

# Effects of Fiscal Health on Human Development Index in Indonesia: Regional Government Performance Mediating Role

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**Abstract:- The purpose of this study is to examine the effect of regional fiscal health on the human development index and the role of mediating regional government performance. Regional fiscal health measured with Brown indicator that modified according to Indonesian conditions, using the PLS-SEM approach model, with 1,125 observations of autonomous regions data in Indonesia in 2012-2016. This study proves that there is significant influence between regional fiscal health on human development index, between fiscal health on regional government performance, between regional government performance on human development index, and the role of partial mediation of regional government performance between the relationships of regional fiscal health to human development index.**

**The main contribution of this study is to improve the understanding of the relationship of regional fiscal health as measured by the Brown indicator on the performance of regional governance and its implications for the human development index. This paper shows that Indonesia successfully applied the New Public Management paradigm.**

**Keywords:-** *Regional Financial Health, Regional Government Performance, HDI, New Public Management, Indonesia.*

## I. INTRODUCTION

One of the implementation the regional government decentralization is the existence of autonomy in the management of financial resources and regional assets that will be optimized for public services in order to encourage economic growth, equitable distribution of people's welfare, and improve the quality of human development in the region. Regional autonomy is also the implementation of the New Public Management (NPM) paradigm in the public sector [1]. NPM is a solution for improving the performance of the local government sector, in accordance with the demands for reform and modernization of government

management, so that it can create good governance in the public sector environment [2]. NPM considers that private sector management practices are more efficient than public sector management practices. To improve the performance of the public sector, it is necessary to adopt a number of management practices and techniques applied in the private sector into public sector organizations, such as the adoption of market mechanisms, and competition in tenders for government purchases of goods and services [3]. Public sector reform in developing countries reflects the managerial changes made by developed countries, especially Britain, the United States, Canada, and New Zealand [4].

The success of the development process is mainly evidenced by the improvement in the quality of human development in an area as measured by the achievement of the Human Development Index (HDI) [5]. Human development is about realizing human potential, what humans can do and what — and about the freedom a person has to make real choices in his life. This framework is based on what economists and Nobel laureate Amartya Sen say about welfare economic theory [6]. A study conducted [7] proves that the best expenditure plan is prioritizing increasing HDI achievements. Suescún [8] proves that infrastructure spending has a positive effect on growth performance, welfare, human development, and social progress. Halicioğlu [9] investigate the validity of the long-term relationship between the role of regional fiscal conditions and economic growth, whereas [10] and [11] found a reciprocal relationship between human quality development and economic growth. However, concluded that most existing studies generally looked more at the effect of HDI on economic growth and other variables and paid less attention to the opposite relationship.

Research that discusses local government financial management in relation to government performance, among others [12], [13], [14], [15].

Brown [12] introducing The 10-Point Test of Financial Conditions which is seen as quite comprehensive measuring

regional fiscal health in 750 small-town data. The ten key indicators of financial condition include four main regional financial operations, namely income, expenses, operating conditions, and debt structure. Keefer and Knack [14] examine the effect of public spending on economic productivity and conclude that the effect of public spending on economic productivity depends on the quality of government services, and found that the negative effect of public spending on productivity is due to the low quality of government services. Research [15] examines the relationship of regional government spending on the performance of government with the variable of good governance as moderating. The study found evidence of inefficiency in the management of local government spending in Indonesia.

These studies provide an understanding that regional financial (fiscal) management encourages local government revenue and expenditure performance, to improve the performance of government. However, these studies have not answered the question of what is regional fiscal conditions will affect the performance of local government and the quality of human development in the regions?

The main motivation of this paper is to broaden the perspective of testing by considering the results of previous studies, whether there is a direct or indirect influence between the condition of regional fiscal health on the performance of regional government, and on the HDI. Another innovation of this paper is to adopt Brown's 10-point test of financial conditions to measure regional fiscal health. This indicator was once used by the Indonesian Ministry of Finance by modifying it into nine indicators according to Indonesian characteristics [16]. Brown's indicator is still very rarely uses in empirical tests regarding the performance of local governments and the human development index.

Another reason for this research is important for Indonesia because, First, Indonesia is one of the countries in Southeast Asia that has risen after the 1998 crisis, partly because of the support of government administration reforms and fiscal decentralization [17]. Second, Indonesia is the fourth most populous country in the world (262 million people in 2016), with an area of 5,193,252 km<sup>2</sup> [18]. Third, Indonesia as one of the emerging market countries has 34 provinces, and 508 autonomous regions spread over various regions with different characteristics and cultures, so that decentralization has a broader meaning. Fourth, the Indonesian government budgeting system has adopted performance-based budgeting.

The main contribution of this study is to find empirical evidence about the relationship of regional fiscal health as measured by the Brown indicator on the performance of regional governance and its implications for the human development index

## II. THEORY REVIEW

### A. Human Development Index (HDI)

The concept of human development basically covers a very broad dimension of development. Human development is about realizing human potential, what humans can do and what — and about the freedom the people have to make real choices in their life, as a capability and function approach related to welfare economics initiated by Amartya Sen [6]. It is not only important to achieve more "functions," but it is also important for someone to have the "capability" or freedom to achieve this [19-21]. This human development conceptual framework was adopted in the global Human Development Report (HDR), which was developed by Mahbub ul Haq and has been published every year since 1990. In that framework, UNDP defines HDI as a process of expanding one's choices in a way that allows one to enjoy a longer life, healthier and more knowledgeable [5]. Longevity and healthy living are depicted by Life Expectancy at birth, knowledge is measured through indicators of Average Length of School and Old School Expectations, as well as a decent standard of living described by spending per capita (purchasing power parity). To see the achievement of HDI between regions can be seen by grouping HDI into several categories, namely: HDI <60: low HDI; 60 ≤ HDI <70: medium HDI; 70 ≤ HDI <80: high HDI; HDI ≥ 80: HDI is very high.

### B. Regional Fiscal Health

According to [12], the financial condition of a region is not an amount that can be directly observed, and there is no single method that can measure it, as proven from various studies that have been carried out so far. Performance measurement and management have been the main focus in the process of modernization of the public sector over the past few decades ([4]; [22]). Associated with the concept of fiscal conditions, there are other terms used to describe the financial condition of local governments including fiscal distress and fiscal health. Trussel and Patrick [23] define fiscal difficulties as a significant imbalance between income and expenditure experienced by local governments. Bird [24] defines fiscal health as the ability of local government fiscal structures to deal with future pressures and shocks. Honadle, et al. [25] define fiscal health as the basic or structural ability of local governments to provide public services outside of the established budget (their designation). Based on these definitions, an understanding is obtained that the condition or health of regional finances is a description of the state's ability to provide financial resources to meet public service obligations. Without a healthy financial condition, the level and quality of public services will be bad [26].

In the last decade indicators of regional financial conditions continue to grow, one of which, as introduced by Kenneth Brown, is known as The 10-point test of financial conditions [12]. This indicator focuses on regional financial policies that are complemented by a number of simple ratios, each of which is focused on four aspects of financial health, namely income, development, operating positions, and debt structure. Ten indicators Brown [12] This was

modified by the Indonesian finance ministry into nine indicators to analyze the Realization of the Regional Budget in Indonesia in 2012 [16]. This adjustment was made due to differences in the types and standardization of regional financial data and information in Indonesia and where Brown's research was conducted in the United States.

### C. Regional Government Performance

Since the 1980s, the public sector has undergone a significant transformation with the emergence of the NPM paradigm focused on changes in the public sector performance reporting regime. NPM is not only as an administrative argument but also as an administrative philosophy regarding organizational design in government [27]. The managerial approach to the NPM model was first developed since the 1980s [28], or *managerialism* according to [4] or *market-based public administration* according to [29] or *entrepreneurial government* in the term of [30], although it has various terms, basically both are trying to transform the old bureaucracy into a new bureaucracy [31].

NPM is a decentralized management system with new management tools such as controlling, benchmarking, and lean management [32]. The use of the NPM paradigm has several consequences for the government including demands for efficiency, cost-cutting, and competence, making public sector management changes that are quite drastic from traditional management systems that seem rigid, bureaucratic, and hierarchical into a flexible and flexible public sector management model. more accommodating to the market [32].

The concept of decentralization as an implementation of NPM aims to improve the quality of causal relations between development services, macroeconomic performance, and increase regional and state revenues. The more quality spending management and other public policies are, the normatively the better the quality of welfare and public loyalty to the government [22].

Performance measurement - the process of defining, monitoring, and using objective indicators of organizational and program performance on a regular basis - is a vital concern for managers in the government and the nonprofit sector [33]. To measure and evaluate, managers use a variety of measures, both financial and non-financial. According to [34] Regional government service performance indicators have relatively more complicated characteristics when compared to the performance indicators of private organizations because the non-financial indicators are more dominant than financial indicators [35]. The performance of public sector organizations is a multi-dimensional concept because the performance of public sector organizations can be seen from various aspects. [36] states that there are several concepts of measuring government performance, namely:

- Financial accountability, which focuses on the budget
- An output program based on the number of products or services produced or the number of people served

- Compliance with quality standards in the delivery of services based on meeting service standards required by the government
- Measurement related to participants based on service quality according to priority needs
- Key performance indicators based on the formation of certain criteria that are considered to represent an area that is evaluated and then build indicators that can measure these criteria.
- Client satisfaction based on customer satisfaction with the provision of public goods or services.

The purpose of measuring public service performance is to describe the planned results to be achieved by an entity expressed in the form of inputs, outputs, outcomes or efficiency. When reporting its effectiveness, the entity reports to what extent one or more of its service performance objectives have been achieved. The more effective the entity operates as a service provider, the better the results when measured from planned results [33].

The Indonesia Government annually publishes the results of the Regional Government Implementation Performance Evaluation, which is held by the Ministry of Home Affairs. The performance evaluation is based on the Regional Government Implementation Report submitted by the regional government. the Regional Government Implementation Performance Evaluation is conducted by calculating and assessing the composite index against two main variables, namely the Material Conformity Index and Performance Achievement Indeks [37]. National ranking results are obtained from the performance index based on the results of the performance evaluation. The performance index ranking is done by making criteria consisting of four achievement categories, namely: Low (0-1), Medium (1-2), High (2-3); Very High (3-4).

### III. PREVIOUS RESEARCH AND HYPOTHESIS DEVELOPMENT

#### A. Relationship between regional fiscal health and HDI

Gupta, et al. [38] stated that government spending can have a positive effect on human resources, encourage equity and reduce poverty. [7] prove that planning strategies that maximize HDI tend to minimize consumption and maximize spending on education and health, this proves that HDI-oriented planning will produce optimal plans.

The study results of [39] state that every economy needs a sophisticated and efficient financial system to prosper its development. A sound financial system can be an integral part of sound economic fundamentals. Financial indicators are closely related to economic growth and human development in Pakistan. [40] study confirms previous research that there is a long-term relationship between government financial indicator variables and HDI in India. The results of previous studies although with different variables, but with the context of the same financial indicators provide an understanding that there is a relationship between the regional fiscal health of HDI. Based on this, the first hypothesis of this study is:

H<sub>1</sub>:Regional fiscal health has a significant effect on the human development index.

*B. Relationship between regional fiscal health and the performance of regional government.*

A study conducted by [41] proved the influence of local government financial sustainability and the performance of government administration in Tanzania in relation to decentralization. In this context, local government financial sustainability is considered an important aspect of the success of decentralization, especially in increasing horizontal equality and public services in general.

Rochmatullah, et al. [42] proves that the efficiency of capital expenditure management is related to fiscal dependency, and shows an increasing ratio of regional fiscal dependency. The quality of capital expenditure is a major indication that the public budget is intended for development in order to improve the quality of public services, while the regional fiscal capacity is an indication of regional fiscal health. [15] used the results of the Performance Evaluation of Government as the dependent variable, concluding that government spending negatively affected the performance of local government administration in Indonesia, so that it was concluded that there was an inefficiency in local government spending in Indonesia.

Based on the results of this research, an understanding is obtained that there is a relationship between the fiscal health of the region and the performance of governance, for that the second hypothesis is:

H<sub>2</sub>: Regional fiscal health has a significant effect on the performance of the regional government.

*C. The relationship between the performance of local government and the human development index*

Planning strategies that maximize HDI tend to minimize consumption expenditure and maximize spending on education and health. The performance of government services directed at improving basic services will maximize government spending to improve human quality [7], this conclusion is supported by studies conducted [43] which proves that higher public spending on economic services may not necessarily produce better HDI indicators and economic indicators. Conversely, higher public spending on HDI not only increases HDI indicators but also strengthens economic growth. Public expenditure in this context is a form of government performance from the economic or financial sector. According to [35] measuring the performance of government services will be more comprehensive and effective if it also includes social and economic factors.

Research is still rarely done that reveals the relationship between the performance of government in terms of the human development index for regional government. Previous research generally puts the performance of local government services positioned as

endogenous/dependent factors, so that more focused reveals the determinants of service performance, as for example the study [44]; [15]. Based on this, the following third hypothesis is formulated.

H<sub>3</sub>:The performance of regional government has a significant effect on the human development index

*D. The role of the performance of the regional government in mediating the effect of regional fiscal health on the human development index.*

Zaman, et al. [39] suggested that regional financial conditions play an important role in encouraging increased human resources in Pakistan. Other research shows that the performance of government services directed at improving basic services will maximize government spending to improve human quality [7], this finding is supported by [43] who concluded that higher public spending on HDI is not only improving HDI indicators but also strengthen economic growth. Extending the findings of previous research, the fourth hypothesis of this study is:

H<sub>4</sub>: Regional fiscal health has a significant effect on the human development index through the performance of regional government

**IV. RESEARCH METHODS**

This type of research is quantitative research, with an explanatory approach that is causality [45]. Hypothesis testing is done by the PLS-SEM method. The study population was 508 [46] autonomous regions in Indonesia with a sample of the number of autonomous regions that published the Budget Realization Report and was included in the Government Performance Evaluation list in 2012-2016. The reason for the last year of 2016 was that at the time of this study the government had not published the results of 2017 and 2018. Samples were taken using a purposive sampling method, with the following criteria: the availability of Regional Budget and the Budget Realization Report data is completed, not a temporary number; as well as being included in the Government Performance Evaluation by the Ministry of Home Affairs. Based on these sample criteria, the number of samples is 225 as shown in Table 1.

No	Remarks	Amount
1	District and City autonomous	508
2	Districts and Cities whose are incomplete data, temporary data, and are not included in the RGP	(283)
3	Number of Samples	225

Table 1:- Sample Selection

Based on a sample size of 225 with a total of five years of observation, the observed data amounted to 1,125 data. This number meets the sample criteria required when using the SEM-PLS analysis tool [47, 48].

The explanation of variables and indicator variables in this study can be seen in the following table.

Variables	Indicator
Human Development Index (HDI)	HDI
Regional Fiscal Health (RFH)	1) Regional income per capita. 2) Regional financial independence. 3) Regional Fiscal Space. 4) Increasing Regional Taxes and Regional Levies. 5) Ability to Fund Regional Expenditures. 6) Capital Expenditures 7) Employee Spending. 8) Optimization of SiLPA. 9) Ability to repay local debt and interest.
Performance of Regional Government	RGP

Table 2:- Variables And Indicators

## V. RESULTS AND DISCUSSION

### A. Description of Statistics

Table 3 presents descriptive statistical research variables. The average HDI of the sample observed was 67.31, the highest was 86.62 and the lowest was 50.30, based on this achievement the average HDI was moderate ( $60 \leq \text{HDI} < 70$ ). The Performance of the Regional Government is 2.62, the highest: 4.14; the lowest: 0.44. This shows that the performance of regional government administration is statistically high on average, based on the criteria:  $2.00 < T \leq 3.00$ . From the ratio of total regional income to the total population of each region, the average Regional Revenue Per Capita is IDR. 4.9 million per person, Regional Financial Independence an average of 11.52, Regional Fiscal Space: 40.30 percent; increase in Regional Taxes and Regional Levies: 44.85 percent; Capital Expenditures: 28.38 percent; Ability to finance average capital expenditure: 107.94; ability to pay local debt and interest: 0.03 percent; Optimization of the remaining excess budget: 11.43; average employee expense ratio: 45.06 percent. In detail, the results of processing research data display the following statistics.

Variable	Obs.	Mean	SD	Min	Max
HDI	1,125	67.31	5.58	50.30	86.62
Regional Government Performance (RGP)	1,125	2.62	0.60	0.44	4.14
Regional Fiscal Health (RFH):					
Regional Fiscal Space	1,125	40.30	3.01	32.89	59.96
Regional Income Per Capita	1,125	4.94	5.97	0.01	51.98
Regional Financial Independence	1,125	11.52	9.83	1.21	75.38
Increased local taxes and levies	1,125	44.85	19.70	10.27	98.83
Capital Expenditures Ratio	1,125	28.38	10.85	10.16	68.43
Employee Spending	1,125	45.06	10.90	12.92	69.79
Optimizing the remaining budget (SiLPA)	1,125	11.43	0.77	10.00	14.72
The ability to finance capital expenditure	1,125	107.94	15.68	52.22	164.00
Ability to pay local debt and interest	1,125	0.03	0.11	0.00	1.00

Table 3:- Descriptive Statistics

Source: WarpPLS Output 6.0

### E. Measurement Model Analysis

Evaluate the feasibility of measuring formative latent variables using two approaches: first, the weight must be significant with the criterion p less than 0.05; secondly, the VIF value is less than 3.3. If both conditions have been met, then the formative construct measurement is considered feasible[47]. Table 4 presents measurements of indicator weights for each calculation of the latent variable. Each latent variable score is calculated as a linear combination of the indicators, where weights are the coefficients that connect the indicators to the latent variables.

	RFH	RGP	HDI	P-value	VIF
RF	0.396	0.000	0.000	<0.001	1.261
PDRD	0.222	0.000	0.000	<0.001	1.045
RBM	0.484	0.000	0.000	<0.001	1.444
OSILPA	0.365	0.000	0.000	<0.001	1.169
KBHUT	0.510	0.000	0.000	0.045	1.061
PDPK	0.460	0.000	0.000	0.050	1.039
KKD	0.290	0.000	0.000	0.052	1.024
KMBD	0.190	0.000	0.000	0.051	1.021
RBPEg	0.160	0.000	0.000	0.022	1.082
EKPPD	0.000	1.000	0.000	<0.001	0.000
IPM_	0.000	0.000	1.000	<0.001	0.000

Table 4:- Indicator Weight  
Sumber: Output WarpPLS 6.0.

Notes: *RF=fiscal space; PDRD: Increased of local taxes and levies; RBM=Capital Exp.;OSILPA= Optimizing the remaining budget; KBHUT=Ability to pay local debt and interest;PDPK=Regional Income Per Capita; KKD= Regional Financial Independence; KMBD= The ability to finance capital expenditure; RBPEg= Employee Spending;RFH=regional fiscal health; RGP=Regional government performance; HDI= human development index.*

In Table 5 can be seen that Coefficients R<sup>2</sup> of each variable of the Human Development Index (HDI) is 0.53 and the Regional Government Performance (RGP) is 0.15. This shows that the Regional Fiscal Health (RFH) variable hypothesized has a positive correlation with endogenous variables. Full Collinearity VIFs testing is intended to test the possibility of bias towards research results due to multicollinearity, namely the Full Collinearity VIFs value criteria must be below 3.3 [48]. Based on the output of each variable has a value of less than or below 3.3 so that it can be concluded this research model is free from the problem of colinearity. Likewise, with the Q<sup>2</sup> (Q-squared) test, which is useful for testing the predictive validity and relevance of

the predictor and criterion variables, the criteria must be greater than zero. Based on, all values of Q<sup>2</sup>> 0.0, meaning that all variables of this model are declared valid, indicators the criteria HDI> 0.16 are moderate; RGP> 0.43 is classified as strong.

Latent variable coefficients			
	HDI	RGP	RFH
R-squared coefficients	0.53	0.39	-
Full collinearity VIFs	1.003	1.010	1.013
Q-squared coefficients	0.16	0.43	-

Table 5:- Latent Variable Coefficients  
Source: Output WarpPLS 6.0.

• *Fit and Quality Indices*

Before conducting further testing of the model, first testing the fit and quality indices (Goodness of Fit) models to determine the feasibility of this research model. The output of the WarpPLS-SEM application displays the results as shown in Table 6.

<i>Model fit and quality indices</i>	<b>Criteria</b>	<b>Result</b>	<b>Des.</b>
Average path coefficient (APC)	P<0.05	APC=0.278, P=0.002	Good
Average R-squared	P<0.05	ARS=0.227, P=0.030	Good
Average adjusted R-squared	P<0.05	AARS=0.072, P=0.040	Good
Average block VIF	Acceptable if <= 5, ideally <= 3.3	AVIF=1.021	Ideal
Average full collinearity VIF	acceptable if <= 5, ideally <= 3.3	AFVIF=1.008	Ideal
Tenenhous GoF	Small >= 0.1, medium >= 0.25, large >= 0.36	GoF=0.38	Ideal
Sympson's paradox ratio	acceptable if >=0.7, ideally = 1	SPR=1.000	Ideal
R-squared contribution ratio	acceptable if >=0.9 ideally = 1	RSCR=1.000,	Ideal
Statistical suppression ratio	acceptable if >= 0.7	SSR=1.000,	Ideal
Nonlinear bivariate causality direction ratio	acceptable if >= 0.7	NLBCDR=1.000	Ideal

Table 6:- Model Fit And Quality Tests  
Source: Output WarpPLS 6.0

Based on Table 6, it can be concluded that the three main quality criteria, namely Average path coefficient (APC), Average R-squared (ARS), VIF (AVIF) and Average Full VIF (AFVIF), which determine the quality and suitability of the model. APC value = 0.278 and P = 0.002, means significant at the 0.05 significance level.

ARS value = 0.227, P = 0.030, shows the average coefficient of determination pathway is significant at the 0.05 significance. AVIF value = 1.021 and AFVIF = 1.008, indicating that the model is free from multicollinearity bias because it meets the criteria under the ideal value of 3.3. Likewise, the conformity test value by the Tennenhaus GoF (goodness of fit) method shows the value of the suitability and relevance of the data of 0.38; including the large > 0.36.

This shows that the proposed model is supported by relevant and reliable data. R-squared contribution ratio (RSCR) test results = 1,000, acceptable if > = 0.9, ideally = 1, shows the ideal contribution ratio. The overall results of the Fit and Quality Indices test show that the research model is supported by relevant, valid and reliable data.

• *Direct Effect Test*

An absolute requirement to validate the effect of indirect relationships on one or several intervening variables is that there is a significant direct relationship between mediated variables. The results of testing the direct relationship between regional fiscal health to HDI are shown in the following diagram.

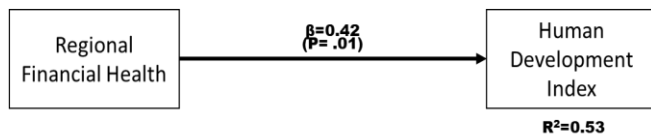


Fig. 1:- Direct Effect of RFH on HDI

Based on Fig. 1 there is evidence of a positive influence between KFD on HDI with a path coefficient of 0.42 and significant at the 0.05 level ( $p < 0.01$ ). Based on the results of this estimation, statistically the effect of regional fiscal health on HDI is predicted to have intervening variables or variables that describe an indirect relationship, so it is feasible to be proven through further testing.

• Indirect effect Test

The results of indirect effect testing are presented in Fig. 2.

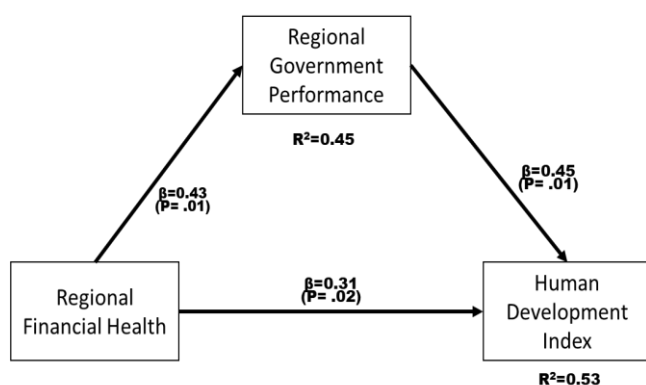


Fig. 2:- Testing the Indirect Effect Model

A comparison between the test results in the first step (indirect effect test) and the second (direct effect test) shows changes in the estimation results. The direct effect of RFH on HDI produced a coefficient = 0.42 ( $p < 0.01$ ) changed to a coefficient = 0.31 ( $p = 0.02$ ), but remained significant at the 0.05 significance level. This change proves that this research model is able to explain the indirect and direct relationship of exogenous and endogenous variables, between the relationship of RFH to HDI.

The coefficient path and the significance of the Regional Fiscal Health to the Human Development Index

(RFH => HDI), the Regional Fiscal Health to the Regional Government Performance (RFH=>RGP), the Regional Government Performance to the Human Development Index (RGP=>HDI), can be explained in the following table.

Path	Coeff Path	P-Value	R <sup>2</sup>
RFH → HDI	0.31	0.02	0.53
RFH → RGP	0.43	0.01	0.45
RGP → HDI	0.45	0.01	

Table 7:- Coefficients Path And P-Value  
Source: Output WarpPLS 6.0,

Table 7 shows the relationship between Regional Fiscal Health and the Human Development Index (RFH => HDI), with a Coeff Path value: 0.31, P-Value:  $p < 0.02$ , meaning significant at the 0.05 level, with a coefficient R2: 0.53; the relationship between the Regional Fiscal Health to the Regional Government Performance (RFH=>RGP), with a Coeff Path value: 0.43, P-Value:  $p < 0.01$ , means Regional Government Performance significant at the 0.05 level, with a coefficient R2: 0.45; Regional Government Performance on the Human Development Index (RGP=>HDI), with a Coeff Path value: 0.45, P-Value:  $p < 0.01$ , means significant at the 0.05 level. The results of this test indicate that all predicted inter-variable relationships are significant and positive at the 0.05 significance level.

To find out the magnitude of the role of mediating variables (RGP) between the relationship of RFH and HDI, a test of VAF (Variance Accounted For) done, which measures how much the role of mediating variables absorbs the direct influence of exogenous variables on endogenous variables. The magnitude of the role of this mediation value refers to the following categories. If the VAF value is above 80 percent, then it shows the role of full mediation, if it is between 20-80 percent, then it can be categorized as partial mediation. However, if it is less than 20 percent, it indicates that there is almost no mediating role [47]. VAF calculation is done by the formula of indirect effect (indirect effect) divided by total effect (total effect).

Based on the results of the previous model tests, the VAF can be calculated as follows.

Path	Coeff.	Calculation	Total	P-Value
RFH→RGP→HDI	Indirect effect:			
	RFH → RGP: 0.43			0.01
	RGP → HDI: 0.45	0.43*0.45	0.19	0.01
	Direct effect: RFH → HDI		0.31	0.02
	Total Effect:	0.19+0.31	0.50	0.02
	VAF	0.19/0.50	<b>0.38</b>	

Table 8  
Source: Output WarpPLS 6.0

Based on the analysis of the VAF calculation method, a total effect of 0.50 or 50 percent was found, indicating that the direct or indirect effect of fiscal health on total HDI is 50 percent, which means there are still other variables that determine the amount of HDI but are not included in the model this. Other findings show the effect of the role of RGP of 0.38 or 38 percent, which based on the criteria as previously described, is classified as partial mediation.

## VI. RESULTS DISCUSSION

The first hypothesis states that regional fiscal health has a significant effect on the human development index. Based on the SEM-PLS model test results presented in Table 7 shows that RFH affects the HDI with a Coeff Path value: 0.31, P-Value:  $p < 0.02$ , meaning significant at the 0.05 level, meaning that Regional Fiscal Health has an effect significant to the Human Development Index, which means that any increase in Regional Fiscal Health will be followed by an increase in the Human Development Index, thus the first hypothesis is accepted.

This conclusion supports the findings [7] which states that the best expenditure planning is oriented to improving the quality of human development. Likewise with the results of the study of [39], which states that regional fiscal conditions act as important drivers for enhancing human development, as well as [38] which states that government spending on the health and education sectors can have a positive effect on human resources, which in turn drives economic growth while promoting equity and reducing poverty. A healthy regional fiscal condition, quality management will ensure the allocation of development financial resources effectively and efficiently to basic public service targets in the health and education sectors, as well as public welfare as the main indicators of the human development index. The better the fiscal conditions of the region will increase the HDI of the region concerned.

The second hypothesis states that regional fiscal health has a significant effect on regional government performance. The model test results showed that the RFH affected the RGP on the Coeff Path: 0.43; P-Value:  $p < 0.01$ , meaning significant at the 0.05 level (see Table 7). The results of this test prove that an increase in regional fiscal health will be followed by an increase in the RGP, the conclusion is that this hypothesis is accepted. [42] proves the quality of government spending is the main indication that public budgets are aimed at development in the context of improving the quality of public services. Research [15] shows the negative effect of government spending on the performance of the regional government in Indonesia. [42] dan [15] examines the effect of local government expenditure performance on the performance of local government services. In contrast to this paper, which examines the health or financial condition of local governments in a comprehensive and broader manner and proves that the fiscal health of the regions influences the performance of regional government in Indonesia.

The results of this study are also contextually in line with the results of [41] which focuses on analyzing the financial sustainability of local governments in Tanzania in relation to decentralization. In this context, the health of regional finances ensuring the sustainability of local government finances is considered an important aspect of the success of decentralization, especially in enhancing horizontal equality and public services in general. A quality regional financial condition will increase the regional fiscal space that can provide a broad space of quantitative discretion for the executive in developing leadership potential in the region. This discretion creates flexibility for local governments, encourages creativity and innovation in developing human resources, technology, and policies, to be utilized as much as possible for public services which, if followed by adherence to its standards will improve the quality of local government performance.

The third hypothesis states that the performance of the regional government has a significant effect on the human development index. The model test results showed that the RGP had an effect on HDI on the Coeff Path: 0.45; P-Value:  $p < 0.01$ , meaning significant at the 0.05 level (see Table 7). The results of this test prove that an increase in the RGP will be followed by an increase in the HDI.

The performance of government services directed at improving basic services will maximize government spending to improve human quality [7]. A study conducted by [43] shows that higher public expenditure on economic services does not necessarily produce better HDI indicators and economic indicators. Conversely, higher public spending on HDI not only increases HDI indicators but also strengthens economic growth. Public expenditure in this context is a form of government performance from the economic or financial sector.

According to [35] measuring the performance of government services will be more comprehensive and effective if it also includes social and economic factors because social and economic factors affect the provision of public services. Rarely do studies that reveal the relationship between the performance of government to the HDI for local governance. Previous research generally placed the performance of local government services positioned as endogenous factors or dependent variables, so that more focused reveals the determinants of service performance, as for example the study of [44]; [15].

The fourth hypothesis states that regional fiscal health has a significant effect on the human development index through regional government performance. Based on the SEM-PLS output in Table 9, it is known that the significance of the indirect effect of RFH on HDI through RGP is P-Values 0.01 less than 0.05 or significant, the conclusion of this hypothesis is accepted.

Based on the results of path analysis and VAF calculations in Table 8, it is known that the total effect of RFH on HDI through RGP is 0.50 or 50 percent, and the variation of RGP indirect effect is 0.38 or 38 percent,



indicating that the RGP has a mediating role with a partial category. This means that there are still other mediating roles that are beyond estimation.

It was mentioned earlier that the performance of government services directed at improving basic services would maximize government spending to improve human quality [7], supported by [43] who concluded that higher public spending on HDI would increase HDI indicators. The results of the study are also in line with [14] who concluded that the effect of public spending on community productivity depends on the quality of government services, and the negative effect of public expenditure on productivity is due to the low quality of government services.

## VII. CONCLUSIONS, IMPLICATIONS, AND SUGGESTIONS

The concept of decentralization as a form of NPM implementation aims to improve the quality of the causal relationship between development services, macroeconomic performance, and increase regional and state revenue. The better the quality of regional fiscal management and public services, the better the quality of public welfare is reflected in HDI as a measure of the quality of human development. The results of this study generally show that NPM was successfully applied in Indonesia.

A healthy financial condition of the region, with the quality regional government performance will ensure the allocation of capital resources for regional development effectively and efficiently to the targets of basic services in health and education, as well as human empowerment programs that will improve the welfare of the community, which is mainly measured by increasing human development index.

The 10-Point Test of Financial Condition indicator developed by Brown (1993) with a modification adapted to the conditions of Indonesia has proven to be used to measure the implications of regional fiscal health on HDI, and the performance of regional government in Indonesia. This research contributes to the expansion of references for further studies to measure and analyze regional fiscal management more comprehensively. For further research, it is recommended to add other mediating variables or compare fiscal health between regions, between provinces, or between clusters by region in Indonesia.

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