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Tourism Sector and Regional Original Income in North Lombok (2015-2024): An Econometric Projection Analysis

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Abstract
This study analyzes the impact of the tourism sector on Regional Original Revenue in North Lombok Regency and projects its growth trend until 2030. By using a quantitative descriptive approach, time series data from 2015 to 2024, analyzed with EViews 12. The results indicate that the number of tourist attractions, tourist arrivals, and tourism workforce have a positive and significant effect on Regional Original Revenue, while the number of restaurants and accommodation has a negative and significant effect. The estimated model demonstrates strong explanatory, with R^2 value 0.951039. Furthermore, the projection analysis shows a consistent upward trend, with Regional Original Revenue from tourism sector expected to reach Rp 465.44 billion by 2030. The findings highlight the importance of strengthening tourist attractions, increasing number of visitors, and enhancing the capacity of the tourism workforce in promoting sustainable economic growth. The study provides empirical evidence to support regional policymakers in optimizing tourism development strategies to enhance Regional Original Revenue and regional development planning.
Keywords: Economic Growth, Economic Projection, North Lombok, Regional Original Revenue, Tourism workforce

Abstrak
Penelitian ini menganalisis pengaruh sektor pariwisata terhadap Pendapatan Asli Daerah (PAD) di Kabupaten Lombok Utara serta memproyeksikan tren pertumbuhannya hingga tahun 2030. Penelitian ini menggunakan pendekatan kuantitatif deskriptif dengan data runtun waktu periode 2015 – 2024 yang dianalisis menggunakan perangkat lunak EViews 12. Hasil penelitian menunjukkan bahwa jumlah objek wisata, kunjungan wisatawan, dan tenaga kerja pariwisata berpengaruh positif dan signifikan terhadap PAD, sedangkan jumlah restoran dan akomodasi memberikan pengaruh negatif dan signifikan. Model estimasi yang digunakan mampu menjelaskan variasi PAD yang kuat, dengan nilai R^2 sebesar 0.951039. Analisis proyeksi menunjukkan adanya tren peningkatan yang konsisten, dengan PAD dari sektor pariwisata diperkirakan mencapai Rp465,44 miliar pada tahun 2030. Temuan ini menegaskan pentingnya penguatan daya tarik wisata, peningkatan jumlah kunjungan wisatawan, serta peningkatan kapasitas tenaga kerja pariwisata dalam mendorong pertumbuhan ekonomi berkelanjutan. Pendekatan ini memberikan bukti empiris bagi pemerintah daerah dalam mengoptimalkan strategi pengembangan pariwisata guna meningkatkan PAD dan perencanaan pembangunan daerah.
Kata Kunci: Pertumbuhan Ekonomi, Proyeksi Ekonomi, Kabupaten Lombok Utara, Pendapatann Asli Daerah, Tenaga Kerja Pariwisata

INTRODUCTION

North Lombok Regency is one of the autonomous administrative regions in West Nusa Tenggara Province, which was officially inaugurated as a separate district in 2008. Administratively, it consists of five districts, 33 villages, and 371 hamlets (BPS North Lombok Regency, 2025). Since regional expansion, the economic development of North Lombok Regency has increasingly relied on the tourism sector as one of the region's leading sectors. The role of the tourism sector in the regional economic structure is reflected in the contribution of the accommodation, food, and beverage supply sector as the main representation of tourism activities which has a ratio of 4.82% in the Gross Regional Domestic Product (GDP) of North Lombok Regency in 2024 (Tourism Office). This condition shows that tourism activities contribute significantly to the formation of regional added value and support the strengthening of regional fiscal capacity through an increase in Regional Original Revenue (PAD) (Al Fariz & Arianti, 2023). In line with that, a number of empirical studies confirm that the tourism sector has a strategic role in encouraging local economic dynamics, including GDP growth and increasing regional fiscal capacity. Putri et al. (2022) emphasized that the development of tourism villages has a direct impact on local economic movements through increasing business activities, community income, and the performance of derivative sectors, thereby strengthening the position of tourism as the main driver of the regional economy.

Regional Original Revenue (PAD) is a key component of local government revenue, which comes from regional taxes, levies, revenues derived from the administration of regionally separated assets, along with other legitimate revenues in accordance with the provisions of the 2002 Law (Nur Aini et al., 2022). Previous research has shown that the size of PAD is highly dependent on the capacity of local governments to optimize and manage the economic potential of their respective regions. This is in line with the findings of Purwanti and Dewi 2014, as quoted (Anggraini et al., 2020), which emphasizes that the effectiveness of local governments in exploring and utilizing regional potential has a significant impact on PAD. One of them is the tourism sector which can have a significant multiplier effect, where every additional tourist expenditure not only increases direct income in the tourism sector, but also encourages the development of supporting sectors and creates new job opportunities, thereby expanding economic benefits at the local level (Nuryadin, D., & Purwiyanta, 2023) Therefore, the development and management of the tourism sector optimally is a crucial strategy for local governments in increasing PAD and strengthening fiscal capacity.

In an effort to increase Regional Original Revenue (PAD) through the tourism sector, Kapang et al. (2019) Explain that tourism is not just a recreational activity but has a strategic role in encouraging regional economic growth. The development of tourist destinations together with supporting industries such as hotels, restaurants, transportation, and small and medium enterprises (SMEs) is believed to stimulate various local economic activities. This statement is reinforced by Basuki & Sugiarti (2020), which emphasizes that the tourism sector produces a multiplier effect on the community's economy.

The tourism sector occupies a strategic position for North Lombok Regency because this area is one of the leading tourism growth centers in NTB Province. Despite its great potential, the sector's contribution to PAD varies from year to year, indicating sensitivity to external factors such as economic dynamics, changes in the number of tourist visits, and supporting infrastructure conditions. This situation confirms the need for a more in-depth empirical study on the extent to

which the main components of tourism include the number of tourist attractions, the number of tourists, the availability of accommodation, the number of restaurants, and the tourism workforce that can affect the regional PAD. In addition, the limitations of previous research which were generally descriptive and not accompanied by projective analysis became the basis for the importance of this research being conducted. Thus, this research is here to fill this gap, as well as provide a comprehensive overview of the role of the tourism sector in strengthening the fiscal capacity of North Lombok Regency.

At the provincial level, the tourism sector in West Nusa Tenggara (NTB) Province is widely recognized as one of the main contributors to Regional Original Revenue (PAD). Studies conducted by Sukresna, I. N. A., & Ismiwati (2024), found a significant relationship between the development of the tourism sector and the increase in PAD in NTB. The research highlights that optimizing the management of tourism destinations, increasing tourist arrivals, and improving the quality of tourism services has a direct impact on regional revenue through hotel taxes, restaurant taxes, tourism levies, and entertainment taxes. These findings further confirm that the tourism sector is not only the main driver of the economy but also plays a strategic role in strengthening the region's fiscal capacity through PAD. This finding is relevant for North Lombok Regency because this region is one of the centers of tourism growth in NTB, with leading destinations such as Gili Trawangan, Gili Meno, and Gili Air. With the province's proven significant contribution, the strengthening of the tourism sector in North Lombok is expected to have a corresponding fiscal impact, especially through accommodation taxes, restaurant taxes, and tourism service levies. Therefore, the results of the provincial level research strengthen the justification that tourism development in North Lombok has real potential in increasing the fiscal capacity and Regional Original Revenue (PAD) of the district.

Study by Amerta & Budhiasa (2014) in Badung Regency highlighted that the increase in international and domestic tourist arrivals, along with the growth in the number of hotels and other accommodations, simultaneously contributed significantly to the increase in Regional Original Revenue (PAD). These three factors not only increase tourist visits but also have a direct impact on regional revenues through hotel taxes, tourism levies, and restaurant taxes. The findings show that the integrated management of tourist attractions, accommodation facilities, and tourist attractions is a key factor in strengthening the regional economy and expanding the fiscal base through PAD. Based on this, the current research will focus on analyzing the development of PAD in North Lombok Regency.

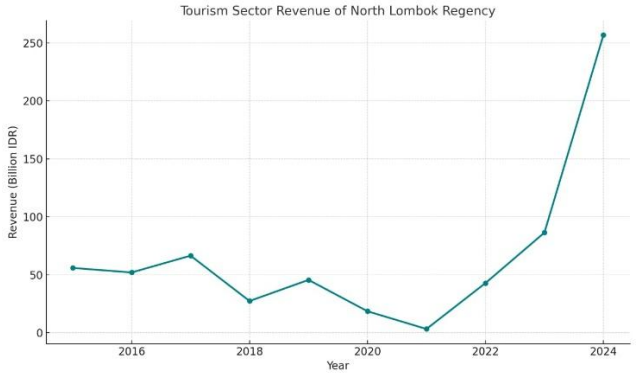

Figure 1.
PAD of North Lombok Regency by Sub-Sector, 2015–2024
Source: BPS and North Lombok Tourism Office

The image illustrates the fluctuations in Regional Original Revenue (PAD) originating from the tourism sector in North Lombok Regency during the period 2015–2024. Significant declines occurred in 2018 and 2021, mainly due to natural disasters and the COVID-19 pandemic. The lowest point was recorded in 2021, which was IDR 3.2 billion, because almost all tourism activities were stopped due to the pandemic. Based on the BPS NTB report (2020), North Lombok Regency is the area with the worst damage, with more than 23,000 units of buildings severely damaged, including tourism facilities such as hotels, restaurants, and tourist destinations in the three Gili areas (Trawangan, Meno, and Air). BPS also noted that tourist visits to NTB fell by 58% in 2018, which had a direct impact on the decline in hotel and restaurant tax revenues in North Lombok. Nevertheless, signs of recovery are starting to emerge in 2022. It increased sharply in 2023 and 2024, with PAD reaching IDR 256.7 billion in 2024. This surge reflects the success of post-pandemic tourism recovery efforts as well as the optimization of tourism potential by the local government and the active participation of local communities. By report Mahardika (2024), a number of efforts have been made, including: Optimizing tourism promotion through North Lombok branding, sales mission activities, local and international media, as well as the use of tourist statistical data, developing tourist villages, strengthening tourism awareness groups (pokdarwis), and integrating tourism with the creative economy. The arrangement of priority tourist destinations through a budget allocation of more than Rp 28.5 billion for projects such as the arrangement of the Bangsal port, the construction of a boardwalk in Gili, a gate in Gili, as well as hygiene and disaster mitigation facilities on the Gili islands. With these strategies, the surge in PAD in 2023–2024 reflects the success of the North Lombok government in encouraging post-pandemic tourism recovery, as well as restoring economic contributions from the tourism sector to the regional level.

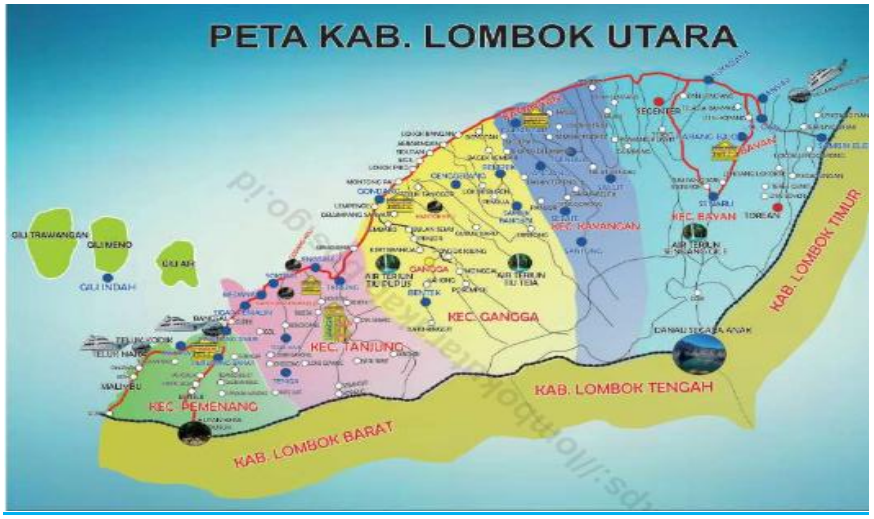

Figure 2.
Map of North Lombok Regency (2024)
Source : Central Statistical Agency of North Lombok Regency (2024)

North Lombok Regency has a variety of natural, cultural, and ecotourism tourist destinations, as seen in the picture of the destination spread across five sub-districts, which makes it one of the leading tourist destinations in West Nusa Tenggara Province. Based on the spatial conditions of the region, Juara District acts as a center of tourism activities through the Gili Matra area (Gili Trawangan, Gili Air, and Gili Meno) which is the main marine tourism destination. Tanjung District, as the capital of North Lombok Regency, functions as a center of government and urban services that support tourism activities. Meanwhile, Gangga District is known for its natural tourism

potential in the form of waterfalls and hilly areas, while Bayan and Kayangan Districts are dominated by natural and cultural tourism potential that is integrated with mountainous and coastal areas, including the area around Mount Rinjani. The distribution of tourist destinations across sub-districts shows the strength of regional tourism as a potential source of Regional Original Revenue (PAD).

The tourism sector includes a variety of potential sources of income. According to Stiawati et al. (2025), the sector makes a significant contribution to Regional Original Revenue (PAD) through various types of revenue, including hotel taxes, restaurant taxes, and entrance fees to tourist attractions. Therefore, this research is relevant and necessary. In addition to comprehensively analyzing the role of the tourism sector in generating Regional Original Revenue (PAD), it also projects future PAD trends for the period 2025-2030 using historical trend methods. The study focuses on key variables in the tourism sector, including the number of tourist attractions, tourist arrivals, accommodation, restaurants, and tourism-related workforce. Unlike previous studies, which were generally partial and purely descriptive, this study adopted a more integrative and predictive approach to provide deeper and more actionable insights.

Several previous studies have studied and analyzed the influence of the tourism sector on Regional Original Revenue (PAD) such as research conducted by Enindita (2021) which only examines the influence of the number of tourists and the number of tourist attractions on PAD, and Gaddafi (2024). In the research the conclusions made, the research focuses more on factors that affect local income such as the number of tourist attractions, the number of tourists, the number of hotels and the number of restaurants against PAD. These studies identified the contribution of the tourism sector to PAD, but only examined some of the variables without considering the economic potential of the tourism sector as a whole. Previous studies generally only used historical data without projecting the contribution of the tourism sector in the future.

Although various previous studies have discussed the contribution of the tourism sector to Regional Original Revenue (PAD), the approach used is still generally partial and therefore less able to explain the interconnectedness between components in the tourism ecosystem. Refers to *Tourism-Led Growth Hypothesis (TLGH)* as used in the study Kurniawan et al. (2024) tourism is seen as having the potential to encourage economic growth through increasing tourist activity, expanding tourism spending, and the movement of derivative sectors. Based on this theory, variables such as the number of tourist visits, hotel occupancy rates, and tourist attraction levies are important indicators that are assumed to increase PAD. Each variable has advantages and limitations: tourist visits reflect the intensity of tourist activities, but do not yet show the level of tourist spending; Hotel occupancy rates contribute to local taxes, but fluctuate due to seasonal factors. With the use of the TLGH framework, this study seeks to identify and project the potential of the tourism sector in increasing PAD in a more comprehensive and measurable manner.

In addition to analyzing the influence of tourism variables on Regional Original Revenue (PAD), this study also conducts PAD forecasting as a basis for local governments to determine the direction of future revenue policies. Forecasting is necessary because changes in the number of tourists, restaurants, accommodation, and tourism workforce tend to follow long-term growth patterns, so estimating the value of PAD in the future can help the government design fiscal and tourism strategies in a more measurable manner. According to Hyndman, R.J., & Athanasopoulos (2018), time-based forecasting is very important for regional development planning because it is

able to identify trends and patterns of historical data to predict future conditions more accurately.

Through this approach, the research seeks to provide a deeper understanding of the contribution of the tourism sector to the sustainable growth of PAD in North Lombok Regency. This study is motivated by the increasing dependence of North Lombok Regency on the tourism sector as a source of Regional Original Revenue (PAD), combined with the high volatility of tourism-related revenues due to external shocks and the lack of integrated empirical analysis at the district level. Therefore, this study aims to analyze the impact of key tourism sector variable on the Regional Original Revenue (PAD) and to project future PAD trends in North Lombok Regency. The use of a quantitative research approach enables a more measurable and objective analysis, providing a data driven basis for local governments in optimizing the management and development of the tourism sector as a key pillar of the regional economy. In addition, this approach contributes to the academic literature by enhancing understanding of the economic significance of tourism in developing regions such as North Lombok Regency.

METHODOLOGY

This research approach is methodologically categorized as Econometric and Projection Analysis, because it combines log-lin regression econometric analysis to measure the simultaneous influence of five tourism variables on PAD and projection analysis to predict the development of PAD until 2030 based on model estimation results. For data analysis, this study applied a multiplied linear regression model with logarithmic (log-lin) transformations, utilizing the EViews 12 software. As explained by (Ghozali, 2018) In Dai et al. (2023), multiple linear regression is an analytical method that combines several independent variables to examine their effect on a single dependent variable. Within the scope of this study, this model was used to assess the impact of tourist attractions (X1), restaurants (X2), accommodation (X3), tourist arrivals (X4), and tourism workforce (X5) on Regional Original Revenue (PAD) as a dependent variable (Y).

The data used came from the Central Statistics Agency (BPS) of North Lombok Regency, BPS of West Nusa Tenggara Province, and the Tourism Office of North Lombok Regency. All variables were analyzed based on annual data with the observation period of 2014–2023, adjusted to the availability of official data from each agency. The framework of analysis is formulated in the following equation:

$$lnPAD = \beta_0 + \beta_1 lnJOW + \beta_2 lnJR + \beta_3 lnJA + \beta_4 lnJW + \beta_5 lnJTK + \varepsilon$$

Note:

$PAD\ (Y)$ = Regional Original Revenue (PAD)
$JOW(X_1)$ = Number of Tourist Attractions
$JR(X_2)$ = Number of Restaurants
$JA(X_3)$ = Total Accommodation
$JW(X_4)$ = Number of Tourists
$JTK(X_5)$ = Number of Tourism Workers
ε = Error Term

The use of the loglin regression model in this study is based on the methodological need to stabilize non-constant residual variance (heteroscedasticity). Logarithmic transformations are chosen because they are able to reduce the range of variable scales, so that the error variants become more homogeneous. According to Mukherjee et al. (2018), log transformations can

overcome heteroscedasticity while making relationships between previously non-linear variables more linear and easier to analyze. In addition, this transformation helps interpret the regression coefficient as elasticity (percentage change) because each loglin coefficient indicates a percentage response to the dependent variable when the independent variable changes 1%. Once the regression model was correctly established and the results were thoroughly validated, this study, After the regression model is correctly established and the results are validated through t-tests, F-tests, and classical assumption testing, the study continues the analysis by conducting forecasting as an integral part of the methodology design.

Forecasting is carried out to predict the development of the Regional Original Revenue (PAD) of North Lombok Regency in the period 2025–2030, so that local governments can obtain a prospective picture that is useful in the preparation of fiscal strategies and policies for the development of the tourism sector. The forecasting process is carried out using the *predict* in EViews based on the results of the regression estimate for the 2015–2024 period. According to Ghozali (2018), regression model-based forecasting can only produce accurate predictions if the model meets classical assumptions and has sufficient statistical significance, so model validation is carried out first to ensure the reliability of the results. The use of a simple linear trend method is based on the historical growth pattern of PAD that tends to follow long-term trends. This kind of forecasting approach has also been applied in public sector research by (Rajab, 2021) in the projection of the PAD of Mamuju Regency, so that this method is considered relevant to be applied to the context of the PAD of North Lombok Regency.

The methods section should detail the chosen research design, including quantitative, qualitative, or mixed approaches, and a rationale for why these methods are most appropriate to answer the research questions. Data sources, both primary and secondary, should be clearly described, including the temporal and spatial scope and data collection techniques. If secondary data are used, it is important to mention the institution providing the data and the time observed. For quantitative analysis, the econometric model used should be explained along with the key variables and underlying assumptions. Meanwhile, qualitative research should describe the sampling strategy, data collection instruments, and analysis methods such as thematic coding or narrative analysis. Validity and reliability tests, such as testing classical assumptions in regression or data triangulation, should also be included to ensure the robustness of the findings.

DISCUSSION AND FINDINGS

In this study, the multiple linear regression model was applied as the main analysis tool to comprehensively examine the extent to which independent variables of the tourism sector have a simultaneous and partial influence on Regional Original Revenue (PAD). This approach allows the identification of the collective impact arising from all explanatory variables when analyzed together, as well as the specific contribution of each variable when considered individually, thus providing a more detailed understanding of the relationship between tourism-related factors and local government revenue generation through PAD. The results of the regression analysis produced a coefficient value that showed the degree of influence exerted by each independent variable on the Regional Original Income (PAD), with detailed findings from this statistical test systematically presented in Table 1.

Table 1.
Multiple Linear Regression Tests on Time Series Data

Variable	Coefficient	Std. Error	t-Statistics	Prob.
lnJOW (X_1)	5.409665	1.482741	3.648423	0.0218
lnJR (X_2)	-14.79050	2.854839	-5.180851	0.0066
lnJA (X_3)	-6.683116	1.947328	-3.431943	0.0265
lnJW (X_4)	3.261565	0.894581	3.645912	0.0219
lnJTK (X_5)	4.557326	0.580995	7.844005	0.0014
C	48.87436	14.10357	3.465390	0.0257

Variable	Coefficient
R-Square	0.951039
F-Statistics	15.53940
Prob(F-Statistics)	0.009979
Durbin-Watson Statistics	1.930438

Source: Secondary data processed using EViews 10

According to the results of Multiple Linear Regression presented in Table 2, the dependent variable, Regional Original Revenue (PAD) from the tourism sector, is represented through the following regression equation:

$$lnPAD = 48.87436 + 5.409665\, lnJOW - 14.79050 lnJR - 6.683116 lnJA + 3.261565 lnJW + 4.557326 lnJTK + \varepsilon$$

Number of restaurants (lnJR) yields a coefficient of -14.79050 with a probability of 0.0066 (<0.05). This shows a negative and significant influence on PAD, which means that a 1% growth in the number of restaurants is likely to lower PAD by around 14.79%, assuming other factors remain unchanged. Furthermore, the coefficient of the number of accommodations (lnJA) was -6.683116 with a significance level of 0.0265 (<0.05), which reflects a negative and significant effect on PAD. These results show that a 1% accommodation expansion will lower the PAD by about 6.68%, under the conditions of ceteris paribus.

In contrast to the previous two variables, the variable representing the number of tourist attractions (lnJOW) has a regression coefficient of 5.409665 with a probability value of 0.0218 (<0.05). This shows a positive and statistically significant relationship with PAD, implying that a 1% increase in tourist attractions is associated with an increase in PAD of about 5.41%, keeping other variables constant. Tourist arrivals (lnJW) recorded a coefficient of 3.261565 with a probability value of 0.0219 (<0.05), indicating a positive and significant impact on PAD. In practical terms, a 1% increase in the number of tourists is expected to increase the PAD by almost 3.26%, provided that other variables remain constant.

The number of tourism workers (lnJTK) has a coefficient of 4.557326 with a probability of 0.0014 (<0.05). It reveals a positive and significant contribution to PAD, suggesting that a 1% increase in employment in the tourism sector could increase PAD by around 4.56%, assuming everything remains constant. Overall, the ability of the variables to explain PAD variation is very strong, reflected in the R-Squared value of 0.951039, which means that 95.1% of PAD changes can be explained by the model. Simultaneous testing via F-Statistic of 15.53940 with a significance level of 0.009979 confirmed that all independent variables together had a significant effect on PAD. Meanwhile, the Durbin-Watson of 1.930438 indicates the absence of serious autocorrelation problems in the model, so the estimated results can be considered reliable for use in drawing conclusions.

Classic Assumption Test

Normality Test

Table 2.
Normality Test

Jarque-Bera	0.182136
Probability	0.912956

Source: Secondary data processed using EViews 10

As a decision-making basis for the Jarque–Bera test, this study refers to the principle that the value of *probability* (p-value) JB is compared with a α significance level (e.g. 0.05) to assess residual normality. These sguidelines are explained by Pernita & Ismanto (2025), which states that the residual can be considered to be normally distributed if the p-value of the Jarque–Bera test is greater than 0.05. In this study, a p-value of 0.912956 (> 0.05) indicates that the residual meets the normality assumption based on this approach.

Multicollinearity Test

Table 3.
Multicollinearity Test

Variable	VIF Center
lnJOW (X_1)	6.500827
lnJR (X_2)	7.821637
lnJA (X_3)	4.628102
lnJW (X_4)	1.731390
lnJTK (X_5)	3.199762
C	NA

Source: Secondary data processed using EViews 10

Based on the table above, the results of the multicollinearity test show that the Variance Inflation Factor (VIF) value for all variables is below 10. This suggests that there is no problem of multicollinearity present in the model. Therefore, it can be concluded that the results of the multicollinearity test show no indication of multicollinearity problems.

Heteroscedasticity Tests

Table 4.
Heteroscedasticity Tests

Prob. Chi-Square (5)	0.2828

Source: Secondary data processed using EViews 10

The heteroscedasticity test in this study was carried out using the Breusch–Pagan–Godfrey Test. The test results showed that *the value of Prob.* Chi-Square is 0.2828, which is greater than the significance level of 0.05. Based on the criteria according to Ghozali (2018), if the probability value exceeds 0.05, it can be concluded that there is no heteroscedasticity in the regression model. Thus, the residual variance in the model can be considered homogeneous (homoskedastic) and the model is declared to meet classical assumptions related to heteroscedasticity.

Autocorrelation Test

Table 5.
Autocorrelation Test

F-statistics	0.902059	Prob. F (2,2)	0.5257
Obs* R-square	4.742539	Prob. Chi-Square (2)	0.0934

Source: Secondary data processed using EViews 10

Autocorrelation testing was performed using the Breusch–Godfrey Serial Correlation LM Test. Based on the test results, Prob. F-statistics of 0.5257 and *Prob.* Chi-Square is 0.0934, both of which are greater than the significance level of 0.05. Referring to the decision-making guidelines according to Wooldridge (2016), a probability value above 0.05 indicates that there is no autocorrelation in the residual regression model. Thus, this research model is stated to meet the classical assumptions related to the absence of autocorrelation.

Determination Coefficient (R^2)

The determination coefficient (R^2) serves as an indicator of how much variation in the dependent variable, Regional Original Revenue (PAD), can be accounted for by independent tourism-related variables. A larger R^2 value reflects the model's stronger explanatory capacity in capturing fluctuations in the PAD based on the selected variable.

Table 6.
Coefficient of Determination

R-squared	0.951039

Source: Secondary data processed using EViews 10

Based on the results of data processing using the EViews 12 software, the determination coefficient (R-squared) obtained was 0.951039. The determination coefficient reveals that 95.10% of the variation in Regional Original Revenue (PAD) originating from the tourism sector can be explained by five independent variables used in the regression model, namely the number of tourist attractions, the size of the tourism workforce, the number of restaurants, tourist arrivals, and accommodation. Meanwhile, the remaining portion of the variation is affected by other variables and external factors outside the scope of the model.

Simultaneous Test (F-Test)

Furthermore, to assess the adequacy of the model as a whole, a simultaneous test (F-test) is performed to evaluate whether independent variables, when considered together, have a significant impact on dependent variables. The results of this analysis determine the reliability of the regression model in predicting and explaining Regional Original Revenue (PAD).

Table 7.
Simultaneous Test (F-Test)

F-statistics	15.53940

Source: Secondary data processed using EViews 10

The F-test results revealed a F-statistical value of 15.53940. Given that the associated probability is below the 5% significance threshold (Prob. F < 0.05), the null hypothesis (H_0) is rejected, while the alternative hypothesis (H_a) is accepted. These results imply that, taken together, independent variables exert a significant influence on the dependent variable, namely the Regional Original Revenue (PAD) of the tourism sector.

Partial Test (t-test)

The t-test is used to examine the individual effects of each independent variable on Regional Original Revenue (PAD). The test identifies which variables contribute significantly to the model, thereby highlighting the key factors driving the growth of PAD in the tourism sector.

Table 8.
Partial Test (t-test)

Variable	t-Statistics	Prob.
lnJOW (X_1)	3.648423	0.0218
lnJR (X_2)	-5.180851	0.0066
lnJA (X_3)	-3.431943	0.0265
lnJW (X_4)	3.645912	0.0219
lnJTK (X_5)	7.844005	0.0014
C	3.465390	0.0257

Source: Secondary data processed using EViews 10

Number of Tourist Attractions (X_1): The regression results show that the number of tourist attractions has a positive effect on the Regional Original Revenue (PAD) from the tourism sector in North Lombok Regency, with a coefficient of 3.648423 and a significance level of 0.0207. This means that the addition of one tourist attraction can increase PAD by approximately 5.59%. These findings are in line with tourism theory, which states that more variety of destinations increases the potential to attract visitors and generate local revenue through entry fees, levies, and support services. Therefore, the diversification of tourist attractions is a major driver of local economic growth.

Number of Restaurants (X_2): The number of restaurants negatively impacted the PAD, with a coefficient of -5.180851 and a significance level of 0.0064. Each additional restaurant can reduce PAD by about 15.17%. This happens because restaurant growth is not always accompanied by a proportionate increase in tourist arrivals, which leads to fierce competition, decreased profits, and lower tax contributions. This situation worsened during the COVID-19 pandemic when many tourist areas were closed and PAD in North Lombok fell from Rp 220 billion to Rp 107.3 billion (Antara News Mataram, 2020; In Lombok, 2020). This is also evidenced by the tourism sector's PAD in 2021 which fell to IDR 3,265,357,200, far below the target. Therefore, the excessive number of restaurants without adequate tourist support becomes a fiscal burden for the region.

Number of Accommodations (X_3): The number of accommodations negatively impacted the PAD, with a coefficient of -3.431943 and a significance level of 0.0259. Each additional accommodation unit is expected to reduce PAD by around 6.80% due to low hotel occupancy in major tourist destinations, such as the Tiga Gili area (Gili Trawangan, Gili Air, Gili Meno), where occupancy only reaches around 20%, much lower than other areas in Lombok (NTBSatu, 2022). As a result, the development of accommodation without a corresponding increase in tourist arrivals leads to oversupply, low occupancy rates, and reduced hotel tax contributions.

Number of Tourists (X_4): Tourist arrivals have a positive and significant effect on PAD, with a coefficient of 3.021696 and a significance level of 3.645912. Each additional tourist increases the PAD of the tourism sector by approximately 3.34%. Tourists act as the primary consumers driving the local economic chain, including admission, transportation, food consumption, and lodging. Therefore, the growth of tourist arrivals produces a substantial multiplier effect on regional income. Number of Tourism Workers (X_5): Employment in the tourism sector also has a positive effect on PAD, with a coefficient of 7.844005 and a significance level of 0.0014. Each additional tourism worker is projected to increase PAD by 4.66%. Expanding the workforce reflects the growth of tourism activities and increases service capacity for visitors. In addition, increasing labor participation improves the quality of services while contributing to regional taxes through broader community economic activities.

Discussion

A number of previous studies have examined the influence of the tourism sector on Regional Original Revenue (PAD). For example Enindita (2021) found that both the number of tourists and the number of tourist attractions have a significant influence on PAD in North Lombok Regency, where the increase in the number of tourists encourages an increase in regional revenue through entrance tickets to tourist attractions, food consumption, transportation, and souvenir shopping. Meanwhile, Gaddafi (2024) analyze the influence of the number of tourist attractions, tourists, hotels, and restaurants on PAD, and report that all these variables contribute positively to regional revenue, although the impact varies depending on the use of facilities and the intensity of tourist visits. Overall, these studies affirm the role of the tourism sector in PAD, but generally only highlight some variables and use historical data without projecting future contributions, so they do not fully reflect the overall economic potential of the tourism sector.

The results of this study confirm that the tourism sector has an important role in increasing Lombok's Regional Original Revenue (PAD). The findings regarding the positive influence of the number of tourists on PAD are consistent with various previous studies. Al Fariz & Arianti (2023) shows that the increase in the number of tourist visits is able to expand local economic activities through direct consumption such as tourist tickets, food, transportation, and souvenir shopping. Other research by Nur Aini et al. (2022) found that tourist flows have a large capacity to encourage regional revenue through hotel, restaurant, and tourism levies. Theoretically, these results support the Tourism-Led Growth Theory, which states that the growth of the tourism sector creates a multiplier effect for the regional economy.

The number of tourist attractions also contributes to the increase in PAD. The variety and quality of tourist attractions are getting better and are able to attract more tourists so as to increase levy receipts and encourage community economic activities. These findings are in line with Anggraini et al. (2020), which confirms that tourist attractions have a significant influence on PAD because of their relationship with the length of stay and spending patterns of tourists. Amerta & Budhiasa (2016) also emphasized that the addition of tourist attractions has a positive impact on regional income, especially in areas that already have a developed tourism infrastructure.

In addition, the results of the study show that the number of restaurants has a positive effect on PAD. The growth of restaurants describes the increase in consumption activity, both by tourists and the local community, thus providing an increase in restaurant tax revenue. Basuki & Sugiarti (2020) explained that restaurants are an important part of the tourism supply chain because they support the comfort and length of stay of tourists, thereby increasing the economic contribution to the region. These findings are in line with the results of the study Anggraini et al. (2020) which states that tourism supporting facilities, including restaurants, are closely related to increased tourist spending which ultimately drives PAD. However, restaurant tax contributions can be hampered if there are still small restaurants which are not officially registered so that they do not provide optimal income for PAD (Basuki & Sugiarti, 2020). Therefore, strengthening regulations and data collection of culinary businesses is needed so that the potential of Restaurant Taxes can be maximized.

However, the variable number of accommodations showed a negative influence on PAD. This phenomenon occurs because the growth of accommodation that is not accompanied by an increase in the number of tourists causes the occupancy rate to be low. Kapang et al. (2019) has

previously shown that the number of hotels does not automatically increase PAD if utilization is low. In addition, the research Stiawati et al. (2025) found that oversupply of accommodation reduces occupancy thereby reducing hotel taxes that go into PAD. Basuki & Sugiarti (2020) adding that many small accommodation businesses have not been officially registered so their contribution to PAD is still very limited. Therefore, accommodation capacity management needs to be balanced with tourism demand so as not to cause inefficiency and reduce the effectiveness of regional tax revenue.

On the other hand, the tourism workforce has proven to make a significant positive contribution to PAD. The increase in the workforce shows the high economic activity of tourism and the wider multiplier effect on people's income. According to Alqifari (2023), tshe tourism sector has great ability to absorb local labor, thereby increasing household income and strengthening the regional tax revenue base. Theoretically, this finding is in line with the concept of employment multiplier, where each additional workforce results in an increase in economic activity which then leads to an increase in regional income.

Overall, the findings of this study show that the growth of tourism in Lombok, especially in North Lombok, can increase PAD if managed in a targeted and sustainable manner. The variables of tourists, tourist attractions, the number of restaurants, and the workforce make a strong positive contribution, while accommodation requires regulation and supervision to avoid excess capacity that can reduce the effectiveness of local taxes. Thus, the optimization of PAD is highly dependent on the government's strategy in developing tourism that is not only oriented towards quantity, but also the quality of service and the sustainability of destinations.

Results of Regional Original Revenue Projection Analysis

Using multiple regression models estimated through the Ordinary Least Squares (OLS) method in EViews, this study develops regression equations to project the Regional Original Income (PAD) of North Lombok Regency derived from tourism for 2025 to 2030. This projection uses historical data from 2015 to 2024, combining five main independent variables namely the number of tourist attractions, the number of restaurants, the number of accommodations, the number of tourists, and the number of tourism workers. All variables were included in the regression model, which passed the classical assumption test and produced a determination coefficient (R^2) of 0.951039, showing that the model explains 93.55% of the PAD variability of the tourism sector. The projected PAD value for North Lombok Regency is as follows:

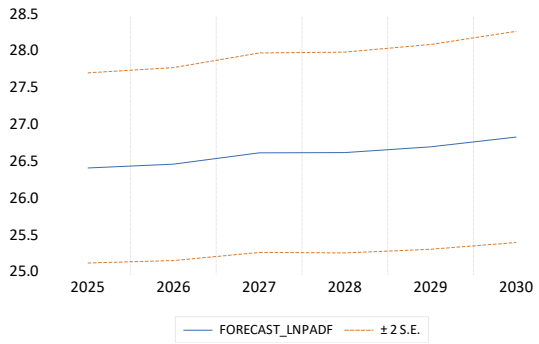

Figure 3.
Results of Analysis of Regional Original Revenue (PAD) Projections for 2025–2030
Source: Secondary data processed using EViews 10

If the trend value of the chart is converted back to rupiah, then the projection of Regional Original Revenue (PAD) for North Lombok Regency is as follows:

Table 9.
Results of Analysis of Regional Original Revenue (PAD) Projections for 2025–2030

Year	PAD Projection (Rp)
2025	305.726.584.252
2026	322.113.706.964
2027	375.787.326.858
2028	376.842.133.573
2029	406.915.020.716
2030	465.440.129.614

Source: Secondary data processed using EViews 10

In the results of data processing and analysis, the trends shown in the graph and numerical data above support the hypothesis that the projected Regional Original Revenue (PAD) of North Lombok Regency is expected to continue to increase and make a significant contribution to regional revenue from the tourism sector. Supported by key determinants such as the growth in the number of tourist attractions, accommodation, employment, and tourist arrivals, this projection provides positive prospects for local governments in formulating tourism-based economic development strategies.

CONCLUSION

Conclusion

This research confirms that the tourism sector has an important role in encouraging the PAD of North Lombok Regency. The regression analysis shows that the number of tourist attractions, tourists, and tourism workforce has a positive effect on PAD, while the number of restaurants and accommodation has a negative influence so that indicating the importance of quality, utilization and regulatory. The high explanatory power of the model ($R^2 > 95\%$) demonstrates that the five tourism variables simultaneously explain PAD variations.

The novelty of this research lies in the simultaneous analysis of five tourism variables combined with PAD projections until 2030, providing a strategic basis for regional fiscal planning. The projection results show a continuing upward trend in PAD, emphasizing the need to strengthen tourism infrastructure, service quality, and human resource capacity. Overall, these findings offer empirical, data-driven insights for local governments to formulate more effective and sustainable tourism development policies. Future studies are encouraged to incorporate broader revenue components and external factors, such as macroeconomic conditions, environmental sustainability, and changing travel patterns, to support long-term regional policy planning.

Limitation

Apart from the significant contribution of the tourism sector to the Regional Original Revenue (PAD) of North Lombok Regency, this study has several limitations. First, the data used is secondary, sourced from the Tourism Office, the Central Statistics Agency, and other official sources, which can result in delays in updates or incomplete information for certain variables. Second, the analysis only considered key variables such as the number of tourist attractions, tourist arrivals, accommodation, restaurants, tourism-related tax revenues, and employment, while other potentially influential factors, such as inflation, private investment in tourism, tourism

promotion, and external global factors, were not examined. Third, the negative coefficients observed for the number of restaurants and accommodations indicate complex dynamics that may not be fully captured by multiple linear regressions and simple linear trend projection methods. Finally, this study only focuses on North Lombok Regency, limiting the generalization of the findings to areas with different tourism characteristics.

Suggestion

For future research, it is recommended to use more comprehensive and up-to-date data, including key surveys of tourism business actors, to improve analytical accuracy. Combining additional variables such as private investment, tourist satisfaction, promotional activities, and global external factors will provide a more complete understanding of the determinants of PAD. Using more advanced analysis methods, such as dynamic econometrics, panel data analysis, or simulation models, can better capture non-linear relationships and variable interactions. In addition, comparative studies with other regions in West Nusa Tenggara or Eastern Indonesia can offer broader insights into the contribution of the tourism sector to regional income. From a policy maker perspective or local governments in North Lombok regency should prioritize quality Oriented tourism policies, including strengthening local tourism levies through digitalized ticketing systems at major tourist attractions, improving the registration and tax compliance of restaurants and accommodations through integrated tourism business databases, and enhancing workforce productivity through certified training programs aligned with hospitality standards to comprehensively optimize the economic benefits of tourism.

REFERENCES

Al Fariz, M. G., & Arianti, F. (2023). The influence of the number of tourists, the number of tourist attractions, and hotel and restaurant taxes on the tourism sector of the Special Region of Yogyakarta in 2010–2019. *BISECER (Business Economics Entrepreneurship)*, *6*(2), 139. https://doi.org/10.61689/bisecer.v6i2.430

Alqifari, M. (2023). Identify the impact of the management of Pandanan Beach tourist attractions in reducing the unemployment rate of the people of Pandanan Hamlet, North Lombok Regency. *Journal of Research and Innovation Knowledge*, *2*(8), 3289–3304.

Amerta, I. G. N., & Budhiasa, I. G. S. (2016). The effect of foreign tourist visits, domestic tourists, number of hotels, and other accommodations on regional original income (PAD) in Badung Regency in 2001–2012. *E-Journal of Tourism*, 56–69.

Anggraini, D., Hendrati, I. M., & Asmara, K. (2020). The effect of the number of tourist attractions (ODTW), hotel accommodations, and tourists on the regional original income of West Manggarai Regency in 2010–2019. *Economics and Sustainable Development*, *5*(2), 1–10. https://doi.org/10.54980/esd.v5i2.111

Basuki, A. T., & Sugiarti, M. (2020). Analysis of factors that affect local income of the tourism sector in Bali Province. *Fair Value: Scientific Journal of Accounting and Finance*, *6*(3), 305–312. http://journal.ikopin.ac.id/index.php/fairvalue/article/view/4341

Badan Pusat Statistik Kabupaten Lombok Utara. (2025). *Kabupaten Lombok Utara dalam angka 2025*. https://lombokutarakab.bps.go.id/id/publication/2025/02/28/295dfdaeb736568e4ea5cd3d/kabupaten-lombok-utara-dalam-angka-2025.html

Enindita, B. A. (2021). *The influence of the number of tourists and tourist attractions on the regional original income of North Lombok Regency* (Undergraduate thesis). Universitas Muhammadiyah Yogyakarta. https://etd.umy.ac.id/id/eprint/4615

Gaddafi, M. (2024). Analysis of factors affecting regional original revenue (PAD) of the tourism sub-sector in North Lombok Regency in 2015–2022. *Scientific Journal of Management STIE AMM*, *2*(1), 12–26. https://stieamm.ac.id/jurnal/kredibel/article/view/400

Ghozali, I. (2018). *Multivariate analysis application with IBM SPSS 23 program*. Semarang, Indonesia: Diponegoro University Publishing Agency.

Hyndman, R. J., & Athanasopoulos, G. (2018). *Forecasting: Principles and practice* (2nd ed.). Melbourne, Australia: OTexts. https://otexts.com/fpp3/

Kapang, S., Rorong, I. P., & Maramis, M. (2019). Analysis of the influence of the tourism sector on regional original income (PAD) of Manado City. *Journal of Scientific Efficiency Periodicals*, *19*(4), 84–94.

Kurniawan, W., Panjawa, J. L., & Gurtino, D. C. (2024). Assessing the impact of tourism on regional economic performance. *Journal of Regional and City Planning*, *20*(4), 510–520. https://doi.org/10.14710/pwk.v20i4.63144

Mahardika, H. (2024). The North Lombok Regency government's efforts to revive tourism. *Times Indonesia*. https://timesindonesia.co.id/pemerintahan/515324/upaya-pemkab-lombok-utara-pulihkan-pariwisata

Mukherjee, C., White, H., & Wuyts, M. (2018). Dealing with heteroscedasticity. In *Econometrics and data analysis* (Chap. 11). London, UK: Taylor & Francis.

Nur Aini, Y., Susanto, J., & Winarti, A. S. (2022). The influence of the tourism sector on regional original income of regencies/cities in the Special Region of Yogyakarta in 2011–2020. *Journal of SINOMIKA: Scientific Publications in Economics and Accounting*, *1*(4), 841–850. https://doi.org/10.54443/sinomika.v1i4.443

Nuryadin, D., & Purwiyanta, P. (2023). Multiplier effects of the tourism sector in Yogyakarta: An input–output analysis. *TRACE: Journal of Economics and Policy*, *16*(1), 170–183.

Pernita, D., & Ismanto, J. (2025). Normality analysis using the Jarque–Bera test in regression models. *Fair Value: Scientific Journal of Accounting and Finance*, *7*(3). https://journal.ikopin.ac.id/index.php/fairvalue/article/download/5145/4232/26779

Putri, T. S., Mahmud, A., & Aminy, M. M. (2022). The impact of village tourism on the community economy. *Journal of Economic Development*, *4*(1). https://journal.uinmataram.ac.id/index.php/jed/article/download/4719/1965

Rajab, A. (2021). Analysis of Mamuju Regency's original revenue projections for 2020–2024. *JEMA Adpertisi Journal*, *1*(1), 1–11. https://jurnal.adpertisi.or.id/index.php/JEMA/article/view/105

Stiawati, T., Manan, A., & Astuti, E. (2025). Analysis of the influence of the tourism sector on Central Lombok regional original revenue (PAD) in 2014–2023. *Journal of Regional Economics*, *3*(1), 77–85.

Sukresna, I. N. A., & Ismiwati, B. (2024). The nexus between the tourism sector and regional original revenue: Empirical evidence from West Nusa Tenggara, Indonesia. *Journal of Regional Development*, *6*(3).