

Research Article

The Effect of Regional Finance in Improving the Quality of Human Resources in West Sumatra

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Abstract. The Human Development Index (HDI) has a close relationship with a country's income. The higher the quality of human resources, the higher the state's income. This research examined the impact of local revenue, general allocation funds, special allocation funds, and profit-sharing funds on the HDI of West Sumatran districts and cities. This was a descriptive and quantitative study. The data used were secondary data from the Ministry of Finance, Central Bureau of Statistics and other institutions from 2010-2019. Panel data regression analysis was used. The results showed that all of the variables had a positive and significant effect, except for profit-sharing funds which had a negative and significant effect on HDI. This indicated that when more funds are spent on improving human resources, the quality of human resources increases, which is in accordance with previous research.

Keywords: HDI, regional finance, districts

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1. INTRODUCTION

According to Regional Government Law Number 23 of 2014, offering regions the most feasible autonomy is aimed at advancing the attainment of community welfare through service improvement, empowerment, and community engagement.. Referring to the principle of decentralization, the financing for the implementation of regional government development is carried out at the expense of the APBD. The government allocates funds to improve these services in the form of capital expenditure allocations which are later expected to increase the quality of life[2]. One way to measure the quality of human life is through the Human Development Index (HDI). HDI is an index to regulate the achievement of the quality of human development to live a quality life, both in terms of health, education and economic aspects[3]. Regional Original Income (PAD), General Allocation Funds (DAU), Special Allocation Funds (DAK), Revenue Sharing Funds (DBH), and other valid income all influence the level of the Human Development Index.. Regional Original Revenue (PAD) according to Law no. 33 of 2004

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article 1, namely an input or income received by the region given by the center. Regional Original Income endwise regional tax revenues, regional levies, revenue from separated regional management, and other legitimate PAD. The amount of PAD can be used as a benchmark for how much independence a region has in financing its regional development.

1.1. Human Development Index

According to the Human Development Index Report produced by the Central Bureau of Statistics, the notion of human development is measured using a three-dimensional method, meaning a long and healthy life, knowledge, and a good level of living. To measure the dimensions of longevity and health, it is represented by an indicator of life expectancy at birth. The dimension of knowledge is represented by indicators of expected years of schooling and average length of schooling.

To increase the Human Development Index of an area, good health, education, and economy are needed. The boost in regional income will help to improve the HDI-measured quality of community welfare. The more revenue created by the region, the better able it is to finance and meet the community's requirements[4].

1.2. Locally-generated revenue

Regional Original Revenue, as defined by Law Number 33 of 2004, is income obtained by the region from diverse sources in the area and collected in line with regional regulations and applicable laws and regulations. Because PAD is a significant source of regional funding, the ability to run the economy can be measured by the amount of PAD contribution to the APBD; the bigger the contribution of PAD to the APBD, the less reliant the regional government is on central government assistance[5]. Local taxes, regional levies, distinct regional wealth management outcomes, and other lawful PAD are listed as sources of PAD in Law Number 33 of 2004 Article 6.

1.3. General Allocation Fund

General Allocation Funds are funds from the APBN that are awarded with the goal of ensuring an equitable allocation of financial capacity among regions in order to pay regional expenditure demands as part of the decentralization process. Halim (2014) DAU should be used to finance direct expenditures, namely expenditures related to

services to the community that have an impact on community welfare appropriate the demands of decentralization [6].

1.4. Special Allocation Fund

Special Allocation Fund has only function as a complement to other types of balancing funds, but it is very important in regional development. Utilization and use of that is an important factor in order to increase regional development itself which will have an impact on national development[7].

1.5. Profit Sharing Fund

It is one part of the balancing fund whose allocation is intended for local governments. The profit sharing fund can be seen as a percentage of each region's potential that is used to finance regional needs in the context of regional autonomy to reduce fiscal disparities between regions by equalizing fiscal capacity between regional governments in financing activities that have an impact on national development, public infrastructure, and regional income.[8,9].

1.6. Other Legitimate Regional Income

Pay attention Law No. 32 of 2004 Article 164 paragraph 1, other legitimate regional revenues are all regional revenues other than regional original revenues and balancing funds, which include grants, emergency funds, and other revenues determined by the government[10,11,12]. Other legitimate regional revenues are used to finance regional expenditures. Where regional spending itself is used to improve people's welfare in order to achieve a better Human Development Index.

2. METHODOLOGY

Regression Model Selection Test

Before multiple panel data regression was performed, the method was tested using the Chow Test, Hausman test, and L-M test, and continue proceed with classical assumption tests such as normality, multicollinearity, and heteroscedasticity. The model of Panel Data is

$$IPMit = \beta_0 + \beta_1 PAD_{it} + \beta_2 DBH_{it} + \beta_3 DAU_{it} + \beta_4 DAK_{it} + \beta_5 LPS_{it} + \varepsilon_{it}$$

TABLE 1

Redundant Fixed Effects Tests			
Equation: Untitled			
Test cross-section fixed effects			
Effects Test	Statistics	df	Prob.
Cross-section F	572.907434	(18,165)	0.0000
Cross-section Chi-square	784.54354418		0.0000

Source: Results of Processing Eviews 9, 2021

Where :

HDI = Human Development Index (Y)

i = Cross Section

t = Time Series

β_0 = Constanta

1, 2, 3, 4, 5 = Regression Coefficient

PAD = Regional Original Income (X1)

DAU = General Allocation Fund (X2)

DAK = Special Allocation Fund (X3)

DBH = Profit Sharing Fund (X4)

LLPS = Other Legitimate Regional Income (X5)

ϵ = Error

3. RESULTS AND DISCUSSIONS

3.1. Regression Model Selection Test

3.1.1. Chow test

Strong evidence of the Chow test is compare the Probability Cross-section with Chi-square value is $0.0000 < 0.05$, then the Chow test choose the fixed effect

1. Hausman test

TABLE 2

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob.
Cross-section random	61.448774	5	0.0000

Source: Results of Processing Eviews 9, 2021

TABLE 3

	LPAD	LDAU	LDAK	LDBH	LLPS
LPAD	1	0.640367	0.608196	0.268517	0.549765
LDAU	0.640367	1	0.541050	0.301147	0.624460
LDAK	0.608196	0.541050	1	0.150418	0.605563
LDBH	0.268517	0.301147	0.150418	1	0.334005
LLPS	0.549765	0.624460	0.605563	0.334005	1

This test see about the Probability Cross Section Random is $0.0000 < 0.005$. Therefore, the conclusion of the Hausman test is that Fixed Effect is better than Random Effect.

3.2. Classic Assumption Test

3.2.1. Normality Test

From the results of the normality test obtained a probability value of $0.881417 > 0.05$ so it can be concluded that the residuals are normally distributed.

1. Multicollinearity Test

Table of the multicollinearity test see about the correlation coefficient value (r) LP is smaller than 0.80 (Correlation Coefficient < 0.80), so with this all the independent variables used in this study are free from multicollinearity.

1. Heteroscedasticity Test

From the park test, all variables have a significant value above 5% (0.05), where the probability value of LPAD (X1) is 0.8419, LDAU (X2) is 0.0746, LDAK (X3) is 0.0521, LDBH (X4) is 0.4536, and LLPS (X5) is 0.7315, so there is no heteroscedasticity problem.

TABLE 4

Dependent Variable: LRES2				
Method: Least Squares Panel				
Date: 07/17/21 Time: 20:23				
Sample: 2010 2019				
Periods included: 10				
Cross-sections included: 19				
Total panel (unbalanced) observations: 189				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.240050	4.431324	0.956836	0.3400
LPAD	-0.113655	0.568827	-0.199807	0.8419
LDAU	-1.407183	0.784155	-1.794521	0.0746
LDK	1.003635	0.395542	2.537365	0.0521
LDBH	-0.413595	0.550609	-0.751160	0.4536
LLPS	-0.116400	0.338686	-0.343680	0.7315

Source: Data Processing Eviews 9, 2021

TABLE 5

Variable	Regression equation LIPMit = 0 + 1LPADit + 2LDAUit + 3LDAKit + 4LDBHit + 5LLPSit + it					
	coefficient	t-stat	p-value	Adj-R2	Prob. F-Stat	DW
Constanta	4.056525	254.9243	0.0000	0.987293	0.0000	1.2089
PAD	0.009638	4.718507	0.0000			
DAU	0.008342	2.962488	0.0035			
DAK	0.016232	11.42784	0.0000			
DBH	-0.003814	-1928731	0.0555			
LLPS	0.009130	7.507028	0.0000			

Source: Eviews Processed Results, 2021

3.3. Panel Data Regression Analysis

From the results of panel data regression using the Eviews 9 program, the following equation is obtained:

$$LIPMit = 0 + 1LPADit + 2LDAUit + 3LDAKit + 4LDBHit + 5LLPSit + it$$

$$LIPmit = 4.057 + 0.010LPADit + 0.008LDAUit + 0.016LDAKit - 0.004LDBHit + 0.009LLPSit + it$$

The meaning of these numbers is as follows:

1. A constant of 4.057 can be interpreted if the independent variables (Regional Original Income, General Allocation Funds, Special Allocation Funds, Revenue Sharing Funds, Other Legitimate Regional Income) are equal to zero, then the Human Development Index increases by 4.06 percent.
2. Coefficient the Regional Original Income is 0.010, meaning that if the Regional Original Income increases by 10%, then IPM increases by 0.1 percent, assuming the other independent variables have fixed.
3. Coefficient the General Allocation Fund is 0.008, see that if the General Allocation Fund increases by 10%, IPM will increase by 0.08 percent, assuming the other independent variables have fixed.
4. Special Allocation Fund has coefficient 0.016, meaning that if the Special Allocation Fund increases by 10%, IPM will increase by 0.16 percent, assuming the other independent variables have fixed.
5. The Profit Sharing coefficient is -0.004 see that if the Revenue Sharing Fund increases by 10%, then HDI decreases by 0.04 percent, assuming the other independent variables have a fixed.
6. Coefficient of the Other Legitimate Regional Income is 0.009 meaning that if the Other Legitimate Regional Income increases by 10%, so IPM increases by 0.04 percent, assuming the other independent variables have fixed.

The results of data processing show that all variables are positively and significantly related to HDI except for the profit sharing fund which has a negative and significant effect. This indicates that if PAD, DAU, DAK, and LLPS increase, the HDI also increases, which means an increase in the quality of human resources. On the other hand, it is different from DBH where if DBH increases then HDI will decrease. This happens because the DBH owned is very small so it is difficult to contribute to improving the quality of HDI.

4. RESULTS AND RECOMMENDATION

Income Regio, The general allocation funds, the special allocation fund, and others legitimate regional income are significant and positive on the Human Development Index at level of $< (0.05)$. But profit sharing funds is negative significant that means if profit sharing funds increase it will be decrease of HDI. These results indicate that the

importance of regional finance to improve quality of human resources and welfare of the whole community [13].

Local governments are expected to be able to manage Regional Original Income (PAD), General Allocation Funds (DAU), Special Allocation Funds (DAK), Revenue Sharing Funds (DBH), and other legitimate regional revenues in the context of improving community welfare, particularly in the areas of health, education, and the economy, in order to raise the Human Development Index's achievement (HDI).

Government can explore and develop regional economic potentials and sectors that can increase Regional Original Income (PAD) so that local governments are more independent in funding all government activities and do not always depend on transfer funds from the central government.

It is hoped that local governments can include poverty reduction as a priority sector of development in the RPJMD and optimize poverty reduction programs in the regions.

For other researchers can develop this research by using other methods such as qualitative methods with interviews or direct observation. The results of this study can be used to consider aspects of the quality of the use of PAD, DAU, DAK, DBH and other legitimate local revenues in increasing HDI and to test the consistency of the results of this research.

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