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The Role of E-Budgeting in Mediating the Effect of Regional Budget Allocation on Poverty Reduction: Evidence from Tanjung Jabung Barat Regency

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Abstract

Background: Despite increasing *APBD* allocations in Tanjung Jabung Barat Regency, poverty reduction remains limited, suggesting that budget size alone is insufficient without effective governance tools. *E-budgeting* is proposed to enhance transparency, accountability, and effectiveness, although empirical evidence at the district level remains limited.
Objective: This study analyzes the effect of *APBD* on poverty reduction, examines the mediating role of *e-budgeting*, and evaluates the *APBD* management strategy through SWOT analysis.
Methods: A quantitative approach using PLS-SEM was employed with 25 purposively sampled *OPDs* involved in *APBD*planning and poverty reduction programs. Data were collected through structured questionnaires using a 5-point Likert scale, while SWOT analysis was used to assess internal and external strategic factors.
Results: *APBD* has no direct effect on poverty reduction, as indicated by the path coefficient of -0.036 and p-value of 0.776. However, its effect becomes significant when mediated by *e-budgeting* (*APBD* → *e-budgeting* = 0.667, p = 0.000; *e-budgeting* → poverty reduction = 0.673, p = 0.000), demonstrating the mediator's role in improving transparency and effectiveness. The SWOT analysis shows that the *APBD* management strategy is favorable, as it leverages internal strengths and external opportunities.
Conclusion: *E-budgeting* is essential for translating *APBD* allocations into effective poverty reduction. Strengthening digital governance and integrating *e-budgeting* with poverty monitoring systems are recommended.

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INTRODUCTION

Targeted budget management is an important factor in improving public welfare and reducing poverty rates (Huda & Kumalasari, 2024; Molchanov et al., 2021). The central government, through the State Revenue and Expenditure Budget (*Anggaran Pendapatan dan Belanja Negara*/APBN), plays a strategic role in supporting national development, particularly through budget allocations for the social welfare sector. In 2024, the government allocated a budget of IDR 3,325.1 trillion, with the largest expenditure assigned to central government spending, amounting to IDR 2,467.5 trillion, and Transfers to the Regions (*Transfer ke Daerah*)

amounting to IDR 857.6 trillion. This budget allocation includes various programs aimed at reducing poverty rates and improving people's living standards.

Table 1. Development of Regional Revenue and Expenditure Realization of West Tanjung Jabung Regency 2020 – 2024

Year	Regional Revenue (Rp)	Total Spend (Rs)	Difference (Rp)
2020	1.421.415.183.080,31	1.390.378.974.972,75	31.036.208.107,56
2021	1.540.399.130.692,64	1.443.086.591.986,01	97.312.538.706,63
2022	1.665.016.502.341,07	1.580.800.629.926,11	84.215.872.414,96
2023	1.489.441.724.611,46	1.727.370.116.876,57	-237.928.392.265,11
2024	2.009.495.013.611,59	2.068.293.546.342,85	-58.798.532.731,26

Source: Tanjung Jabung Barat Regional Finance and Assets Agency 2024

This table illustrates the fluctuating development of regional income and expenditure, reflecting the dynamics of regional fiscal management. From 2020 to 2022, West Tanjung Jabung Regency experienced a budget surplus. This indicates that revenue realization exceeded expenditures, with positive differences of IDR 31.03 billion (2020), IDR 97.31 billion (2021), and IDR 84.21 billion (2022), respectively. This condition reflects the existence of fiscal space that can be allocated for priority programs, including poverty alleviation.

Figure 1. Poverty and per West Tanjung Jabung Regency, December 2020-March 2024
Source: BPS Tanjung Jabung Barat Regency

Socioeconomic data shows that in 2021, the number of poor people reached 36.10 thousand, or around 10.75 percent of the total population. This figure decreased in 2022 to 33.95 thousand people (10.00 percent), and then decreased slightly again in 2023 to 33.61 thousand people (9.79 percent). This decline indicates an improvement in welfare, but the pace is relatively slow when compared to the considerable increase in the allocation of public spending during the same period. This phenomenon shows that the increase in regional spending has not fully impacted poverty alleviation.

The implementation of e-budgeting in local governments aims to increase transparency and accountability in regional budget management (Fikriyah & Trisnaningsih, 2022; Sakti et al., 2023; Santiko & Marina, 2025). This digital system facilitates public access to budget information, thereby encouraging more active public participation and oversight (Bolívar, 2025; Mærøe et al., 2021).

To strengthen the conceptual argument of this research, a bibliometric analysis was conducted using the VOSviewer software on scientific publications relevant to APBD management, e-budgeting implementation, and poverty alleviation strategies. The visualization results show that there are two main clusters that interact closely with each other in the keyword co-occurrence map.

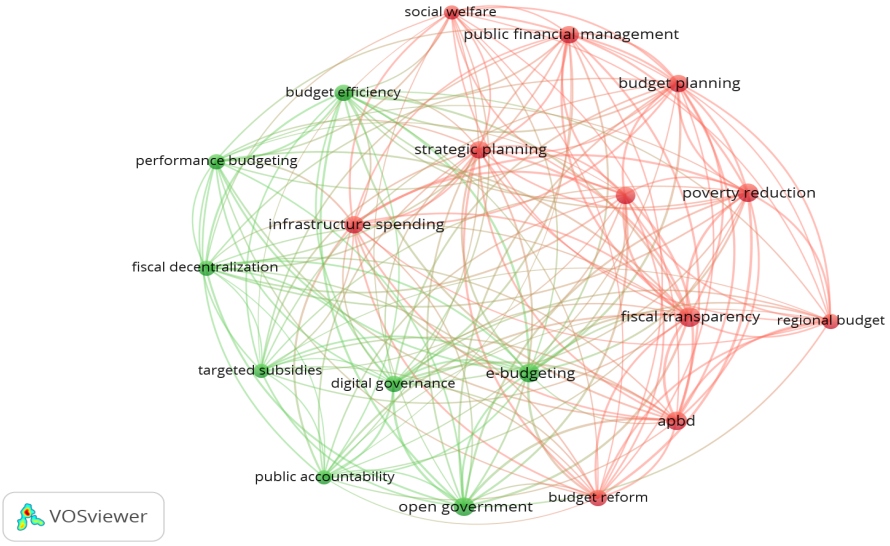


Figure 2. Vosviewer

VOSviewer Results

The first cluster (marked in red) represents the fiscal policy dimension and social development planning strategy. The dominant keywords in this cluster include poverty alleviation, fiscal transparency, strategic planning, public financial management, and budget planning. This cluster indicates that poverty alleviation cannot be separated from transparency, careful budget planning, and responsible fiscal management.

The second cluster (marked in green) focuses on digital technology and public budget efficiency. Keywords such as e-budgeting, digital governance, budget efficiency, performance budgeting, and public accountability dominate this cluster. The presence of e-budgeting as the main node in this cluster indicates that the digital budgeting system is not only an administrative tool but also plays a strategic role in supporting accountable and efficient governance.

Despite growing empirical attention to e-budgeting in Indonesian local governments, three significant gaps remain. First, the theoretical gap: most studies treat e-budgeting as a standalone outcome variable rather than as a mediating mechanism linking budget inputs to poverty outcomes, leaving the causal pathway underspecified. Second, the empirical gap: existing studies focus predominantly on provincial governments or urban municipalities, with limited evidence from regency-level governments in resource-dependent regions such as Tanjung Jabung Barat. Third, the methodological gap: the integration of PLS-SEM mediation analysis and SWOT strategic analysis in a unified framework has not previously been applied in this context. This study addresses all three gaps simultaneously.

Tanjung Jabung Barat Regency presents a compelling budget-poverty paradox: APBD allocations grew by 34.92% in 2024, yet poverty declined by only 0.96 percentage points over three years (from 10.75% in 2021 to 9.79% in 2023). This budget-poverty disconnect risks being self-reinforcing—weak monitoring leads to mis-targeted spending, which reduces development impact, and in turn undermines political support for digital governance reform. Furthermore, as Indonesia accelerates the national e-budgeting mandate under Government Regulation No. 12 of 2019, regency-level evaluations of implementation effectiveness are urgently needed to identify the governance conditions that enable APBD allocations to generate measurable poverty reduction outcomes.

Research Novelty and Objectives: This study makes three distinct contributions. First, it provides the first empirical PLS-SEM test of e-budgeting as a formal mediator between APBD allocation and poverty reduction at the regency level in Jambi Province. Second, it analyzes the dynamics of the budget surplus-to-deficit reversal (from +IDR 97.3 billion in 2021 to -IDR 237.9 billion in 2023) and its governance implications. Third, it produces SWOT-based strategic recommendations calibrated to the institutional context of Tanjung Jabung Barat Regency. The study aims to: (1) examine the direct effect of APBD on poverty reduction; (2) test the mediating

role of e-budgeting implementation; and (3) formulate strategic recommendations for APBD management improvement.

METHOD

This study employed an explanatory quantitative research design with a sequential integration approach. The primary analytical method was Partial Least Squares Structural Equation Modeling (PLS-SEM), which enabled simultaneous testing of the relationships among APBD allocation, e-budgeting implementation, and poverty reduction, including the mediation pathway. Complementary descriptive statistics were used to characterize APBD and poverty trend data. SWOT analysis was applied as a strategic diagnostic tool to translate empirical findings into policy recommendations. This mixed-method integration was explicitly structured: (1) SEM for causal-mediation analysis, (2) descriptive analysis for trend interpretation, and (3) SWOT for strategic synthesis—each serving a distinct and complementary analytical purpose. The quantitative Likert-scale questionnaire served as the primary instrument for SEM, while the SWOT questionnaire employed weighted rating scores for IFAS and EFAS calculations.

Research refers to anything that can cause a difference or variation in a value. This variation can occur in one object or the same individual during a certain period, or it can appear simultaneously in different objects or individuals (Sekaran & Bougie, 2016). According to Sugiyono (2018), the object of research is a scientific focus used to obtain data for a specific purpose. The data collected must be objective, valid, and reliable, so that it can provide accurate information about the phenomenon being studied. The object of this study was the Regional Apparatus Organization (OPD) in West Tanjung Jabung Regency.

According to Sugiyono (2018), the location of the research refers to the place or area chosen by the researcher to collect data related to the object being studied. The selection of this location was crucial because it could affect the quality and credibility of the data obtained. In choosing a location, the researcher ensured that it was in accordance with the goals and focus of the research. The research was carried out at the West Tanjung Jabung Regency Government. According to Sekaran (2016), population refers to a group of individuals, events, or other entities that are the focus of research. This population formed the basis for drawing conclusions based on statistical analysis conducted on samples taken from it. In quantitative research, population refers to a generalizable area consisting of objects or subjects with certain qualities and characteristics that the researcher determined for analysis and conclusion.

Of the total 31 Regional Apparatus Organizations (OPDs) in Tanjung Jabung Barat Regency, 25 were selected as the final sample through purposive sampling. Exclusion criteria removed OPDs lacking direct involvement in APBD planning or poverty-related program implementation: the Public Relations and Protocol Section, Council Secretariat, Civil Service Police Unit, Fire Service, Inspectorate, and Regional Planning Management Agency. The final 25 OPDs constituted the unit of analysis. Within each OPD, questionnaires were distributed to officials directly involved in budgeting processes—specifically Heads of OPD (Kepala OPD), Sub-division heads for Planning and Finance, and designated e-budgeting operators—yielding an estimated total of 75 respondents across the 25 OPDs (approximately 3 respondents per OPD).

This sample size, while modest, was consistent with PLS-SEM requirements for small-sample research with constructs having fewer than 7 indicators (J. F. Hair et al., 2017). The Likert scale used was a 5-point scale (1 = Strongly Disagree to 5 = Strongly Agree). Indicator sources were adopted from established scales: APBD indicators; e-budgeting indicators from (Prayoga & Yuhertiana, 2021); poverty reduction indicators from (Alkire & Foster, 2011). Validity was assessed through outer loadings (threshold: ≥ 0.70) and AVE (≥ 0.50); reliability through Cronbach's alpha and composite reliability (≥ 0.70). A pilot test of 5 OPDs was conducted prior to full data collection to verify instrument clarity.

Criteria for inclusion were: 1) Being directly involved in planning, budgeting, implementing, or evaluating APBD policies. 2) Having programs and activities directly or indirectly related to poverty issues. 3) Being structurally connected to an e-budgeting-based planning and budgeting information system.

Based on these criteria, 25 OPDs were included as samples. OPDs that were not included

comprised the Public Relations and Protocol Section, the Council Secretariat, the Pamong Praja Police Unit, the Fire Service, the Inspectorate, and the Regional Plan Management Agency.

This study complied with established research ethics principles. Informed consent was obtained from all OPD respondents prior to data collection, with participation being entirely voluntary and without coercion. Respondents were assured of their anonymity and the confidentiality of individual responses; only aggregate-level data were reported. Official institutional permission was obtained from the Regional Research and Innovation Coordination Agency (BRIN) of Tanjung Jabung Barat Regency before field data collection commenced. All data collected through questionnaires and official financial records were used exclusively for academic research purposes and stored securely. The authors declared no conflict of interest in conducting or reporting this research.

Data compilation used both primary and secondary sources. Primary data sources were directly accessed by the researchers, while secondary data sources were obtained from pre-existing documents (Sugiyono, 2018). Primary data were collected through observations, interviews, and questionnaire distribution (Sekaran & Bougie, 2016).

To meet the first research objective, descriptive statistical analysis was employed. This approach was applied when the researcher aimed to explain or describe the data without drawing generalizable conclusions (Sugiyono, 2018). The main purpose of descriptive statistics was to summarize, organize, and simplify the obtained data. Data presentation in this method included visualization through histograms, line graphs, bar graphs, and frequency distribution. Descriptive analysis was used to analyze the development of the APBD and the poverty rate in West Tanjung Jabung Regency.

To analyze APBD and poverty rate trends in West Tanjung Jabung Regency, the following growth and percentage change formulas were applied. The development or growth of the APBD and poverty from year to year was calculated using these formulas.

$$Gt = Xt - Xt{-}1Xt{-}1 \text{ x } 100\% \quad (3.1)$$

where:

- Gt = Growth rate of variable X in year t (in percent)
- Xt = Variable value in year t
- Xt−1= Value of the variable in the previous year (t−1)

RESULTS AND DISCUSSION

Results

Development of the APBD and Poverty

In this context, the analysis of the development of the APBD and poverty levels is crucial to understanding the extent to which regional fiscal policies have contributed to improving people's welfare. Data on the development of regional income and expenditure, compared with year-to-year poverty trends, can provide insight into whether there is a positive correlation between the two. Although the APBD has increased, poverty has not decreased significantly; therefore, it is necessary to evaluate the effectiveness of the implemented budgeting policies. The discussion in this section highlights the development of the West Tanjung Jabung Regency APBD during the research period.

Table 2. Development of the West Tanjung Jabung Regency Budget for 2020-2024

Year	Revenue (Million Rp)	Revenue Growth (%)	Expenditure (Million Rp)	Spending Growth (%)
2020	1.421.415,18	-	1.390.378,97	-
2021	1.540.399,13	8,37	1.443.086,59	3,79
2022	1.665.016,50	8,09	1.580.800,63	9,54
2023	1.489.441,72	-10,54	1.727.370,12	9,27
2024	2.009.495,01	34,92	2.068.293,55	19,74

Source: Regional Finance and Assets Agency of Tanjung Jabung Barat Regency (processed) 2024

Based on data from the 2020–2024 West Tanjung Jabung Regency APBD, both revenue and regional expenditure demonstrate an overall upward trend, although revenue decreased by 10.54% in 2023. Regional revenue is projected to increase sharply in 2024 by 34.92%, accompanied by a 19.74% rise in expenditure, indicating an acceleration of budget allocation for development and public services. This trend reflects the strengthening of regional fiscal capacity and the commitment of local governments to adjust spending according to development priorities and community needs.

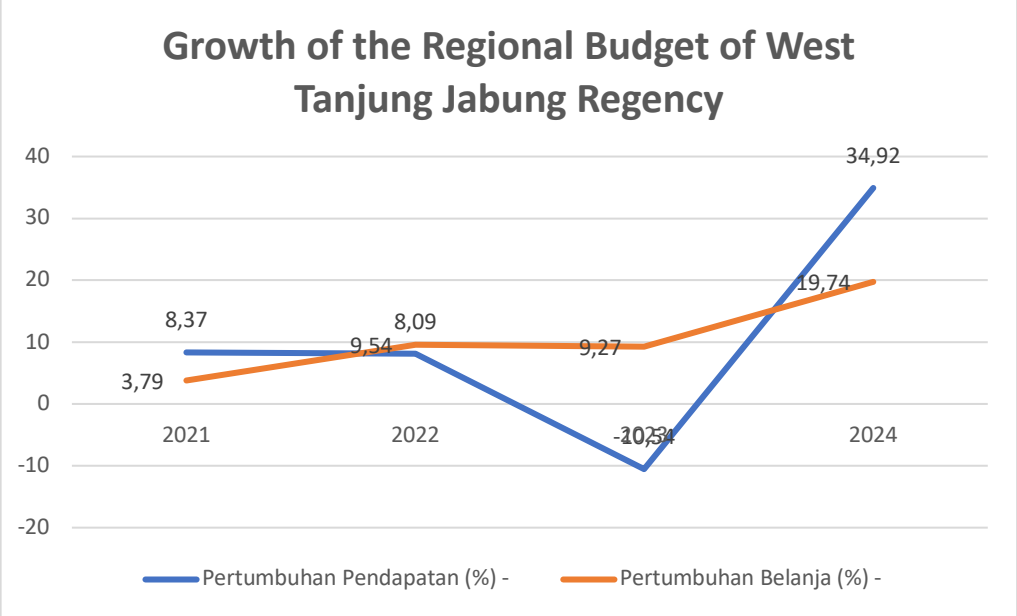


Figure 2. Growth of the West Tanjung Jabung Regency APBD in 2020-2024
Source: Regional Finance and Assets Agency of Tanjung Jabung Barat Regency (processed) 2024

In general, the development pattern shows fluctuations influenced by the national macroeconomic situation, the fiscal condition of the central government, and the fiscal capacity of the regions in optimizing sources of income. In 2020, the realization of regional revenue was recorded at IDR 1.421 trillion, with the realization of expenditure at IDR 1.390 trillion. This figure is relatively stable, although it must be acknowledged that 2020 was the initial phase of the COVID-19 pandemic, which had a significant impact on the ability of local governments to optimize PAD and central transfers.

Entering 2021, revenue increased to IDR 1.540 trillion, a growth of 8.37 percent, while expenditure increased by 3.79 percent to IDR 1.443 trillion. This increase reflects the beginning of fiscal recovery after the first year of the pandemic, during which the central government, through the General Allocation Fund (DAU), Revenue Sharing Fund (DBH), and Regional Incentive Fund (DID), provided additional fiscal space for the regions. However, the lower growth in expenditure compared to revenue indicates a pattern of fiscal prudence by local governments in allocating budgets, particularly in anticipation of economic uncertainty.

SEM Analysis Results

Results of the Measurement Model Testing (Outer Model)

1. Convergent Validity

To determine how accurately the indicators reflected the intended constructs, convergent validity testing was executed during this step. The measurement depended on outer loadings, where scores exceeding 0.70 signified good validity, while scores ranging between 0.50 and 0.60 were still tolerated as sufficient. The final outcomes of this analysis concluded whether the indicators fit the overall research framework.

Table 3. Outer loading values

Latent Variable	Indicator	Loading Factor	Model Evaluation
Regional Revenue and Expenditure Budget (APBD)	X1.1	0.711	Valid
	X1.2	0.733	Valid
	X1.3	0.732	Valid
	X1.4	0.723	Valid
	X1.5	0.724	Valid
	X1.6	0.798	Valid
	X1.7	0.790	Valid
	X1.8	0.803	Valid
	X1.9	0.811	Valid
	X1.10	0.721	Valid
	X1.11	0.706	Valid
	X1.12	0.739	Valid
E-Budgeting	Z1.1	0.722	Valid
	Z1.2	0.721	Valid
	Z1.3	0.737	Valid
	Z1.4	0.704	Valid
	Z1.5	0.755	Valid
	Z1.6	0.769	Valid
	Z1.7	0.773	Valid
	Z1.8	0.715	Valid
	Z1.9	0.735	Valid
	Z1.10	0.722	Valid
	Z1.11	0.711	Valid
	Z1.12	0.754	Valid
	Z1.13	0.756	Valid
	Z1.14	0.728	Valid
	Z1.15	0.719	Valid
	Z1.16	0.777	Valid
Poverty Reduction	Y1.1	0.754	Valid
	Y1.2	0.776	Valid
	Y1.3	0.727	Valid
	Y1.5	0.788	Valid
	Y1.6	0.769	Valid
	Y1.7	0.827	Valid
	Y1.8	0.806	Valid
	Y1.9	0.735	Valid
	Y1.10	0.835	Valid

Y1.11	0.795	Valid
Y1.12	0.798	Valid
Y1.13	0.843	Valid
Y1.14	0.853	Valid

Based on the convergent validity analysis, all study indicators complied with the set benchmarks by scoring factor loadings above 0.70 or falling into the acceptable 0.60 to 0.70 span. The loading ranges were recorded at 0.706 to 0.811 for the APBD variable, 0.704 to 0.777 for E-Budgeting, and 0.727 to 0.853 for Poverty Reduction, which confirms that the latent constructs are well-represented by their respective indicators.

Support for convergent validity is further established because the Average Variance Extracted (AVE) values surpassed the 0.50 threshold, meaning every construct clarifies over half of the variance of its indicators. As a result, each research construct demonstrates acceptable convergent validity and is qualified to move forward to the next step of the evaluation.

Table 4. Average Variance Extracted (AVE) Values for Each Construct

Construct	Average Variance Extracted (AVE)
Regional Revenue and Expenditure Budget (APBD)	0.563
E-Budgeting	0.544
Poverty Reduction	0.623

Source: Primary data analyzed using SmartPLS, 2025.

The AVE results demonstrate that every research construct satisfies the requirements for convergent validity by achieving scores higher than 0.50. Specifically, the APBD construct reached an AVE value of 0.563, E-Budgeting recorded 0.544, and Poverty Reduction attained 0.623, confirming that each construct accounts for more than 50% of the variance among its indicators. As a result, all constructs are verified as valid and appropriate for further research analysis.

2. Discriminant Validity (Discriminant Validity)

The Fornell-Larcker criterion was used to test discriminant validity, ensuring that each indicator measures its own construct better than any other. This condition is met when the square root of a construct's AVE is greater than its correlation coefficients with remaining constructs. The table below presents the cross-loading results from this test.

Table 5. Fornell-Larcker Criterion Values

Variable	APBD	E-Budgeting	Poverty Reduction
APBD (Regional Revenue and Expenditure Budget)	**0.750**		
E-Budgeting	0.667	**0.738**	
Poverty Reduction	0.413	0.649	**0.789**

Source: Primary data analyzed using SmartPLS, 2025.

Fornell-Larcker testing indicates that discriminant validity is satisfied for all constructs, as each one shows a stronger relationship with its own indicators than with other constructs. This confirms the distinct nature of each variable and rules out any issues with measurement overlap, making the research model suitable for the subsequent structural analysis stage.

3. Composite Reliability and Cronbach's Alpha

To measure internal consistency, reliability testing was conducted using Cronbach's Alpha as the lower benchmark and Composite Reliability as a supporting measure. Constructs are considered reliable when Cronbach's Alpha is above 0.70, though values around 0.60 are still acceptable in the context of exploratory research.

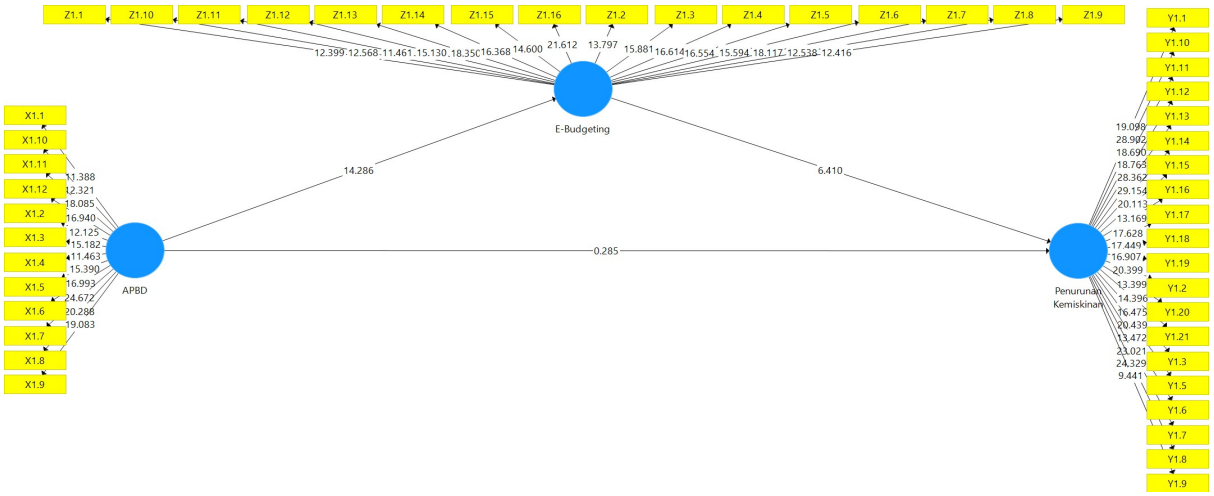
Table 6. Research Construct Reliability Values

Variabel Laten	*Cronbach's Alpha*	*rho_A*	*Composite Reliability*
APBD (Regional Revenue and Expenditure Budget)	0,929	0,933	0,939
E-Budgeting	0,944	0,945	0,950
Poverty Reduction	0,968	0,973	0,971

Source: Primary data analyzed using SmartPLS, 2025.

Every construct evaluated in this research, including the Regional Budget (APBD), E-Budgeting, and Poverty Reduction, proved to be reliable because the scores for Cronbach's Alpha, rho_A, and Composite Reliability were all greater than 0.70. These results confirm that the research instruments meet the necessary validity and reliability standards to proceed to structural equation modeling.

Results of the Structural Model Testing (Inner Model)



Source: Primary data analyzed using SmartPLS, 2025

Figure 3. Structural Model Estimation Results (Path Coefficients)

The model assessment relies on the R-Square value to show the proportion of variation in the dependent variable explained by the independent variables. These values indicate relationship strength, with 0.67 classified as strong, 0.33 as moderate, and 0.19 as weak. The resulting R-Square figures for this study are provided below:

Table 7. R-Square and Adjusted R-Square Values for Research Variables

Variables	*R-Square*	*R-Square Adjusted*
E-Budgeting	0,445	0,439
Poverty Reduction	0,423	0,411

Source: Primary data analyzed using SmartPLS, 2025.

The R-Square results show that the APBD explains 44.5% of the variance in E-Budgeting (R-Square = 0.445, Adjusted R-Square = 0.439), with the remaining 55.5% attributed to outside factors. Meanwhile, the APBD and E-Budgeting jointly account for 42.3% of the variation in Poverty Reduction (R-Square = 0.423, Adjusted R-Square = 0.411). Under Chin's (1998) criteria, both values fall into the moderate category, indicating that the model has an acceptable level of explanatory power for these endogenous variables.

Hypothesis Testing

The bootstrapping method in SmartPLS 3.0 was used for hypothesis testing to determine relationship significance. Relationships are considered significant at a 5% level if the t-statistic is greater than 1.98 or the p-value is less than 0.05. The sign of the original sample coefficient

indicates the direction of the effect, with positive values showing a positive relationship and negative values indicating a negative one. The direct effect results are summarized in the table below.

Table 9. Hypothesis Testing Results (Path Coefficient)

	***Original Sample* (O)**	***Sample Mean* (M)**	***Standard Deviation* (STDEV)**	***T Statistics* (|O/STDEV|)**	**P *Values***
Local Budget (APBD) -> E-Budgeting	0,667	0,674	0,047	14,286	0,000
Local Budget (APBD) -> Poverty Reduction	-0,036	-0,038	0,125	0,285	0,776
E-Budgeting -> Poverty Reduction	0,673	0,684	0,105	6,41	0,000

Source: Primary data analyzed using SmartPLS, 2025.

1. The APBD does not have a significant effect on poverty reduction, as indicated by a path coefficient of -0.036, a t-statistic of 0.285, and a p-value of 0.776. Thus, Hypothesis 1 is rejected.
2. The APBD has a positive and significant effect on E-Budgeting with a coefficient of 0.667, a t-statistic of 14.286, and a p-value of 0.000. These results indicate that improved APBD management will enhance the implementation of E-Budgeting. Therefore, Hypothesis 2 is accepted.
3. E-Budgeting has a positive and significant effect on poverty reduction with a coefficient of 0.673, a t-statistic of 6.410, and a p-value of 0.000. This finding indicates that the effective implementation of E-Budgeting can support poverty reduction through increased transparency, accountability, and efficiency in budget management. Thus, Hypothesis 3 is accepted.

Next, to address the third hypothesis stating that the Regional Budget (APBD) influences public spending oriented toward poverty reduction through the implementation of E-Budgeting, a test of the indirect effect was conducted. The results of the indirect effect calculation are presented in the following table:

Table 10. Results of the Indirect Effect Test

	***Original Sample* (O)**	***Sample Mean* (M)**	***Standard Deviation* (STDEV)**	***T Statistics* (|O/STDEV|)**	**P Values**
Local Budget -> E-Budgeting -> Poverty Reduction	0,449	0,461	0,076	5,898	**0,000**

Source: Primary data analyzed using SmartPLS, 2025.

The analysis results indicate that the indirect effect of the Regional Budget (APBD) on public spending aimed at poverty reduction through E-Budgeting is positive and significant. This is evidenced by a path coefficient of 0.449, a t-statistic of 5.898 (>1.96), and a p-value of 0.000 (<0.05). This confirms that E-Budgeting acts as a mediating variable that strengthens the relationship between the APBD and poverty reduction. Therefore, it can be concluded that Hypothesis 3 is accepted.

Since the direct effect of the quality of APBD management on the effectiveness of public spending that is oriented toward poverty reduction is not significant, while the indirect effect

through e-budgeting is significant, then e-budgeting acts as a full mediator (full mediation).

SWOT Analysis Results

After obtaining the weights and ratings, the next step is to calculate the score by multiplying the average weight and the average rating for each indicator. The results of this calculation provide an overview of the position of internal and external strategic factors that affect poverty alleviation policies in West Tanjung Jabung Regency. This analysis allows for understanding the extent to which strengths, weaknesses, opportunities, and threats influence the direction of local government strategies in reducing poverty levels. The following table presents the results of the average weighting and rating of internal and external strategic factors in poverty alleviation in West Tanjung Jabung Regency.

Table 11. Results of IFAS (Internal Factor Analysis Summary

No	Strength	Weight	Rating	Score
1.	The implementation *of e-budgeting* in my OPD environment has been running consistently from year to year.	0,2	3,17	0,63
2.	The apparatus in my agency already has an adequate understanding in using *the e-budgeting system.*	0,1	3,10	0,31
3.	The e-budgeting *system* helps to create openness in the process of preparing the APBD.	0,2	3,43	0,69
4.	The existence of *e-budgeting* strengthens the effectiveness of the implementation of programs aimed at poverty alleviation.	0,2	3,30	0,66
5.	Coordination between OPDs in the planning and budgeting process is running well.	0,2	3,20	0,64
Total Strength Score				**2,93**
No	**Weakness**	**Weight**	**Rating**	**Score**
1.	There are still employees who do not understand the use of *the e-budgeting* system as a whole.	0,25	2,57	0,64
2.	Technical obstacles such as internet networks or software still often hinder the implementation of *e-budgeting.*	0,2	2,50	0,50
3.	APBD planning in my agency sometimes still relies on a manual system or is not fully digital.	0,2	2,63	0,53
4.	There is no full integration between *the e-budgeting* system and poverty program monitoring.	0,15	2,67	0,40
5.	Activity planning and budget data are still not fully accurate and up-to-date.	0,2	2,70	0,54
Total Weakness Score				**2,61**

Source: Primary data processed, 2025

The results of the IFAS calculation provide a comprehensive overview of internal strengths and weaknesses within the OPD environment. Regarding strengths, a total score of 2.93 indicates that internal factors tend to be positive and support the successful implementation of the system. The consistency of E-Budgeting implementation from year to year is a primary driver, followed by the adequate understanding of the apparatus and effective coordination among OPDs. Furthermore, this system facilitates transparency in the preparation of the APBD and enhances the effectiveness of poverty alleviation programs, demonstrating that internal mechanisms are sufficiently robust to support the transparency, accountability, and effectiveness functions of regional budgets.

Conversely, internal weaknesses are reflected in a total score of 2.61, which, although not critically low, still require attention. Key factors limiting the optimization of E-Budgeting include

employees who do not fully understand the system, technical obstacles such as internet connectivity or software limitations, and certain APBD planning processes that still rely on manual methods. Moreover, full integration between the E-Budgeting system and the monitoring of poverty alleviation programs has not yet been achieved, and data on activity planning and budgeting are not entirely accurate or up-to-date.

Overall, the IFAS analysis indicates that E-Budgeting within the OPD environment possesses a sufficiently strong internal foundation to support program objectives, yet attention to the identified weaknesses is necessary for optimal implementation. Emphasizing improvements in employee understanding, technical system capabilities, and the accuracy and integration of data will further enhance the effectiveness of E-Budgeting in managing the APBD and promoting poverty reduction. Subsequently, EFAS calculations are performed, as follows.

Table 12. EFAS (External Factor Analysis Summary) Calculation Results

No	Opportunity	Weight	Rating	Score
1.	Policy support from the central government has further encouraged the use of *e-budgeting systems* in the regions.	0,25	3,37	0,84
2.	Advances in information technology provide opportunities to improve the efficiency of regional budget management.	0,2	3,30	0,66
3.	Public participation in monitoring and supervising the use of the regional budget is increasingly open.	0,15	3,10	0,47
4.	The use of digital systems provides a great opportunity to increase public financial accountability.	0,25	3,23	0,81
5.	Cooperation with external parties such as academics, NGOs, or private institutions has the potential to support the success of poverty alleviation programs.	0,15	3,13	0,47
Total Opportunity Score				**3,25**
No	**Threats**	**Weight**	**Rating**	**Score**
1.	The unpreparedness of technological infrastructure in several OPDs hinders the optimization of *the e-budgeting* system.	0,25	2,67	0,67
2.	There is still a bureaucratic work culture that does not support transparency, hindering the implementation of *the e-budgeting* system as a whole.	0,2	2,67	0,53
3.	The low awareness of some apparatus about the importance of budget accountability can weaken the effectiveness of *e-budgeting*.	0,2	2,70	0,54
4.	The difference in the level of understanding between OPDs in the use of *e-budgeting* makes it difficult to integrate the system.	0,15	2,67	0,40
5.	Data security threats such as hacking or information leakage are a risk in the government's digital financial system.	0,2	2,53	0,51
Total Threat Score				**2,65**

Source: Primary data processed, 2025

The results of EFAS calculations provide an overview of external opportunities and threats. In terms of opportunities, a total score of 3.25 indicates that overall external conditions are highly supportive of the implementation of E-Budgeting. Policy support from the central

government is the primary factor driving the acceleration of system adoption in the regions. Additionally, advances in information technology and the use of digital systems present significant opportunities to enhance the efficiency of budget management and public financial accountability. Increasing public participation in budget oversight, along with cooperation with external parties such as academics, NGOs, and private institutions, further strengthens the success of poverty alleviation programs through the optimization of E-Budgeting.

Furthermore, the results of the SWOT analysis show the calculated scores for each factor, producing the final values for strength-weakness and opportunity-threat factors related to poverty reduction in West Tanjung Jabung Regency. Using these results, the internal and external factor values can be calculated as follows:

Internal Factors = Total Strengths – Total Weaknesses = 2.93 – 2.61 = 0.32

External Factors = Total Opportunities – Total Threats = 3.25 – 2.65 = 0.60

The SWOT coordinate values for the Grand Strategy Matrix are derived from a supplementary calculation that transforms the raw difference scores (Internal = 0.32; External = 0.60) into scaled quadrant coordinates. Here, the internal axis reflects the net strength–weakness differential, and the external axis reflects the net opportunity–threat differential. The diagram coordinates (X = 1.78; Y = 1.33) represent the scaled positioning within the quadrant visualization and should be interpreted as directional indicators of strategic positioning rather than direct arithmetic outputs of the IFAS/EFAS totals. The Grand Strategy Matrix analysis confirms positioning in Quadrant I (Strength–Opportunity: SO Strategy), consistent with the positive values of both net internal and net external factors.

SWOT Analysis Result Diagram

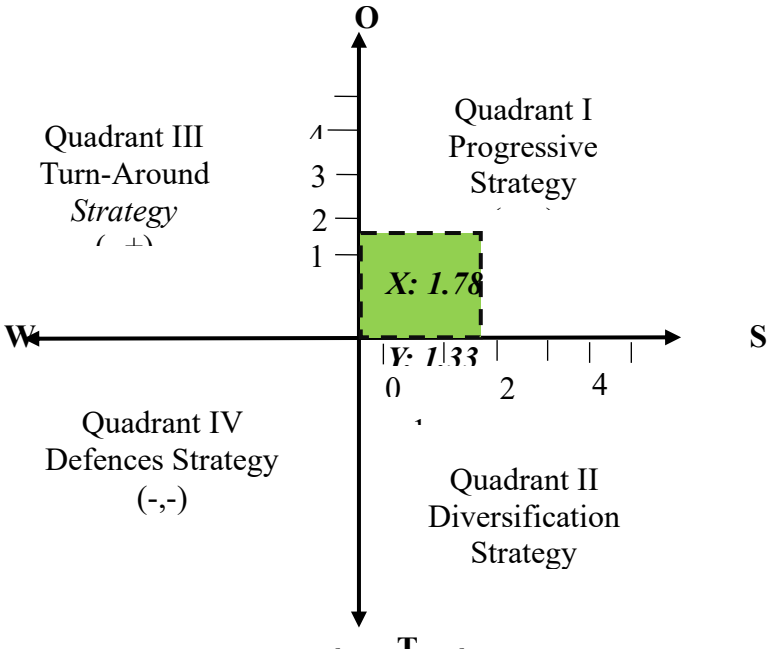


Figure 4. SWOT Analysis Result Diagram
Source: Primary Data processed, 2025

The final values of the internal and external factors are then used to determine the position of the quadrant in the Grand Strategy Matrix. Based on the results of the calculation of internal and external factors, the value of Internal Factors = 1.95 and External Factors = 0.26 was obtained. This position places West Tanjung Jabung Regency in quadrant I of the SWOT matrix, known as the Strength–Opportunities (SO) strategy or aggressive strategy. This is evidenced by the value of the strength factor being greater than the weakness factor and the opportunities exceeding the threats. In other words, the implementation of e-budgeting in the APBD planning process has a strong internal foundation and is supported by a conducive external environment. This position indicates that local governments possess various strengths that can be optimally leveraged to capture existing development opportunities.

Discussions

The structural model results reveal a theoretically important and policy-relevant finding: APBD allocation does not directly reduce poverty (path coefficient = -0.036; p = 0.776), but becomes significantly effective when channeled through e-budgeting (APBD → E-Budgeting: β = 0.667, p = 0.000; E-Budgeting → Poverty Reduction: β = 0.673, p = 0.000). This mediation pattern requires critical interpretation rather than normative affirmation. Why does the direct budget-poverty link fail? The evidence points to structural governance problems: the expenditure composition of Tanjung Jabung Barat's APBD appears dominated by apparatus and employee spending rather than productive public investment directed at the poor.

As Handayani (2022) documented across Indonesian provinces, even significant increases in total regional expenditure often fail to reduce poverty when the spending structure is biased toward bureaucratic overhead. APBD allocations in Sumatran districts are disproportionately absorbed by administrative activities, limiting their direct impact on poverty. In the case of Tanjung Jabung Barat, the budget shifted from a surplus (+IDR 97.3 billion in 2021) to a significant deficit (-IDR 237.9 billion in 2023), yet poverty declined by only 0.21 percentage points in that period — strongly suggesting that political budget pressures, spending inefficiencies, or weak targeting mechanisms undermine the poverty-reduction effectiveness of nominal budget growth. The critical implication is that increasing the APBD without simultaneously improving governance quality — specifically through e-budgeting — is unlikely to generate meaningful poverty reductions.

Furthermore, the APBD demonstrated a contribution to reducing poverty rates with a significant total impact, although its previous direct influence was not evident. This indicates that the existence of E-Budgeting as a mediating variable plays an important role in bridging the effectiveness of APBD management so that its impact is felt in real terms in reducing poverty.

although there has been a significant increase in total regional expenditure in several provinces in Indonesia, the reduction in poverty rates does not always correspond with the size of the budget allocation. This is especially the case because the portion of spending remains dominated by employee costs compared to productive public spending. The APBD allocation is more absorbed by bureaucratic activities, thereby reducing its direct impact on the poor.

The study results indicate that the allocation of the West Tanjung Jabung Regency APBD does not significantly affect poverty reduction, which can be explained through the perspective of Good Governance theory. Good Governance includes principles such as accountability, transparency, effectiveness, efficiency, participation, and law enforcement (Arsad, 2023; Herasymiuk et al., 2020). In the context of APBD management, this theory emphasizes that the success of regional fiscal policies is not solely determined by the budget size, but by how well governance is applied in the processes of planning, implementation, and supervision.

The failure of the APBD to significantly impact poverty reduction demonstrates that the application of effectiveness and efficiency principles in regional financial governance remains weak. Good Governance demands that every public policy be directed toward fulfilling the interests of the community, especially vulnerable groups such as the poor (Nag, 2018). However, if the budget structure remains dominated by apparatus spending and does not target productive sectors or basic services, achieving equitable welfare distribution becomes challenging.

Additionally, accountability and transparency play a crucial role in ensuring that public funds are allocated according to community priority needs. Good regional financial governance must provide space for community participation in preparing and evaluating the APBD (Mahrani et al., 2026; Rizkiyah, 2024). When this process is closed or lacks participation, the potential for deviations and misalignment with program goals increases.

The significant mediating role of e-budgeting (β = 0.673) can be interpreted through the lens of governance failure theory. E-budgeting functions not merely as a technical tool but as an institutional constraint mechanism: by digitalizing budget planning, approval, and monitoring workflows, it reduces discretionary space where politically motivated budget distortions and leakages occur. Yuliant (2020) Demonstrated that e-budgeting systems in local governments measurably reduced rent-seeking behaviors in public procurement by increasing audit trails and

real-time monitoring capabilities.

In the Tanjung Jabung Barat context, the IFAS analysis reveals that the e-budgeting system "helps to realize openness in the preparation of the APBD and strengthens the effectiveness of poverty alleviation programs" (IFAS Strength Score: 2.93), but persistent weaknesses — including incomplete system integration with poverty monitoring (gap identified in IFAS) and manual fallbacks in budget planning — prevent the full realization of its poverty-reduction potential. This finding aligns with Hakim (2021), who found that e-budgeting effectiveness in DKI Jakarta was significantly constrained by incomplete system integration and uneven user competency across departments — parallels directly observable in the current study's IFAS results.

Thus, the results of this study can be interpreted to suggest that the relationship between the APBD and poverty reduction depends not only on the budget amount but also on the quality of local governance. The application of Good Governance principles such as accountability, transparency, effectiveness, and community participation is key for ensuring that the APBD can genuinely reduce poverty and sustainably improve people's welfare.

These findings also align with Regional Financial Management Theory, which emphasizes the importance of financial management stages, starting from planning, implementation, administration, reporting, to accountability. The implementation of E-Budgeting supports all stages systematically by minimizing administrative errors, expediting the verification process, and facilitating financial performance evaluation. Effective regional financial management can only be achieved if supported by an integrated information system, enabling more accurate, data-based decision-making processes.

CONCLUSION

Based on the research on optimizing the West Tanjung Jabung Regency APBD through poverty alleviation E-budgeting, it can be concluded that although regional revenue and expenditure continue to increase, poverty reduction has not shown a significant decline. Moreover, APBD alone does not have a significant impact on poverty reduction (path coefficient = -0.036; $p = 0.776 > 0.05$), indicating that budget management not fully on target limits its effectiveness. However, when APBD is implemented through the E-budgeting system, it significantly influences poverty alleviation (coefficient = 0.667; $p = 0.000$, with E-budgeting's effect = 0.673; $p = 0.000$), demonstrating that optimized, transparent, accountable, and effective budgeting can better channel allocations to poverty alleviation programs. SWOT analysis places the strategy in Quadrant I, indicating a highly favorable condition. Therefore, the recommended approach is to optimize internal strengths and external opportunities—particularly by implementing a transparent, accountable, and responsive e-budgeting system, strengthening leading regional sectors, improving public services, and integrating pro-poor programs with poverty data to ensure that APBD spending significantly reduces poverty.

This study makes theoretical, methodological, and practical contributions. Theoretically, it provides empirical evidence that e-budgeting operates as a formal mediating mechanism within the Good Governance framework, extending the model beyond its conventional descriptive use. Methodologically, it demonstrates the feasibility of combining PLS-SEM mediation analysis with SWOT strategic analysis within a single design for evaluating public financial management. Practically, it is the first to apply this integrated framework to Tanjung Jabung Barat Regency, offering context-specific evidence relevant to APBD governance reform in resource-dependent Indonesian regencies. However, the findings are limited by several factors: the OPD sample of 25, which constrains generalizability; the cross-sectional design, which prevents causal and temporal inference about the APBD–e-budgeting–poverty relationship; potential response bias from OPD-level self-reported data, which could be strengthened through triangulation with official audit reports such as BPK findings; and the lack of control for confounding variables, including DAU/DBH transfer fluctuations, inflation, and demographic factors that may independently affect poverty. Future research should use longitudinal designs, replicate the framework across multiple regencies and provinces, incorporate objective audit data (e.g., BPK findings and LKPD ratings), expand the model with additional mediators such as budget absorption and pro-poor spending proportions, and examine moderation effects of political leadership commitment and civil servants' digital competency on the e-budgeting–poverty relationship.

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AUTHOR CONTRIBUTION STATEMENT

All authors contributed substantially to this research. Conceptualization, study design, and data analysis were developed collaboratively, while data collection was coordinated by the first author with support from co-authors. Drafting of the manuscript, critical revisions for intellectual content, and final approval for submission were carried out collectively by all authors, ensuring accountability and integrity in reporting the study findings.

REFERENCES

Alkire, S., & Foster, J. (2011). Counting and multidimensional poverty measurement. *Journal of Public Economics*, *95*(7–8), 476–487. https://doi.org/10.1016/j.jpubeco.2010.11.006

Arsad, R. (2023). Realizing good governance in governance through law enforcement and democracy. *Central European Management Journal*, *31*(2).

Bolívar, M. P. R. (2025). From oversight to engagement: The transformative role of emerging technologies in promoting budgetary transparency within democratic governance systems. *European Public Mosaic (EPuM). Open Journal on Public Service*, 66–87.

Fikriyah, T. M., & Trisnaningsih, S. (2022). Studi Literatur Electronic Budgeting Sebagai Peningkatan Transparansi Anggaran Pendapatan Dan Belanja Daerah (APBD). *Seminar Nasional Akuntansi Dan Call for Paper*, *2*(1), 17–27. https://doi.org/10.33005/senapan.v2i1.168

Hair, J. F., Hult, G. T. M., & Ringle, C. M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)*.

Hair, R., & JJ, S. (2019). M., & Ringle, CM (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

Hakim, A., Saputra, O. A., & Saleh, C. (2021). Policy determination in E-budgeting implementation by the government of DKI Jakarta–Indonesia. *International Journal of Criminology and Sociology*, *10*, 149–167. https://doi.org/10.6000/1929-4409.2021.10.19

Handayani, S., Suharno, S., & Badriah, L. S. (2022). The effectiveness of local government spending on poverty rate reduction in Central Java, Indonesia. *Eko-Regional: Jurnal Pembangunan Ekonomi Wilayah*, *17*(1).

Herasymiuk, K., Martselyak, O. V, Kirichenko, Y. N., Zhmur, N. V, & Shmalenko, I. I. (2020). Principles of integrity and good governance in public administration. *International Journal of Management*, *11*(4).

Huda, M. M., & Kumalasari, A. (2024). Pro Poor Budgeting: Analysis of Budget Policies by the Social Affairs Office of Bojonegoro Regency for Poverty Reduction. *Journal of Governance & Administrative Reform*, *5*(2).

Mærøe, A. R., Norta, A., Tsap, V., & Pappel, I. (2021). Increasing citizen participation in e-participatory budgeting processes. *Journal of Information Technology & Politics*, *18*(2), 125–147. https://doi.org/10.1080/19331681.2020.1821421

Mahrani, M., Normawati, N., Tuanaya, W., & Layn, S. B. (2026). The Application of Good Governance Principles in Regional Financial Management at the Regional Financial and Asset Management Agency (BPKAD) of Maluku Province. *Journal of Government Science Studies*, *5*(1), 44–56. https://doi.org/10.66254/jgssvol5issue1page44-56

Molchanov, I. N., Molchanova, N. P., & Nurislamova, N. R. (2021). Program-Targeted Approach in Public Finance Management: Modern Problems of Budgetary Planning. *Vestnik Volgogradskogo Gosudarstvennogo Universiteta. Seriiầ 3, Ėkonomika, Ėkologiiầ*, *23*(2). https://doi.org/10.15688/ek.jvolsu.2021.2.9

Nag, N. S. (2018). Government, governance and good governance. *Indian Journal of Public Administration*, *64*(1), 122–130. https://doi.org/10.1177/0019556117735448

Prayoga, F. M., & Yuhertiana, I. (2021). Studi literatur faktor yang mempengaruhi implementasi e-budgeting dalam sektor publik. *JPSI (Journal of Public Sector Innovations)*, *5*(2), 68–79. https://doi.org/10.26740/jpsi.v5n2.p68-79.

Rizkiyah, W. F. (2024). The Role of Community Participation in the Regional Budget Preparation Process to Encourage the Realization of Good Governance. *Public Service: Jurnal Ilmu Sosial Dan Pendidikan*, *1*(1), 61–69. https://doi.org/10.61166/service.v1i1.4

Sakti, R. T. S. R. A., Afiah, N. N., & Mulyani, S. M. (2023). The influence of internal control and e-budgeting on the performance of local government agencies through the implementation of good governance. *JASa (Jurnal Akuntansi, Audit Dan Sistem Informasi Akuntansi)*, *7*(3), 406–420.

Santiko, B., & Marina, N. (2025). Evaluation of the Effectiveness of E-Budgeting in Increasing Budget Management Transparency in the DKI Jakarta Provincial Government. *Accounting Finance and Capital Insight (AFCI)*, *1*(1).

Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. john wiley & sons.

Sugiyono, P. D. (2018). *Metode Penelitian Kuantitatif Kualitatif dan R&D, Bandung: CV. ALFABETA*.

Yuliant, F., Setyawan, W., Gamayuni, R. R., & Prasetyo, T. J. (2020). E-planning, e-budgeting, and government internal control system as a corruption prevention tools in Indonesia. In *The Future Opportunities and Challenges of Business in Digital Era 4.0* (pp. 257–261). Routledge.