

The Years Of Schooling Contribution As Factors That Most Considered In Increasing Human Development Index

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Abstract.

Banjar Regency as one of the second-level regions in South Kalimantan Province has an HDI value that always experiences growth and is included in the medium category. However, if we look at the average growth rate of HDI value (shortfall reduction) during this period, it is included in the low category, which is around 0.74 percent (2010-2021 period) and only ranks 11th out of 13 districts. This shows that development programs in Banjar Regency, although they have a positive impact on improving the quality of life of the population, are not large enough when compared to development programs that have been carried out by other regencies/cities. To be able to improve these conditions, of course, it is necessary to study the causes of the low rate of growth of the HDI in Banjar Regency on the three basic dimensions of forming the HDI, namely the Dimensions of Health, Dimensions of Education and Dimensions of Decent Living Standards. Where the health dimension is represented by life expectancy (AHH), the education dimension is represented by the Average Years of Schooling (RLS) and Expected Years of Schooling (HLS), and the dimension of Decent Living Standards is represented by the Adjusted Expenditure Figures (APP). The method used is descriptive quantitative-qualitative, using the Partial Least Of Square (PLS) technique to determine the influence of the dimension indicators forming HDI. The results of this research are as follows: (1) Life Expectancy and Average Years of Schooling have no significant effect on the HDI Figures of Kab. Banjar, (2) Expected Years of Schooling and Adjusted Per capita Figures have a significant effect on HDI figures, (3) indicators forming HDI such as AHH, RLS, HSL and APP together have a significant effect on HDI Kab. Banjar because the significance value is $(0.000) < 0.05$. With a coefficient of determination (R Squared Change) of 1,000, it can be said that the variance of the HDI value is 100% influenced by the forming indicators and is not influenced by indicators other than the indicators forming the HDI, (4) The order of indicators that contribute the most to the HDI Regency. Banjar from the largest are: Expected Length of Schooling, Life Expectancy, Expenditure Per Capita and Average Length of Schooling. In this case it can be said that the attention of the district government. Banjar during the period 2010-2021 focused more on HLS, AHH and APP indicators than on RLS indicators (the indicator with the smallest contribution).

Keywords: human development index, life expectancy, years of schooling, education expenditure.

I. INTRODUCTION

The achievement of human development goals depicted in the Human Development Index which depends on the government as a means of supporting. The measurement of the quality of human development can be seen by the human development index (HDI) figures. The Human Development Index is an index measuring the achievement of development of a region on health, community welfare and education¹. Human Resources (HR) is a basic element in building the progress of a nation, which means that the progress of a nation depends on the quality possessed by the nation's human resources. So that the development of the quality of human resources is very important in building the progress of the nation, above the importance of economic, social and infrastructure development in building the welfare of the nation.

HDI is one of the important indicators in looking at the other side of development. The important benefits of HDI include the following:

- (1) Indicators are important for measuring success in efforts to build the quality of life of people (society/population).
- (2) Determination of the ranking or level of development of a region /country.
- (3) For regions, the Human Development Index is strategic data because apart from being a measure of government performance, the Human Development Index is also used as one of the allocators for determining the General Allocation Fund (DAU).

In the context of regional development, HDI is designated as one of the main measures listed in the basic pattern of future regional development. This is an important step because HDI occupies one of the important positions in regional development management. The position and role of HDI in development management will be more visible if it is equipped with data containing indicators relevant to HDI and compiled as a human development database system. The database system is the main source of data in further identification to recognize more deeply the problems faced related to efforts and results and the impact of human development. The identification is formulated into an analysis of the human development situation that examines various obstacles in the implementation of development programs in the previous period and the potential that an area has to be included as input in the regional development planning of the upcoming period. This process is a study to produce recommendations on the implications of development policies that best suit the needs of the community. Thus, THE HDI is an advocacy tool to decision makers and policymakers about future steps that need to be taken.

Banjar Regency as one of the level II regions in South Kalimantan Province has a HDI value that always experiences growth and is included in the moderate category. However, if you look at the average growth rate of the HDI value (shortfall reduction) during this period, it is included in the low category, which is around 0.74 percent (for the 2010-2021 period) and ranks 11th out of 13 regencies. When compared to the average HDI growth rate of South Kalimantan Province which is 0.81 percent, the average HDI growth rate of Banjar Regency is still located below the average of South Kalimantan Province (2010-2021 period). To be able to improve these conditions, of course, it is necessary to study the causes of the low growth rate of HDI of Banjar Regency on the three basic dimensions of forming HDI, namely the Health Dimension, the Education Dimension and the Decent Living Standard Dimension. Where the health dimension is represented by the Life Expectancy Figure (AHH), the education dimension is represented by the Average Length of Schooling Figure (RLS) and the School Length Expectation Figure (HLS), and the Decent Living Standard dimension is represented by the Adjusted Expenditure Figure (APP).

II. LITERATURE REVIEW

Economic development in a broad perspective is seen as a multidimensional process that includes various fundamental changes to social structures, societal attitudes, national institutions, in addition to continuing to pursue the acceleration of economic growth, reducing income distribution inequality and alleviating poverty¹¹. One of the indicators of development progress is economic growth²¹. This indicator basically measures a country's ability to develop. Human development is defined as a process for the expansion of more choices to the population through empowerment efforts that prioritize the improvement of basic human capabilities in order to fully participate in all areas of development³¹. In principle, the basic purpose of this development is to increase the choice to the population where these options are not limited and can change at any time, so that the population can get greater access to knowledge and education, better nutrition and health services, safe livelihoods, and so on⁴¹. The elements of human development expressly underline the goals to be achieved, namely healthy and long-lived, educated and able to enjoy life decently. This means that human development aims to improve the welfare of society related to the quality of people and society. Therefore, man is central to the development process⁵¹. One of the benchmarks for increasing public welfare is the increase in the Human Development Index (HDI). HDI is an important indicator to measure success in efforts to build the quality of life of humans (society/ population). HDI can determine the ranking or level of development of a region/country.

For Indonesia, HDI is strategic data because apart from being a measure of Government performance, HDI is also used as one of the allocators for determining the General Allocation Fund (DAU)⁶¹. A high HDI indicates high public welfare as well and can be interpreted as the success of his government in carrying out development and improving community welfare. HDI explains how residents can access development outcomes in obtaining income, health, education, and so on. HDI was introduced by the United Nation Development Programme (UNDP) in 1990 and published regularly in the annual Human Development Report (HDR)³¹. HDI is formed by three basic dimensions, namely *longevity and healthy life*, *knowledge*, and *decent standard of living*. HDI is an important indicator to measure success in efforts to

build the quality of life of humans (society/ population). Therefore, HDI can determine the ranking or level of development of a region or country. The current development paradigm is economic growth as measured by human development, seen by the level of quality of human life in each country. One of the benchmarks used in looking at the quality of human life is the Human Development Index (HDI) which is measured through the quality of education, health and economic levels (purchasing power). Through the improvement of these three indicators, it is hoped that there will be an improvement in the quality of human life. This is because the heterogeneity of individuals, geographical disparities and the diverse social conditions of society cause the income level to no longer be the main benchmark in calculating the success rate of development⁸¹.

Placing human development as the ultimate goal of the development process is expected to create opportunities that directly contribute to efforts to expand and improve human capabilities and their quality of life, among others through the improvement of health services, basic education and social security⁵¹. The government as the implementer of development needs qualified human beings as the basic capital for development. Humans in their role are subjects and objects of development which means that humans in addition to being actors of development are also targets of development. In this case, various facilities and infrastructure are needed to encourage the role of humans in development. Therefore, investment is needed to be able to create productive human resources. Government spending can be used as a reflection of policies taken by the government in an area. Government spending is used to finance important public sectors, including investments in the education and health sectors which are expected to have an effect on improving the quality of human resources⁹¹. One form of successful development can be seen from the level of human development of an area. Therefore, the government's seriousness is needed in dealing with the problem of improving human development. One of the proofs of the seriousness of the government is through government spending which is a reflection of concrete evidence of the government's role in regulating the economy. The government spending sector that is quite important and affects human development is expenditure in the field of education and health^{10, 11, 121}.

III. METHODS

This research is a type of descriptive research carried out in Banjar Regency, South Kalimantan Province. , which is further described quantitatively- qualitatively. The quantitative analysis techniques used are:

- Analysis of the influence of AHH, RLS, HLS, APP variables on the Human Development Index (HDI) of Banjar Regency
- Analysis of factors affecting the Human Development Index (HDI) of Banjar Regency
- Analysis of strategies in the education sector to improve the Human Development Index (HDI) of Banjar Regency.

The quantitative research model used in this study is as follows:

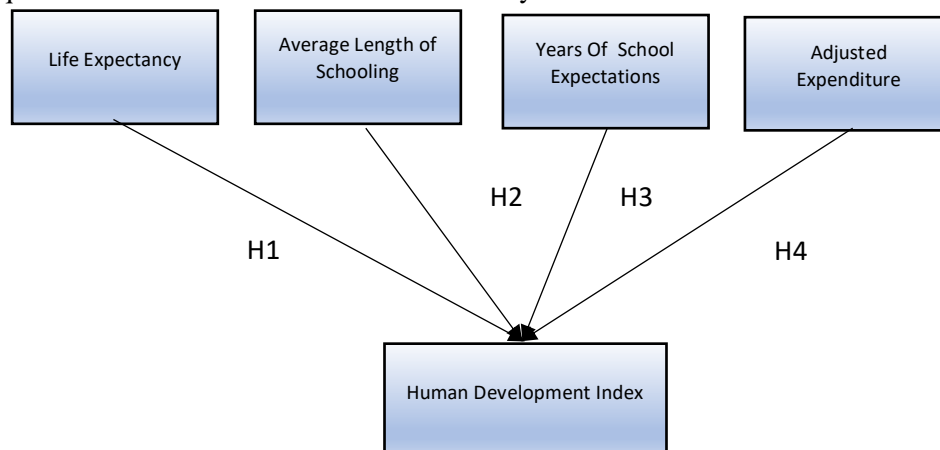


Fig 1. Research Model

The types of data used in this study include:

- (a) Primary data sourced from interviews with the community and business actors.
- (b) Secondary data sourced from the Central Statistics Agency of Banjar Regency, Education Office of Banjar Regency and R&D Bappeda of Banjar Regency. The data used include quantitative data consisting of the following data on Life Expectancy (AHH), Average Length of Schooling (RLS), Schooling Length Expectation Figures (HLS), and Adjusted Expenditure (APP).

In the quantifiable analysis, the analysis technique used is SEM Partial Least Square, to determine the influence of AHH, RLS, HLS, and APP variables on the HDI of Banjar Regency using BPS data for the 2010-2021 period with the following hypotheses:

- H₁ Life Expectancy (AHH) has a significant effect on the Human Development Index
- H₂ Average Length of Schooling (RLS) has a significant effect on the Human Development Index
- H₃ Old School Expectations have a significant effect on the Human Development Index
- H₄ Adjusted Expenditure (APP) figures have a significant effect on the Human Development Index

Qualitative data collection techniques used in this study are by making observations, interviews and documentation then to test the validity of data using triangulation after that it is analyzed using qualitative data analysis through data reduction, data presentation and drawing conclusions.

IV. RESULT AND DISCUSSION

a. Main Data

The main data used are AHH, RLS, HLS and Per capita expenditure for the period 2010-2020 and are presented in the following table:

Table 1. Recapitulation of AHH RHS, HLS and Per capita expenditure for the period 2010-2020

No	Year	AHH	RLS	HLS	PP
1	2010	64,94	6,86	10,34	11.753
2	2011	65,05	6,89	10,46	11.844
3	2012	65,17	6,93	10,57	11.921
4	2013	65,27	6,96	10,72	11.984
5	2014	65,32	6,96	10,99	12.004
6	2015	65,97	6,99	11,16	12.185
7	2016	66,17	7,00	11,41	12.311
8	2017	66,38	7,28	11,76	12.366
9	2018	66,66	7,29	11,99	12.571
10	2019	66,97	7,34	12,28	12.681
11	2020	67,21	7,35	12,44	12.603
12	2021	67,41	7,52	12,73	11.753

b. Supporting Data

Supporting data is the growth data of HDI indicators such as AHH, RLS, HLS and APP of Banjar Regency for the 2010-2021 period which are presented in the following tables

Table 2. Growth of HDI Indicators in Banjar Regency
Period 2010-2021

No	Year	% AHH	% RLS	% HLS	% PP
1	2010	-	-	-	-
2	2011	0,17%	0,44%	1,16%	0,77%
3	2012	0,18%	0,58%	1,05%	0,65%
4	2013	0,15%	0,43%	1,42%	0,53%
5	2014	0,08%	0,00%	2,52%	0,17%
6	2015	1,00%	0,43%	1,55%	1,51%

7	2016	0,30%	0,14%	2,24%	1,03%
8	2017	0,32%	4,00%	3,07%	0,45%
9	2018	0,42%	0,14%	1,96%	1,66%
10	2019	0,47%	0,69%	2,42%	0,88%
11	2020	0,36%	0,14%	1,30%	-0,62%
12	2021	0,30%	2,31%	2,33%	0,83%
	Average	0,34%	0,85%	1,91%	0,71%

c. SEM-PLS Analysis Results (Structural Equation Model - Partial Least Square)

The data analysis technique used uses a component-based Structural Equation Model (SEM) or Partial Least Square (PLS) variance. The research model obtained from this study is presented in the following figure.

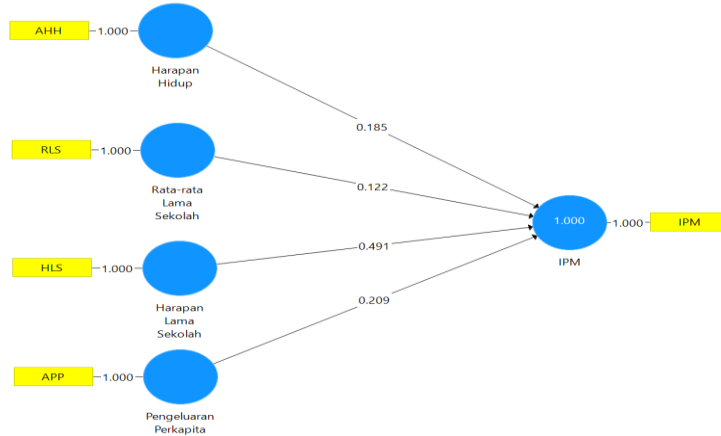


Fig 6. SEM-PLS Research Model

d. T test

This test was carried out with a two-tailed t test with a significance level of P Values 0.05 (5%) to test hypotheses in this study. The hypothesis will be accepted if it has a t-test greater than 1.96 and P Values below 0.05. The results of the t-test on the indicators that make up the HDI of Banjar Regency are presented in the following table.

Table 3. t-test Results

	Original Sample (O)	Sample Average (M)	Standard Deviation (STDEV)	T-Statistik (O/STDEV)	P Values
AHH → HDI	0,185	0,241	0,105	1,004	0,316
RLS → HDI	0,122	0,134	0,115	1,057	0,291
HLS → HDI	0,491	0,412	0,214	2,292	0,022 ^{*)}
APP → HDI	0,209	0,201	0,0076	2,759	0,006 ^{*)}

Source: Secondary Data, 2022.

*) Significant at the level of 5%

The results of the t-test show that there are 2 factors that have a t-test value above 1.96 and P Values or the required level of significance below 0.05, namely the influence of HLS and APP, and there are 2 (two) hypotheses whose P Value value is above 0.05, namely the effect of AHH and RLS on HDI with P values of 0.316 and 0.291, respectively.

e. Test F

The F test was conducted to see the significance of the influence of the indicators that form the HDI as a whole and see the coefficient of determination as a measure of the strength of the indicator's influence on the HDI. The results of the F test are presented in the following table.

Table 4. F Test Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Itself. F Change
1	1.000 ^a	1.000	1.000	.03714	1.000	7094.478	4	7	.000

Based on the results of the F test, it can be said that the HDI-forming indicators such as AHH, RLS, HSL and APP together have a significant effect on the HDI of Banjar Regency because the significance value of $(0.000) < 0.05$. With a coefficient of determination (R Squared Change) of 1,000, it can be said that the variance of the HDI value, 100% is influenced by its forming indicators and is not influenced by indicators outside the HDI-forming indicators.

f. Hypothesis Test

Hypothesis testing is carried out to see the degree of significance and whether the hypothesis can be accepted or rejected and look at the research model (path model). Hypthesis testing requires that the level of significance can be seen in the P value at a significance level below 0.05 and the t-test result above 1.96. The following are the results of research for hypothesis testing.

Table 5. Hypothesis Test Results

No	Hypothesis	Influence	t-test	P Values	Conclusion
1	H1	AHH → HDI	1,004	0,316	No Effect
2	H2	RLS → HDI	1,057	0,291	No Effect
3	H3	HLS → HDI	2,292	0,022 [*])	Effected
4	H4	APP → HDI	2,759	0,006 [*])	Effected l

Source: Secondary Data, 2022.

Based on the test results above, the following can be conveyed:

1) The Life Expectancy Indicator (AHH) was proven not to have a significant influence on the HDI of Banjar Regency because the t value < 1.96 (1.004) and the P value above 0.05 (0.316). This is in line with some studies ^{13,14,15,16]}

2) The Average Length of Schooling (RLS) indicator was proven not to have a significant influence on the HDI of Banjar Regency because the t value < 1.96 (1.057) and the P value above 0.05 (0.291). This is in line with some studies ^{1 7.1 8.19]}

3) The Old School Expectation Indicator (HLS) was proven to have a significant influence on the HDI of Banjar Regency because the t value > 1.96 (2.292) and the P value below 0.05 (0.022). This is in line with some studies ^{20, 21]}

4) The Adjusted Expenditure Figure (APP) indicator is proven to have a significant influence on the HDI of Banjar Regency because the t value > 1.96 (2.759) and the P value below 0.05 (0.006) ^{22,23]}.

g. Contribution Test

The contribution test is carried out by observing the amount of correlation resulting from the relationship between latent variables analyzed and presented according to the following table:

Table 6. Contribution Test Results

	HDI	Life Expectancy	Years of School Expectations	Average Length of Schooling	Adjusted Expenditure
HDI	1,000	0,994	0,998	0,973	0,989
Life Expectancy (AHH)	0,994	1,000	0,992	0,953	0,986
Years Of School Expectations (HLS)	0,998	0,992	1,000	0,972	0,982
Average Length of Schooling (RLS)	0,973	0,953	0,972	1,000	0,942
Adjusted Expenditure (APP)	0,989	0,986	0,982	0,942	1,000

Based on the results of the contribution test above, it can be said that in the period 2010-2021, the order of indicators that contributed most to the HDI of Banjar Regency from the largest were: (1) Old School Expectations, (2) Life Expectancy Figures, (3) Adjusted Expenditures and (4) Average Length of Schooling. In this case, it can be said that the attention of the Regency Government. During the period 2010-2021, banjars were more focused on HLS, HH and APP indicators than the RLS indicator (the indicator with the smallest contribution).

h. Implications of Quantitative Analysis Results

Based on the results of quantitative analysis with SEM-PLS, there are 2 indicators that affect the HDI of Banjar Regency, namely HLS and APP indicators. Meanwhile, the results of the contribution test showed that the AHH indicator had the 2nd highest level of contribution even though it did not have a significant influence on the HDI of Banjar Regency.

V. CONCLUSION

The results of the study carried out resulted in several conclusions, including the following:

- a) The Life Expectancy Indicator (AHH) was proven not to have a significant influence on the HDI of Banjar Regency because the t value < 1.96 (1.004) and the P value above 0.05 (0.316).
- b) The Average Length of Schooling (RLS) indicator was proven not to have a significant influence on the HDI of Banjar Regency because the t value < 1.96 (1.057) and the P value above 0.05 (0.291).
- c) The Years School Expectation Indicator (HLS) was proven to have a significant influence on the HDI of Banjar Regency because the t value > 1.96 (2.292) and the P value below 0.05 (0.022).
- d) The Adjusted Expenditure Figure Indicator (APP) is proven to have a significant influence on the HDI of Banjar Regency because the t value > 1.96 (2.759) and the P value below 0.05 (0.006).
- e) HDI-forming indicators such as AHH, RLS, HSL and APP together have a significant effect on the HDI of Banjar Regency because the significance value of (0.000) < 0.05 . With a coefficient of determination (R Squared Change) of 1,000, it can be said that the variance of the HDI value, 100% is influenced by its forming indicators and is not influenced by indicators outside the HDI-forming indicators.
- f) The order of indicators that most contribute to the HDI of Banjar Regency from the largest are: (1) Old School Expectations, (2) Life Expectancy Figures, (3) Per Capita Expenditures and (4) Average Length of Schooling. In this case, it can be said that the attention of the Regency Government. During the period 2010-2021, banjars were more focused on HLS, HH and APP indicators than the RLS indicator (the indicator with the smallest contribution).

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