
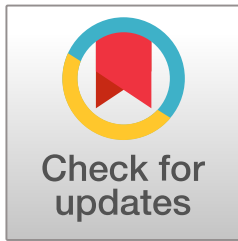


## ARTICLE

# Assessment of Regional Fiscal Capacity Through Provincial Capital Direct Participation

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Citation: Rai, G. N., & Priambodo, A. P. (2026). Assessment of Regional Fiscal Capacity Through Provincial Capital Direct Participation. *Jurnal Bina Praja*, 18(1), 155–173. <https://doi.org/10.21787/jbp.18.2026.2972>

Submitted: 11 February 2026

Accepted: 7 April 2026

Published: 7 June 2026

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**Abstract:** This study analyzes the legal responsibility of organizers of the Free Nutritious Meal (MBG) program in Indonesia following nationwide mass poisoning incidents subsequent to its 2025 rollout. It examines weaknesses in food safety oversight, operational compliance, and access to remedies for affected students who lack direct contractual relations with implementing entities. The study aims to determine whether students qualify as intended third-party beneficiaries and to identify the civil liability applicable to the National Nutrition Agency (BGN) and its implementing units. This study employs a normative legal research method using deductive reasoning and combines statutory analysis with literature review. Sources include legislation, academic literature, incident reports, laboratory findings, and program documents collected through systematic library research. The analysis connects legal provisions with empirical evidence to assess coherence between law in books and law in action and to identify normative gaps. The findings indicate that students affected by MBG-related food poisoning incidents may be recognized as intended third-party beneficiaries under Article 1317 of the Civil Code and related constitutional and food safety norms. However, Presidential Regulation No. 115 of 2025 is primarily administrative and lacks explicit provisions on liability attribution compensation mechanisms insurance obligations and mandatory recall procedures. The study concludes that the recognition of beneficiary status must be accompanied by regulatory reform and institutional redesign. It recommends revising Presidential Regulation No. 115 of 2025 to define civil liability rules require compulsory liability insurance create a temporary compensation fund and establish a centralized response and compensation unit to expedite access to remedies.

**Keywords:** Free Nutritious Meal; Third-Party Beneficiary; Mass Food Poisoning.

## 1. Introduction

The primary objective of economic development is to attain a higher level of public welfare and prosperity, furthermore to achieve this goal, governments may intervene through both active and passive measures (Ujianto et al., 2017). Within the Indonesian context, the state's objectives are explicitly enshrined in the Preamble to the 1945 Constitution of the Republic of Indonesia (UUD NRI 1945), specifically the promotion of general welfare. In pursuit of this mandate, Law Number 1 of 2004 concerning the State Treasury (UU 1/2004) grants the government the authority to engage in long-term investments that yield economic, social, and other strategic benefits.

Etymologically, the term “investment” is derived from Latin *investire*, meaning “to clothe” or “to wear.” While in contemporary English, it is referred to as investment. Conceptually, investment is an activity that mobilizes resources or funds to acquire capital goods in the present, which are then used to generate new production in the future (Sidik & Sutrisno, 2020). Alternatively, investment is defined as an activity undertaken by both natural persons and legal entities (juridical persons) in an effort to enhance or preserve the value of their capital. This capital may take the form of cash, equipment, fixed assets, intellectual property rights, or specialized expertise (Rokhmatussa’dyah & Suratman, 2010). From a commercial or private-sector perspective, investment is defined as the allocation of assets—either in cash or other forms—by a company or individual over a specific period, with the primary goal of securing higher returns in the future (Sugiyanto, 2020). In the governmental context, however, investment entails the long-term placement of funds or financial assets through instruments such as shares, debt securities, or direct investments to generate economic, social, and other multifaceted benefits. Investment serves as a strategic mechanism for the government to augment state revenue, as the yields—subsequently recorded as non-tax state revenue (PNBP) effectively expand the nation’s fiscal capacity. This revenue ultimately becomes a primary source for funding various government policies and initiatives, such as the Free Nutritious Meal Program, the Red and White Cooperatives Program, the 3 Million Homes Program, and other national priority projects.

Under Government Regulation Number 63 of 2019 (PP 63/2019), government investment is executed through shares, debt instruments, and/or direct investments. Furthermore, the regulation stipulates that government investment may also take the form of State Equity Participation (*Penerimaan Modal Negara/PMN*) in State-Owned Enterprises (SOEs/BUMN), Other Legal Entities (Badan Hukum Lainnya/BHL), as well as international financial organizations or international business entities. Equity participation in state-owned enterprises is an integral component of the government’s investment regime. This is corroborated by UU 1/2004, where provisions regarding central or regional government equity participation in state, regional, or private enterprises are categorized under Chapter VI concerning Investment Management. UU 1/2004 further clarifies that government investment, including equity participation, is not only used by the central government but may also be undertaken by regional governments.

Specifically, regarding regional government investment, the Minister of Home Affairs Regulation Number 52 of 2012 concerning Guidelines for Regional Government Investment Management defines it as the long-term placement of funds and/or regional assets by a regional government into securities or direct investments. Such investments are expected to return the principal value while generating

economic, social, and/or other benefits within a specific timeframe. These multifaceted benefits include:

- a. A specific rate of return over a certain period in the form of dividends, interest, and value growth of the Regional-Owned Enterprises (BUMD) receiving the investment;
- b. Improvements in services and a specified share of investment profits (*bagi hasil*) over a certain period;
- c. An increase in regional revenue over a certain period as a direct consequence of the investment;
- d. Quantifiable growth in employment absorption within a specific timeframe as a direct result of the investment; and/or
- e. An overall enhancement of public welfare resulting from regional government investment.

The objectives of regional government investment are to stimulate regional economic growth and development, increase regional revenue, and improve public welfare. One prominent form of regional government investment is direct investment through regional equity participation.

Within the structure of the Regional Revenue and Expenditure Budget (APBD), regional equity participation in SOEs or Regional-Owned Enterprises (BUMD) is categorized under regional financing, specifically as a financing expenditure. The returns from such participation are subsequently recorded as Local-Source Revenue, categorized as income from separated regional wealth management as mandated by Government Regulation Number 12 of 2019 concerning Regional Financial Management. In addition to separated wealth management, PAD is also derived from regional taxes, regional levies, and other legitimate local revenues.

As an objective of regional investment, equity participation in BUMDs represents the most realistic and measurable instrument for increasing regional revenue. The success of this objective is directly assessed by the magnitude of a BUMD's contribution to Local-Source Revenue (PAD). PAD serves as a vital resource for implementing regional autonomy, reflecting the essence of decentralization in contrast to central transfer revenues or balancing funds derived from the State Budget (Kementerian Keuangan, 2024). Optimizing PAD is crucial for achieving fiscal independence, as many local governments remain heavily reliant on central transfers. This optimization is shaped by the complex roles of local governments as regulators, facilitators, and economic drivers (Sa'bani et al., 2025).

PAD constitutes a fundamental pillar of regional financing, fostering financial self-sufficiency in local development. Much like state revenue at the national level, PAD funds indigenous local initiatives and provides strategic support for central mandates—such as the Red and White Cooperative Program. Consequently, regional governments must leverage PAD potential through regional investments, particularly equity participation. An increase in investment yields, recorded under Separated Regional Wealth (KDD), directly and automatically augments total PAD.

Furthermore, the magnitude of PAD serves as a key metric for assessing a region's fiscal independence and degree of decentralization, as reflected in the Local Fiscal Autonomy (LFA) Index. LFA refers to the extent to which local governments rely on locally raised revenues rather than on transfers from central or provincial governments (Slack, 2017). Broadly, local revenue is classified into tax revenues, non-tax revenues, and fiscal transfers (Uchimura & Suzuki, 2009). In the Indonesian

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context, LFA is calculated by dividing realized PAD by the total realized regional revenue within the APBD (Santoso, 2017), and research indicates that a higher LFA positively impacts local economic growth (Khoirunurrofik, 2023).

In this regard, regional revenue serves as a fundamental parameter for evaluating a local government’s capacity to finance its expenditure responsibilities (Tan, 2020). A high PAD figure signifies a robust capacity for self-governance. Furthermore, an increase in PAD reflects heightened economic activity and broader public participation, while simultaneously mirroring efforts to reduce financial reliance on the central government. A rising proportion of PAD relative to total revenue indicates advancing self-reliance and improving fiscal capacity. The LFA ratio thus illustrates a region’s effectiveness in mobilizing taxes, levies, and investment yields, such as profit-sharing from Regional-Owned Enterprises (BUMDs) and State-Owned Enterprises (SOEs).

The implementation of regional autonomy grants local governments the authority to manage resources independently, which is reflected in the strengthening of Regional Fiscal Capacity (KFD) through PAD (Sinurat, 2015). A higher regional fiscal capacity serves as a reliable indicator of improved public welfare. According to Minister of Finance Regulation Number 65 of 2024, KFD is calculated by subtracting “deductible elements” (earmarked revenues, specific expenditures, and specific financing) from total Revenue.

Consequently, regional investment—specifically through equity participation—is expected to enhance yields from Separated Regional Wealth (KDD), thereby driving an increase in PAD. A robust PAD performance signifies more effective regional autonomy, ultimately fostering greater fiscal independence. This prowess is quantified by the Regional Fiscal Capacity Index (IKFD), which assesses revenue capacity, expenditure requirements, and fiscal obligations to categorize regional capability into five levels: Very High, High, Moderate, Low, and Very Low.

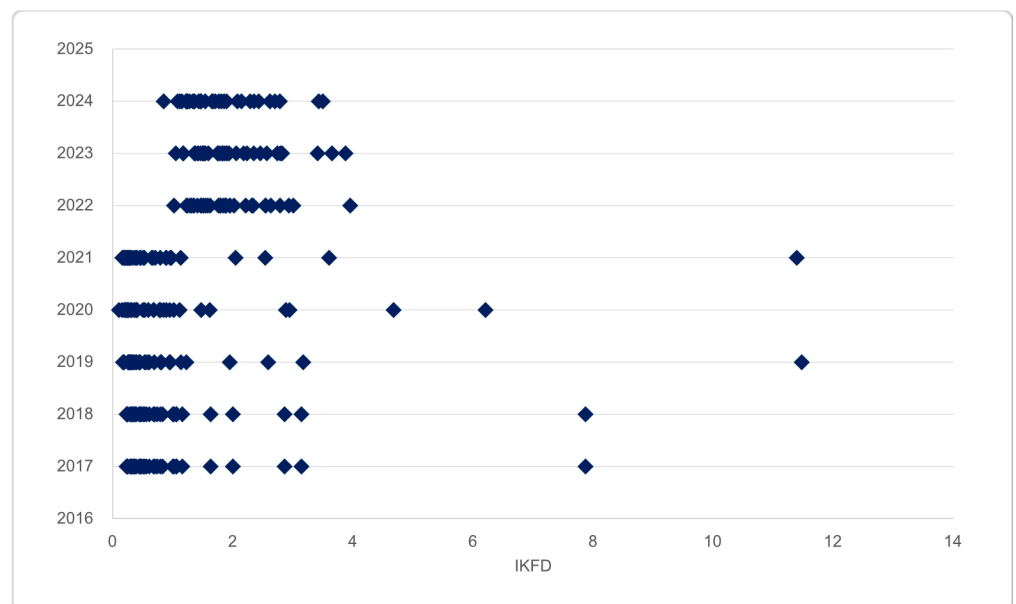


Figure 1. Provincial IKFD Variations Across 2017–2024

Source: Ministry of Finance (Processed)

Reviewing data from 2017 to 2024, the average provincial fiscal capacity in Indonesia showed a notable upward trend, rising from an index of 1.0003 to approximately 1.77 points. Despite this growth, significant inequality persisted

between 2017 and 2021, with many local governments concentrated in the “Very Low” category—including Bengkulu, Yogyakarta, Gorontalo, Central Sulawesi, and North Sulawesi—where it has remained persistent. While government interventions beginning in 2022 appear to have heightened overall IKFD scores, this progress remains uneven. Some regions that previously held higher scores have experienced a decline in capacity. For instance, Bali’s IKFD declined from 1.761 in 2022 to 1.471 in 2024, and Aceh recorded a 52.5% reduction. On a national scale, the average IKFD contracted by approximately 6.1% between 2022 and 2024. These fluctuations underscore the urgent need for systemic policies that can stabilize fiscal momentum while simultaneously addressing regional disparities.

The majority of Indonesian local governments are highly dependent on transfers from the central government, especially to finance regional programs in each region. On the other hand, local governments also have fiscal instruments to increase local revenue, such as regional government investment by regional equity participation in BUMD. Nevertheless, that instrument is not yet effective in boosting regional revenue or strengthening fiscal capacity. This can be seen from the following research:

- a. A study conducted by [Heriasman and Suwaji \(2021\)](#), which aimed to evaluate the effectiveness and contribution of Regional-Owned Enterprise (BUMD) profits to the PAD of Indragiri Hulu Regency. Using a descriptive qualitative approach, the findings revealed that the average profit effectiveness ratio for BUMDs from 2014 to 2019 was 7.4%, indicating effectiveness. Notably, in 2014, the profit effectiveness reached 100.07%, falling into the “highly effective” category.
- b. Research by [Sugiyanto \(2020\)](#), which analyzed the contribution of the Regional Market Company (Perusahaan Daerah Pasar) to PAD growth in Lamongan Regency. Through a descriptive qualitative method, the results indicated fluctuating levels of contribution, where it was relatively non-contributory in 2010, showed low contribution in 2011 and 2014, but was found to be contributory in 2013.
- c. A study by [Dano \(2022\)](#), which investigated the influence of regional government investment on PAD in Kupang City. The findings demonstrated that regional investments in BUMDs significantly influenced PAD through profit sharing, accounting for 53.6% of the impact.

Given these observations, there is a pressing need for a comprehensive study that characterizes the broader impact of regional government investment—specifically through equity participation—on regional fiscal capacity. Therefore, this study examines the extent to which regional investment influences PAD enhancement, its subsequent impact on Local Fiscal Autonomy (LFA), and its ability to drive significant improvements in IKFD. To date, scholarly discussion regarding the direct link between regional investment and fiscal capacity remains limited. In doing so, this research is expected to offer strategic insights, recommendations, and solutions to encourage improvements in local government governance. Local economic governance is a necessary condition for regional economic growth. Improving local governance requires greater attention to understanding how the structural characteristics that make up the regional political economy, which in turn affects the performance of the economy, in line with decentralization and regional autonomy ([Kuncoro, 2012](#)).

To deliver a more understandable stance of research, this study explicitly utilizes both economic indicators and regional governmental performances, encompassing

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Regional Investment (PMD), Gross Fixed Capital Formation (PMTB), Capital Expenditures (BM), Noncapital Government Expenditures (BNM), Local Fiscal Autonomy (LFA), and Local Revenue from Separated Wealth (KDD). Additionally, those variables act as independent parameters, which will be covered in the estimation of the effect on changes in the Regional Fiscal Capacity Index (IKFD). Furthermore, the utilization of Path Analysis comprehends both direct and indirect effects, positioning LFA and KDD as mediatory variables.

## 2. Methods

### 2.1. Data and Analytical Approach

In order to acquire robust and actionable insights, this research uses publicly accessible data from official authorities for 2017 to 2024, including Statistics Indonesia and the Ministry of Finance (MOF), and extends these calculations. Approximately 272 data points were observed across 34 provinces. These secondary data are highly useful, particularly for their validity and replicability. Explicitly, [Table 1](#) summarizes the complete information of the data utilized by authors.

Table 1. Variables Definition and Sources

Variable	Measurement	Role	Source
PMD	Billion IDR	Independent (X)	MOF
PMTB	Billion IDR	X	BPS
BM	Billion IDR	X	MOF
BNM	Billion IDR	X	MOF
LFA	Ratio (%)	Mediator (M)	Calculation
KDD	Billion IDR	M	MOF
IKFD	Index	Outcome (Y)	MOF

Source: BPS; MOF

While other variables are publicly disclosed, the LFA ratio requires a certain approach. [Yuniar and Firmansyah \(2023\)](#) noted the usage of LFA as an indicator in measuring Local Own Revenue (PAD) generation over the aggregate amounts of local revenues, thus can be formulated as (1):

$$LFA = \frac{PAD}{\text{Total Local Expenditures}} \tag{1}$$

Eventually, in examining the effect of considered variables, authors leverage the employment of Path Analysis. This approach is particularly advantageous in determining cause-and-effect relationships within multiple linear regression structures and allowing one to estimate both direct and indirect impacts ([Agusriandi et al., 2023](#)), offering superior analytical capabilities compared to simpler statistical approaches. Moreover, path analysis is capable of revealing the decomposition of correlations and assessing both direct and indirect effects. The flexibility raised from this method also guarantees the usage of independent variables as mediators in a more sophisticated chain of analysis. Ensuring data compatibility, the authors then applied natural logarithms to PMD, PMTB, BM, BNM, and KDD, establishing more standardized measurements and allowing for simpler interpretation.

Path analysis has been considered in recent research across a wide range of areas. [Prasetyo et al. \(2020\)](#) found evidence supporting the usefulness of path analysis in assessing the real role of explanatory variables in economic growth quality within direct and indirect schemas. In a regional study, the path analysis application resulted in profound insight, covering strong statistical relationships between infrastructure development, education, tourism, and agriculture sectors on

regional economic growth (Joeliaty, 2024). Additionally, path development research offers a valuable understanding of the link between historical, contemporary, and future development processes, particularly in examining the emergence and growth of new activities and industries at the regional level (Micek et al., 2022; Pugh et al., 2024). Disclosure of model reliability will be undertaken to verify the model's robustness, thereby implying the credibility of such estimations. Model robustness testing includes a wide range of goodness-of-fit tests (Pituch & Stevens, 2015), significant path or hypothesis analysis, and explanatory strength testing.

## 2.2. Research Flow

To simplify this study, we prepared a flowchart that encapsulates the thorough steps, as illustrated in Figure 2. The process began with Data Collection, during which secondary panel data were meticulously collected from the Ministry of Finance's Directorate General of Regional Fiscal Balance (DJPK) and Statistics Indonesia for 34 provinces over the 2017–2024 period. This stage was critical for answering the research questions regarding the impact of Provincial Capital Direct Participation (PMD), as it provided the raw financial metrics needed to calculate the Local Fiscal Autonomy (LFA) and the Regional Fiscal Capacity Index (IKFD).

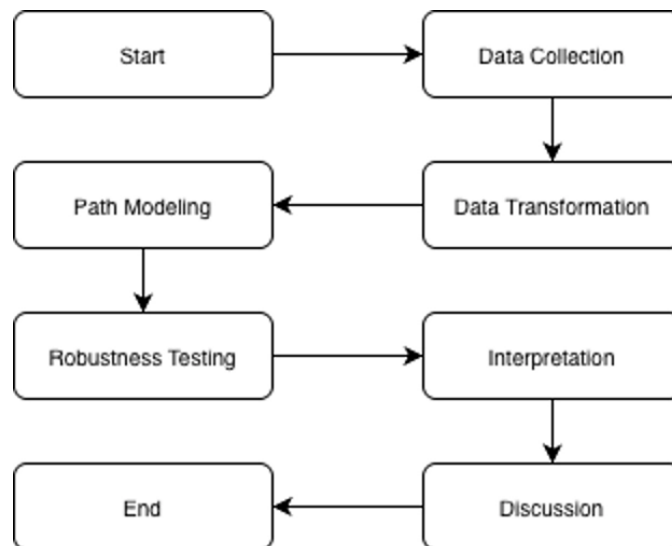


Figure 2. Research Flowchart

Source: Authors

To ensure the integrity of the statistical analysis, we performed Data Transformation by applying natural logarithms (Ln) to variables with high variance. This step was methodologically essential to address potential heteroscedasticity and to normalize the data distribution, thereby satisfying the Gauss-Markov assumptions required for unbiased linear estimation. Following the transformation, we utilized Path Modeling as the primary analytical tool. This method was specifically chosen over simple linear regression because the research questions sought to uncover not only the direct impact of investment on fiscal capacity but also the indirect pathways mediated by fiscal autonomy and local revenue. By employing Path Analysis via Stata 17, we were able to calculate standardized path coefficients and decompose the total effects into direct and indirect components, providing a mathematically rigorous answer to how regional wealth separation influences the broader fiscal index.

To validate the reliability of these causal inferences, we implemented a comprehensive Robustness Testing phase. This was necessary to ensure that the

findings were not sensitive to model specifications or the specific characteristics of the panel data. We conducted this testing by evaluating several goodness-of-fit indices—specifically the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI), and the Tucker-Lewis Index (TLI)—to confirm that the theoretical model adequately represented the empirical data. Additionally, we utilized robust standard errors to account for potential autocorrelation within the provincial clusters. By confirming the model’s stability through these tests, we mitigated the risk of Type I errors and reinforced the credibility of the results. Finally, the process concluded with Interpretation and Discussion, where the statistical outputs were synthesized into policy recommendations, and the observed impacts of PMD were compared with existing decentralization theories to conclude the study.

A comprehensive review of the latest studies before designing path models is vital because it provides a plausible real-world foundation and more actionable insights. Based on empirical disclosures within the Introduction, the authors propose a design of a path model as follows:

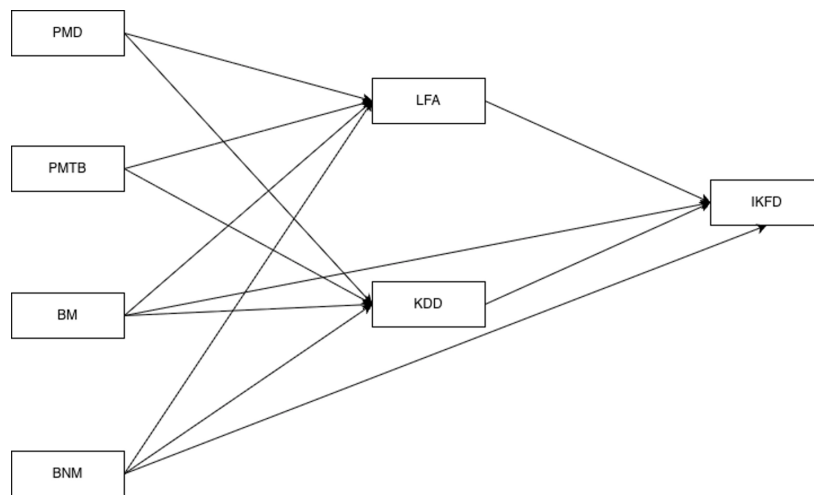


Figure 3. Research’s Path Model

Source: Authors

Which can also be expressed in the mathematical equations, considering linear relationship between variables as below:

$$LFA = f(PMD, PMTB, BM, BNM) \tag{2}$$

$$KDD = f(PMD, PMTB, BM, BNM) \tag{3}$$

$$IKFD = f(LFA, KDD, BM, BNM) \tag{4}$$

These conceptual models incorporated 272 observations, some of which variables are transformed. We explicitly conducted two mediatory channels (LFA and KDD) that ultimately result in defining the outcome of IKFD. Extensively, equations in 2, 3, and 4 could be expanded to accommodate linear readability as follows:

$$LFA = \alpha_1 + \beta_1 \ln PMD + \beta_2 \ln PMTB + \beta_3 \ln BM + \beta_4 \ln BNM + \epsilon \tag{5}$$

$$\ln KDD = \alpha_2 + \beta_5 \ln PMD + \beta_6 \ln PMTB + \beta_7 \ln BM + \beta_8 \ln BNM + \epsilon \tag{6}$$

$$IKFD = \alpha_3 + \gamma_1 LFA + \gamma_2 \ln KDD + \beta_9 \ln BM + \beta_{10} \ln BNM + \epsilon \tag{7}$$

Where  $\alpha_{1, 2, 3}$  denoted constants for each model;  $\beta_{1...10}$  constituted the coefficient or effect of respective variables, as well as  $\gamma_{1, 2}$ ; additionally,  $\epsilon$  was error term within the models.

### 3. Results and Discussion

#### 3.1. Data Overview

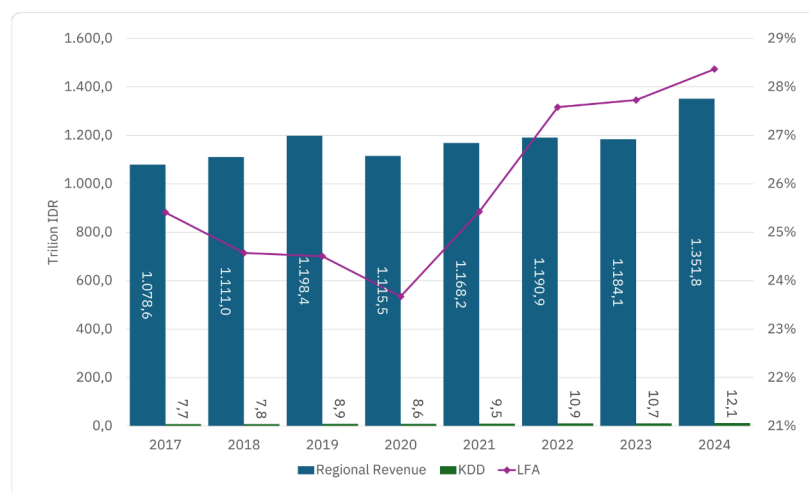
An overview of data using descriptive analysis provides evidence to support inferential statistics. Such data reflect a wide range of disparities across provinces during the observation periods. This research uses 272 accessible data points, points that explicitly states differences in PMD, ranging from 0 to 9,21 trillion IDR. A high PMD reflected the government’s prioritization of direct investment in some regional governments, such as DKI Jakarta, East Kalimantan, Banten, and West Java. Such direct funding often comes from prior-year regional budget surpluses. Its direct benefit resulted in amounts of KDD received as a part of government revenue. However, PMD’s significance has been debatable due to a negligible economic benefit (Setiawati & Utomo, 2024; Yahya & Syafitri, 2024).

Table 2. Descriptive Statistics

DESC	PMD	PMTB	BM	BNM	LFA	KDD	IKFD
Mean	3,18E+11	1,04E+14	5,81E+12	2,85E+13	21,04	2,80E+11	1,33
Median	6,52E+10	4,24E+13	4,52E+12	2,05E+13	17,60	1,82E+11	1,02
Std Dev	1,09E+12	1,50E+14	4,45E+12	2,63E+13	12,90	3,31E+11	1,41
Range	9,21E+12	7,95E+14	2,54E+13	1,21E+14	69,52	1,83E+12	11,37
Min	0	7,20E+12	8,69E+11	5,66E+12	3,84	0	0,10
Max	9,21E+12	8,03E+14	2,62E+13	1,26E+14	73,37	1,83E+12	11,47
Count	272	272	272	272	272	272	272

Source: BPS; MOF (processed)

A national-level overview in Figure 4 illustrates upward trends regarding regional revenue and fiscal autonomy. Despite the unfavorable circumstances around the 2017–2020 period, the aggregated regional revenue denoted positive changes afterward, rising to 1.351,8 trillion IDR in 2024. Additionally, such events also contributed to acceleration of LFA, reaching approximately 28,37% within the end of the observed year. Regardless of this low autonomy, Tan (2020) underscored the opportunity in fostering the LFA through both local tax and expenditure advancement, which in turn boosts regional government’s ability to deliver more adequate public goods and services.



Source: BPS; MOF (processed)

Figure 4. Descriptive Statistics

In the economic development context, PMTB held additional information on aggregate investment accounted for within a certain region. Typically, a high PMTB supports economic growth (Sijabat, 2022) potentially leveraging social benefits and increasing the local tax base. Revisiting Table 2, a broad range of regional PTMB highlighted continuing economic disparities among provinces. High-achieving regions—such as DKI Jakarta, Jawa Timur, and other provinces in Java—may offer substantial public infrastructures, thereby fostering local capability more effectively compared to the other provinces.

### 3.2. Path Analysis

A detailed explanation considering the complete path analysis will be delivered in this subsection, including the direct, indirect, and, eventually, total effect. Reporting all three structures provides essential information for determining the type of relationship and can be a potential benefit in later interpretation. An overview of the direct path analysis result is illustrated within Figure 5, which will be substantiated by more detailed reports.

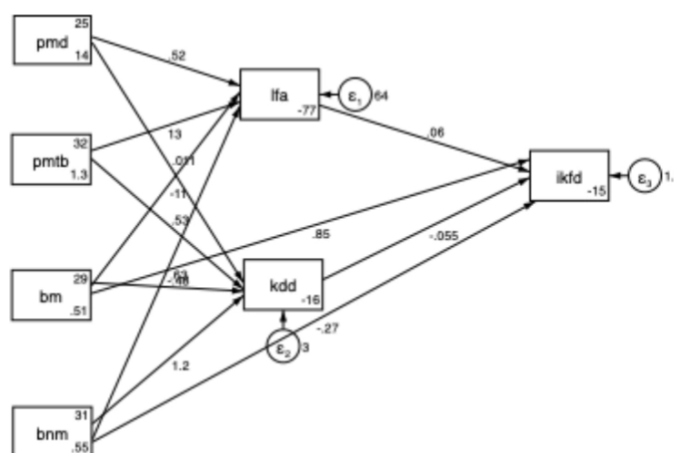


Figure 5. Total Path Estimation

Source: Data processing

Both Figure 5 and Table 3 explain the paths of coefficients among variables within a direct-effect context, defining the causal effect occurrences. By shifting focus to answer our research questions, regional PMD is found to positively contribute to both LFA and KDD. Every point increase in PMD supports improvement of those two indicators. Local financial capacity is affected by LFA, KDD, BM, and BNM, though their effects vary. Such direct effects can be detailed as:

- Each additional increase in PMD will increase LFA and KDD by around 0,52 points and 0,011 points, respectively.
- 12,58 points will amplify LFA while KDD translates 0,53 points for each point of PMTB.
- Every point of regional capital expenditure contributes to adverse amounts for both LFA and KDD, approximately of -11,35 and -0,48 points. Despite its negative effect on LFA and KDD, it has a profound direct impact on fostering the local fiscal capacity.
- Noncapital expenditure also holds contrary direct effects regarding its causality to LFA, KDD, and IKFD. Its effect is positive, with around 0,63 points in LFA improvement and 1,24 points in fostering KDD. However, its direct

Table 3. Direct Effects Estimation

Structural	Coef.	Std. Err.	Z	P> z	[95% conf.	Int]
<b>LFA</b>						
PMD	0,51874	0,14134	3,67	0,000	0,24171	0,79577
PMTB	12,57759	0,84549	14,88	0,000	10,92045	14,23473
BM	-11,34923	1,694195	-6,70	0,000	-14,66979	-8,02867
BNM	0,62583	2,00714	0,31	0,755	-3,308097	4,559762
const	-77,41022	22,06947	-3,51	0,000	-120,6656	-34,15486
<b>KDD</b>						
PMD	0,011341	0,0304194	0,37	0,709	-0,04828	0,070962
PMTB	0,533216	0,1819645	2,93	0,003	0,1765718	0,8898596
BM	-0,479634	0,363619	-1,32	0,188	-1,194274	0,235006
BNM	1,237534	0,4319708	2,86	0,004	0,3908867	2,084181
const	-15,55583	4,749718	-3,28	0,001	-24,8651	-6,246549
<b>IKFD</b>						
LFA	0,0604439	0,0060298	10,02	0,000	0,0486257	0,0722621
KDD	-0,05475	0,0372992	-1,47	0,142	-0,127855	0,018355
BM	0,848979	0,2334769	3,64	0,000	0,3913727	1,306585
BNM	-0,268293	0,2465234	-1,09	0,276	-0,75147	0,214884
const	-15,04399	3,051557	-4,99	0,000	-20,9544	-9,133583

Source: Data processing

impact on IKFD results in the negative value of -0,268 points for every additional budget realization.

- e. Direct effect estimation highlights causality between LFA and IKFD. For each point of increase in LFA, IKFD expands by around 0,06 points.
- f. KDD holds a negative coefficient of approximately -0,055, which translates to declining IKFD for KDD accounted realizations.
- g. *\_const* variables denote the starting point (intercept) regarding the respective linear functions.

Table 4. Indirect Effects Estimation

Structural	Coef.	Std. Err.	Z	P> z	[95% conf.	Int]
<b>LFA</b>						
(no path)						
<b>KDD</b>						
(no path)						
<b>IKFD</b>						
LFA	0	(no path)				
KDD	0	(no path)				
PMD	0,030734	0,0092384	3,33	0,001	0,012627	0,048841
PMTB	0,7310445	0,0918124	7,96	0,000	0,5510955	0,9109935
BM	-0,659731	0,1246604	-5,29	0,000	-0,904061	-0,415401
BNM	-0,029928	0,1318073	-0,23	0,820	-0,288265	0,2284101

Source: Data processing

Our main independent variables, including PMD, PMTB, BM, and BNM, make significant contributions to IKFD through mediating channels. Table 4 underscores these indirect relationships, the estimation of which can be explained as follows:

- a. The effect of PMD on IKFD has been estimated for around 0,03 points, thus optimizing PMD will lead to a positive increase in IKFD.

- b. The substantial effect of PMTB is noted by its coefficient, approximately 0,73 points for every regional gross fixed capital formation value.
- c. Regional capital expenditure is ineffectively enhancing local fiscal capacity, with its estimated indirect effect of -0,66 points for each realization.
- d. Other expenditure highlights negative indirect effects to IKFD as well, contributing to -0,299 points for every additional point increase in BNM.

Table 5. Total Effects Estimation

Structural	Coef.	Std. Err.	Z	P> z	[95% conf.	Int]
<b>LFA</b>						
PMD	0,51874	0,14134	3,67	0,000	0,24171	0,79577
PMTB	12,57759	0,84549	14,88	0,000	10,92045	14,23473
BM	-11,34923	1,694195	-6,70	0,000	-14,66979	-8,02867
BNM	0,62583	2,00714	0,31	0,755	-3,308097	4,559762
<b>KDD</b>						
PMD	0,011341	0,0304194	0,37	0,709	-0,04828	0,070962
PMTB	0,533216	0,1819645	2,93	0,003	0,1765718	0,8898596
BM	-0,479634	0,363619	-1,32	0,188	-1,194274	0,235006
BNM	1,237534	0,4319708	2,86	0,004	0,3908867	2,084181
<b>IKFD</b>						
LFA	0,0604439	0,0060298	10,02	0,000	0,0486257	0,0722621
KDD	-0,05475	0,0372992	-1,47	0,142	-0,127855	0,018355
PMD	0,030734	0,0092384	3,33	0,001	0,012627	0,048841
PMTB	0,7310445	0,0918124	7,96	0,000	0,5510955	0,9109935
BM	0,1892478	0,2449072	0,77	0,440	-0,290762	0,669257
BNM	-0,298221	0,2682161	-1,11	0,266	-0,823914	0,2274734

Source: Data processing

Taking both direct and indirect effects into account, we can develop the total effects. Total effects represent the overall impact of the dependent variables, including the mediatory influences. Total path effects capture the “big picture” of variable effects, encompassing every possible route of influence, including direct and indirect effects. These are advantageous, particularly for examining the occurrence of suppression within the path analysis. Total effects are summarized in Table 5, which notes the change in effects to IKFD, particularly BM and BNM, as follows:

- a. BM highlights the total potential contribution, which leverages IKFD by around 0,19 points for each additional point.
- b. Noncapital expenditure is found to be persistent, contributing to the decline of IKFD by around -0,298 points for every BNM realization.

### 3.3. Model Robustness Testing

As stated earlier, robustness testing is a crucial step that ensures the credibility of model estimation. In this subsection, model robustness testing encompasses goodness of fit tests, degree of determination testing, and hypothesis analysis, which will be detailed in subsequent paragraphs.

For goodness of fit testing, we employed likelihood ratio, population errors, and baseline comparison approaches. Such testing results are imprinted in Table 6.

Generally, all goodness-of-fit tests indicate a good fit of the data. The likelihood ratio yielded an insignificant chi2 statistic (p>0,05), which is considered an indicator of a proper fit of the model to the data. Furthermore, both RMSEA and the population

Table 6. Goodness of Fit Testing Results

Fit Statistics	Value	Threshold	Indication
<b>Likelihood ratio</b>			
chi2_ms(3)	0,530		Good fit
p > chi2	0,912	> 0,05	
<b>Population error</b>			
RMSEA	0,000	< 0,05	Good fit
pclose	0,965	< 0,08	
<b>Baseline comparison</b>			
CFI	1,000	> 0,95	Good fit
TLI	1,025	> 0,95	

Source: Data processing

Table 7. Explanatory Power Analysis

Dependent Variables	R-squared	mc	mc2
LFA	0,6135949	0,783323	0,6135949
KDD	0,3249018	0,5700016	0,3249018
IKFD	0,4274523	0,6537984	0,4274523
<b>Overall</b>	<b>0,7366769</b>		

Source: Data processing

error close (pclose) also support this claim, along with sufficient levels of CFI and TLI. Ultimately, these subtests suggest favorable data fitting, thus producing reliable models for estimation.

Furthermore, the model determination of approximately 0,7366769 reinforced the model's robustness. Such a ratio emphasized a noteworthy model's explanatory power in explaining 73,67% of the IKFD changes by utilizing all independent variables, whereas external factors could explain 26,33%. The model determination test also examined the substructures' explanatory power. While the LFA path showed an optimal R-squared of around 61,36%, both the KDD and IKFD paths showed scores below 50%. Nevertheless, these findings still remarkably supported the usefulness of the model, determined by a high overall level of explanatory power and further validated by statistically significant variables.

Table 8 summarizes the significant variables affecting the IKFD, confirming the independent variables in both direct and indirect scenarios. PMD has been found to significantly affect IKFD, with a probability lower than 5% and a positive coefficient of 0,03 points. This implicitly supports the arguments for increasing fiscal capacity through an indirect channel: local government direct capital participation (Akhmadi & Priastawan, 2021). On the other hand, PMTB, as a proxy for economic advancement, also highlights an optimal contribution, as evidenced by statistical significance. However, government spending variables showed insignificant effects in the overall path analysis. While both the indirect and direct effects of BM were significant, their combined effect failed to meet the statistical criteria due to a higher p-value. Furthermore, the non-capital expenditure (BNM) also highlighted a high p-value, insufficiently providing adequate proof in influencing IKFD through direct or mediatory channels.

Taking all statistically significant variables into account, we can safely discuss the effects in the subsequent subsection. Moreover, such evidence will be substantiated by the latest findings, developing more substantial and actionable insights.

Table 8. Hypothesis Analysis

Structures	Unstd. Coeff	P >  z	Type of Effect
<b>LFA</b>			
PMD***	0,5187445	0,000	Direct
PMTB***	12.57759	0,000	Direct
BM***	-11,34923	0,000	Direct
BNM	0,6258324	0,755	Direct
<b>KDD</b>			
PMD	0,011341	0,709	Direct
PMTB***	0,5332157	0,003	Direct
BM	-0,479634	0,188	Direct
BNM***	1,237534	0,004	Direct
<b>IKFD</b>			
LFA***	0,0604439	0,000	Direct
KDD	-0,0547502	0,142	Direct
PMD***	0,030734	0,001	Indirect
PMTB***	0,7310445	0,000	Indirect
BM	0,1892478	0,440	Total
BNM	-0,2982205	0,266	Total
<b>IKFD (Indirect Effects)</b>			
PMD***	0,030734	0,001	Indirect
PMTB***	0,7310445	0,000	Indirect
BM***	-0,6597312	0,000	Indirect
BNM	-0,0299275	0,820	Indirect
<b>IKFD (Direct Effects)</b>			
PMD	0	(no path)	Direct
PMTB	0	(no path)	Direct
BM***	0,848979	0,000	Direct
BNM	-0,268293	0,276	Direct

Source: Data processing

Note: \*significant under 10%; \*\*significant under 5%; \*\*\*significant under 1%

### 3.4. Discussion

Revisiting the total effects result, we have acknowledged LFA, PMD, and PMTB’s influential effects regarding the fiscal capacity development. In the indirect impact context, PMD, PMTB, and BM variables are considered statistically significant causes, supporting their substantial contributions through mediating mechanisms. Furthermore, the low p-value of local government capital spending also becomes evidence of its direct contribution in encouraging IKFD.

Government capital participation is renowned as a vital instrument for fostering local socio-economic growth. Theoretically, government capital investment in companies is intended to provide public goods and services (Adhitya & Solikin, 2025). The significant positive finding in favor of PMD provides clear support for this idea. Its solid direct effects also promote both the enhancement of local fiscal autonomy and the realization of separate regional wealth revenue. Ultimately, this finding suggests the high importance of regional capital participation. Quantitatively, the financing expenditure allocated to PMD generates a return, or “feedback,” of 0.031% for realization on PMD. This positive correlation is consistent with previous research indicating that PMD variables significantly and positively influence

financial capacity (Firzanah, 2024). Thus, it is evident that regional investment through PMD effectively drives an expansion in regional fiscal capacity.

The influence of PMD on IKFD is also fundamentally aligned with the objectives of establishing Regional-Owned Enterprises (BUMDs) as mandated by Government Regulation Number 54 of 2017. Under this regulation, BUMDs are established to stimulate regional economic development, provide high-quality public services and goods tailored to local characteristics, and generate profit through Good Corporate Governance (GCG). These profit shares are subsequently recorded as PAD, which is utilized to fund regional development and budgetary requirements after accounting for depreciation and other reasonable operational deductions. This contribution to PAD serves as a key catalyst for enhancing a region's overall fiscal capacity.

Regional infrastructure, as proxied by PMTB, makes a significant contribution in developing fiscal capacity, LFA, and KDD. Moreover, it has been recognized as a significant factor in fostering overall socio-economic growth (Priambodo & Djirimu, 2024; Putra et al., 2024; Sijabat, 2022). Supporting these claims, Mongi and Saidi (2023) extensively attested the investment influence in 48 middle-income countries, noting the importance of PMTB within various idiosyncratic economies. Analogically, a higher PMTB elevated region's productivity, which in turn increased the tax basis (Arsandi, 2022) and further promoted the fiscal federalism progress (Afrizal & Khoirunurrofik, 2022).

Along with aggregate investment, government spending served as an instrument influencing the independent variables, though its impact is not uniform across states of interest. Despite the limited evidence of BM and BNM in total path, government spending has shown some benefits, particularly in advancing inclusive economics and reducing inequality (Ihwandi & Khoirunurrofik, 2023; Malla & Pathranarakul, 2022). Specifically, the current analysis underscored the bidirectional influence of local government capital spending between direct and indirect schemes, constituting fiscal capacity progression. Explicitly, raising capital expenditure is followed by a direct increase in IKFD, while mediatory variables seem to diminish this rate of contribution. On the other hand, non-capital expenditure has been found as an insignificant instrument, though its direct contribution to KDD is considerable. These unaligned outcomes might be caused by severe budget inefficiency (Zhao & He, 2024), excessive spending on ineffectual programs, and inadequate commitment in building productive infrastructures (Gatecka et al., 2022; Schouame et al., 2023). Eventually, these unfavored results insinuate the urgency of local expenditure reform.

Furthermore, a significant positive relationship is observed between LFA and IKFD (direct effect), indicating that an increase in LFA is associated with a corresponding rise in IKFD. Because IKFD characterizes a region's financial prowess by subtracting earmarked revenues, specific expenditures, and specific financing from total regional revenue, it follows that revenue performance is a critical determinant. This mirrors the LFA calculation, which specifically measures the ratio of PAD to total regional revenue. While LFA focuses on the capacity to mobilize revenue, IKFD reflects the actual fiscal space available for a region to exercise its discretionary spending and fund government activities.

This nexus between fiscal capacity and regional revenue aligns with prior studies stating that regional revenue significantly impacts regional fiscal capacity; consequently, as the value of regional revenue increases, so does the fiscal capacity (Arifuddin et al., 2021). It further echoes Halim (2002) perspective that regional revenue profoundly affects fiscal independence, where a higher degree of

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independence indicates a greater fiscal capacity to self-finance expenditures (Wondiwoi et al., 2017).

Conversely, the empirical results regarding KDD indicate a negative yet statistically insignificant impact on IKFD. In other words, the impact is not tangibly captured in IKFD fluctuations. This suggests that regional revenue sourced from asset management or BUMD profit transfers has yet to provide a significant positive impetus to regional fiscal capacity. The findings highlight that KDD realization in Indonesia currently provides minimal added value to the IKFD calculation. This is corroborated by Hafandi and Romandhon (2020), who found that yields from separated regional wealth management do not significantly influence PAD. This lack of impact is largely attributed to the suboptimal performance of BUMDs and the minimal yields from regional asset management across many Indonesian regions.

Therefore, regional governments at the provincial, city, and regency levels must optimize the management of regional assets and KDD sources. Enhancing KDD will stimulate PAD and broaden the range of regional financing sources for development programs. By achieving higher yields, flagship national initiatives, such as the Free Nutritious Meal Program, the Red and White Cooperatives Program, and the 3 million Homes Program. Programs can be self-funded by regional governments without exerting excessive fiscal strain on their respective budgets.

#### 4. Conclusion

Latest research posits that the hallmark of a region's capacity to exercise regional autonomy lies in two primary indicators: (1) regional financial capacity, which entails the local government's ability and authority to mobilize, manage, and utilize its own financial resources to sustain administrative governance; and (2) a minimized reliance on central government assistance. Consequently, Local-Source Revenue (PAD) must serve as the predominant financial pillar, bolstered by central-regional fiscal balancing policies. To this end, regional investment emerges as a strategic instrument for local governments to achieve these fiscal objectives.

A study on regional government investment has been intriguing due to its debatable contribution to regional development. Given the multifaceted nature of the ideal investment impact, we employed path analysis to provide robust insight into PMD's effect. The influence was attested to IKFD through mediatory channels, encompassing LFA and KDD. This paper also considered the usage of economic capital formation (PMTB) and local government expenditure as primary independent variables. The data is collected from 34 provinces from 2017 to 2024, resulting in around 272 observable points.

Such a comprehensive analysis yielded remarkable outputs, including capital direct participation, economic infrastructure, and local government expenditure. Based on the results of the path analysis and the subsequent discussion, the following conclusions are drawn:

- a. Regional Equity Participation (PMD) exerts a significant indirect effect on the Regional Fiscal Capacity Index (IKFD). This indicates that regional government investment through PMD financing expenditures plays a substantial role in augmenting regional fiscal capacity.
- b. Gross Fixed Capital Formation (GFCF/PMTB) has a significant indirect effect on IKFD. This implies that aggregate investment within a region catalyzes increasing that region's fiscal capacity.

- c. Capital Expenditure (BM) shows a significant indirect effect on IKFD, meaning that regional government spending on capital assets effectively drives an upward trend in fiscal capacity.
- d. Local Fiscal Autonomy (LFA) exerts a significant direct effect on IKFD. This suggests that an increase in Local-Source Revenue (PAD) directly bolsters the region's overall fiscal capacity.

By examining those significant effects, we can safely propose some recommendations, especially in regional fiscal management as follows:

- a. Optimizing Direct Investment: Regional governments should leverage direct investment instruments through equity participation (PMD) as a strategic effort to diversify and increase local revenue streams, which in turn expands the fiscal space required to fund various regional development programs.
- b. Enhancing Public Service Efficiency: PMD allocated to Regional-Owned Enterprises (BUMDs) should be utilized as a strategic tool to improve the quality and reach of public services through more effective and efficient management.
- c. Fostering Policy Synergy: There is a pressing need to synchronize government policy priorities with BUMD business lines. For instance, Regional Development Banks (BPD) could support the financing of national or local priority programs, such as the Red and White Village Cooperatives, the 3 Million Homes initiative, or the Free Nutritious Meal program. Such synergy creates a mutually beneficial relationship where BUMDs achieve business sustainability while the government gains better oversight and policy alignment.
- d. Prioritizing Productive Spending: Regional spending must be redirected toward productive allocations, particularly Capital Expenditure. Beyond fulfilling basic infrastructure needs, this type of spending stimulates local economic growth, providing an indirect but sustainable boost to regional fiscal capacity.
- e. Attracting Private Investment: Regional governments should actively encourage private sector involvement by optimizing the management of leading local commodities, fostering BUMD-private partnerships, and improving regional infrastructure to increase regional PMTB.

#### Acknowledgments

This paper is primarily the result of mutual collaboration among the authors. We also highly appreciated our colleagues, seniors, and supervisors for sharing remarkable ideas, fundamentally contributing to the corresponding insights.

#### References

- Adhitya, W. P., & Solikin, A. (2025). Dampak Investasi Pemerintah Berupa Penambahan Penyertaan Modal Negara terhadap Kinerja Keuangan BUMN. *Jurnal Bisnis dan Akuntansi Unsuraya*, 10(1). <https://doi.org/10.35968/jbau.v10i1.1424>
- Afrizal, R. M., & Khoirunurrofik, K. (2022). Examining Flypaper Effect in Indonesia: Evidence After Transferring Urban-Rural Land and Building Tax to Locals Government. *Jurnal Bina Praja*, 14(3), 465–478. <https://doi.org/10.21787/jbp.14.2022.465-478>
- Agusriandi, Diwantara, V., Ahmad, S., & Saijun. (2023). Determinants of GRDP and Rupiah Exchange Rate on Sharia Bank MSME Financing in Jambi Province 2010–2017. *Indonesian Journal of Islamic Economics and Business*, 8(2), 441–451. <https://doi.org/10.30631/ijoieb.v8i2.2151>

- Akhmadi, M. H., & Priastawan, P. N. (2021). Analisis Manfaat Penyertaan Modal Negara pada Program Pembangunan Infrastruktur Listrik Desa Provinsi Bali. *Bina Ekonomi*, 25(1), 8–22. <https://doi.org/10.26593/be.v25i1.5114.8-22>
- Arifuddin, I., Sapar, & Salju. (2021). Pengaruh Pendapatan dan Anggaran Belanja terhadap Kapasitas Fiskal Pemerintah Daerah Kota Palopo. *Keuda: Jurnal Kajian Ekonomi dan Keuangan Daerah*, 6(2), 1–27. <https://doi.org/10.52062/KEUDA.V6I2.1703>
- Arsandi, S. A. (2022). Collaborative Governance in the Optimization of Tax Revenue: Case Study in Yogyakarta. *Jurnal Bina Praja*, 14(1), 17–29. <https://doi.org/10.21787/jbp.14.2022.17-29>
- Dano, V. C. (2022). *Pengaruh Investasi Pemerintah Daerah terhadap Pendapatan Asli Daerah (Studi pada Pemerintah Kota Kupang)* [Undergraduate Thesis, Universitas Nusa Cendana]. [http://skripsi.undana.ac.id/index.php?p=show\\_detail&id=10696](http://skripsi.undana.ac.id/index.php?p=show_detail&id=10696)
- Firzanah, A. (2024). *Pengaruh Inflasi, Penyertaan Modal dan Penerimaan Pinjaman Daerah terhadap Kapasitas Fiskal di Kabupaten Banyumas* [Universitas Jenderal Soedirman]. <https://repository.unsoed.ac.id/31412/>
- Gatecka, M., Patrzatek, L., Kuroпка, I., & Szabela-Pasierbińska, E. (2022). The Fiscal Capacity of Local Government Versus Government Expenditure, and Its Impact on Eliminating Interregional Social Inequalities in Poland. *Region*, 9(1), 51–67. <https://doi.org/10.18335/region.v9i1.368>
- Hafandi, Y., & Romandhon. (2020). Pengaruh Pajak Daerah, Hasil Pengelolaan Kekayaan Daerah yang Dipisahkan, Retribusi Daerah, dan Lain-Lain Pendapatan Daerah yang Sah terhadap Pendapatan Asli Daerah Kabupaten Wonosobo. *Journal of Economic, Management, Accounting and Technology*, 3(2), 182–191. <https://doi.org/10.32500/jematech.v3i2.1337>
- Halim, A. (2002). *Akuntansi Keuangan Daerah: Akuntansi Sektor Publik*. Salemba Empat.
- Heriasman, & Suwaji. (2021). Efektifitas dan Kontribusi Laba Badan Usaha Milik Daerah (BUMD) terhadap Pendapatan Asli Daerah (PAD) Kabupaten Indragiri Hulu. *Sultanist: Jurnal Manajemen dan Keuangan*, 9(1), 60–68. <https://doi.org/10.37403/sultanist.v9i1.245>
- Ihwandi, L. R., & Khoirunurrofik, K. (2023). Regional Financial Performance and Inclusive Economic Development: Empirical Evidence From Provinces in Indonesia. *Jurnal Bina Praja*, 15(2), 417–429. <https://doi.org/10.21787/jbp.15.2023.417-429>
- Joeliaty. (2024). The Impact of Infrastructure Development, Education, Tourism, and Agriculture on Regional Economic Growth in Indonesia. *The Es Economics and Entrepreneurship*, 2(03), 193–207. <https://doi.org/10.58812/esee.v2i03.235>
- Kementerian Keuangan. (2024). *Buku Saku Transfer ke Daerah*. Kementerian Keuangan.
- Khoirunurrofik. (2023). *Metodologi Penelitian: Dampak Fiskal bagi Perekonomian Daerah* [Research Methodology: Fiscal Impact on Regional Economies] [PowerPoint Slides]. Presented at the Secondment Program and Capacity Building of Regional Chief Economist.
- Kuncoro, H. (2012). Does the Local Economic Governance in Indonesia Perform an Improvement? *Buletin Ekonomi Moneter dan Perbankan*, 15(1), 85–107. <https://doi.org/10.21098/bemp.v15i1.58>
- Malla, M. H., & Pathranarakul, P. (2022). Fiscal Policy and Income Inequality: The Critical Role of Institutional Capacity. *Economies*, 10(5), 115. <https://doi.org/10.3390/economies10050115>
- Micek, G., Gwosdz, K., Kocaj, A., Sobala-Gwosdz, A., & Świgost-Kapocsi, A. (2022). The Role of Critical Conjunctures in Regional Path Creation: A Study of Industry 4.0 in the Silesia Region. *Regional Studies*, 9(1), 23–44. <https://doi.org/10.1080/21681376.2021.2017337>
- Mongi, C., & Saidi, K. (2023). The Impact of Corruption, Government Effectiveness, FDI, and GFC on Economic Growth: New Evidence from Global Panel of 48 Middle-Income Countries. *Journal of the Knowledge Economy*, 15(3), 10696–10721. <https://doi.org/10.1007/s13132-023-01509-0>
- Pituch, K. A., & Stevens, J. P. (2015). *Applied Multivariate Statistics for the Social Sciences*. Routledge. <https://doi.org/10.4324/9781315814919>
- Prasetyo, P. E., Setyadharna, A., & Rahayu Kistanti, N. (2020). Potential of New Institutional Economics for Rural Community Development. *SHS Web of Conferences*, 86, 01015. <https://doi.org/10.1051/shsconf/20208601015>
- Priambodo, A. P., & Djirimu, M. A. (2024). Government Intervention Strategy in Poverty Reduction: Study on the District and City in Indonesia Across 2016–2023. *Jurnal Bina Praja*, 16(3), 489–508. <https://doi.org/10.21787/jbp.16.2024.489-508>
- Pugh, R., Van Veelen, B., Lundmark, M., & Marques, P. (2024). At the Intersection of Economic History and Contemporary Regional Development: Insights From a Swedish 'Bruksort.' *European Planning Studies*, 32(11), 2422–2439. <https://doi.org/10.1080/09654313.2024.2347932>

- Putra, R., Pujiono, Kusumaningtias, R., Ardhiarisca, O., & Wijayanti, R. R. (2024). Value for Money Financial Governance, Level of Investment, and Quality of Regional Development in Indonesia. *Journal of Infrastructure, Policy and Development*, 8(8), 3473. <https://doi.org/10.24294/jipd.v8i8.3473>
- Rokhmatussa'dyah, A., & Suratman. (2010). *Hukum Investasi dan Pasar Modal*. Sinar Grafika.
- Sa'bani, S. R., Saputro, G. E., & Suwito, S. (2025). The Role of Local Governments in Optimizing Regional Original Revenue: A Role Theory Perspective on Fiscal Autonomy. *PPSDP International Journal of Education*, 4(1), 347–361. <https://doi.org/10.59175/pijed.v4i1.412>
- Santoso, P. (2017). *The Effects of Local Taxes and Charges Assignment Policy on the Local Governments' Fiscal Autonomy and Local Economy in Indonesia* [Master Thesis, International Institute of Social Studies]. <https://thesis.eur.nl/pub/41812>
- Schouame, E. S., Okobalemba, J., & Tamba, I. (2023). Effects of Government Spending on Productive Capacity. *Revue Economie, Gestion et Société*, 1(39). <https://doi.org/10.48382/IMIST.PRSM/REGS-V1I39.42382>
- Setiawati, T., & Utomo, D. C. (2024). Pengaruh Tekanan Fiskal, Belanja Modal dan Pembiayaan Penyertaan Modal Daerah terhadap Transparansi (Studi pada Pemerintah Daerah Provinsi di Indonesia Tahun 2020–2022). *Diponegoro Journal of Accounting*, 13(4). <https://ejournal3.undip.ac.id/index.php/accounting/article/view/47970>
- Sidik, S. H., & Sutrisno, B. (2020). *Hukum Investasi di Indonesia*. Rajawali Pers.
- Sijabat, R. (2022). The Association of Economic Growth, Foreign Aid, Foreign Direct Investment and Gross Capital Formation in Indonesia: Evidence from the Toda–Yamamoto Approach. *Economies*, 10(4), 93. <https://doi.org/10.3390/economies10040093>
- Sinurat, M. (2015). *Reviu Laporan Keuangan Pemerintah Daerah*. Pustaka Rahmat.
- Slack, E. (2017). *How Much Local Fiscal Autonomy Do Cities Have? A Comparison of Eight Cities around the World* (19). [https://imfg.org/research/doc/?doc\\_id=432](https://imfg.org/research/doc/?doc_id=432)
- Sugiyanto, H. (2020). Analisis Investasi Pemerintah Pusat pada Lembaga Keuangan Internasional. *Financial: Jurnal Akuntansi*, 6(2), 179–187. <https://doi.org/10.37403/financial.v6i2.162>
- Tan, A. (2020). Raising Local Fiscal Autonomy in the Local Autonomy Management (A Study in Bogor Regency). *Jurnal Bina Praja*, 12(1), 53–63. <https://doi.org/10.21787/jbp.12.2020.53-63>
- Uchimura, H., & Suzuki, Y. (2009). *Measuring Fiscal Decentralization in the Philippines*. <https://doi.org/10.20561/00037955>
- Ujjianto, Moehaditoyo, S. H., & Amin, M. (2017). *Keuangan Negara*. Penerbit Indomedia Pustaka.
- Wondiwoi, A., Hafizrianda, Y., & de Quelyoe, F. Y. (2017). Analisis Faktor-Faktor yang Mempengaruhi Kapasitas Fiskal di Kota Jayapura. *Ekonomi & Pembangunan: Jurnal Kajian Ekonomi dan Studi Pembangunan*, 4(2). <https://doi.org/10.56076/jkesp.v4i2.2088>
- Yahya, C. M., & Syafitri, W. (2024). Analisis Pengaruh Penyertaan Modal dan Laba BUMD terhadap Pendapatan Asli Daerah di Provinsi Jawa Tengah. *Journal of Development Economic and Social Studies*, 3(4), 994–1008. <https://doi.org/10.21776/jdessa.2024.03.4.02>
- Yuniar, M. R., & Firmansyah, A. (2023). The Transparency Level of Local Governments in Indonesia: Does the Level of Financial Health Matter? *Jurnal Tata Kelola dan Akuntabilitas Keuangan Negara*, 9(1), 123–150. <https://doi.org/10.28986/jtaken.v9i1.1195>
- Zhao, R., & He, P. (2024). Government Spending Efficiency, Fiscal Decentralization and Regional Innovation Capability: Evidence From China. *Economic Analysis and Policy*, 84, 693–706. <https://doi.org/10.1016/j.eap.2024.08.033>