

The Interplay of Compensation and Working Facilities on Local Tax Revenue: A Data Panel Evidence of Municipalities in East Borneo

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ABSTRACT

This study investigates the relationship between employee compensation, working facilities, and local tax revenue generation in East Kalimantan Province, Indonesia. Utilizing panel data multiple linear regression analysis, the research analyzes financial reports from ten Regencies and Cities (Balikpapan, Samarinda, Bontang, Kutai Timur, Kutai Barat, Kutai Kartanegara, Penajam Paser Utara, Berau, Mahakam Ulu, and Paser) over the period of 2017-2023. Employee compensation, represented by growth of employee expenditures (PBP), captures the year-to-year increase in personnel costs. Working facilities, represented by growth of goods and service expenditures (PBBJ), reflect the year-to-year change in spending on operational resources. The findings reveal a positive association between both growth in employee expenditures and growth in goods and services expenditures with local tax revenue, but these relationships are not statistically significant. This suggests that factors beyond employee compensation and working facilities likely play a more prominent role in driving regional tax revenue growth.

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1. INTRODUCTION

Regencies/cities in East Kalimantan Province face the challenge of increasing local tax revenue. Limited local tax revenue hinders the ability of local governments to finance infrastructure development programs, public services, and community empowerment.

The following is data regarding regional income and regional tax revenue Regencies/Cities East Borneo averaged from 2016-2023, data collected through the Dirjen Perimbangan Keuangan of the Ministry of Finance Republic Indonesia.

Table 1. Average Regional Tax Ratio

Num	Cities/ Regencies	Average income (Billions of Rupiah)	Average regional taxes (Billions of Rupiah)	Average regional tax contribution ratio (%)
1	Balikpapan	2308.54875	517.1575	22.40%
2	Kutai Timur	3921.145	92.96	2.37%
3	Berau	2487.54875	65.2725	2.62%
4	Paser	2170.745	33.01625	1.52%
5	Samarinda	3025.40625	387.64	12.81%
6	PPU	1466.43375	44.1775	3.01%
7	Mahulu	1318.1775	2.12625	0.16%
8	Kutai Kartanegara	5107.74375	98	1.92%
9	Kutai barat	2214.44	31.74	1.43%
10	Bontang	1451.19	108.7125	7.49%

Source: Processed data (2024)

The following data suggests that the contribution of regional tax from revenue remains minimal. As a result, these regions continue to rely heavily on transfer income.

It is possible that the current pattern of local government spending is not having an optimal impact on increasing local tax revenue. Inappropriate allocation of budget funds to employee expenditure and goods and services expenditure could hinder the optimization of local tax revenue.

This study focuses on analyzing the causal relationship between expenditure allocation and local tax revenue in Regencies/Cities in East Borneo Province. The aim is to delve into whether expenditure allocation has an impact on the magnitude of local tax revenue, or vice versa.

This research addresses a gap in previous studies that have given minimal attention to this phenomenon. Motivation suggests that increasing salaries and honoraria (represented by employee expenditure) and facilities (represented by goods and services expenditure) can enhance the performance of government officials. This, in turn, can positively impact the growth of local tax revenue.

Employee compensation and working facilities are crucial factors that can impact local tax revenue generation in a region like East Kalimantan Province, Indonesia. The growth of employee expenditures (PBP) and goods and service expenditures (PBBJ) are indicators used to analyze these effects. Research by [1]

highlights that the realization of goods and employee expenditure significantly influences tax revenue.

This suggests that as personnel costs and operational resources spending increase, they can positively contribute to tax revenue generation. Moreover, the study by [2] emphasizes that government expenditures, which can include employee compensation and working facilities, can lead to increased tax revenues, aligning with the spend-and-tax hypothesis.

This implies that investments in employee compensation and working facilities may result in higher tax revenues for the region over specific time intervals. Additionally, the research by [3] points out that tax and expenditure limitations (TEs) can lead to varied effects on local government revenues and expenditures. TEs can influence the fiscal response of local governments asymmetrically, potentially impacting how employee compensation and working facilities are managed in relation to tax revenue generation.

In conclusion, the relationship between employee compensation, working facilities, and local tax revenue generation in East Kalimantan Province, Indonesia, is a complex interplay that can be influenced by factors such as government expenditures, tax and expenditure limitations, and the overall financial management strategies employed by local authorities.

2. LITERATURE REVIEW

2.1 Local Tax

In Indonesia, UU Nomor 1 of 2022 establishes local taxes and fees as a critical way for regions to raise money. This money goes towards running local governments, setting tax policies, and ultimately improving services for residents. It also strengthens the independence of local authorities.

These local taxes are mandatory contributions that people and businesses within a region must pay by law. There's no direct payback for this contribution, but the funds are used for the region's needs and the overall well-being of its citizens.

The law allows regency and city governments to collect various taxes, including those on hotels, restaurants, entertainment, advertisements (BPJT), street lighting, and specific resources like rocks and groundwater. There's also a tax on swallow bird nests, a unique feature of Indonesia's tax system. Additionally, fees associated with acquiring land rights fall under local tax authority.

2.2 Compensation

Compensation is the total reward an employee of regional civil servants receives for their work. It is not just about the money (salary or wages) you receive, but also includes other benefits. Employee expense is the money that an employee spends on business-related activities and that is reimbursed by their employer. Common employee expenses include travel expenses, entertainment expenses, supplies, tools and equipment, and professional development.

Employee expenditure can be seen through increased employee spending in a number of ways, such as increased travel expenses, increased entertainment expenses,

increased supplies expenses, increased tools and equipment expenses, and increased professional development expenses.

According to PP Nomor 90 Tahun 2010, Employee expenditure includes salaries, allowances, meal stipends, overtime pay, vacation entitlements, and various allowances such as those for spouses, children, positions, hazardous work, income improvement, rice, income tax, remote area service, and general allowances.

Compensation, or the total reward an employee receives for their work, can be indirectly observed through the growth of employee expenses incurred by local governments.

Growth Rate of Employee Expenses = $\frac{((\text{Current Expense Amount} - \text{Previous Expense Amount}) / \text{Previous Expense Amount}) \times 100\%}{1}$

2.3 Working Facilities

Working facilities are the physical infrastructure, equipment, and resources provided by an employee of regional civil servants to support employees in performing their duties effectively, safely, and comfortably. They are the foundation for a productive and positive work environment.

Local governments, responsible for managing various public services and infrastructure within their jurisdictions, often allocate a significant portion of their budget to goods and services, including expenses related to working facilities. This allocation can be analyzed to gain insights into the government's prioritization of employee well-being and its commitment to creating a supportive work environment.

Goods and Services Expenditures. This category allocates funds for acquiring essential resources that government agencies

need to operate smoothly and deliver public services effectively. These expenditures are meticulously categorized based on their intended use, such as:

1. Operational Goods: Office supplies, stationery, and cleaning materials used within a single year.
2. Non-Operational Goods: Vehicles, machinery, and equipment that contribute to the long-term asset base of government agencies.
3. Public Service Agency Goods: Resources for Public Service Agencies (BLU) to support their operations and specialized services.
4. Community Goods: Disaster relief supplies, educational materials, or agricultural inputs distributed to the public.

Working facilities can indeed be assessed by analyzing the growth in spending on goods and services by local governments. The allocation of funds towards working facilities reflects the government's prioritization of employee well-being and its commitment to establishing a supportive work environment.

Growth Rate of goods and services expenditure = $\frac{((\text{Current Expense Amount} - \text{Previous Expense Amount}) / \text{Previous Expense Amount}) \times 100\%}{}$

2.4 Hygiene Factor Theory

Achieving optimal performance is a goal shared by every organization. To realize this goal, comprehensive efforts are required, focusing not only on motivation but also on eliminating dissatisfaction. In this context, Frederick Herzberg's Hygiene Factors theory serves as a crucial guide [4].

According to Herzberg, there are hygiene factors that, when lacking, can lead to dissatisfaction

among employees [5]. These factors include aspects such as salary, work conditions, relationships with supervisors and peers, company policies, and security [6]–[9].

Herzberg emphasized that providing these basic hygiene factors is crucial to prevent dissatisfaction in the workplace [10]. Moreover, Herzberg's theory distinguishes between hygiene factors and motivators. Hygiene factors are extrinsic elements related to the work environment and conditions, while motivators are intrinsic factors that drive satisfaction and motivation, such as recognition, achievement, and growth opportunities [11]–[13].

Studies have shown that hygiene factors like health and safety, workload, salary, promotion, and recognition significantly impact employees' job satisfaction and dissatisfaction [8], [14]. It is crucial for organizations to address both hygiene factors and motivators to ensure a balanced approach to employee satisfaction and performance.

3. METHODS

This research utilizes a panel data approach to analyze the influence of employee compensation and resource allocation on regional tax revenue. The study leverages financial reports from municipalities and regencies in ten East Kalimantan districts and cities: Balikpapan, Samarinda, Bontang, Kutai Timur, Kutai Barat, Kutai Kartanegara, Penajam Paser Utara, Berau, Mahakam Ulu, and Paser. The data encompasses a seven-year period, ranging from 2017 to 2023, providing a robust foundation for examining trends and relationships.

The core analytical technique employed is panel data multiple linear regression. This statistical method is particularly well-suited for analyzing data with multiple observations for the same

entities (districts and cities in this case) over time. Statistical software is utilized to estimate the model and assess the statistical significance of the relationships between the variables.

The independent variables of interest are:

- a. Growth of Employee Expenditures (PBP): This variable captures the year-to-year increase in employee compensation within each district or city. It allows us to investigate how changes in personnel costs impact regional tax revenue.
- b. Growth of Goods and Services Expenditures (PBBJ): This variable reflects the year-to-year change in spending on goods and services by the local governments. The analysis explores whether increased spending on operational resources translates into higher tax revenue.

The dependent variable is:

- a. Regional Taxes (PD): This variable represents the total tax revenue collected by each district or city over the study period. By examining the relationship between this variable and the independent variables, the research aims to identify potential drivers of regional tax revenue growth.

By employing this robust methodology and analyzing data from a diverse set of East Kalimantan districts and cities over a comprehensive timeframe, this research seeks to shed light on the complex interplay between employee compensation, resource allocation, and regional tax revenue generation. The findings can provide valuable insights for policymakers seeking to optimize resource allocation strategies and promote sustainable growth in regional tax revenue.

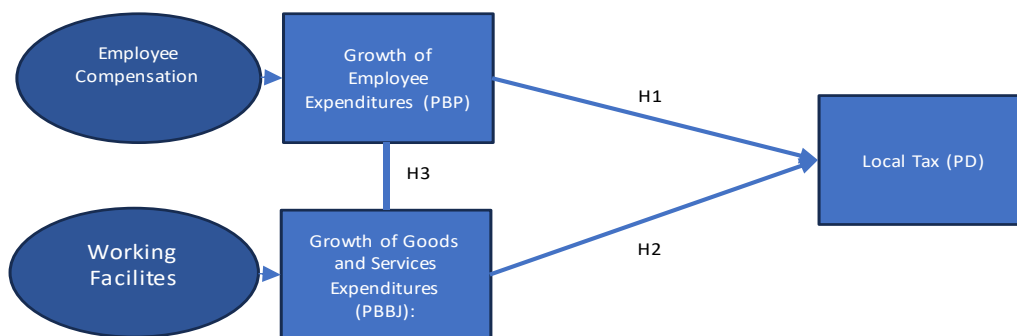


Figure 1. Research model

4. RESULTS AND DISCUSSION

The analysis investigated the influence of growth in employee expenditures

(PBP) and growth in goods and services expenditures (PBBJ) on regional tax revenue (PD) in ten East Kalimantan districts and cities from 2017 to 2023 using statical.

Table 1. Effect Model Test

Effect Model Test	Statistic of F/Chi Square	P-Value	Result
F test / Chow test (CEM/FEM)	99.35706	0.0000	FEM
Hausman test (FEM/REM)	0.18709	0.9107	REM
Lagrange Multiplier test (CEM/REM)	176.94386	0.0000	REM

Source: Processed data by Statical (2024)

Table 2. Result of Random Effect Model

	Estimate	z-Value	P-Value
Intercept	136.93371	2.4490	0.01433
PBP	25.61731	0.6809	0.49594
PBBJ	36.48216	1.6162	0.10606

	P-Value
R-Squared	0.03832
Adjusted R-Squared	0.00961
F-Statistics	2.66946
P-Value (F-Statistics)	0.26323

Source: Processed data by statical (2024)

- a. R-squared value: 0.03832. This indicates that Growth of Employee Expenditures and Growth of Goods and Services Expenditures can only explain 3.83% of the variance in Regional Taxes. The remaining 96.17% is explained by other factors.
- b. P-Value (F-Statistics): $0.26323 \geq 0.05$. This means that Growth of Employee Expenditures and Growth of Goods and Services Expenditures do not have a statistically significant simultaneous effect on Regional Taxes.
- c. Growth of Employee Expenditures (PBP): Has a positive effect on Regional Taxes, with a regression coefficient of 25.61731, but is not statistically significant, with a P-Value of $0.49594 \geq 0.05$.
- d. Growth of Goods and Services Expenditures (PBBJ): Has a positive effect on Regional Taxes, with a regression coefficient of 36.48216, but is not statistically significant, with a P-Value of $0.10606 \geq 0.05$.

The findings that PBP and PBBJ do not significantly influence Regional Tax Revenue align with previous research that highlights the complex nature of tax revenue determinants. For instance, studies have shown that regional tax revenues are often influenced by broader economic factors, such as economic growth, industrial composition, and administrative efficiency [15].

Moreover, the relatively low explanatory power of PBP and PBBJ suggests that other factors might be at play. These could include the level of economic activity, population growth, and policy changes at both the regional and national levels [16]. Additionally, the efficiency and effectiveness of tax collection mechanisms could significantly impact regional tax revenues [17].

5. CONCLUSION

The results of the regression analysis conducted on the relationship between the growth of employee expenditures (PBP) and the growth of goods and services expenditures (PBBJ) on regional taxes (PD) in East Kalimantan indicated a non-statistically significant association. This suggests that increasing employee compensation (PBP) and investing in working facilities (PBBJ) are unlikely to directly result in a significant rise in regional tax revenue in the region [18].

This finding aligns with the broader literature on tax revenue and economic development. Studies have shown a positive and significant relationship between tax revenue and economic development [19]. However, the specific impact of employee expenditures and goods and services expenditures on regional tax revenue may not be as straightforward as initially assumed, as evidenced by the non-significant results in the regression analysis for East Kalimantan.

Moreover, the influence of regional taxes and other legitimate regional revenues on regional financial sufficiency has been investigated in Indonesia [20]. Understanding the dynamics of tax revenue is crucial for regional financial independence, and while employee expenditures and investments in working facilities are important aspects of regional development, their direct impact on tax revenue may be limited, as indicated by the non-significant relationship found in the regression analysis for East Kalimantan.

In conclusion, while investments in employee expenditures and goods and services expenditures are essential for regional development, the direct link between these factors and regional tax revenue may not always be statistically significant, as observed in the case of East Kalimantan. This underscores the complexity of the

relationship between expenditure growth and tax revenue generation, highlighting the need for further research and nuanced policy

considerations in regional financial management.

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