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ANALYSIS OF LOCAL FINANCIAL INDEPENDENCE CHALLENGES MODERATED BY ECONOMIC GROWTH (CASE STUDY OF PROVINCES REGENCIES/CITIES IN KALIMANTAN)

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ABSTRACT

This research was aimed to analyze the influence of local taxes, revenue sharing, and capital expenditure on the independence of local government finances in the support of the implementation of autonomy by the government, using economic growth as a moderating variable. Using secondary data from financial audit reports on 56 districts/cities in Kalimantan over five years with 280 observations. The analysis method employs panel data, Moderated Regression Analysis (MRA), and hypothesis testing using Eviews 12.The results showed that local taxes have a significantly positive effect on local financial independence, while the sharing of revenue and expenditure of capital have a significant negative effect on local financial independence. Economic growth positively and significantly affects the relationship between local taxes and financial independence, while negatively and significantly affects the relationship between capital expenditure and financial independence, and economic growth is not able to moderate the relationship between revenue sharing to financial independence. Overall, economic growth has a significant role in moderating the effect of these variables used in Kalimantan districts/cities during the study period.

Keywords: *capital expenditures, economic growth, financial independence, local tax, revenue-sharing*

ABSTRAK

Tujuan penelitian ini adalah untuk menganalisis pengaruh pajak daerah, dana bagi hasil, dan belanja modal terhadap kemandirian keuangan daerah dalam rangka mendukung pelaksanaan otonomi yang pemerintah berlangsungkan sekarang, dengan menggunakan peran pertumbuhan ekonomi sebagai variabel moderasi. menggunakan data sekunder laporan hasil pemeriksaan keuangan pada 56 kabupaten /kota Kalimantan selama 5 tahun dengan jumlah 280 observasi. Metode Analisis menggunakan data panel, *Moderated Regression Analysis* (MRA), dan pengujian hipotesis dengan alat uji *Eviews 12*. Hasil temuan menunjukkan bahwa pajak daerah mempengaruhi kemandirian keuangan secara positif dan signifikan, sementara dana bagi hasil dan belanja modal berpengaruh signifikan secara negative terhadap kemandirian keuangan. Pertumbuhan ekonomi memoderasi hubungan antara pajak dan kemandirian keuangan daerah secara positif dan signifikan, dan memoderasi secara negative signifikan hubungan antara belanja modal dengan kemandirian keuangan sedangkan pertumbuhan ekonomi tidak mampu memoderasi hubungan antara dana bagi hasil dengan kemandirian keuangan. Secara keseluruhan, pertumbuhan ekonomi memiliki peran signifikan dalam moderasi pengaruh variabel tersebut di Kabupaten/Kota Kalimantan selama periode penelitian.

Kata Kunci: belanja modal, pertumbuhan ekonomi, kemandirian keuangan, pajak daerah, dana bagi hasil

A. INTRODUCTION

The continuity of any change in the Indonesian system of government has significant implications, particularly in regional autonomy policy. The importance of fiscal federalism reform in European countries aims to rationalise financial relations by applying the principles of effective revenue and expenditure alignment, granting greater fiscal autonomy to constituent units (states), and implementing a needs-based equalisation system (Alber & Valdescalici, 2012). In Indonesia, regional autonomy is regulated in Law No. 23 of 2014 concerning Regional

Government and Law No. 33 of 2004 concerning Financial Balance between the Central Government and Regional Governments. The regional autonomy policy taken by the central government aims to make local governments more independent, reduce the level of dependence on the central government, explore regional potential, and develop their regions in terms of development financing and regional financial management. Financial independence is a criterion for assessing the success of government policies in organizing autonomous regions. The independence ratio reflects the extent of a region's dependence on funding from external sources. A higher independence ratio indicates a lower dependence on external funds (central and provincial governments) and vice versa (Vurry, Suwendra, & Yudiaatmaja, 2018). The impact of the implementing regional autonomy is that local governments must be able to enhance services and the welfare of the community in a democratic, fair, equitable, and sustainable manner (Periansya, 2019).

The Indonesian government is currently striving for extensive and equitable development across all regions of Indonesia. This effort to ensure equal development requires budgetary funds and will impact the State Budget (APBN) as well as the economic growth of communities. This means that the government needs to allocate significant resources for these development projects, which can ultimately affect how the APBN is managed and influence economic growth in various regions. In addition, regional taxes, as a major component of Regional Own-Source Revenue , play a dominant role in contributing to local income. According to Law No. 1 of 2022, a regional tax is a mandatory contribution by individuals or entities that is coercive under the law, without direct compensation, and is used for regional needs to maximize public welfare, reflecting the economic potential of the region. This can influence investor confidence and the central government. Regional revenue linked to the APBN is then distributed as Revenue Sharing Funds, in accordance with Law No. 33 of 2004, Article 23, based on the realization of state revenues for the current fiscal year. Article 1, paragraph 18 of the same law states that the APBN includes revenue and expenditure, while local governments allocate capital expenditure budgets in the Regional Revenue and Expenditure Budget (APBD) to acquire fixed assets and develop infrastructure that supports governmental duti.

(Nainggolan, 2020) argues that, to achieve economic growth as projected by international organizations such as the World Economic Forum , enhance public welfare, and reduce inequality, the Indonesian government has implemented strategies and policies to promote national and sustainable development (djkn.kemenkeu.go.id). One of the current priority projects of the Indonesian government is the plan to develop the new capital city (Ibu Kota Negara/IKN), as outlined in the National Medium-Term Development Plan (RPJMN) 2020–2024 and Law No. 3 of 2022 on the Capital City. The relocation of the capital is expected to stimulate development and investment in new areas by building infrastructure projects such as new roads, public facilities, and transportation systems, as well as creating job opportunities. This initiative also aims to encourage more balanced development, reduce regional disparities, and improve access to public services. In addition, it also offers the possibility to design more environmentally friendly cities with sustainable design, renewable energy, and better waste management (Susanti, 2023).

However, the lack of financial resources is a barrier to regional development (Martinez-Vazquez & Rider, 2006); (Mourad, 2024), In the cases of China and India, there are intergovernmental issues such as unclear expenditure allocation, dependency on transfers, low regional own-source revenue, and technological limitations. These factors contribute to a lack of fiscal discipline among local governments, poor service quality, and, ultimately, pose a threat to economic growth within society. Therefore, the researcher assumes that regional financial independence is a key determinant of sustainable regional development. This study employs Regional Taxes, Revenue Sharing Funds, and Capital Expenditure as variables, with Economic Growth serving as a moderating variable, to evaluate Local Financial Independence. The author considers these factors to be the most effective in illustrating how well local governments can finance their administration, development, and public services.

B. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Literature Review

Teory Agency

(Jensen & Meckling, 1976) argumentiert in (Donaldson & Davis, 1991) that, Agency Theory explains the relationship between principals and agents, rooted in economic theory, decision theory, sociology, and organizational theory. In Agency Theory, the owners are the principals, the managers act as agents, and agency loss occurs when the residual earnings received by the principals (owners) are smaller than what they would have obtained if the principals (owners) had conducted transactions directly with the company. The purpose of this theory is to address issues between the principal (national government) and the agent (local government) regarding resource management and allocation. It aims to ensure that local government policies and actions align with the interests and objectives of the central government while enhancing accountability and efficiency in local government management.

Local Financial Independence

Local Financial Independence is a critical concept in implementing regional autonomy, reflecting how well a region can finance its needs without significant dependence on transfers from the central government. In this context, local financial independence is essential for effective regional autonomy. With financial independence, regions can manage their resources, formulate policies tailored to local needs, and reduce reliance on central government funds. Conversely, regional autonomy provides the authority needed to utilize financial independence effectively, enabling regions to achieve better development and public service outcomes. The balance between these two aspects is key to achieving effective and sustainable local government governance. One way to evaluate the sustainability of local financial independence is by calculating it through ratio analysis. The following are the criteria for assessing local financial independence:

Table 1. Level of Financial Independence

Regional Capability	Independence (%)
High	75.1% - 100%
Medium	50.1% - 75.0%
Low	25.1% - 50.0%
Very Low	0.0% - 25.0 %

Source: (Kepmendagri, 1996); (Awwaliyah, Agriyanto, & Farida, 2019)

Hypothesis Development

Local Taxes, Revenue–Sharing and Capital Expenditures Partially affect Financial Independence

Based on Law No. 1 Year 2004, Local Tax is a mandatory contribution paid by individuals or entities to the region which is used to promote public welfare and finance government administration. The level of local financial independence is closely related to public participation in paying taxes that reflect the welfare of the community. In 2020, 78.57% of state revenue came from domestic taxes, while non-tax state revenue (PNBP) from natural resources contributed 6.71%. The research of (Novitasari & Novitasari, 2019) & (Qoriiba, Aswar, & Ermawati, 2021) indicates that local taxes have an effective impact on the financial independence of local government.

The revenue collected at the local level, in relation to the State Budget (APBN), is redistributed based on need through Revenue Sharing Funds (DBH) as stipulated in Law No. 33/2004. Article 23 states that DBH is allocated based on the realized state revenue in the current financial year. Reduced transfers to regions from the central government can be offset if the state government takes over expenditures or is granted new taxation authority. There are three types of taxes in DBH: natural resource tax, personal income tax, and property tax, with natural resource tax being the most significant. Revenue Sharing aims to compensate regions that are rich in natural resources. The higher the Revenue Sharing Fund of a region, the greater its financial capacity and independence. The research of (Martini, Sari, Somadi, & Karman, 2019) & Rahayu (2019) indicate that financial independence is significantly influenced by DBH transfers.

Capital expenditure is a allocated budget for investment in permanent assets, such as the development of infrastructure and public facilities, which aims to improve the capacity and improve the service quality og the publik. These expenditures are effective when directed towards productive and sustainable projects. However, poor management can drain public finances and increase dependence on transfers from the central government, thus reducing local financial independence. Strategic capital expenditure can improve local financial independence if it can generate own-source revenues or reduce long-term operating costs. However, research by (Andriana, 2020) & (Handayani & Erinos, 2020) shows that capital expenditure have a significanly effect on the independence of local finances, although researchers assume otherwise.

H1 : Partially, the independence of local finance is significantly influenced by local taxes, revenue sharing funds and capital expenditures.

Partially, Economic Growth Moderates the relationship between Local Taxes, Revenue –Sharing, and Capital Expenditures with Local Financial Independence.

Strong economic growth can increase tax revenue and ultimately increase local financial independence. This growth can increase tax revenue without the need to change tax rates (Peacock & Wiseman, 1961). High local taxes increase local own-source revenue , reduce dependence on central funds, and enable regions to finance their needs independently. The interaction of these factors suggests that a healthy economy strengthens financial independence by increasing tax revenues and the capacity to fund development programs, indicating a significant relationship between economic growth, local taxes, and local financial independence.

Favorable economic growth can increase local revenues and reduce dependence on Revenue–Sharing Funds, which help build infrastructure and public services. However, high dependency and ineffective management can limit its positive impact on local financial independence. Therefore, a balanced strategy is needed, which includes increasing local revenue, effectively managing Revenue–Sharing Funds, and supporting economic growth to achieve sustainable local financial independence. This indicates a significant influence between economic growth, Revenue Sharing Fund, and local financial independence.

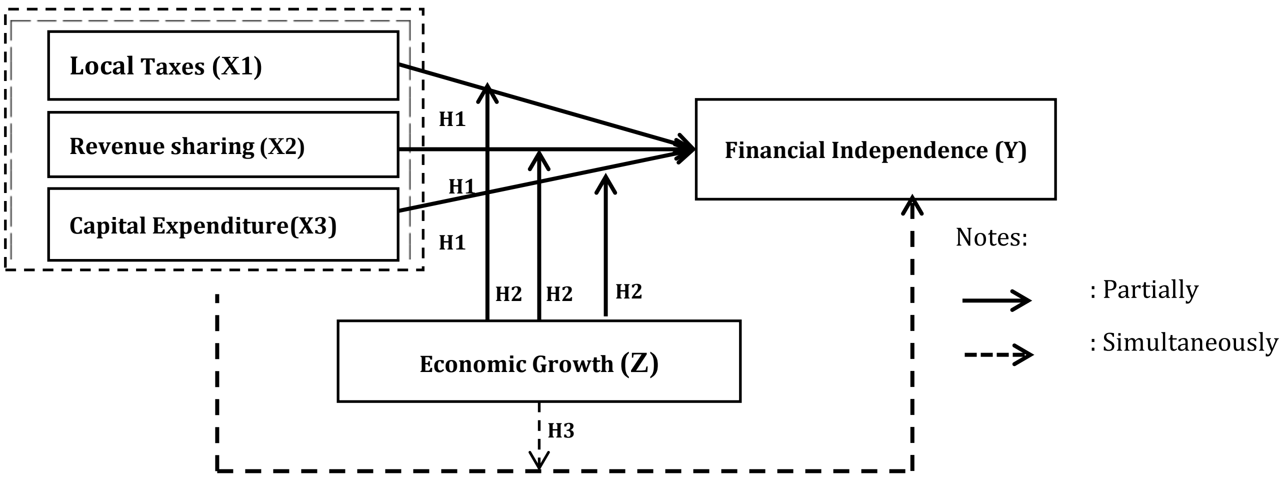
A healthy economic growth increases the fiscal capacity of regions to invest in capital expenditures that support the development of infrastructure and public facilities. The research of (Nurmainah, 2013) & (Asrudi et al., 2020) suggests that regional expenditure positively affects economic growth. local financial independence also has a positive impact on capital expenditure (Putri & Rahayu, 2019) Effective capital expenditure supports economic growth, reduces dependence on external funding, and increases local revenue. The synergy between these three factors creates a virtuous circle that strengthens competitiveness and financial independence, indicating an interaction effect between economic growth and capital expenditure on financial independence.

H2 : Partially, economic growth can moderate the relationship between local taxes, revenue –sharing funds, and capital expenditures on local financial independence.

Local taxes, revenue –sharing funds, and capital expenditure jointly (simultaneously) effect the independence of local finances moderated by economic growth.

Local tax is the main component of local own-source revenue which contributes significantly to local financial independence. Increased PAD, especially from local taxes, increases the ability of regions to be financially independent and affects local expenditures, including capital expenditures. The Capital expenditure includes expenditure on property, plant and equiment that provide benefits for more than one year, such as for land and equipment. The capital expenditure increase also led to an increase in transfer income from Revenue Sharing Funds allocated from the state budget to support the decentralization process. These funds come from the tax and non-tax sectors, reflecting the economic potential of the regions. The interaction between local taxes, revenue sharing funds, and capital expenditure illustrates local financial independence, with economic growth moderating this relationship.

H3 : Jointly (simultaneously) there is an influence of local taxes, revenue sharing funds, and capital expenditures on local financial independence moderated by economic growth.



Picture 1. Framework

Source : Data processed, 2024

C. RESEARCH METHODS

Source and type data

This study utilizes data from 56 districts and cities, consisting of 47 districts and 9 cities in 5 provinces on Kalimantan Island from 2018 to 2022. The distribution is as follows: West Kalimantan with 12 districts and 2 cities, Central Kalimantan with 13 districts and 1 city, South Kalimantan with 11 districts and 2 cities, East Kalimantan with 7 districts and 3 cities, and North Kalimantan with 4 districts and 1 city. The selection of this region is based on the phenomenon under study. The approach used is a quantitative approach with descriptive analysis.

Population and Sample

The sampling method used is saturated sampling, where all members of the population are included in the sample (Sugiyono, 2013). The population and sample consisted of local governments in districts/cities in Kalimantan, with a total of 56 financial reports over five years (2018-2022), resulting in 280 financial audit observations. Data collection methods include literature studies and documentation of financial statements obtained from the official website of the Supreme Audit Agency (BPK), the Central Bureau of Statistics (BPS), and other relevant sources. Financial independence is measured using ratios for each variable and panel data. The stages of analysis include regression model selection, descriptive statistics, hypothesis testing using Partial Test (T Test) and Simultaneous Test (F Test), with the help of EViews 12 statistical software.

Operational Variables

Local financial independence is measured using the ratio values of each variable with the following calculation :

$$\textbf{Local financial independence} = \left(\frac{\text{Local revenue}}{\text{Central+Provincial Transfers+loans}}\right) \text{X } 100\ \% \qquad (1)$$

$$\textbf{Local tax ratio} = \left(\frac{\text{Total tax regional}}{\text{Total local revenue}}\right) \text{X } 100\ \% \qquad (2)$$

$$\textbf{Revenue} - \textbf{sharing ratio} = \left(\frac{\text{Total revenue}-\text{sharing}}{\text{Total local revenue}}\right) \text{X } 100\ \% \qquad (3)$$

$$\textbf{Capital expenditure ratio} = \left(\frac{\text{Total capital expenditure}}{\text{Total local expenditure}}\right) \text{X } 100\ \% \qquad (4)$$

$$\textbf{Economic growth ratio} = \left(\frac{\text{PDBt} - \text{PDBt} - 1}{\text{PDBt} - 1}\right) \text{X } 100\ \% \qquad (5)$$

Using the Moderated Regression Analysis equation is as follows :

$$\boxed{Y = \alpha + b_1X_{1it} + b_2X_{2it} + b_3X_{3it} + b_4Z + b_5(X_{1it}\times Z) + b_6(X_{2it}\times Z) + b_7(X_{3it}\times Z) + e}$$

Notes :
PDBt : Gross Domestic Product for period t; PDBt -1 : Gross Domestic Product for previous period t-1; Y: Local Financial Independence; α : Constant; b_{t-n} : Regression coefficient; X_{1it} : local Tax; X_{2it}: Revenue–Sharing; X_{3it} : Capital Expenditure; Z : Economic Growh; $X_{1it}\times Z$: the interaction between local taxes and economic growth; $X_{2it}\times Z$: the interaction between revenue-sharing and economic growth; $X_{3it}\times Z$: the interaction between capital expenditure and economic growth; e : Error; < : less than; > : greater than.

Below is a selection of Panel Data Regression tests used to obtain the best model to estimate:

Chow test (Likely Hood Test)

Chow test criteria, If the Chi-Square prob. value > 0.050, the recommended model is Common Effect Model (CEM). If the Chi-Square prob. value is < 0.050, the most appropriate model is the Fixed Effect Model (FEM).

Table 2. Chow test

Redundant Fixed Effects Tests Equation : FEM Test cross – section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross – section F	9.006697	(55,220)	0.0000
Chi - square	330.167615	55	0.0000

Source: Data Processed Eviews12, 2024

The significance value for Prob cross section chi-squared is 0.000 < 0.050, indicating that the appropriate model is the Fixed Effect Model (FEM). The analysis is proceeded with the Housman test to consider the use of the Random Effects Model (REM).

Hausman test

Criteria for the Hausman test, If the probability value is < 0.050, the appropriate model is the Fixed Effect Model (FEM). Conversely, if the value is > 0.050, the correct model for hypothesis tests is the Random Effects Model (REM).

Table 3. Hausman Test

Correlated Random Effect - Hausman Test Equation : REM Test cross – section random effects			
Test Summary	Chi – Sq. Statistic	Chi – sq. d.f.	Prob.
Cross – section random	7.284190	4	0.1216

Source : Data Processed Eviews12, 2024

The value of significance for Prob cross section Chi-Square Random is 0.1216 > 0.050, indicating that the appropriate model is the Random Effect Model (REM). The analysis continues with the Lagrange Multiplier test to compare the Random Effects Model (REM) with the Common Effect Model (CEM).

Lagrange Multiplier test

Criteria Lagrange Multiplier, if the Prob cross-section Breusch-Pagan. If the value is > 0.050, then the recommended model to use is the Common Effect Model (CEM). Conversely, if the value is < 0.050, then the correct model for hypothesis testing is the Random Effect Model (REM).

Table 4. Lagrange Multiplier Test

Lagrange Multiplier Tests for Random Effects Null hypotheses : No effects Alternative hypotheses : Two - sided (Breusch – Pagan) and one - sided			
	Cross - section	Test Hypothesis Time	Both
Breusch - Pagan	188.9699 (0.0000)	28.00587 (0.0000)	216.9758 (0.0000)

Source : Data Processed eviews12, 2024

The significance value for Prob.cross-section Breusch-Pagan is 0.000 < 0.050. As such, it can be decided that the best model for hypothesis testing in this study is the Random Effect Model (REM).

Through the results of testing the panel data regression model generated, which is determined from the results of the Chow Test, Hausman Test, and Lagrange Multiplier Test, it can be determined that the best model to use in this study is the Random Effect Model or Generalised Least Squares (GLS). The data in this study doesn't use classical assumption tests because, according to Hsiao (2003); Widarjono (2018), (Ajija, Sari, Setianto, & Primanti, 2011); (Fauzi, Dencik, & Asiati, 2019); (Gujarati, 2003); panel data using the Generalized Least Squares (GLS) or Random Effect Model is considered to have met classical assumption tests. This method is often used for panel data analysis and is considered to overcome some of the problems that generally arise in the classical assumption test or in other words, the use of the random effect model in this study is sufficient to ensure that the basic assumptions of the regression model have been met.

D. RESULT AND ANALISIS

Descriptive Statistic

Table 5. Descriptive Statistic Test

	Y	X1	X2	X3	Z
Mean	12.27	3.94	17.88	22.93	3.53
Median	9.42	2.28	13.19	22.60	4.57
Maximum	52.31	23.59	69.77	49.35	14.49
Minimum	1.07	0.070	1.29	8.10	-4.21
Std. Dev.	8.51	4.31	15.47	6.76	3.03
observations	280	280	280	280	280

Source : Data Processed eviews12, 2024

Note : Y = Financial Independence; X1= Local Tax; X2= Revenue –Sharing; X3= Capital Expenditure; Z= Economic Growth

The descriptive statistical test results show 280 observations from 56 Budget Realization Reports throughout Kalimantan during 2018-2022:

The average local financial independence ratio (Y) in districts/cities across Kalimantan is 12.27% with a standard deviation of 8.51% indicates that only a few data points are close to average value, with a maximum value of 52.31% from Balikpapan City and a minimum value of 1.07% from Mahakam Ulu Regency. The average local tax ratio (X1) of 3.94% with a standard deviation of 4.31% shows that many data points are close to the average local tax ratio, with a maximum value of 23.59% from Balikpapan City and a minimum value of 0.07% from Mahakam Ulu Regency. The average revenue sharing ratio (X2) of 17.88% with a standard deviation of 15.47% shows that only a few data points are close to the average revenue sharing ratio, with a maximum of 69.76% from Kutai Kartanegara Regency and a minimum of 1.29% from Melawi Regency. The average capital expenditure ratio (X3) is 22.93% with a standard deviation of 6.76%, indicating that only a few data points are close to the average capital expenditure, with a maximum value of 49.35% from Kabupaten Berau and a minimum of 8.10% from Kabupaten Hulu Sungai Tengah. Finally, the average economic growth (Z) is 3.53% with a standard deviation of 3.03%, indicating that only a few data points are close to the average economic growth, with a maximum value of 14.49% from North Penajam Paser Regency and a minimum value of -4.21% from Kutai Kartanegara Regency.

Function of a regression equation with moderation :

$$Y = 9.533100 + 1.724803 * X1 - 0.074962 * X2 - 0.099322 * X3 - 0.094434 * Z$$
$$-0.004584 * X1Z + 0.002959 * X2Z - 0.002540 * X3Z + [CX = R]$$

The constant coefficient (C) of 9.533100 indicates that if the independent variables, namely Local Taxes, Capital Expenditures, Revenue Sharing Funds, and Economic Growth have a probability value of 0.000, then the level of local financial independence (Y) will increase by 9.533100%. The coefficient of Local Tax (X1) of 1.724803 shows a positive effect, that is, every 1% increase in Local Tax will increase local financial independence by 1.724803%. While the Revenue Sharing Fund coefficient (X2) of -0.074962 shows a negative effect, meaning that a 1% increase in revenue sharing funds will reduce local financial independence by 0.074962%. The Capital Expenditure coefficient (X3) of -0.099322 also indicates a negative effect, meaning that every 1% rise in capital expenditure will reduce financial independence by 0.099322%. Meanwhile, the coefficient of Economic Growth (Z) of -0.094434 indicates that a 1% increase in economic growth will reduce financial independence by 0.094434%.

The interaction coefficient between Local Taxes and Economic Growth (X1Z) of -0.004584 shows a negative effect, meaning that if this interaction increases by 1% then financial independence will decrease by 0.004584%. Conversely, the interaction coefficient between Revenue Sharing Funds and Economic Growth (X2Z) of 0.002959 shows a positive influence, meaning that if this interaction increases by 1% then financial independence will increase by 0.002959%. Finally, the interaction coefficient between Capital Expenditure and Economic Growth (X3Z) of -0.002540 shows a negative effect, meaning that if this interaction increases by 1% then financial independence will decrease by 0.002540%.

Partial /Individual Parameter Significance Test (Statistical Test)

Table 6. T-Statistic without Moderation

Dependent Variable : Financial Independence (Y)
Method : Panel EGLS (Cross – section random effects)
Sample : 2018 – 2022
Periods Included: 5
Cross – sections Included: 56
Total Panel (balanced) observations; 280
Swamy and Arora estimator of component variances

Variable	T-Statistic	Prob
C	10.43206	0.0000
Pajak Daerah (X1)	19.89348	0.0000
Dana Bagi Hasil (X2)	-3.029121	0.0027
Belanja Modal (X3)	-3.853380	0.0001
Pertumbuhan Ekonomi (Z)	-2.185910	0.0297

Source : Data Processed eviews12, 2024

Table 7. T-Statistic with Moderation

Dependent Variable : Financial Independence (Y)
Method : Panel EGLS (Cross – section random effects)
Sample : 2018 – 2022
Periods Included: 5
Cross – sections Included: 56
Total Panel (balanced) observations; 280
Swamy and Arora estimator of component variances

Variable	T-Statistic	Prob
C	22.52308	0.0000
X1*Z	9.704125	0.0000
X2*Z	-0.290794	0.7714
X3*Z	-5.263470	0.0000

Source : Data Processed eviews12, 2024
Note : Prob = probability; significant probability value < 0.050= effect; significant probability value >0.050 = no effect

The results in Table VI indicate that the Local Tax variable (X1) has a t value of 19.89348 with a probability of 0.000, which indicates a positive and statistically significant effect on local financial independence (Y). The Revenue Sharing Fund variable (X2) has a t value of -3.029121 and a probability of 0.0027, indicating a negative and significant effect. Similarly, the Capital Expenditure variable (X3) has a t-statistic of -3.853380 and a probability of 0.0001, which also shows a negative and significant effect. The Economic Growth variable (Z) has a t-statistic of -2.185910 and a probability of 0.0297, which shows a negative and significant effect.

According to Table VII, the interaction between Local Taxes and Economic Growth (X1Z) has a t value of 9.704125 and a probability of 0.000 which indicates a significant positive effect. This means that Economic Growth moderates the positive relationship between Local Taxes and Financial Independence. However, the interaction between Revenue Sharing and Economic Growth has a t-statistic of -0.290794 and a probability of 0.7714, which indicates that this interaction does not affect financial independence. Finally, the interaction between Capital Expenditure and Economic Growth (X3Z) has a t-statistic of -5.263470 and a probability of 0.0000, showing a significant negative effect, which means that Economic Growth moderates the negative relationship between Capital Expenditure and Financial Independence.

Simultaneous Parameter Test (F-Statistic Test)

Table 8. F-Statistic test result

Without Moderation		With Moderation	
R – squared	0.599312	R – squared	0.192556
Adjusted R – squared	0.593484	Adjusted R – squared	0.183779
S.E. of regression	2.410640	S.E. of regression	3.446840
F – statistic	102.8298	F – statistic	21.93973
Prob (F – statistic)	0.000000	Prob (F – statistic)	0.000000

Source : Data Processed Eviews12, 2024

The simultaneous test results shown in Table VIII show that, without moderation variables, the calculated F value is 102.8298 with a probability of 0.000 which is smaller than 0.050. This shows that the variables of local taxes, revenue sharing funds, and capital expenditures simultaneously have a significant and positive effect on local financial independence. In addition, by using moderation variables, the calculated F value becomes 21.93973 with a probability of 0.000 which is also smaller than 0.050. This shows that local taxes, revenue sharing funds, and capital expenditures still have a positive and statistically significant effect on local financial independence after being moderated by economic growth.

Result

Local Taxes, Revenue –Sharing and Capital Expenditures Parcially affected the Local Financial Independence.

The results showed that local taxes had a positive and significant impact, with a t value of 19.89348 and a probability of 0.000. This is consistent with the findings of (Novitasari & Novitasari, 2019) and (Qoriiba et al., 2021) Analysis of 56 districts/cities in Kalimantan from 2018-2022 shows that Balikpapan City has the highest tax revenue, except in 2020 which experienced a decline due to the pandemic. In 2021, Balikpapan's revenue recovered to 23.59% of total revenue, with a realization of IDR 537,494,991,847.32, exceeding the target.

Balikpapan's financial independence ratio is also the highest, at 52.32%. In contrast, Mahakam Ulu District has the lowest tax contribution at 1.07%, with a financial self-reliance ratio of only 1.52%. This shows that the higher the local tax contribution, the better the financial independence of a region.

The test results show that revenue sharing funds have a significantly negative impact on the independence of local finances in districts / cities in Kalimantan Province, with a t value of -3.029121 and a probability of 0.0027. This finding is consistent with the research of (Martini et al., 2019) and Rahayu (2019). In the descriptive analysis, Kutai Kartanegara Regency received the highest revenue –sharing fund, 69.77%, with an average of 62.16% from 2018-2022. In 2022, the contribution of revenue –sharing funds reached 67.77% of total local revenue, with a budget of IDR 3,445,112,459,410 and realization of IDR 5,193,110,973,145, exceeding the target. In contrast, Melawi Regency in West Kalimantan has the lowest revenue –sharing ratio at 1.2994, with a realization of only 59.90% in 2019. Kutai Kartanegara's financial independence ratio in 2022 is 8.39%, while Melawi's is 3.9% in 2019. This indicates that dependence on revenue–sharing can have a negative impact on local financial independence.

Partially, capital expenditure has a significant negative effect on financial independence with a t value of -3.853380 and a probability of 0.0001. This finding contradicts (Andriana, 2020) & (Handayani & Erinos, 2020) which state that capital expenditure has no effect on financial independence. An increase in capital expenditure can reduce regional independence, because high expenditure can weaken the ability of regions to finance development independently. Berau Regency had the highest capital expenditure ratio in 2019 at 49.36%, with a budget of IDR 1,641,385,058,888.68 and a realization of IDR 1,286,541,707,927.48, this shows a decrease in realization of 78.38%. On the other hand, Hulu Sungai Tengah Regency in South Kalimantan has the lowest capital expenditure contribution in 2022, with a ratio of 8.10%, a budget of IDR 139,951,480,005 and a realization of IDR 98,997,565,453.32 which was only realized by 70.74%. Berau Regency's financial independence ratio was 8.59%, while Hulu Sungai Tengah Regency's was 16.91%. This indicates that capital expenditure has a negative impact on financial independence, in line with the opinion of (McConnell & Muscarella, 1985) which states that fluctuations in capital expenditure are influenced by the number of positive projects.

Partially, the effect of Local taxes, revenue–sharing, and capital expenditures on financial independence with Moderated by economic growth

The results show that economic growth positively and significantly moderates the relationship between local taxes and financial independence in districts/cities in Kalimantan, with t-statistic of 9.704125 and probability of 0.000. Balikpapan City records the maximum interaction with economic growth of 4.99%, tax of 22.89%, and financial independence of 44.88%. On the other hand, Pontianak City has minimum interaction with economic growth of -4.99%, tax of 16.72%, and financial independence of 37.94%. The alignment between economic growth and taxes has a positive impact on financial independence. Increased economic activity can increase tax revenues without changing tax rates (Peacock & Wiseman, 1961), as well as expanding the tax base and potential for local revenue. Therefore, economic growth not only increases local taxes but also financial independence, although the impact could be different if growth is uneven or unstable.

Partially, economic growth does'nt moderate the relationship between Revenue–Sharing Funds and district/city financial independence in Kalimantan Province. With a calculated t value of -0.290794 and a probability of 0.7714, economic growth is not significant in moderating this relationship. The maximum interaction value is obtained by Penajam Paser Utara Regency with economic growth of 14.49%, revenue –sharing funds of 22.21%, and financial independence of 7.84%. On the other hand, Kutai Kartanegara Regency recorded the minimum value with economic growth of -4.21%, revenue–sharing funds of 61.09%, and financial independence of 11.60%. The allocation of revenue –sharing funds that is not in line with economic growth causes uncertainty in assessing financial independence. This can be caused by economic growth that is not in line with the distribution mechanism of revenue –sharing funds. Equitable economic growth can generally increase revenue, while revenue –sharing often relies on allocations based on certain criteria, such as population, which may not be aligned with regional growth. As a result, economic growth fails to moderate the relationship between revenue –sharing and financial independence due to a variety of factors, including distribution mechanisms, dependency on funds, and inadequate local financial management.

Partially, economic growth negatively and significantly moderates the relationship between capital expenditure and district/city financial independence in Kalimantan Province. With a calculated t value of -5.263470 and a probability of 0.000, economic growth significantly affects this moderation. The interaction analysis shows the highest value in Penajam Paser Utara Regency, with economic growth of 14.49%, capital expenditure of 22.21%, and financial independence of 7.84%. On the other hand, Berau City recorded the minimum value with economic growth of -3.96%, capital expenditure of 37.44%, and financial independence of 11.26%. The level of interaction between economic growth and capital expenditure is not in line with the financial independence achieved, resulting in a negative impact. This may be due to the instability of economic growth, which is influenced by factors such as population, natural resources and technology. This instability can worsen financial self-sufficiency, especially if capital expenditure is poorly managed or'nt in line with economic priorities.

Local Taxes, Revenue –Sharing, and Capital Expenditure simultaneously effect on Local Financial Independence with by Ekonomic Growth

The hypothesis testing results show a simultaneos economic growth moderates the relationship between Local Taxes, Revenue–Sharing Funds, and Capital Expenditures on the Independence Local Finance with a positive and significant impact. With an F-statistic value of 102.8298 and a probability of 0.000, it can be concluded that Local Taxes, Revenue–Sharing Funds, and Capital Expenditures have a significant and positive effect on Local Financial Independence in Kalimantan when moderated by Economic Growth.

Simultaneously, economic growth has a complex impact on the relationship between taxes, revenue sharing funds, capital expenditures, and regional fiscal independence. The economic growth can strengthen the positive relationship between local tax and financial independence by increasing revenue capacity and increasing local financial independence. In contrast, the effect of economic growth on revenue–sharing tends to be limited because its allocation is often determined by a formula that isn't directly influenced by economic conditions. For capital expenditure, economic growth can have a mixed impact; in good economic conditions, capital expenditure can increase and support local financial independence, but economic instability can cause uncertainty in the allocation of capital expenditure. Overall, economic growth affects the relationship between the three variables and local financial independence in different ways, depending on the context and management of each variable.

E. CONCLUSIONS

The results of tests performed on local taxes, revenue sharing funds, and capital expenditure on local financial independence, with economic growth as a moderating variable, showed that local taxes have a significant positive effect on financial independence, while financial independence is negatively and significantly influenced by capital expenditures and revenue sharing funds. The role of economic growth in moderating partially, a significant positive effect on the relationship between taxes and financial independence, while negatively and significantly moderating the relationship between capital expenditure and financial independence. In additional, economic growth is unable to moderate the relationship between revenue sharing and local financial independence. Finally, overall, economic growth played a significant role in moderating the impact of the variables tested in districts/cities in Kalimantan during the study period. Most of the regions studied in this research still have low financial potential, with the majority of financial independence below the national average or in the lower middle range.

The limitations of data, time, space, and the use of statistical test tools in this study may affect the findings if studied in other regions. The limitations of the variable measurement scale may not fully explain the actual situation, and there may be external influences such as government policies and global factors that may not be fully discussed in this study.

This research is hoped to be a reference to optimizing local taxes, improving revenue sharing management and capital expenditure, and encourage economic diversification to reduce dependence and improve regional finances. Coordination and collaboration between regions is also very important to support sustainable development and achieve local financial independence in Kalimantan.

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