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The Effect of Economic Growth and Micro, Small and Medium Enterprises on Regional Original Income in Lhokseumawe City 2010-2025

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A R T I C L E I N F O

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A B S T R A C T

This study aims to analyze the influence of economic growth and MSMEs on regional original income (PAD) in the city of Lhokseumawe for the period 2010-2025. This study uses a quantitative approach with secondary data obtained from the central statistics agency (BPS) and the office of industry, trade, cooperatives, and MSMEs of Lhokseumawe city, then analyzed using multiple linear regression. The results of this study show that partially economic growth has a significant effect on PAD with a negative influence direction, while MSMEs do not have a significant effect on PAD. However, simultaneously economic growth and MSMEs have a significant effect on PAD with a determination coefficient value (R2) of 54.03%, which shows that the two variables are able to explain the variation in PAD by 54.03%, while the rest are influenced by other variables outside the study.

INTRODUCTION

Regional original revenue (PAD) is an important indicator in measuring regional fiscal independence and the ability of local governments to finance development through optimizing local economic potential (Halim, 2021). Regional autonomy presents the authority to local governments to manage the origin of power and increase PAD as a form of fiscal decentralization (Sari, 2022). In this context, economic growth and the development of micro, small, and medium enterprises (MSMEs) are two strategic aspects that have the potential to increase regional revenue through the expansion of economic activities, job creation, and an increase in the tax base and regional levies (Menne et al, 2021).

The city of Lhokseumawe has economic potential that continues to grow with the number of MSMEs increasing during the 2010-2025 period, but this increase has not been followed by the best economic growth of PAD (BPS Lhokseumawe & Office of Industry, Trade, Cooperatives, and MSMEs of Lhokseumawe City 2025). Data shows that the growth in the number of MSMEs and economic growth fluctuates, while the realization of PAD is still inconsistent and has not even achieved the target set by the local government in 2025, as a result indicating a gap between the regional economic potential and the contribution to PAD.

Previous research findings also show inconsistent findings regarding the influence of economic growth and MSMEs on PAD. Some studies have found that economic growth and MSMEs have a positive effect on PAD, while other studies show meaningless or even negative influences, so the relationship between these variables still requires empirical testing on different regional characteristics (Abdul Ghofa, 2022). Therefore, this study intends to examine the influence of economic growth and MSMEs on PAD in Lhokseumawe City during the 2010-2025 period to fill research gaps and provide input for policy formulation to increase regional fiscal independence.

Table 1. Economic Growth, Number of MSMEs and PAD

Year	Economic Growth	Number of MSMEs	PAD Billion
2010	8,07	362 unit	56.726.589.730
2011	3,7	385 unit	73.620.310.358
2012	4,68	397 unit	86.541.912.951
2013	3,72	403 unit	101.596.400.437
2014	2,44	513 unit	121.450.818.035
2015	2,39	1.318 unit	127.497.344.793
2016	0,46	2.318 unit	133.179.011.317
2017	0,48	2.888 unit	149.307.806.874
2018	1,51	2.915 unit	158.721.480.199
2019	2,51	5.493 unit	169.993.478.633
2020	-3,85	5.623 unit	148.710.876.245
2021	4,17	5.739 unit	61.984.628.376
2022	5,91	6.353 unit	68.212.506.871
2023	9,44	6.779 unit	67.901.946.334
2024	2,99	6.848 unit	62.856.385.864

2025	3,39	6.947 unit	79.268.325.903

Data source from BPS Lhokseumawe & Department of Industry, Trade, Cooperatives and MSMEs of Lhokseumawe City 2010-2025

LITERATURE REVIEW

Regional original revenue (PAD) is the origin of regional revenue derived from regional taxes, regional levies, findings of segregated regional wealth management, and other legitimate revenues. PAD is a guide to fiscal independence because it is used to finance the implementation of government and regional development (Law number 33 of 2004). Economic growth reflects an increase in economic activity as measured through gross regional domestic product (GDP). An increase in economic activity will expand the tax base and regional levies, resulting in the potential to increase PAD (Todaro, 2020; Mardiasmo, 2021).

MSMEs play a role in creating jobs, increasing people's income, and encouraging regional economic activities. The development of MSMEs also increases regional revenue through taxes and levies so that it plays a role in increasing PAD (law number 20 of 2008; Purnomo, 2023). Theoretically, economic growth and the development of MSMEs support each other in increasing regional economic activities. The increase in activities will expand the base for PAD (Ministry of Finance of the Republic of Indonesia, 2023; Ministry of Cooperatives and SMEs, 2024).

H1: It is suspected that economic growth has a positive and significant effect on the local original income (PAD) in the city of Lhokseumawe in 2010-2025.

H2: It is suspected that MSMEs have a positive and significant effect on local original income (PAD) in the city of Lhokseumawe in 2010-2025.

H3: It is suspected that economic growth and MSMEs simultaneously have a positive and significant effect on local original income (PAD) in the city of Lhokseumawe in 2010-2025.

Conceptual Framework

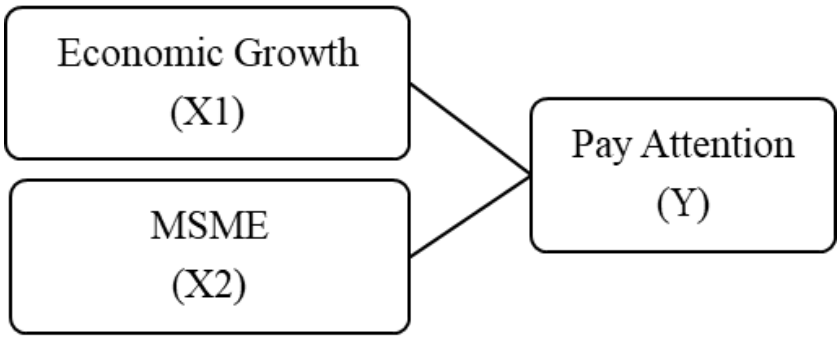


Figure 1. Conceptual Framework

METHODOLOGY

This study uses a quantitative approach with a causal associative research design to analyze the influence of economic growth and micro, small, and medium enterprises (MSMEs) on the local original income (PAD) of Lhokseumawe City for the period 2010-2025. The study uses secondary data in the form of a time series obtained from the Central Statistics Agency (BPS), the Department of Industry, Trade, Cooperatives and MSMEs, as well as local government financial statements. The variables of this study consist of economic growth (X1) which is measured based on the GDP growth rate on a constant price basis (%), MSMEs (X2) which is measured based on the number of active business units (units), and PAD (Y) which is measured based on the realization of PAD (billion rupiah).

The data was analyzed using multiple linear regression with the help of Eviews 13 software to test the influence of economic growth and MSMEs on PAD. Before hypothesis testing, a classical assumption test was carried out which included normality, multicollinearity, heteroscedasticity, and autocorrelation tests so that the regression model met the good estimation criteria (Ghozali, 2018). Furthermore, hypothesis testing was carried out through a t-test to test the influence of passing, the f-test to test the simultaneous influence, by coefficient of determination (Adjusted (R2) to measure the model's ability to explain PAD variation, with a significant level of 5% (Sugiyono, 2019; Yusuf, 2019).

RESEARCH RESULT

Multiple Linear Regression Analysis Test

The multiple linear regression analysis test is used to test the influence of two or more independent variables on bound variables. The following are the results of the multiple linear regression analysis test:

Table 2. Multiple Linear Regression Analysis Test Results

Dependent Variable: Y
Method: Least Squares
Date: 07/24/26 Time: 12:31
Sample: 2010 2025
Included observations: 16

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	25.76249	0.475786	54.14718	0.0000
X1	-0.092589	0.023271	-3.978662	0.0016
X2	-0.021165	0.059337	-0.356693	0.7270

R-squared	0.550297	Mean dependent var	25.30000
Adjusted R-squared	0.481112	S.D. dependent var	0.381226
S.E. of regression	0.274612	Akaike info criterion	0.420446
Sum squared resid	0.980353	Schwarz criterion	0.565306
Log likelihood	-0.363566	Hannan-Quinn criter.	0.427864
F-statistic	7.953978	Durbin-Watson stat	1.467360
Prob(F-statistic)	0.005546		

Source: Data Processed with Eviews

Based on the results of multiple linear regression, the regression equation Y=25.762-0.092X1-0.021X2 was obtained. The cost value of 25.7624 leads to the fact that if the variable X1 (economic growth) has a coefficient of -0.0925 with a probability value of 0.001 (<0.05) so that X1 (economic growth) has a negative and significant effect on Y (PAD). meanwhile, the variable X2 (MSMEs) has a coefficient of -0.0211 with a probability value of 0.7270 (>0.05) so that X2 (MSMEs) has a negative and insignificant effect on Y (PAD). in addition, the Adjusted R-squared value of 0.4811 shows that about 48.11% of the variation of the Y variable can be explained by the variables X1 and X2 while the remaining 51.89% is influenced by factors outside the model. The Prob(F-statistic) value of 0.005546 (< 0.05) shows that simultaneously the variables X1 and X2 have a significant effect on the Y variable, so the regression model is feasible to use.

Partial Hypothesis Test (t-test)

This test aims to see how the influence of each independent variable affects the dependent variable. This test is carried out by comparing the t-calculated value (t-statistic) with the t-table

1. If the t-value is calculated < t-table or a significant value > 0.05, then HI is rejected, meaning that there is no significant influence between the independent variable and the dependent variable.
2. If the t-value is calculated > the t-table or a significant value < 0.05, then HI is accepted, meaning that there is a significant influence between the independent variable and the dependent variable.

Table 3. Partial Hypothesis Test (t-test)

Dependent Variable: Y
Method: Least Squares
Date: 07/24/26 Time: 12:31
Sample: 2010 2025
Included observations: 16

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	25.76249	0.475786	54.14718	0.0000
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R-squared	0.550297	Mean dependent var	25.30000
Adjusted R-squared	0.481112	S.D. dependent var	0.381226
S.E. of regression	0.274612	Akaike info criterion	0.420446
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Log likelihood	-0.363566	Hannan-Quinn criter.	0.427864
F-statistic	7.953978	Durbin-Watson stat	1.467360
Prob(F-statistic)	0.005546		

Source: Data Processed with Eviews

Based on the results of the t-test, the variable X1 (economic growth) has a t-calculated value of -3.9786 with a probability value of 0.0016, which is smaller than 0.05. This shows that X1 (economic growth) has a negative and significant effect on the variable Y (PAD), so the hypothesis that there is an influence of X1 (economic growth) on Y (PAD) is accepted. Meanwhile, the variable X2 (MSMEs) has a t-calculated value of -0.356 with a probability value of 0.7270, which is greater than 0.05. Thus, X2 (MSMEs) has a negative but not significant effect on the variable Y (PAD), so the hypothesis that there is an influence of X2 (MSMEs) on Y (PAD) is rejected.

Simultaneous Hypothesis Test (F)

This test is used to see the influence of all independent variables together affecting the dependent variables. This test is conducted by comparing the value of F-calculation (F-statistic) with the F-table.

1. If the value of F-calculated < F-table or a significant value > 0.05, H3 is rejected, meaning that the independent variables together have no effect on the dependent variables.
2. If the value of F-calculated > F-table or significant < 0.05, H3 is accepted, meaning that the independent variables together affect the dependent variables.

Table 4. Simultaneous Test Results (F)

Dependent Variable: Y
Method: Least Squares
Date: 07/24/26 Time: 12:31
Sample: 2010 2025
Included observations: 16

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	25.76249	0.475786	54.14718	0.0000
X1	-0.092589	0.023271	-3.978662	0.0016
X2	-0.021165	0.059337	-0.356693	0.7270

R-squared	0.550297	Mean dependent var	25.30000
Adjusted R-squared	0.481112	S.D. dependent var	0.381226
S.E. of regression	0.274612	Akaike info criterion	0.420446
Sum squared resid	0.980353	Schwarz criterion	0.565306
Log likelihood	-0.363566	Hannan-Quinn criter.	0.427864
F-statistic	7.953978	Durbin-Watson stat	1.467360
Prob(F-statistic)	0.005546		

Source: Data Processed with Eviews (2026)

Based on the results of the F test, an F-statistical value of 7.9539 was obtained with a Prob(F-statistic) value of 0.005, which is smaller than the significance level of 0.05. This shows that the variables X1 (economic growth) and X2 (MSMEs) simultaneously (together) have a significant effect on the Y variable (PAD). Thus, H_0 is rejected and H_a is accepted, so that the regression model used is declared feasible to explain the relationship between independent variables and dependent variables.

Coefficient of Determination (R2)

Coefficient determination is an indicator used to explain the variation of a model and aims to see the extent of a model's ability and aims to see the extent of a model's ability to explain dependent variables. The following are the results of the determination coefficient test:

Table 5. Coefficient Results of Determination (R2)

Dependent Variable: Y
Method: Least Squares
Date: 07/24/26 Time: 12:31
Sample: 2010 2025
Included observations: 16

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	25.76249	0.475786	54.14718	0.0000
X1	-0.092589	0.023271	-3.978662	0.0016
X2	-0.021165	0.059337	-0.356693	0.7270

R-squared	0.550297	Mean dependent var	25.30000
Adjusted R-squared	0.481112	S.D. dependent var	0.381226
S.E. of regression	0.274612	Akaike info criterion	0.420446
Sum squared resid	0.980353	Schwarz criterion	0.565306
Log likelihood	-0.363566	Hannan-Quinn criter.	0.427864
F-statistic	7.953978	Durbin-Watson stat	1.467360
Prob(F-statistic)	0.005546		

Source: Data Processed with Eviews (2026)

Based on the results of the determination coefficient (R^2) test, the R-squared value was 0.5502 or 55.02%, while the Adjusted R-squared value was 0.4811 or 48.11%. This shows that the independent variables X1 (economic growth and X2 (MSMEs) were able to explain the variation of the dependent variable Y (PAD) by 48.11%, while the remaining 51.89% was influenced by other factors that were not included in the research model. Thus, the regression model has a fairly good ability to explain the relationship between independent variables and dependent variables.

DISCUSSION

The economic growth of Lhokseumawe City during the period 2010-2025 shows fluctuations. Economic growth decreased from 8.07% in 2010 to 0.48% in 2017, then increased to reach 9.44% in 2023. Furthermore, economic growth decreased to 2.99% in 2024 and increased again to 3.39% in 2025. Meanwhile, the number of MSMEs showed an increasing trend from 2010 to 2025, which reflects the development of community business activities. PAD also experienced changes during the research period, with an increase to reach Rp 169.9 billion in 2019 before declining in the following period.

The results of multiple linear regression produced an equation (Y=25.762-0.092X_1-0.021X_2). Economic growth (X1) had a negative and significant effect on PAD, with a coefficient of -0.092 and a probability of 0.0016 (<0.05). This finding shows that the increase in economic growth has not directly increased the PAD of Lhokseumawe City. This condition indicates that the growing economic activity has not been fully concentrated in sectors that contribute optimally to regional revenue.

MSMEs (X2) have a negative but not significant effect on PAD, with a coefficient of 0.021 and a probability of 0.727 (>0.05). These results show that the increase in the number of MSMEs has not made a significant contribution to PAD. This condition can be related to the relatively small business scale, limited capital and productivity, and the lack of optimal formalities and contributions of MSMEs in the regional tax system. Therefore, strengthening the capacity of MSMEs through training, mentoring, access to financing, marketing digitalization, and ease of business legality is needed so that the development of MSMEs can make a greater contribution to the regional economy and PAD.

Simultaneously, economic growth and MSMEs have a significant effect on PAD. This is shown by an F-statistic of 7,954 with a probability of 0.005 (<0.05). Thus, increasing PAD requires synergy between economic growth and MSME development. Local governments need to direct development policies in the productive sector, increase the effectiveness of tax collection and levies, strengthen the investment climate, and optimize the management of regional economic potential. The adjusted R-squared value of 0.4811 shows that economic growth and MSMEs are able to explain 48.11% of PAD variations, while the remaining 51.89% are influenced by other factors outside the model. Therefore, it is not enough for the policy to increase PAD only to focus on economic growth and MSMEs, but also needs to consider investment, public consumption, industrial sectors, tourism, resource management, fiscal policy effectiveness, and the quality of human resources.

Overall, the results of the study show that the increase in economic activity and the number of MSMEs has not automatically increased the PAD of Lhokseumawe city. Therefore, policies that are able to link economic growth with regional revenue optimization through strengthening the productive sector, increasing the capacity of MSMEs, expanding investment, and improving tax management and regional levies. The policy synergy is expected to strengthen fiscal independence and support the development of a more sustainable regional economy.

CONCLUSIONS AND RECOMMENDATIONS

The results of the study show that economic growth, MSMEs, and PAD in Lhokseumawe city during 2010-2025 experienced fluctuating developments. Partially, economic growth had a negative and significant effect on PAD, while MSMEs had a negative but not significant effect. Simultaneously, economic growth and MSMEs had a significant effect on PAD. The research model has met the classical assumption test and was able to explain 48.11% of PAD variations, while the remaining 51.89% was influenced by other factors outside the model. The Lhokseumawe city government needs to improve the quality of economic growth through strengthening the productive sector, especially trade, services, and local industries, in order to contribute more to PAD. The empowerment of MSMEs also needs to be strengthened through access to capital, training, digitalization, and ease of licensing.

ADVANCED RESEARCH

This study is limited to two independent variables, namely economic growth and MSMEs, with the period 2010-2025 and the coverage of the Lhokseumawe city area. The limited number of observations and the scope of the area mean that the results of the study cannot be generalized widely. Further research is suggested to add other variables, such as investment, unemployment, and regional taxes, as well as expand the research period and area to obtain more comprehensive results regarding the factors affecting PAD.

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