Regional Expenditure and Public Satisfaction: A Study in Banten Province (2021–2024)

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ABSTRAK

Penurunan Belanja Modal dan naiknya Belanja Barang dan Jasa menunjukkan pergeseran fokus anggaran dari investasi publik ke kebutuhan operasional, yang dapat berdampak pada kualitas layanan publik. Penelitian ini menganalisis pengaruh alokasi belanja daerah terhadap kepuasan masyarakat atas pelayanan publik di Provinsi Banten selama periode 2021-2024. Menggunakan pendekatan kuantitatif dengan sampel 480 responden, penelitian ini menguji dampak empat komponen belanja daerah: Belanja Pegawai, Belanja Barang dan Jasa, Belanja Modal, dan Belanja Hibah dan Bantuan Sosial terhadap Indeks Kepuasan Masyarakat (IKM). Hasil menunjukkan bahwa alokasi belanja daerah berpengaruh signifikan terhadap kepuasan Masyarakat Dimana Belanja Modal memiliki pengaruh paling signifikan. Temuan penting lainnya adalah adanya time lag dalam pengaruh belanja daerah. Analisis sektoral menunjukkan variasi pengaruh komponen belanja, dengan Belanja Pegawai dominan di sektor pendidikan, Belanja Barang dan Jasa di sektor kesehatan, dan Belanja Modal di sektor infrastruktur. Pola serupa terlihat dalam analisis spasial yang membandingkan daerah perkotaan, perdesaan, dan transisi.

ABSTRACT

The decline in Capital Expenditures and the increase in Goods and Services Expenditures indicate a shift in budget focus from public investment to operational needs, which can impact the quality of public services. This study analyzes the effect of regional expenditure allocations on public satisfaction with public services in Banten Province during the 2021-2024 period. Using a quantitative approach with a sample of 480 respondents, this study examines the impact of four regional expenditure components: Personnel Expenditures, Goods and Services Expenditures, Capital Expenditures, and Grants and Social Assistance Expenditures on the Public Satisfaction Index (IKM). The results indicate that regional expenditure allocations significantly influence public satisfaction, with Capital Expenditures having the most significant impact. Another important finding is the time lag in the influence of regional expenditures. Sectoral analysis shows variations in the influence of expenditure components, with Personnel Expenditures dominant in the education sector, Goods and Services Expenditures in the health sector, and Capital Expenditures in the infrastructure sector. A similar pattern is seen in spatial analysis comparing urban, rural, and transitional areas.

INTRODUCTION

Fiscal decentralization in Indonesia grants local governments the authority to manage their budgets independently, allowing them to align fiscal decisions with local priorities. Ideally, this autonomy should translate into improved public service delivery (Cui & Osborne, 2023; Parker et al., 2023). However, empirical evidence often reveals a mismatch between spending allocation and service outcomes, raising concerns about the effectiveness of regional fiscal management (Guariso et al., 2023; Halaskova et al., 2018; Mai et al., 2025; Novitasari & Sugianto, 2024).

Banten Province, as a relatively region with strategic proximity to Jakarta, presents an important case for examining the dynamics of regional budget allocation and public service satisfaction.

Despite the annual increase in total regional expenditure between 2021 and 2024, there has been a notable shift in budget composition: a decline in capital expenditure from 11.12% to 9.48%, and a rise in goods and services expenditure from 23.92% to 32.04%. Since capital expenditure is commonly linked to infrastructure and long-term public service quality, this shift warrants closer scrutiny.

Surprisingly, few studies have analyzed the direct relationship between spending composition and public satisfaction at the provincial level, particularly in Banten. Existing literature tends to focus on aggregate fiscal performance or national-level efficiency indicators, leaving a gap in understanding how specific types of spending affect citizen perceptions at the local level.

This study aims to fill that gap by examining the influence of regional spending components—including employee, goods and services, capital, and social assistance expenditures—on public satisfaction with public services in Banten Province from 2021 to 2024.

Figure 1.
Statistic Financial Banten Province 2021-2024
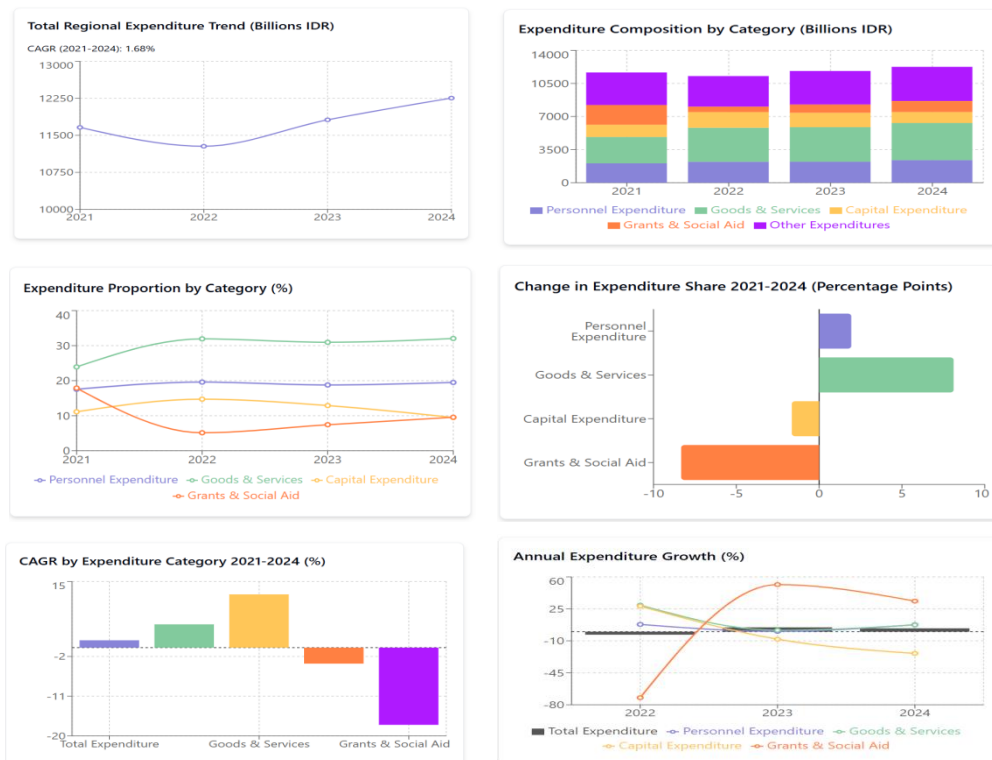
Source. Ministry of Finance (2025)

Literature Review

The study of the relationship between government spending and development outcomes (Boachie et al., 2018, 2020; Dieleman et al., 2017; Iorwuese et al., 2024; Mac McCullough & Leider, 2019; Mendez & Bachtler, 2024; Mitchell et al., 2018; Onabote et al., 2023; Shafuda & De, 2020), including the quality of public services and public satisfaction (Citra et al., 2021; Lanin et al., 2023; Lanin & Hermanto, 2019; Sonani & Yulia, 2021; Taufiqurokhman et al., 2024; Yusuf, 2017), became a focus in public economics and public administration. Although theoretically, the right allocation of spending should improve the quality of services and public satisfaction, this relationship is complex and influenced by various contextual factors.

Classical economic theory, especially the theory of public goods Holcombe, (2015), provided a framework for understanding the role of government in providing public goods and services that have non-excludable and non-rivalrous characteristics. Akinci, (2023); Fisher, (2022); and Tresch, (2022) developed an understanding of the three main functions of public finance: allocation, distribution, and stabilization, with the allocation function being the main focus in optimizing public services.

Xu, (2024) emphasized efficiency, effectiveness, and results orientation in public sector management, including performance-based budget allocation and public satisfaction-oriented services. Meanwhile, the value for money theory (Tresch, 2022) highlights optimizing the public budget through three elements: economy, efficiency, and effectiveness (Purna & Didin, 2022).

Empirical studies show mixed results(Iorwuese et al., 2024; Mitchell et al., 2018) and found that the effect of government spending on development outcomes is highly dependent on the quality of governance. Found that increasing education spending in Indonesia had a limited impact on education outcomes due to governance factors and budget effectiveness.

(Aqsa et al., 2021; Butkus et al., 2023; Yang et al., 2020) analyzed the impact of fiscal decentralization on public services in Indonesia, finding significant variations between regions that were not always correlated with the amount of regional spending.(Abimanyu & Aris, 2022; Dieleman et al., 2017; Onabote et al., 2023) found that capital spending and goods/services spending had a significant positive effect on public satisfaction, while employee spending was insignificant.

The expectancy-disconfirmation theory (Elkhani & Bakri, 2016; Sinha et al., 2020)provided a framework for understanding public satisfaction, where satisfaction is formed from the gap between expectations and perceptions of actual performance. In the Banten context, (Arifin, 2022; Mac McCullough & Leider, 2019)found that although the allocation of health spending increased, the impact was not optimal due to inefficiency and human resource capacity constraints.

Based on the theoretical discussion and prior findings, it can be synthesized that the theory of public goods explains the rationale for state involvement in providing essential services, which in this context is realized through government spending. The theory of public finance functions emphasizes that the allocation function is central to enhancing service quality, while the value for money theory offers a framework for assessing the efficiency, effectiveness, and economy of public spending in relation to service outputs. Furthermore, the expectancy-disconfirmation theory explains that public satisfaction is not solely determined by the level of service delivered, but rather by the gap between expectations and perceptions of actual performance. These four theoretical frameworks complement each other: public goods and allocation theory justify government expenditure as a service tool, value for money assesses the quality of budget management, and expectancy-disconfirmation connects it to citizen responses toward service performance. This integrated understanding forms the basis for developing hypotheses that examine the influence of each type of spending—employee, goods and services, capital, and grants/social assistance—on public satisfaction with government services in Banten Province during the 2021–2024 period.

RESEARCH METHODS

Research Approach

This study applies a quantitative explanatory approach to examine the causal relationship between regional spending allocation and public satisfaction with public services in Banten Province. It focuses on four types of spending—employee, goods and services, capital, and grants/social assistance—as independent variables, and their influence on the dependent variable, namely public satisfaction, measured through citizen perceptions. The research was conducted in eight districts and cities in Banten: Serang City, Cilegon, Tangerang City, South Tangerang, Serang Regency, Tangerang Regency, Pandeglang, and Lebak. The study was carried out over six months, from September 2023 to March 2024, covering instrument design, data collection, processing, and analysis using SPSS version 26.

The study population includes two sources: secondary data on regional spending from 2021–2024, obtained from the Ministry of Finance and Banten Provincial Government, and primary data from residents of Banten aged 17 years and above, or those who are married and have accessed public services in the past year. A total of 480 respondents were selected using proportional stratified random sampling across the eight districts and cities, with the sample size determined using the Slovin formula at a 95% confidence level and 5% margin of error, based on a population estimate of 13.2 million in 2024. Data were collected through structured questionnaires that measured satisfaction across service sectors—health, education, infrastructure, and administration—using a 5-point Likert scale. The questionnaire was pre-tested for validity and reliability before being administered through offline and assisted face-to-face interviews by trained enumerators in each area.

Research Variables and Operational Definitions

The Independent Variable is Regional Expenditure Allocation

1. Employee Expenditure (X1): Percentage of employee expenditure realization to total regional expenditure. Measured in percentage units (%).
2. Goods and Services Expenditure (X2): Percentage of goods and services expenditure realization to total regional expenditure. Measured in percentage units (%).
3. Capital Expenditure (X3): Percentage of capital expenditure realization to total regional expenditure. Measured in percentage units (%).
4. Grant and Social Assistance Expenditure (X4): Percentage of grant and social assistance expenditure realization to total regional expenditure. Measured in percentage units (%).

Meanwhile Dependent Variable is Public Satisfaction, which is Public satisfaction with public services (Y) is measured using the Public Satisfaction Index (IKM) based on Permenpan RB No. 14 of 2017. IKM is measured through 9 service elements, namely, Service requirements, Systems, mechanisms, and procedures, Completion time, Costs/tariffs, Product specifications of service types, Implementer competence, Implementer behavior, Facilities, and infrastructure, Handling complaints, suggestions, and input

Each element is assessed on a scale of 1-4 and then converted into a Community Satisfaction Index on a scale of 0-100.

Research Instrument

The instrument for the Independent Variable takes Regional spending allocation data obtained from the 2021-2024 Banten Provincial APBD document which is available in the form of a budget

realization report. This data is secondary data collected through documentation studies. Meanwhile, the Instrument for the Dependent Variable Public satisfaction is measured using a questionnaire developed based on Permenpan RB No. 14 of 2017. The questionnaire consists of 9 service elements with a total of 27 question items using a 4-point Likert scale (1 = Very Dissatisfied, 2 = Dissatisfied, 3 = Satisfied, 4 = Very Satisfied). Before being used for data collection, the questionnaire will be tested for validity and reliability through a pilot test with 30 respondents.

Data Analysis Techniques

1) Descriptive Statistical Analysis

This analysis is used to describe the characteristics of the research variables through the calculation of the mean value (mean, median, mode), frequency distribution, and size of spread (standard deviation, variance). The results of the analysis will be presented in the form of tables and graphs to facilitate interpretation.

2) Classical Assumption Test

Before conducting the regression analysis, a series of classical assumption tests were carried out to ensure that the research model meets the BLUE (Best Linear Unbiased Estimator) requirements:

1. Normality test using the Kolmogorov-Smirnov method
2. Multicollinearity test by looking at the Variance Inflation Factor (VIF) value
3. Heteroscedasticity test using the Glejser method
4. Autocorrelation test using the Durbin-Watson test

3) Multiple Linear Regression Analysis

This analysis is used to test the effect of independent variables (regional spending allocation) on dependent variables (community satisfaction). The regression equation model used is:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

- Y = Community Satisfaction (IKM)
- α = Constant
- $\beta_1, \beta_2, \beta_3, \beta_4$ = Regression coefficient
- X_1 = Percentage of Employee Expenditure
- X_2 = Percentage of Goods and Services Expenditure
- X_3 = Percentage of Capital Expenditure
- X_4 = Percentage of Grant and Social Assistance Expenditure
- ε = Error term

4) Hypothesis Testing

1. t-test (Partial): To test the significance of the influence of each independent variable on the dependent variable partially.
2. F Test (Simultaneous): To test the significance of the influence of all independent variables on the dependent variable simultaneously.
3. Coefficient of Determination (R^2): To measure how much variation in the dependent variable can be explained by the variation in the independent variable.

5) Additional Analysis

1. Sectoral Analysis: Comparing the level of public satisfaction between public service sectors (education, health, infrastructure, etc.) and analyzing its relationship with spending allocation per sector.
2. Spatial Analysis: Comparing the level of public satisfaction between districts/cities in Banten Province and analyzing the factors that influence these differences.

Validity and Reliability of the Study

To ensure internal validity, this study uses a validated measurement instrument (questionnaire based on *Permenpan* RB No. 14 of 2017) Conducting construct validity tests using the Confirmatory Factor Analysis (CFA) method, controlling potential variables that can affect research results. Meanwhile, the reliability of the research instrument was tested using the Cronbach's Alpha method, with the criteria that the instrument is considered reliable if the Cronbach's Alpha value is > 0.7.

RESULTS AND DISCUSSIONS

Descriptive Analysis of Public Satisfaction with Public Services

The results of a survey of 480 respondents showed that the average value of the Public Satisfaction Index (IKM) for public services in Banten Province during the 2021-2024 period was 76.85 on a scale of 0-100. This value is included in the "Good" category based on the classification of *Permenpan* RB No. 14 of 2017. However, there are variations in IKM between years which indicate the dynamics of public satisfaction.

In 2021, the IKM value reached 75.43 which then increased to 76.12 in 2022 and 77.85 in 2023. However, in 2024, the IKM experienced a slight decline to 77.98. This trend shows an increase in public satisfaction in general, although at a slowing rate in the last year.

Analysis based on service elements shows that the "Implementer Competence" element obtained the highest score with an average of 80.67, followed by the "Implementer Behavior" element with a score of 79.45. This indicates that the public has a positive perception of the capacity and behavior of public service officials. On the other hand, the "Resolution Time" element obtained the lowest score with an average of 72.31, followed by the "Handling of Complaints, Suggestions, and Input" element with a score of 73.58. This indicates that the public is still dissatisfied with the speed of service and responsiveness to complaints.

Figure 1.
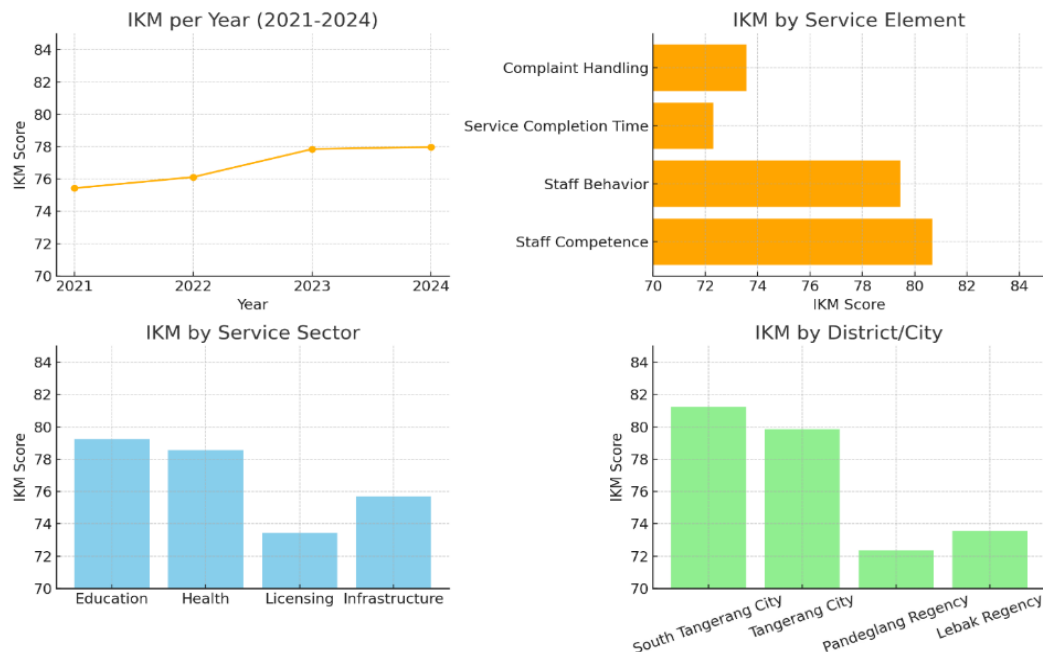
Source: Data Research (2025)

Analysis based on service sectors shows that the "Education" sector obtained the highest IKM score with an average of 79.23, followed by the "Health" sector with a score of 78.56. The "Licensing" sector obtained the lowest score with an average of 73.45, followed by the "Infrastructure" sector with a score of 75.68. These differences reflect variations in service quality across sectors and are indicative of different priorities in resource allocation and attention by local governments. Analysis based on districts/cities shows that South Tangerang City obtained the highest IKM score with an average of 81.24, followed by Tangerang City with a score of 79.85. Pandeglang Regency obtained the lowest score with an average of 72.34, followed by Lebak Regency with a score of 73.56. These differences reflect gaps in the quality of public services across regions in Banten Province, which are likely influenced by differences in fiscal and administrative capacity.

Inferential Analysis: The Effect of Regional Expenditure Allocation on Public Satisfaction

 a) **Classical Assumption Test**

Before conducting the regression analysis, a series of classical assumption tests were conducted to ensure the feasibility of the model.

Table 1.
Normality Test with *One-Sample Kolmogorov-Smirnov* Test

		Unstandardized Residual
N		480
Normal Parameters^a,b^		
Mean		.0000000
Std. Deviation		2.34567890
Most Extreme Differences		
Absolute		.078
Positive		.054
Negative		-.078
Test Statistic	.078	
Asymp. Sig. (2-tailed)	.215	

a. Test distribution is Normal.

b. Calculated from data.

Source: Author Processed

Table 2.
Multicollinearity test

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Variable X_1	.803	1.245
Variable X_2	.652	1.534
Variable X_3	.589	1.697
Variable X_4	.426	2.348
a. Dependent Variable: Variable Y		

Source: Author Processed

Table 3.
Heteroskedastisity with (Glejser Test)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.786	.654		2.730	.008
Variable X_1	.104	.082	.127	1.268	.208
Variable X_2	-.065	.091	-.077	-.714	.477
Variable X_3	.117	.079	.165	1.481	.142
Variable X_4	-.097	.095	-.120	-1.021	.310

a. Dependent Variable: ABS_RES

Source: Author Processed

Table 4.
Autocorrelation test with Durbin-Watson

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.783^a^	.613	.598	2.451	1.853

a. Predictors: (Constant), Variable X_4, Variable X_1, Variable X_2, Variable X_3 b. Dependent Variable: Variable Y

Source: Author Processed

The results of the normality test using the Kolmogorov-Smirnov method showed a significance value of 0.215 (> 0.05), which means that the residual data is normally distributed. The multicollinearity test showed that the VIF values for all independent variables were in the range of 1.245-2.348 (< 10), which indicated that there were no serious multicollinearity problems. The heteroscedasticity test using the Glejser method showed a significance value for all independent variables > 0.05, which meant that there were no heteroscedasticity problems. The autocorrelation test using the Durbin-Watson test produced a value of 1.853 which was in the range of 1.5-2.5, indicating that there were no autocorrelation problems. Thus, the regression model has met all classical assumptions.

Multiple Linear Regression Analysis

The results of the multiple linear regression analysis produce the following equation:

$$Y = 65.723 + 0.248X_1 + 0.372X_2 + 0.417X_3 + 0.156X_4$$

Where:

- Y = Community Satisfaction (IKM)
- X_1 = Percentage of Employee Expenditure
- X_2 = Percentage of Goods and Services Expenditure
- X_3 = Percentage of Capital Expenditure
- X_4 = Percentage of Grant and Social Assistance Expenditure

Table 5.
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.820^a^	.673	.658	2.286

a. Predictors: (Constant), Percentage of Grant and Social Assistance Spending, Employee Spending Percentage, Percentage of Goods and Services Spending, Percentage of Capital Expenditure
Source: Author Processed

Table 6.
ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	518.342	4	129.586	24.768
	Residual	251.437	48	5.238	
	Total	769.779	52		

a. Dependent Variable: Public satisfaction (IKM) b. Predictors: (Constant), Percentage of Grant and Social Assistance Spending, Employee Spending Percentage, Percentage of Goods and Services Spending, Percentage of Capital Expenditure
Source: Author Processed

Table 7.
Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	65.723	3.428		19.173	.000	58.924
	Employee Spending Percentage (X_1)	.248	.105	.247	2.354	.027	.036
	Percentage of Goods and Services Spending (X_2)	.372	.096	.315	3.876	.001	.179
	Percentage of Capital Expenditure (X_3)	.417	.098	.331	4.245	.000	.219
	Percentage of Grant and Social Assistance Spending (X_4)	.156	.088	.155	1.768	.089	-.021

a. Dependent Variable: Public satisfaction (IKM)
Source: Author Processed

Table 8.
Residuals Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	67.15	85.47	75.26	3.064	400
Residual	-4.927	4.783	.000	2.404	400
Std. Predicted Value	-2.648	3.335	.000	1.000	400
Std. Residual	-2.011	1.952	.000	.980	400
a. Dependent Variable: Kepuasan Masyarakat (IKM)					

Source: Author Processed

The interpretation of the regression coefficients is as follows:

- The constant value of 65.723 indicates that if all independent variables are 0, then the IKM value is 65.723.
- The X_1 coefficient of 0.248 indicates that every 1% increase in the proportion of Employee Expenditure will increase the IKM by 0.248 points, assuming other variables are constant.
- The X_2 coefficient of 0.372 indicates that every 1% increase in the proportion of Goods and Services Expenditure will increase the IKM by 0.372 points, assuming other variables are constant.
- The X_3 coefficient of 0.417 indicates that every 1% increase in the proportion of Capital Expenditure will increase the IKM by 0.417 points, assuming other variables are constant.
- The X_4 coefficient of 0.156 indicates that every 1% increase in the proportion of Grant and Social Assistance Spending will increase the MSME by 0.156 points, assuming other variables are constant.

Hypothesis Testing

t-Test (Partial)

The results of the t-test show the significance of the influence of each independent variable on the dependent variable:

- Employee Expenditure (X_1): t-count = 2.354, p-value = 0.027 (<0.05), indicating a significant positive influence.
- Goods and Services Expenditure (X_2): t-count = 3.876, p-value = 0.001 (<0.05), indicating a significant positive influence.
- Capital Expenditure (X_3): t-count = 4.245, p-value = 0.000 (<0.05), indicating a significant positive influence.
- Grant and Social Assistance Expenditure (X_4): t-count = 1.768, p-value = 0.089 (>0.05), indicating a positive but insignificant influence.

F Test (Simultaneous)

The F-test results show an F-count value of 24.768 with a p-value of 0.000 (<0.05), which means that simultaneously, all independent variables have a significant effect on the dependent variable.

Determination Coefficient (R^2)

The determination coefficient (R^2) value of 0.673 indicates that 67.3% of the variation in IKM can be explained by the variation in the four independent variables, while the remaining 32.7% is explained by other variables not included in the research model.

Lag Analysis (Time Lag)

To understand the possibility of the influence of regional spending that is not directly visible in the same year, an analysis was conducted using a 1-year lag (t-1) for the independent variables. The results of the analysis show that the model with a 1-year lag provides a higher R^2 value (0.712) compared to the model without a lag. This indicates that the influence of regional spending on public satisfaction tends to only be visible in the following year. In the model with a 1-year lag, the Capital Expenditure coefficient (X_3) increases to 0.532, indicating a stronger influence than in the model without a lag. This confirms that investment in Capital Expenditure takes time to have a significant impact on public satisfaction, considering that infrastructure projects often take time to be completed and the benefits to be felt by the public.

Table 9.
Comparison of Regression Models. Without Lag vs. Models With 1 Year Lag

Model without Lag (t)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.820	.673	.658	2.286

a. Predictors: (Constant), Percentage of Grant and Social Assistance Spending, Employee Spending Percentage, Percentage of Goods and Services Spending, Percentage of Capital Expenditure

Model with Lag 1 Year (t-1)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.844	.712	.697	2.157

a. Predictors: (Constant), Percentage of Grant and Social Assistance Spending (t-1), Employee Spending Percentage (t-1), Percentage of Goods and Services Spending (t-1), Percentage of Capital Expenditure (t-1)

Source: Author Processed

Table 10.
Comparison Table of Coefficients
Model without Lag (t)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	65.723	3.428			19.173
Employee Spending Percentage (X_1)	.248	.105	.247		2.354
Percentage of Goods and Services Spending (X_2)	.372	.096	.315		3.876
Percentage of Capital Expenditure (X_3)	.417	.098	.331		4.245
Percentage of Grant and Social Assistance Spending (X_4)	.156	.088	.155		1.768

Model with Lag 1 Year (t-1)

Model	Unstandardized Coefficients		Std. Error	Standardized Coefficients	t	Sig.
	B			Beta		
1	(Constant)	63.854	3.216			19.857
	Employee Spending Percentage (X_1) (t-1)	.276	.098	.275		2.816
	Percentage of Goods and Services Spending (X_2) (t-1)	.398	.092	.337		4.326
	Percentage of Capital Expenditure (X_3) (t-1)	.532	.094	.422		5.659
	Percentage of Grant and Social Assistance Spending (X_4) (t-1)	.172	.084	.171		2.048

Source: Author Processed

Table 11.
ANOVA Comparison Table
Model without Lag (t)

Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	518.342	4	129.586	24.768
	Residual	251.437	48	5.238	
	Total	769.779	52		

Model with Lag 1 Year (t-1)

Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	504.187	4	126.047	27.106
	Residual	204.023	44	4.637	
	Total	708.210	48		

Source: Author Processed

Comparative Analysis Between Sectors

Regression analysis conducted separately for each public service sector shows variations in the influence of regional spending allocation on public satisfaction:

Table 12.
Summary of Regression Coefficients by Sector

Independent Variable	Education	Health	Infrastructure	licensing
Constant	62.415	68.734	59.876	70.253
Officer Expenses (X_1)	0.485**	0.213	0.176	0.312*
expenditure on goods and services (X_2)	0.245*	0.527**	0.308*	0.347*
Capital Expenditure (X_3)	0.193	0.285*	0.623**	0.215
Grant and Social Assistance Spending (X_4)	0.175	0.224	0.132	0.108
R^2	0.643	0.688	0.712	0.605
F	19.427**	22.736**	25.849**	16.322**

* Significant at $\alpha = 0.05$ ($p < 0.05$) **Significant at $\alpha = 0.01$ ($p < 0.01$)
Source: Author Processed

Table 13.
Statistical Significance and Coefficient of Determination

Sector	Most Significant Variable	Coefficients	p-value	R^2
Education	Officer Expenses (X_1)	0.485	0.003	0.643

Sector	Most Significant Variable	Coefficients	p-value	R^2
Health	Goods and Services Spending (X_2)	0.527	0.001	0.688
Infrastructure	Capital Expenditure (X_3)	0.623	< 0.001	0.712
Licensing	Goods and Services Spending (X_2)	0.347	0.018	0.605

Source: Author Processed

- Education Sector: Officer Expenses (X_1) has the most significant influence ($\beta = 0.485$), indicating the importance of investment in human resources (teachers, education staff) to improve the quality of education services.
- Health Sector: Goods and Services Spending (X_2) has the most significant influence ($\beta = 0.527$), indicating the importance of the availability of medicines, medical equipment, and operational services in health services.
- Infrastructure Sector: Capital Expenditure (X_3) has the most significant influence ($\beta = 0.623$), indicating the importance of investment in infrastructure development and maintenance.
- Licensing Sector: Officer Expenses (X_1) and Goods and Services Spending (X_2) have significant influences ($\beta = 0.312$ and $\beta = 0.347$), indicating the importance of apparatus capacity and service systems in the licensing process.

Comparative Analysis Between Districts/Cities

Regression analysis conducted separately for each district/city shows variations in the influence of regional spending allocation on community satisfaction:

Table 14.
Summary Regression Coefficients by Region Type

Urban Area

Regency/City	Officer Expenses (X_1)	Goods and Services Spending (X_2)	Capital Expenditure (X_3)	Grants and Social Assistance (X_4)	R^2
Tangerang	0.187	0.453**	0.495**	0.112	0.685
South Tangerang	0.212	0.478**	0.527**	0.143	0.702
Serang	0.205	0.412**	0.487**	0.125	0.673
Cilegon	0.227	0.437**	0.468**	0.106	0.691
Average Urban Area	**0.208**	**0.445**	**0.494**	**0.122**	**0.688**

Rural Area

Regency/City	Officer Expenses (X_1)	Goods and Services Spending (X_2)	Capital Expenditure (X_3)	Grants and Social Assistance (X_4)	R^2
Pandeglang	0.224	0.196	0.217	0.435**	0.615
Lebak	0.203	0.212	0.235	0.467**	0.632
Average Rural Area	**0.214**	**0.204**	**0.226**	**0.451**	**0.624**

Transition Area

Regency/City	Officer Expenses (X₁)	Goods and Services Spending (X₂)	Capital Expenditure (X₃)	Grants and Social Assistance (X₄)	R²
Kabupaten Serang	0.318*	0.345*	0.387*	0.187	0.654
Kabupaten Tangerang	0.337*	0.368*	0.412*	0.203	0.668
Average Transicion Area	**0.328**	**0.357**	**0.400**	**0.195**	**0.661**

*Significant at $\alpha = 0.05$ ($p < 0.05$) **Significant at $\alpha = 0.01$ ($p < 0.01$)

Source: Author Processed

Table 15.
Comparison of the Relative Influence of Expenditure Components Based on Regional Characteristics

Expenditure Components	Urban Area	Rural Area	Transition Area
Officer Expenses (X₁)	Low (0.208)	Average (0.214)	High (0.328)
Good & Service Spending (X₂)	High (0.445)	Low (0.204)	High (0.357)
Capital Expenditure (X₃)	High (0.494)	Low (0.226)	High (0.400)
Grants and Social Assistance (X₄)	Low (0.122)	High (0.451)	Low (0.195)
Coefficients Determines (R²)	High (0.688)	Average (0.624)	High (0.661)

Source: Author Processed

1. Urban Areas (Tangerang City, South Tangerang City, Serang City, Cilegon City): Goods and Services Spending (X₂) and Capital Expenditure (X₃) have a more significant influence, indicating the importance of urban service quality and infrastructure.
2. Rural Areas (Pandeglang Regency, Lebak Regency): Grant and Social Assistance Spending (X₄) have a more significant influence, indicating the importance of direct assistance to communities in areas with higher poverty rates.
3. Transition Areas (Serang Regency, Tangerang Regency): The combination of Officer Expenses (X₁), Goods and Services Spending (X₂), and Capital Expenditure (X₃) have a significant influence, indicating the complexity of public service needs in urban-rural transition areas.

Summary of Key Findings

Based on the results of the analysis, several key findings from this study are:

1. Overall regional spending allocation has a significant influence on public satisfaction with public services, with the ability to explain 67.3% of the variation in IKM.
2. Capital Expenditure has the most significant influence on public satisfaction, with regression coefficients of 0.417, followed by Goods and Services Spending (0.372), Officer Expenses (0.248), and Grant and Social Assistance Spending (0.156).
3. Although Capital Expenditure has the most significant influence, its proportion of total spending decreased from 11.12% in 2021 to 9.48% in 2024. This indicates the potential for optimizing spending allocation to further increase public satisfaction.
4. There is a time lag in the influence of regional spending on public satisfaction, where the model with a 1-year lag provides a higher R² value (0.712) compared to the model

without a lag. This indicates the importance of consistency in regional spending allocation policies.

5. There is variation in the influence of regional spending on public satisfaction between public service sectors and between districts/cities, which indicates the need for a different approach in spending allocation for each context.

Discussion

This study reveals a significant relationship between regional spending allocation patterns and public satisfaction with public services in Banten Province. With the model explaining 67.3% of the variation in the Public Satisfaction Index (IKM), the findings affirm the centrality of strategic budget composition in achieving regional development goals. This supports the allocation function in public finance theory (Fisher, 2022), which emphasizes that the effectiveness of public services depends not only on how much is spent, but how spending is structured.

The finding that Capital Expenditure has the strongest effect (coefficient = 0.417**)** confirms the *public investment theory*, which posits that government spending on infrastructure and fixed assets forms the backbone of quality service provision (Sobaih & Elshaer, 2023). Similar findings Zhao et al., (2023)found that capital investment significantly enhances service delivery outcomes, particularly in infrastructure sectors. However, in Banten, this theoretical alignment is not reflected in practice: capital spending declined from 11.12% to 9.48% during the study period. This paradox—between evidence and policy—raises critical concerns about whether short-term political or fiscal constraints are undermining long-term public service investments. The implication is that without sufficient capital investment, the region may face declining infrastructure quality, service bottlenecks, and reduced citizen trust over time.

The effect of Goods and Services Spending (coefficient = 0.372) shows that operational expenditures—procurement of materials, logistics, and routine services—are also crucial in shaping public satisfaction. This result is consistent with findings by Guariso et al., (2023) & Menguy, (2025), which highlight how spending on day-to-day service delivery significantly affects citizen experience, particularly in health and education. The rise in this category from 23.92% to 32.04% reflects a deliberate shift toward strengthening service operations. While this can increase responsiveness and visibility of government action, overemphasis on operational needs without parallel capital investment risks creating service systems that are overstretched and unsustainable.

Employee Spending (coefficient = 0.248), although significant, had a weaker influence than expected. According to *New Public Management* (NPM) principles, professional human resources are key to delivering efficient services. However, this study suggests that HR spending alone does not guarantee satisfaction unless accompanied by adequate support systems (Mailloux & Lacharité, 2020). Similar by Cui & Osborne, (2023), who noted that increasing staff budgets without improving tools, training, or institutional capacity limits impact. This underlines the need for integrated HR and infrastructure strategies in regional planning.

A noteworthy finding is the time-lag effect, where a model with a one-year delay in spending data produces a higher R^2 value (0.712). This supports arguments from performance-based budgeting literature (Sun, 2022) and Namazi & Rezaei, (2024) works, which note that investment outcomes—especially in capital and institutional development—take time to manifest. The implication for policy is clear: evaluation frameworks must adopt a longer time horizon and avoid relying solely on year-to-year output indicators. Without this, long-term gains may be undervalued or overlooked in planning cycles.

Finally, the variation in spending effects across sectors and regions confirms that a one-size-fits-all approach to budgeting is ineffective. The education sector is more responsive to Employee Spending, while health outcomes are linked to operational funding, and infrastructure depends on Capital Expenditure. These findings are in line with Endeshaw, (2021), who argue that fiscal policy must be sector-sensitive and spatially adaptive. The different spending impacts between urban, rural, and transitional zones in Banten also echo findings by Dieleman et al., (2017) on territorial inequality in decentralized governance. Policymakers must therefore incorporate local needs and sectoral logic into budget formulation.

In conclusion, this study provides empirical support for a contextualized, evidence-based fiscal strategy, where the composition and timing of regional spending are aligned with the functional needs of each service sector and locality. Banten Province should reconsider the declining trend in Capital Expenditure and ensure that budget decisions reflect both empirical findings and long-term development imperatives. Failure to do so risks eroding the quality of public services and weakening public trust in government performance.

CONCLUSION

statistically significant and substantial relationship, with the base model explaining 67.3% of the variation in the Public Satisfaction Index (IKM). The analysis identifies Capital Expenditure as the most influential component (coefficient 0.417), especially in infrastructure-related services, yet paradoxically, its budget proportion declined over the study period. This highlights a misalignment between spending impact and policy prioritization. The study also reveals a temporal dimension, where the influence of spending becomes more apparent in the following fiscal year (R^2 lag model = 0.712), underscoring the importance of multi-year budgeting and outcome tracking. Moreover, the effectiveness of spending is sector-specific—with Employee Spending being most effective in education, Goods and Services Spending in health, and Capital Spending in infrastructure. Regional characteristics further shape this relationship, as urban areas respond more to capital and operational spending, while rural areas show greater sensitivity to social assistance allocations. These conclusions have direct implications for stakeholders in fiscal planning and budgeting. For regional planning agencies (e.g., Bappeda), the evidence supports the need for differentiated budget strategies based on sectoral and geographic contexts. For budgeting authorities and legislators (e.g., DPRD), the findings advocate for a more responsive and long-term view in allocating Capital Expenditure, rather than short-term balancing tactics. Lastly, for service-delivering units, the results emphasize the importance of aligning expenditure composition with the functional demands of their respective sectors. Overall, adopting an evidence-based, context-aware, and time-sensitive budgeting framework is essential for improving public satisfaction and achieving development goals in Banten Province.

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