2016	0.999 > 0.576	Valid (2018) >> HDI
HDI 2016	0.998 > 0.576	Valid (2019) >> HDI
HDI 2016	0.999 > 0.576	Valid (2020) >> HDI
HDI 2016	0.384 < 0.576	Invalid (2016) >> NPR
HDI 2016	0.116 < 0.576	Invalid (2017) >> NPR
HDI 2016	0.032 < 0.576	Invalid (2018) >> NPR
HDI 2016	-0.413 < 0.576	Invalid (2019) >> NPR
HDI 2016	0.393 < 0.576	Invalid (2020) >> NPR
HDI 2016	-0.634 > 0.576	Valid (2016) >> PP
HDI 2016	-0.658 > 0.576	Valid (2017) >> PP
HDI 2016	-0.664 > 0.576	Valid (2018) >> PP
HDI 2016	-0.660 > 0.576	Valid (2019) >> PP
HDI 2016	-0.733 > 0.576	Valid (2020) >> PP

Table 10: Reliability Statistics

Cronbach's Alpha	N of Items
.735	15

Cronbach's Alpha with a value of 0.735. Where when the value of Cronbach's Alpha> 0.6 can be said to be reliable. Because Cronbach's Alpha analysis of the data above is 0.735 > 0.6, it can be assumed that the analysis is reliable.

Table 11: One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		12
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	2.77606126
Most Extreme Differences	Absolute	.142
	Positive	.108
	Negative	-.142
Test Statistic		.142
Asymp. Sig. (2-tailed)		.200[c,d]

Sig > 0.05 = Normal Distribution

Sig < 0.05 = Not Normal Distribution

Sig = 0.200 > 0.05, This means that it is normally distributed.

Table 12: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.915[a]	.836	.100	6.51044
a. Predictors: (Constant), APM 2020, APM 2019, APM 2016, IPM 2017, APM 2017, APM 2018, IPM 2020, IPM 2016, IPM 2019				
b. Dependent Variable: Poverty Percentage				

Capital Summary

R^2 = 0.836 or 83.6 %.

Human Development Index and Net Participation Rate on Poverty Percentage is 83.6%, while the remaining 16.4% is influenced by other variables.

Table 13: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	102.981	122.626		.840	.489
	IPM 2016	-17.598	17.375	-10.624	-1.013	.418
	IPM 2017	17.578	23.001	10.309	.764	.525
	IPM 2019	-23.890	36.050	-14.132	-.663	.576
	IPM 2020	22.328	28.964	13.520	.771	.521
	APM 2016	.156	.908	.099	.172	.879
	APM 2017	-3.764	5.029	-1.809	-.748	.532
	APM 2018	4.578	5.118	2.393	.894	.465
	APM 2019	-1.086	1.432	-.608	-.758	.528
	APM 2020	.405	1.489	.266	.272	.811
a. Dependent Variable: Poverty Percentage						

$Y = a + b1X1 + b2X2 + b3X3 + b4X4 + b5X5 + b6Y3 + b7Y4 + b8Y5 + b9Y6 + b10Y7 + e$

$Y = 102.981 - 15.598X1 + 17.578X2 - 23.890X3 + 22.328X4 + 0.156Y3 – 3.764Y4 + 4.578Y5 – 1.086Y6 + 0.405Y7.$

The constant value of 102.981 indicates that if all the independent variables in the model are equal to zero, the Poverty Percentage is 102.981. From the results of data analysis, the coefficient of determination (R2) is 0.836. It can be said statistically that the model used is very good because the value of the coefficient of determination shows the contribution of the independent variable (human development index and pure participation rate) to the

dependent variable (poverty percentage). So that the coefficient of determination of 0.836 means that about 83.6 % percent of the variables that affect the percentage of poverty, can be explained by the variables of the human development index and the pure participation rate. While the remaining 0.164 percent is explained by other variables that are not included in the multiple regression equation models.

Poverty rates in Indonesia have tended to decline in the last 21 years. In 1998, the poverty rate reached 24.2%, which continued to fall to only one digit in 2019. The percentage of poor people in September 2019 was 9.22%. This figure decreased by 0.19% compared to March 2019 and 0.44% compared to September 2018. The percentage of poor people in rural areas is more significant than in urban areas with 12.6% and 6.56%, respectively (Read: March Poverty Rate 2019 The Lowest Since 1998), The number of poor people in September 2019 reached 24.79 million people. This figure decreased compared to the March 2019 figure, which amounted to 358.9 thousand and September 2018, which amounted to 888.7 thousand. The number of poor people in urban areas is 9.86 million, while in rural areas 14.93 million (Hasan, The Effect of Economic Growth and Human Development Index on Poverty in Indonesia, 2021).

HDI has a significant negative effect on poverty levels with a path coefficient value of -0.71 with a significant $p < 0.001$ were less than 5% with a standard error of 0.067. It shows if the HDI value increases by 1% it will decrease the level of poverty is around 0.71%, assuming other variables are considered constant. Reduced poverty rate due to low HDI increase indicates that HDI can increase the productivity of human labor, which will increase income to meet the needs of a decent living. This study supports previous research, namely the research of (Hasan, The Effect of Economic Growth and Human Development Index on Poverty in Indonesia, 2021), which shows that HDI has a negative and significant effect on poverty levels in districts/cities of Papua Province.

Conclusion

From the results of the analysis that has been carried out by researchers, several conclusions can be formulated including: Riau Province is one of the largest provinces in Indonesia, with 12 regencies/cities. Riau Province is one of the provinces that has the largest natural resources in Indonesia, especially from oil and gas products. The number of natural resources will certainly affect the level of poverty in Riau Province, besides the author also relates the influence of other variables such as the Human Development Index and the Pure Participation Rate. This study has 3 interrelated variables, including the human development index and the net participation rate which have an effect of 83.6% on the poverty level in Riau Province. The Human Development Index has validity on the Poverty Percentage in Riau province, this means that the higher the HDI, the lower the poverty rate. Cronbach's Alpha is more than 0.6, meaning that it can be said to be reliable. It can be said statistically that the model used is very good because the value of the coefficient of determination shows the assistance of the independent variable (human development index and pure participation rate) to the dependent variable (poverty percentage)

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