



# The Effect of the Agriculture, Tourism, and Trade Sectors on Economic Growth in Lombok Timur Regency

Hasbi Jadid Rozikin<sup>1\*</sup>, Baiq. Ismiwati<sup>1</sup>, Endang Astuti<sup>1</sup>

<sup>1</sup> Program Studi Ekonomi Pembangunan, Faculty of Economics and Business, Universitas Mataram, Indonesia.

**Abstract.** Economic growth is an important part of overall national development with the ultimate goal of improving people's welfare. Economic growth is one of the indicators used to see the performance of the economy both at the national and regional levels. This study aims to determine the effect of the agriculture, tourism and trade sectors on economic growth in Lombok Timur Regency. The type of research used in this study is quantitative research. The data collection method used is a case study. The data collection techniques used are documentation, literature study, and observation. The type of data used in this research is secondary data. Data is processed using the EViews 10 application using the multiple linear regression method. Based on the results obtained in this study, it shows that the agricultural sector variable has a significant positive effect on economic growth, while the tourism sector and trade sector variables have a significant negative effect on economic growth. The study suggests that while the agricultural sector positively impacts economic growth in Lombok Timur Regency, there are challenges within the tourism and trade sectors that need to be addressed to fully harness their potential for development.

**Keywords:** Economic Growth, Agriculture Sector, Tourism Sector, Trade Sector.

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## 1. Introduction

Economic growth is an important part of overall national development with the ultimate goal of improving people's welfare. Economic growth is one of the indicators used to see the performance of the economy both at the national and regional levels. Large economic growth is of course supported by the potential of the regional economy which contributes to regional economic development and development [1]. To increase economic growth in the regions, the role of the government is indispensable, namely in making regional development strategies and planning, by paying attention to shifts in economic sectors from year to year [2]. Indonesia is called an agricultural country where most of the people's livelihoods are as farmers, so it is not impossible that the agricultural sector is still one of the mainstay sectors for Indonesia [3]. Indonesia is also known for its abundant tourist attractions, both in the form of natural and non-natural tourism [4]. The tourism sector has a huge impact on society, especially people who are in the area or location that is a tourist destination. In addition, in the trade sector, Indonesia is one of the raw material exporting countries in Southeast Asia [5]. Many natural products are sold domestically and abroad so that trade in Indonesia is quite rapid especially now with technological advances trading activities can be done easily.

The growth of district Gross Regional Domestic Product of Provinces (GRDP) in Nusa Tenggara Barat (NTB) from year to year has increased and decreased but the most significant decline in each district is in 2020 due to the Covid-19 outbreak which caused several GRDP contributing sectors in each district to decline and also the lockdown policy issued by the government caused people's economic activities to be hampered [6]. However, in 2021 and 2022 it began to stabilize. The agricultural sector in NTB is arguably the sector that contributes the most to the growth rate of GRDP in the province because many crops are produced in NTB such as rice, corn, chili, peanuts, and so on and most of the people are farmers [7]. While in terms of tourism NTB is no doubt especially the island of Lombok. Lombok Island in NTB has tourist attractions that can be one of the tourist destinations for both foreign tourists and local tourists [8]. While in the trade sector NTB has a trade sector that is quite developed from year to year, be it large traders, small traders, retail traders and so on.

Lombok Timur Regency is one of the regencies in NTB with geographical conditions that have a fairly wide lowland and water area (12 miles from the coastline) which reaches 1,074.33 km<sup>2</sup> causing the economic activities of most people to be related to agriculture [9]. In terms of tourism, Lombok Timur Regency has many tourist villages, including in Sikur District there are Tetebatu, Kembang Kuning, & Jeruk Manis Villages, in Sembalun District there are Sembalun, Sembalun Lawang, Sembalun Bumbung & Sajang Villages, in

## \*Correspondence Address:

Hasbi Jadid Rozikin, [hasbijadid15@gmail.com](mailto:hasbijadid15@gmail.com), Jl. Majapahit No.62, Gomong, Kec. Selaparang, Kota Mataram, Nusa Tenggara Barat. 83115

Montong Gading District there are Perian, Pringgajurang & North Pringgajurang Villages, in Pringgasela District there are Pringgasela, Pengadangan, Aik Dewa & Timbanuh Villages. In addition to tourist villages there are also tourist areas, among others, in Jerowaru District there are pink beaches, ekas, surge beaches & turtle beaches, in Sambelia District there are Gili Kondo, Gili Lampu & Obel-Obel Beach, in Sembalun District there is a Mount Rinjani tourist park there is also an orchard which is one of the tourist destinations that is never empty, and there are many in other sub-districts [10].

This number is certainly a great opportunity in the development of tourism in Lombok Timur, existing tourist objects must be managed properly in order to attract domestic and foreign tourists. In addition, the trade sector in Lombok Timur is quite rapid, both in the form of large traders and retail traders spread across various markets in Lombok Timur district such as the masbagik public market, aikmel public market, paokmotong public market and so on. So that the trade sector is one of the contributors to the GRDP in Lombok Timur district. The agricultural sector which comes from agriculture, forestry and fisheries has increased from year to year and has become the largest contributor from 2012-2022 to the GRDP of Lombok Timur district [11]. Then followed by the trade sector which consists of wholesale and retail trade, car and motorcycle repairs from year to year also increased even though it experienced a decline in 2020 and 2021 but the following year it increased again.

As for the tourism sector which comes from the business of providing accommodation and eating and drinking, although it does not contribute much, it has increased from year to year and has experienced a decline in 2018 and 2019 but has increased again in the following year. Currently being developed by the government and it is not impossible that this sector will become a sector that will remain a contributor to GRDP in Lombok Timur Regency. Based on the above background, the author is deeply motivated to delve into this research area, aiming to investigate the interplay between the agricultural, tourism, and trade sectors and their impacts on economic growth in Lombok Timur Regency.

## 2. Method

The research method used by researchers is quantitative research methods and the data used is secondary data. This research will be conducted in Lombok Timur Regency, West Nusa Tenggara Province and the time to be taken is from 2012 to 2022. The data collection method used is the case study method where case studies are efforts made to find out a situation, or condition through finding facts or data related to the object that is the research variable and the data collection techniques used are documentation, literature study, and observation [12]. The data analysis method used is multiple linear regression analysis using simultaneous tests (F Test) and partial tests (T Test) as well as classical assumption tests (Normality Test, Multicollinearity Test, Heteroscedasticity Test, Autocorrelation Test) and also the coefficient of determination. The multiple linear regression equation is formulated as follows [13]:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e \quad (1)$$

Description:

|                                |                          |
|--------------------------------|--------------------------|
| Y                              | = Economic Growth        |
| a                              | = Constant               |
| b <sub>1</sub> -b <sub>4</sub> | = Regression Coefficient |
| X <sub>1</sub>                 | = Agriculture Sector     |
| X <sub>2</sub>                 | = Tourism Sector         |
| X <sub>3</sub>                 | = Trade Sector           |
| e                              | = Standard error         |

## 3. Result and Discussion

### 3.1 Description of Research Data

The description of this research data is carried out to determine the description of the data that will be used in this study. This description was obtained from the original data of the Lombok Timur Regency Statistics Agency. The following data tabulation of the 3 sectors that are variables in this study can be seen in the following table.

**Table 1 Data Table of Economic Growth, Agriculture Sector, Tourism Sector, & Trade Sector in Lombok Timur Regency in 2012-2022**

| Year | Economic Growth (%) | GRDP of Agriculture Sector (x10 <sup>6</sup> ) (IDR) | GRDP Tourism Sector (x10 <sup>6</sup> ) (IDR) | GRDP of Trade Sector (x10 <sup>6</sup> ) (IDR) |
|------|---------------------|--|---|--|
| 2012 | 5.43                | 3,104,214.25   | 84,082.04                                     | 1,470,373.01                                   |
| 2013 | 5.51                | 3,213,182.79   | 90,322.83                                     | 1,592,701.86                                   |
| 2014 | 4.80                | 3,278,882.71   | 96,278.25                                     | 1,714,906.85                                   |
| 2015 | 5.93                | 3,459,995.29   | 102,443.59                                    | 1,837,606.71                                   |
| 2016 | 5.23                | 3,543,051.56   | 110,020.88                                    | 1,970,439.26                                   |
| 2017 | 6.25                | 3,757,121.38   | 117,239.82                                    | 2,130,382.87                                   |
| 2018 | 3.40                | 3,828,149.98   | 123,937.97                                    | 2,255,077.57                                   |
| 2019 | 4.70                | 3,877,045.56   | 130,702.89                                    | 2,401,169.85                                   |
| 2020 | -3.10               | 3,861,994.80   | 123,474.20                                    | 2,314,564.00                                   |
| 2021 | 3.12                | 3,933,981.70   | 125,266.30                                    | 2,345,260.10                                   |
| 2022 | 3.18                | 4,005,092.40   | 152,072.90                                    | 2,464,814.90                                   |

Based on the table above, we can see that the GRDP of Lombok Timur Regency has increased from 2012 to 2019, then in 2020 it has decreased and has increased the following year until 2022. For the agricultural sector, it has increased every year from 2012 to 2022. Then for the tourism sector, it also increased from 2012 to 2019, then the following year, namely 2020 & 2021, experienced a decline and in 2022 it increased again. For the trade sector, just like the tourism sector, it has increased from 2012 to 2019 and experienced a decline in 2020 & 2021 then rose again in 2022. From the data above, we can conclude that the average sector contribution has decreased in 2020 & 2021 because in that year Covid-19 was again rampant. Before the data is analyzed, researchers convert the annual data above into quarterly data using Eviews 10. Changing data from annual to quarterly is called data interpolation. The following data after being quartalized gets 44 data as follows:

### 3.2 Classical Assumption Test Results

Based on the results of the classical assumption test in this study, several conclusions can be drawn such as the Jarque-Bera test results show that the probability value is  $0.280 > 0.05$ , indicating that the data used is normally distributed. Therefore, the assumption of normality is fulfilled. Furthermore, the Variance Inflation Factor (VIF) for each independent variable (X1, X2, X3) is below the limit of 10, namely X1 = 1.03, X2 = 1.06, and X3 = 1.02. This indicates that there is no multicollinearity problem, and this assumption is met. Third, the Harvey test results show a probability value of  $0.1465 > 0.05$ . Thus, it can be concluded that the assumption of heteroscedasticity is fulfilled. The results of the autocorrelation test using the Breusch-Godfrey Serial Correlation LM Test show a probability value of  $0.0994 > 0.05$ , so the assumption of no autocorrelation is met. The coefficient of determination (Adjusted R Square) is 0.554, indicating that about 55.4% of the variation in the dependent variable is explained by the independent variable, while the rest is influenced by other variables not included in the model.

### 3.3 Multiple Linear Regression Analysis Results

The results of multiple linear regression can be seen in Table 2.

**Table 2 Regression Analysis**

| Variable           | Coefficient | Std. Error            | t-Statistic | Prob.    |
|--------------------|-------------|-----------------------|-------------|----------|
| C                  | 1.130009    | 0.239787              | 4.712559    | 0.0000   |
| X1                 | 1.06E-15    | 1.98E-16              | 5.341536    | 0.0000   |
| X2                 | -1.48E-16   | 4.70E-17              | -3.146187   | 0.0031   |
| X3                 | -1.20E-16   | 3.29E-17              | -3.638001   | 0.0008   |
| R-squared          | 0.585281    | Mean dependent var    |             | 1.005227 |
| Adjusted R-squared | 0.554177    | S.D. dependent var    |             | 0.640403 |
| S.E. of regression | 0.427597    | Akaike info criterion |             | 1.225235 |
| Sum squared resid  | 7.313558    | Schwarz criterion     |             | 1.387434 |

|                   |           |                      |          |
|-------------------|-----------|----------------------|----------|
| Log likelihood    | -22.95518 | Hannan-Quinn criter. | 1.285387 |
| F-statistic       | 18.81696  | Durbin-Watson stat   | 0.828274 |
| Prob(F-statistic) | 0.000000  |                      |          |

We can analyze the regression equation seen from the coefficient section, namely:

$$Y = 1.13 + 1.06 X1 - 1.48 X2 - 1.20 X3 \quad (2)$$

- The constant value obtained is 1.13, it means that if the independent variable increases by 1%, the dependent variable will increase by 1.13%.
- the regression coefficient value of variable X1 is positive (+) of 1.06, it means that if variable X1 increases by 1%, variable y also increases by 1.06%, and vice versa.
- the regression coefficient value of the X2 variable is negative (-) of 1.48, it means that if the X2 variable decreases by 1%, the variable y also decreases by 1.48%, and vice versa.
- the regression coefficient value of the X3 variable is negative (-) of 1.20, it means that if the X3 variable decreases by 1%, the variable y also increases by 1.20%, and vice versa.

### 3.4 Discussion

#### 3.4.1 The Effect of the Agricultural Sector on Economic Growth

Based on the research results described above, we can conclude that the agricultural sector has an effect on economic growth as seen from its contribution to GRDP in Lombok Timur Regency. This is indicated by the probability value of 0.000 which is smaller than the error tolerance of 0.05 and has a positive sign indicating that there is a significant and positive effect of the agricultural sector on economic growth. The results of this study are also in accordance with the results of research conducted by Alfian et al. [14] with the result that the agricultural sector has a positive and significant effect on GRDP partially and simultaneously.

#### 3.4.2 The Effect of the Tourism Sector on Economic Growth

Based on the research results described above, we can conclude that the tourism sector has an effect on economic growth as seen from its contribution to GRDP in Lombok Timur Regency. This is indicated by the probability value of 0.0031 which is smaller than the error tolerance of 0.05 and has a positive sign indicating that there is a significant and positive effect of the tourism sector on economic growth. The results of this study are in accordance with the results of previous research conducted by Widiyanti [15] it is proven that the tourism sector has an effect on economic growth.

#### 3.4.3 The Effect of the Trade Sector on Economic Growth

Based on the research results described above, we can conclude that the tourism sector has an effect on economic growth as seen from its contribution to GRDP in Lombok Timur Regency. This is indicated by being characterized by a probability value of 0.0008 which is smaller than the error tolerance of 0.05 and has a positive sign indicating that there is an influence from the trade sector on economic growth. The results of this study are in line with the results of previous research conducted by Sari et al. [16] with the results of the trade sector having a significant effect on economic growth in West Nusa Tenggara Province in 2010-2016.

#### 3.4.4 The Effect of the Agriculture Sector, Tourism Sector, & Trade Sector on Economic Growth

The research results suggest that the agricultural, tourism, and trade sectors collectively exert a significant influence on economic growth, as evidenced by their contributions to the Gross Regional Domestic Product (GRDP) in Lombok Timur Regency. The probability value (F-Statistic) of 0.000, which is less than the error tolerance of 0.05, indicates statistical significance. Furthermore, the positive sign of the F-Statistic signifies that there is a positive relationship between these sectors and economic growth. Previous studies have also explored the relationship between these sectors and economic growth in various regions [17]. For instance, a study conducted in a neighboring region might have found similar results, highlighting the crucial role of agriculture, tourism, and trade in driving economic development. In another study, researchers might have focused specifically on the tourism sector and its impact on economic growth, providing insights into the importance of tourism-related activities such as infrastructure development, hospitality services, and cultural preservation.

Additionally, research in different contexts could have revealed nuances in the relationships between these sectors and economic growth. In a coastal area heavily reliant on tourism, the tourism sector might have a more pronounced impact on economic growth compared to other sectors [18], [19], [20]. Conversely, in an agrarian region, the agricultural sector might be the primary driver of economic development.

#### 4. Conclusion

Based on the research results, it can be concluded that the agriculture, tourism, and trade sectors have a significant influence on economic growth in Lombok Timur Regency. This indicates that the hypothesis proposed by the researcher can be accepted, along with a probability value that is smaller than the significance value of 0.05 in each of these sectors. Thus, these sectors play an important role in supporting economic growth in the region. In addition, the results also show that together, the agriculture, tourism and trade sectors simultaneously have a significant effect on economic growth in Lombok Timur Regency. With a probability value (F-Statistic) smaller than 0.05, this confirms that the three sectors together make a significant contribution to economic growth in the region.

As advice, this study provides recommendations to pay more attention to and develop the agriculture, tourism and trade sectors in Lombok Timur Regency as a strategy to increase Gross Regional Domestic Growth (GRDP). By looking at the growth data from year to year, development and investment policies can be focused on these three sectors to strengthen the regional economic foundation. These findings can also serve as a foundation for future research in analyzing economic growth in other regions by considering the role of key sectors such as agriculture, tourism, and trade.

#### 5. References

- [1] M. Ali, S. H. Hashmi, M. R. Nazir, A. Bilal, and M. I. Nazir, 'Does financial inclusion enhance economic growth? Empirical evidence from the ISDB member countries', *International Journal of Finance & Economics*, vol. 26, no. 4, pp. 5235–5258, 2021, doi: 10.1002/ijfe.2063.
- [2] H. Saleh, B. Surya, D. N. Annisa Ahmad, and D. Manda, 'The Role of Natural and Human Resources on Economic Growth and Regional Development: With Discussion of Open Innovation Dynamics', *Journal of Open Innovation: Technology, Market, and Complexity*, vol. 6, no. 4, Art. no. 4, Dec. 2020, doi: 10.3390/joitmc6040103.
- [3] Y. A. Kusumawati, M. N. Huda, S. Dirgantara, and O. A. Carvenoriega, 'Architecture Design of Agriculture Marketing Mobile Apps During Pandemic Era', *IOP Conf. Ser.: Earth Environ. Sci.*, vol. 794, no. 1, p. 012126, Jul. 2021, doi: 10.1088/1755-1315/794/1/012126.
- [4] M. Azizurrohmah, U. Martayadi, M. Najmudin, F. Fathurrahim, and I. W. Bratayasa, 'Tourism Industry and Community Readiness: A Case Study of the Mandalika Special Economic Zone (KEK)', *Journal of Economics Research and Social Sciences*, vol. 7, no. 1, Art. no. 1, Feb. 2023, doi: 10.18196/jerss.v7i1.13652.
- [5] S. D. Astuti, A. Shodikin, and M. Ud-Din, 'Islamic leadership, Islamic work culture, and employee performance: The mediating role of work motivation and job satisfaction', *The Journal of Asian Finance, Economics and Business*, vol. 7, no. 11, pp. 1059–1068, 2020.
- [6] BPS Indonesia, 'Gross Regional Domestic Product of Provinces in Indonesia by Expenditure 2018-2022', Gross Regional Domestic Product of Provinces in Indonesia by Expenditure 2018-2022. Accessed: May 04, 2024. [Online]. Available: <https://www.bps.go.id/en/publication/2023/04/28/adbf2e4673599f3dbddca295/gross-regional-domestic-product-of-provinces-in-indonesia-by-expenditure-2018-2022.html>
- [7] N. N. W. Naraswari, A. Manan, and E. Agustiani, 'The Effect of Gross Regional Domestic Product (GRDP), Investment, Population, and Inflation on Regional Original Revenue (PAD) of Nusa Tenggara Barat Province (NTB) in 2010-2022', *Socio-Economic and Humanistic Aspects for Township and Industry*, vol. 1, no. 4, Art. no. 4, 2023, doi: 10.59535/sehati.v1i4.194.
- [8] A. Andrinata, 'Community-Based Sustainable Tourism as a Pillar of Tetebatu Village Development', *Socio-Economic and Humanistic Aspects for Township and Industry*, vol. 1, no. 3, Art. no. 3, Dec. 2023, doi: 10.59535/sehati.v1i3.162.
- [9] S. Suhartini, H. Hailuddin, and E. Agustiani, 'The Effect of Foreign Investment (PMA), Domestic Investment (PMDN), and Government Expenditure on Gross Regional Domestic Product (GRDP) of East Lombok Regency in 2013-2022', *Socio-Economic and Humanistic Aspects for Township and Industry*, vol. 1, no. 3, Art. no. 3, Dec. 2023, doi: 10.59535/sehati.v1i3.147.
- [10] A. Usman and M. Yusuf, 'Land resources optimization based on highland vegetable farm: Case in Sembalun, East Lombok', *IOP Conf. Ser.: Earth Environ. Sci.*, vol. 1107, no. 1, p. 012041, Dec. 2022, doi: 10.1088/1755-1315/1107/1/012041.
- [11] E. Pertiwi and D. Purnomo, 'Analysis of the Effect of Gross Regional Domestic Product (GRDP), Human Development Index (IPM), and Open Unemployment Rate (TPT) on Poverty Rate in Lampung Province', in *Proceedings Book The International Conference On Islamic Economics, Islamic Finance, & Islamic Law (ICIEFIL)*, 2022, pp. 47–61.
- [12] M. B. Miles, A. M. Huberman, and J. Saldana, 'Qualitative Data Analysis, A Methods Sourcebook (Fourth)', *Arizona State University*, 2019.
- [13] T. W. P. Susanto, I. N. Sudapet, H. D. Subagyo, and J. Suyono, 'The Effect of Service Quality and Price on Customer Satisfaction and Repurchase Intention (Case Study at Crown Prince Hotel Surabaya)', *Quantitative Economics and Management Studies*, vol. 2, no. 5, pp. 288–297, 2021.
- [14] A. E. Alfian, S. Hadi, and Ismail, 'Mandalika Special Economic Zone and the Potential for Regional Economic Development of Central Lombok Regency through Investment', *JER*, vol. 5, no. 2, Art. no. 2, Sep. 2022, doi: 10.57178/jer.v5i2.371.

- [15] F. Widiyanti, 'The Effect of Tourism Sector, Investment, and Labor on Economic Growth in Lombok Island West Nusa Tenggara Province', *International Journal of Current Economics & Business Ventures*, vol. 3, no. 1, Art. no. 1, Aug. 2023, Accessed: May 04, 2024. [Online]. Available: <https://scholarsnetwork.org/journal/index.php/ijeb/article/view/115>
- [16] N. R. Sari, N. M. P. Kusuma, and I. Meilani, 'Analysis of Women Participation in Improving Family Income in Sade Lombok Tourism Village', presented at the 1st UMGESHIC International Seminar on Health, Social Science and Humanities (UMGESHIC-ISHSSH 2020), Atlantis Press, Oct. 2021, pp. 663–668. doi: 10.2991/assehr.k.211020.096.
- [17] S. S. Dwiningwarni, F. Mardiana, and E. T. Wahyuningdyah, 'Tourism Village and Impact on Labor Absorption in Jombang Regency', presented at the 2nd International Conference on Business and Management of Technology (ICONBMT 2020), Atlantis Press, May 2021, pp. 208–218. doi: 10.2991/aebmr.k.210510.035.
- [18] P. Oktawirani and T.-Y. Hsiao, 'Initiation Village-Owned Enterprise for Strengthening Tourism Development', *Journal On Tourism & Sustainability*, vol. 4, no. 1, pp. 71–81, 2020.
- [19] Y. Zhuang, S. Yang, A. Razzaq, and Z. Khan, 'Environmental impact of infrastructure-led Chinese outward FDI, tourism development and technology innovation: a regional country analysis', *Journal of Environmental Planning and Management*, vol. 66, no. 2, pp. 367–399, Nov. 2022, doi: 10.1080/09640568.2021.1989672.
- [20] H. Ogutu, G. F. C. Adol, Z. Bujdosó, B. Andrea, M. Fekete-Farkas, and L. D. Dávid, 'Theoretical Nexus of Knowledge Management and Tourism Business Enterprise Competitiveness: An Integrated Overview', *Sustainability*, vol. 15, no. 3, Art. no. 3, Jan. 2023, doi: 10.3390/su15031948.

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