How Hotel Accommodation Performance Affects Economic Growth: Five Provinces of Super Priority Destinations (DSP) Case Study

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Abstract

This study aims to analyze the effect of star and non-star hotel accommodation performance on economic growth as measured by ADHK GRDP in the five DSP provinces. Data was obtained from BPS for each of the 5 DSP provinces from 2013 to 2022. The data was then analyzed using the panel data regression analysis method through the R Studio application. The analysis results show the variable number of star hotel accommodations, the variable average length of stay of star hotel accommodation guests, and the variable number of non-star hotel accommodation guests have a significant effect on ADHK GRDP. Recommendations involve increasing the number of star hotels, optimizing guest management by reducing the negative impact on ADHK GRDP of SDP Province 5, managing the length of stay of guests with different policies for star hotel accommodation and non-star hotel accommodation, and the need for a continuous monitoring and evaluation system to measure the impact and adjust the strategy.

Abstrak

Penelitian ini bertujuan untuk menganalisis pengaruh kinerja akomodasi hotel berbintang dan non bintang terhadap pertumbuhan ekonomi yang diukur dengan PDRB ADHK di lima provinsi DSP. Data diperoleh dari BPS masing-masing 5 provinsi DSP pada tahun 2013 hingga 2022. Data tersebut kemudian dianalisis menggunakan metode analisis regresi data panel melalui aplikasi R Studio. Hasil analisis menunjukkan variabel jumlah akomodasi hotel bintang, variabel rata-rata lama menginap tamu akomodasi hotel bintang, dan variabel jumlah tamu akomodasi hotel non bintang berpengaruh signifikan terhadap PDRB ADHK. Rekomendasi yang diberikan antara lain penambahan jumlah hotel berbintang, optimalisasi pengelolaan tamu dengan mengurangi dampak negatif terhadap PDRB ADHK SDP Provinsi 5, pengelolaan lama menginap tamu dengan kebijakan berbeda antara akomodasi hotel bintang dan akomodasi hotel non bintang, serta perlunya sistem pemantauan dan evaluasi yang berkesinambungan untuk mengukur dampak dan menyesuaikan strategi.

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INTRODUCTION

The UNWTO, in its International Recommendations for Tourism Statistics (2008), defines tourism as a social, cultural, and economic phenomenon associated with the movement of people to places outside their place of residence to engage in pleasurable activities. In tourism statistics, these "activities" refer to the actions and behavior of individuals as consumers in preparation for and during travel (UNWTO, 2008). Tourism is an issue that has received a great deal of attention to economic growth, foreign exchange earnings, job creation, cultural heritage preservation, infrastructure development, and poverty reduction, as well as its environmental and community implications. (Gwenhure & Odhiambo, 2017). Pablo and Molina (2013) in their research found that how well tourism plays a role in a country's economy will determine how much it affects economic growth. Tourism has been identified as a contributor to economic growth in a variety of ways, both directly and indirectly (Brida et al., 2020). It is thought that receipts and expenditures incurred in the tourism sector could contribute positively to a country's balance of payments, provide employment, and generate additional revenue from the tax sector. The UNWTO report (2014) also recognizes the influence of tourism on economic growth, highlighting various aspects that link the tourism industry with economic growth. One such aspect is the direct and indirect job creation induced through the tourism sector. An overview of the linkages and impacts of tourism on economic growth is shown in Figure 1 (Vellas, 2011).
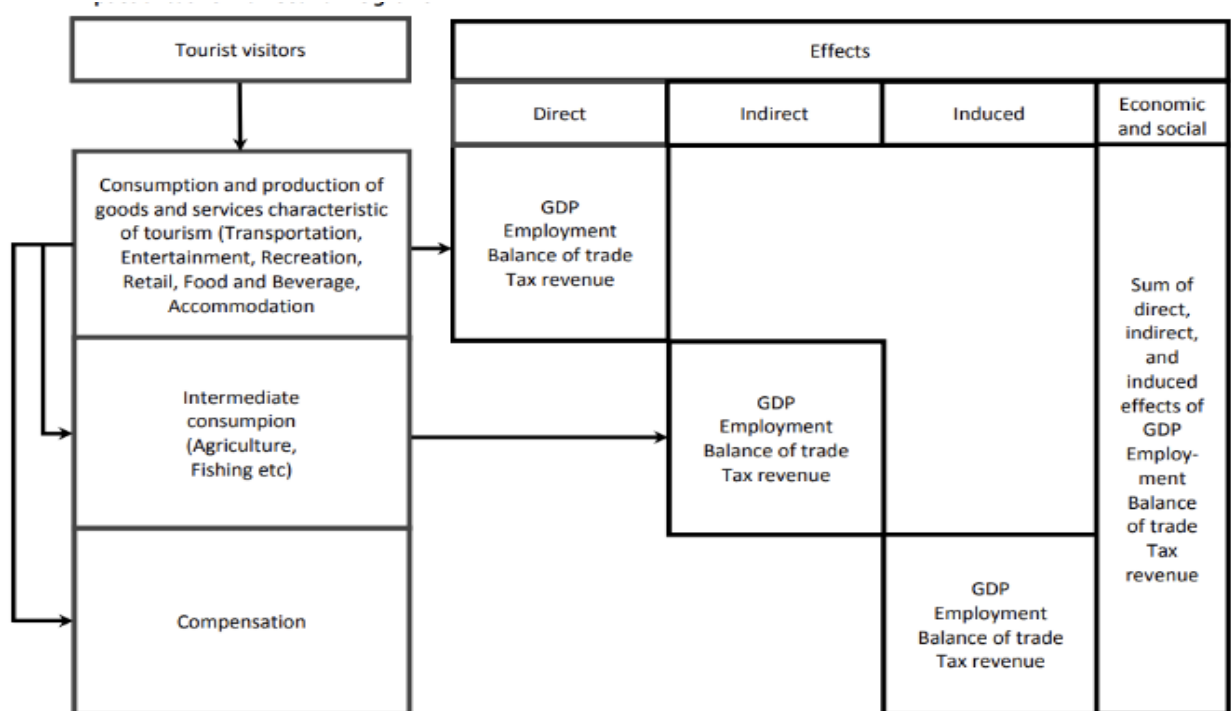

Figure 1. Diagrams of Tourism's Impact on Economic Growth
Source: Vellas (2011)

It could be said that economic growth is an indicator of the success of economic development, as measured by the increase in Gross Domestic Product (GDP). It could be argued that higher GDP correlates with greater economic growth (Putri, 2020). GDP includes the overall value of goods and services produced in a particular region or region during a certain period, generally in one year (Dama, 2016). Tourism and travel are one of the largest sectors of the global economy and contribute significantly to national and local economies, especially in developing countries (Cabrini et al, 2009). There is a growing interest among economists in the potential of the tourism sector to contribute to economic growth, both directly and indirectly (Holik, 2016).

Many studies on the effect of tourism on GDP have found support for the Tourism-Led Growth hypothesis. In a journal entitled "The Influence of Tourism on the Increase of Surakarta City's GRDP", Putri (2020) found that the tourism sector has a positive influence on the increase in the economy of Surakarta City. It seems that the

tourism, trade, and hospitality sector is a superior base sector and makes a significant contribution. Another study, by Delrosa (2018), examined the impact of the tourism industry on the GRDP of Padang City. Their findings suggest that the number of tourists, the number of hotels, and the number of restaurants have a positive effect on the city's GRDP.

In 2019, it is estimated that tourism contributed IDR 786.3 trillion, which represents 4.97% of total GDP. The challenging circumstances brought about by the pandemic and the restrictions on community mobility during the spread of COVID-19 led to a decrease in tourism's contribution to GDP in 2020, with the figure reaching IDR 346 trillion. However, with the pandemic conditions now under control and various policies in place to accelerate the National Economic Recovery (PEN), tourism growth in 2021 has increased by IDR 43.7 trillion from the previous year to IDR 389.7 trillion, equivalent to a 2.3% contribution to GDP (BPS, 2022).

One of the national economic recovery programs for the tourism sector is the accelerated development of five (5) Super Priority Destinations (DSP), namely Lake Toba, Borobudur Temple, Mandalika, Labuan Bajo, and Likupang. The government has made various efforts to accelerate the development of DSP, including accelerating business licensing and investment (Anam, 2022), accelerating digital infrastructure development (Limanseto, 2022), increasing amenity support (Haryono, 2022), and strengthening accessibility in the form of physical infrastructure development such as roads, airports, ports, sanitation, clean water, and regional arrangements. In addition, ancillary development, which includes the arrangement of asset management and utilization, and attraction development, among others, is being pursued through collaboration in organizing national and international events (Kemenkomarves, 2022), as well as tourism product development, improvement of the creative economy ecosystem to the preparation of human resources and community empowerment in each destination (Purwowidhu, 2023).

These activities in tourism are very dependent on tourism infrastructure. It is evident that even for some visitors, tourism infrastructure and recreational facilities play a significant role in the tourism development process (Mandić, 2018). Tourism infrastructure includes a large number of services required to meet the needs of tourists and increase satisfaction during their stay in the destination (Jovanoviä and Ivana, 2016). There is a diversity of views on the number and types that represent tourism infrastructure, with various literatures providing different perspectives. Raina (2005) divides infrastructure into four categories, namely: (1) Physical (hotels, motels, restaurants, transport, communications, water, electricity); (2) Cultural (culture, heritage, exhibitions and festivals, local art and music, dress and dance, language, and food); (3) Services (banking facilities, travel agents, insurance agents, tour guides); (4) Governance (law and order, customs, and immigration regulations).

One of the infrastructures in tourism is accommodation. Accommodation is a facility provided to meet the needs of lodging or temporary residence for people who are traveling (Hindrawan and Ordiyasa, 2013). Accommodation is a fundamental element in the tourism sector (Sharpley, 2000). Based on Indonesia's Tourism Satellite Account (TSA) 2017-2021, accommodation ranks third in internal tourism expenditure. BPS defines internal tourism expenditure as the total expenditure of foreign and domestic tourists. Given the important role of accommodation in supporting the development of the tourism sector, the Government of Indonesia also took steps by issuing the Regulation of the Minister of Tourism and Creative Economy of the Republic of Indonesia Number PM.53/HM.001/MPEK/2013 concerning Hotel Business Standards. This effort was carried out to provide clear and sustainable guidelines for managing accommodation facilities, ensuring consistent service quality, and adjusting regulations to the dynamics of the growing tourism industry.

The Indonesian government classifies the hotel business into two types, namely Star Hotels and Non-Star Hotels. Star Hotels are hotel class levels that have met the requirements of star hotels, ranging from one-star hotels, two-star hotels, three-star hotels, four-star hotels, and five-star hotels. Meanwhile, Non-Star Hotels are hotels that are not included in the classification of hotel classes or can be referred to as jasmine hotels. Room Occupancy Rate is one of the parameters that reflect tourism sector activities as one of the potential sources of income at the regional and national levels (Kusniawati, 2010). TPK is one of the elements in calculating hotel revenue by measuring how many rooms are occupied compared to the total rooms available (Bujung et al, 2019). The length of stay of tourists is an important factor that has a large and diverse impact due to the wider scope of exploring destinations (Nugroho, 2021). The higher the level of tourist satisfaction, of course, will increase the

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length of their stay. Length of stay is measured based on the duration of the visit, where the longer tourists stay at a hotel, the possibility of increasing hotel revenue (Wijaya in Fadhila, 2019).

Along with the growth of the tourism industry in the five DSPs, the need for accommodation as a tourism support facility has also increased. Accommodation, including star and non-star hotels, is one of the tourism subsectors that contributes the largest tourism transaction value. It is widely acknowledged that the availability of places to stay has a significant impact on the attractiveness of a destination and the level of tourist visits. The level of hotel revenue is measured through the Room Occupancy Rate (TPK) and the length of stay of visitors, which makes this an important factor in understanding its influence on the economic growth of a region. The distribution of tourist expenditure, both foreign and domestic tourists, is dominated by the type of expenditure in the accommodation subsector. The average expenditure of foreign tourists on accommodation is 40.23% of the total expenditure of foreign tourists (BPS, 2023a) and the average expenditure of domestic tourists on accommodation is 25.31% of the total expenditure of domestic tourists (BPS, 2023b).
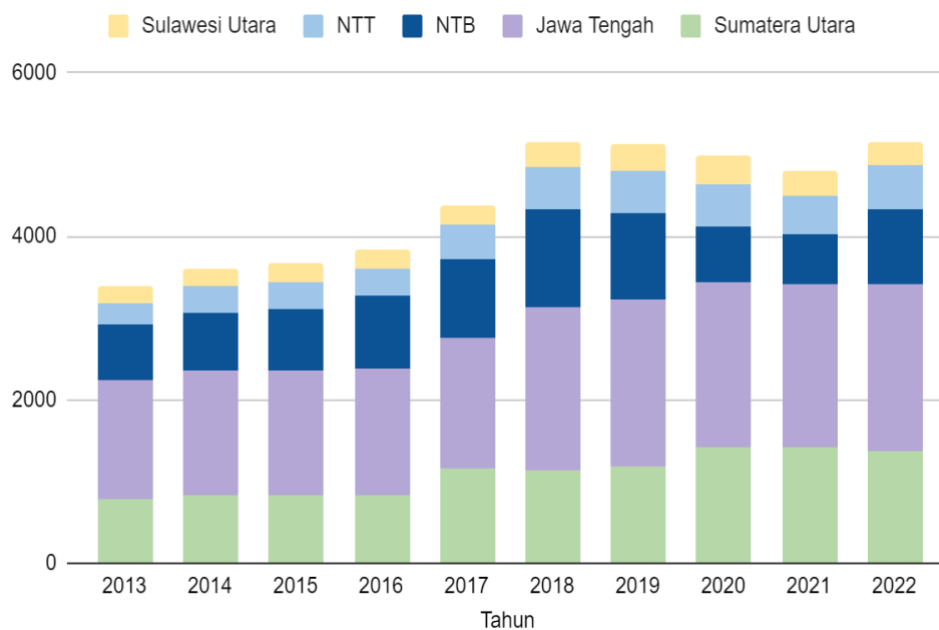

Figure 2. The number of Star and Non-Star Hotels in 5 DSP Provinces 2013-2022
Source: BPS processed data by author (2023)

This study aims to determine the potential impact of star and non-star hotel accommodation performance on economic growth in the five DSP provinces, namely North Sumatra, Central Java, West Nusa Tenggara, East Nusa Tenggara, and North Sulawesi. To this end, we will analyze the variables number of hotels, average length of stay of guests, number of guests, and room occupancy rate in star and non-star hotel accommodation from 2013 to 2022 using panel data regression. It is postulated that the number of star hotel accommodations may have an impact on the GRDP of the five DSP provinces. It is suspected that the number of non-star hotel accommodations may affect the GRDP of the five DSP provinces. Similarly, it is suspected that the number of guests in star hotel accommodation may affect the GRDP of Province 5 DSP. Furthermore, it is suspected that the number of guests in non-star hotel accommodation may affect the GRDP of Province 5 DSP. Finally, it is suspected that the Room Occupancy Rate (TPK) in star hotel accommodation may affect the GRDP. It is suspected that the Room Occupancy Rate (TPK) in non-star hotel accommodation may affect the GRDP of Province 5 DSP. Similarly, it is thought that the average length of stay of guests in star hotel accommodation may affect the GRDP of Province 5 DSP. Finally, it is considered that the average length of stay of guests in non-star hotel accommodations may affect the GRDP of Province 5 DSP.

METHODS

In this study, the data used is secondary data derived from the Central Bureau of Statistics in the form of panel data (a combination of time series data and cross-section data). The coverage area selected in this study is the 5 DSP provinces, among others: North Sumatra, Central Java, West Nusa Tenggara, East Nusa Tenggara, and North Sulawesi. The period used is an annual period, namely 2013-2022. In this study, the symbol used is:

Y	=	ADHK GRDP of the province 5 DSP
X_i	=	{Number of Star Hotel Accommodation, Number of Non-Star Hotel Accommodation, Average Length of Stay of Star Hotel Accommodation, Average Length of Stay of Non-Star Hotel Accommodation, Room Occupancy Rate of Star Hotel Accommodation, Room Occupancy Rate of Non-Star Hotel Accommodation, Number of Guests in Star Hotel Accommodation, Number of
	=	Guests in Non-Star Hotel Accommodation}
i	=	{Sumatera Utara, Jawa Tengah, Nusa Tenggara Barat, Nusa Tenggara Timur dan Sulawesi Utara}
t		{2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022}

This research uses quantitative research methods by applying descriptive analysis and inferential analysis. Descriptive analysis is used to explain the general description of the characteristics of the variables studied. While inferential analysis is used to explain the relationship and influence of independent variables in the 5 DSP provinces in 2013-2022. Secondary data used in the form of panel data obtained from the Central Bureau of Statistics for independent and dependent variables with a series from 2013 to 2022 with cross-section data is the province of 5 DSP. Secondary data processing is carried out using several statistical program packages, such as Microsoft Excel 2007 and R Studio Application. Data processing activities using Microsoft Excel 2007 involve the creation of tables, graphs, and analyses. Processing using the R Studio Application is used for data analysis purposes regarding panel data regression.

RESULTS AND DISCUSSION

Descriptive Analysis

Over recent years, the government has been developing many other tourist destinations outside Bali Province, which refers to as the Five Super Priority Destinations (5 DSP). These destinations are believed to have the potential to contribute to the growth of Indonesia's tourism industry in the future (Anam, 2022). The five DSPs, which are National Tourism Strategic Areas (KSPN), are spread across five provinces in the western, central, and eastern parts of Indonesia. The five DSPs are Lake Toba in North Sumatra, Borobudur in Central Java, Mandalika in West Nusa Tenggara (NTB), Labuan Bajo in East Nusa Tenggara (NTT), and Likupang in North Sulawesi. These five destinations have the potential to contribute to economic growth in the five provinces through their unique attractions and the tourist industry.

Table 2. Descriptive Data in Province 5 DSP

Variable	Obs	Average	Std. Dev	Min	Max
ADHK GRDP (billion rupiah) (Y)	50	324.733	336.458	51.505	1.050.322
Number of Star Hotel Accommodation (X_1)	50	103,28	91,89	18	343
Number of Non-Star Hotel Accommodation (X_2)	50	778,66	485,11	181	1.725
Average Length of Stay Star Hotel Accommodation (X_3)	50	1,84	0,37	1,30	2,94
Average Length of Stay of Non-Star Hotel Accommodation (X_4)	50	1,57	0,37	1,07	2,53
Room Occupancy Rate of Star Hotel Accommodation (X_5)	50	46,83	9,92	27,94	71,12
Room Occupancy Rate of Non-Star Hotel Accommodation (X_6)	50	27,82	8,92	9,62	49,35
Number of Guests in Star Hotel Accommodation (X_7)	50	1.953.497	2.159.845	22.200	7.369.690
Number of Guests in Non-Star Hotel Accommodation (X_8)	50	1.945.484	2.028.503	88.836	7.500.545

Source: Data processed by author (2023)

The data description shown in Table 2 shows the values of the variables processed using the R application for each province in the 5 DSPs. The number of observations used in this study is 50 with details consisting of provinces in 5 DSP from 2013 to 2022. The minimum number of star hotel accommodations in the 5 DSP provinces is 18 units, namely in East Nusa Tenggara Province in 2013 and the minimum number of non-star hotel accommodations is 181 units, namely in North Sulawesi Province in 2013. The maximum number of star hotel accommodations in the 5 DSP Provinces is 343 units in Central Java Province in 2022 and the maximum number of non-star hotel accommodations is 1,725 units in Central Java Province in 2019. The average number of star hotel accommodation businesses in the 5 DSP Provinces in 2013-2022 was 103.28 units and the number of non-star hotel accommodation businesses in 2013-2022 was 778.66 units. The standard deviation value of star hotel accommodation is 91.89 units and the standard deviation of non-star hotel accommodation is 485.11 units. The number of accommodation businesses in the 5 DSP provinces shows a small difference in inequality variation for star hotel accommodation but the variation in inequality of non-star hotel accommodation is very large.

The average length of stay of guests in star and non-star hotel accommodation businesses in 2013-2022 in the 5 DSP provinces is the shortest at 1.30 days in Central Java Province in 2020 and 1.07 days in Central Java Province in 2020 and the average length of stay of guests in star and non-star hotel accommodation businesses is the longest for 2.94 days in West Nusa Tenggara Province in 2014 and 2.53 days in North Sulawesi Province in 2013. The middle value of the average length of stay of guests in star and non-star hotel accommodation businesses is 1.84 days and 1.57 days. The standard deviation value is 0.37 days for both types of accommodation. The average length of stay of guests in star and non-star hotel accommodations in the 5 DSP provinces shows a considerable difference in inequality variation.

The room occupancy rate of star and non-star hotel accommodation businesses in 2013-2022 in the 5 DSP provinces is the smallest at 27.94% in West Nusa Tenggara Province in 2020 and 9.62% in East Nusa Tenggara Province in 2020 and the room occupancy rate of star and non-star hotel accommodation businesses is the largest at 71.12% in North Sulawesi Province in 2016 and 49.35% in North Sulawesi Province in 2013. The average room occupancy rate of star and non-star hotel accommodation businesses is 46.83% and 27.82% each year. The standard deviation values are 9.92% and 8.92%. Room occupancy rates of star and non-star hotel accommodations in the 5 DSP provinces show small differences in inequality variations.

It would appear that the least number of guests in star and non-star hotel accommodation businesses in the 5 DSP provinces between 2013 and 2022 was 22,200 guests in East Nusa Tenggara Province in 2020 and 88,836 guests in North Sulawesi Province in 2020, the most number of guests in star and non-star hotel accommodation businesses was 7,369,690 guests in Central Java Province in 2019 and 7,500,545 guests in Central Java Province in 2018. Notably, the median number of guests in star and non-star hotel accommodation businesses is 1,953,497 guests and 1,945,484 guests. Similarly, the standard deviation value is 2,159,845 guests and 2,028,503 guests. It is also observed that the number of guests of star and non-star hotel accommodations in the 5 DSP provinces shows a small difference in inequality variation. The smallest ADHK GRDP for the period 2010-2014 in the five DSP provinces was IDR 51,505 billion in East Nusa Tenggara Province in 2013, while the largest ADHK GRDP was IDR 1,050,322 billion in Central Java Province in 2022. The average ADHK GRDP is 324,733 billion rupiah each year. The standard deviation value is 336.458 billion rupiah. It can be observed that the value of ADHK GRDP in the five DSP provinces shows relatively small differences in inequality variation.

The Covid-19 pandemic has had an impact on economic growth in the 5 DSP provinces. It can be seen in Figure 4 that the ADHK GRDP value in 2020 has decreased, supported by research conducted by Kumara et al. which shows that there is a contraction in economic growth in various business sectors (2021). This has had a significant impact on the community's economy, particularly in the tourism sector and the mobility of the community in travelling has also been affected. To gain a better understanding of the factors influencing the rate of economic growth, it would be beneficial to conduct further research by modeling the data into a panel data regression model.
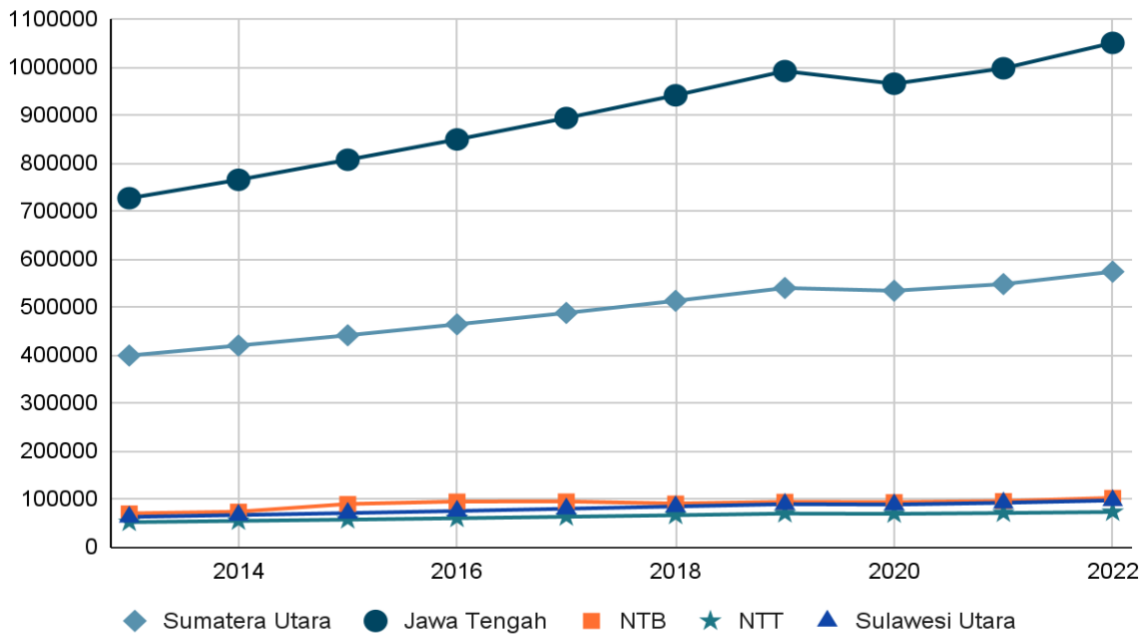
Figure 4. GRDP at Constant Prices in 5 DSP Provinces, 2013-2022
Source: Data processed by author (2023)

Panel Data Regression Analysis

Table 3. Best Model Selection Results

Statistical Testing	p-value	Criteria
Chow Test	$7.826e-06 < \alpha = 5\%$	Accept H1 : FEM retrieve
Hausman Test	$0.001341 < \alpha = 5\%$	Accept H0 : REM retrieve
Langrange Multiplier Test	$0.04014 < \alpha = 5\%$	Accept H1 : REM retrieve

Source: Data processed by author (2023)

The first step in building a model with panel data regression is to conduct tests to determine the most appropriate approach method. The test results using the R application can be seen in Table 3. The Chow test results indicate that the FEM model is suitable for this purpose and should be selected as the best model. Similarly, the Hausman test results indicate that the REM model is suitable for this purpose and should be selected as the best model. The Langrange Multiplier test compares CEM and REM, with the results showing acceptance of H1, indicating that the REM model is suitable and should be selected as the best model.

From the tests carried out, the REM panel data regression model appears to be very good for modeling and explaining ADHK GRDP in 5 DSP provinces. However, it may be necessary to test classical assumptions to confirm that there is no relationship between variables and error variance in the model. One possible approach to testing the classical assumptions is to examine the potential for multicollinearity. Multicollinearity can occur when there is a linear relationship between independent variables in a model, which can be in the form of a perfect or imperfect relationship. Symptoms of multicollinearity may include a model that has a high coefficient of determination (R^2), but through the t-test, only a few independent variables may be found to significantly affect the dependent variable (Lubis & Zakkiyah, 2023). Table 4 indicates that the eight variables used have a value of less than 10, which suggests that there may be no multicollinearity among the independent variables.

Table 4. Summary of Multicollinearity Results (VIF Value)

Nilai	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8
VIF	9,77	8,82	2,97	2,49	2,45	2,82	9,90	8,81

Source: Data processed by author (2023)

Partial statistical tests or t-tests are conducted to see the level of significance between the independent variable and the dependent variable partially and can show the extent to which one independent variable can explain the dependent variable individually. Table 5 shows that not all independent variables are significant on ADHK GRDP, only three independent variables are significant at the 95 percent confidence level on ADHK GRDP, including the variable number of star hotel accommodations ($X1$), the variable average length of stay of guests in star hotel accommodation ($X5$) and the number of guests in non-star hotel accommodation ($X8$).

Table 5. t-Test Results

Variable	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8
Coef.	$2,5403e^3$	$8,7545$	$3,06e^2$	$2,685e^3$	$-1,1199e^5$	$-3,5741e^4$	$-4,7592e^{-3}$	$3,6939e^{-2}$
P>|z|	$2,2e^{-16}$	0,875	0,847	0,095	0,003	0,383	0,719	0,005
A	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05

Source: Data processed by author (2023)

It seems that there may be a positive and significant effect of the number of star hotel accommodations on ADHK GRDP. The data processing results show that the P>|z| < A with a value of 2.2e-16 < 0.05. It seems that the number of non-star hotel accommodations has no significant effect on ADHK GRDP. The data processing results show that the P>|z|> A value with a value of 0.875> 0.05. Similarly, it appears that the room occupancy rate of star hotel accommodation has no significant effect on ADHK GRDP. The data processing results show that the P>|z|> A value with a value of 0.847> 0.05. It would appear that the room occupancy rate in non-star hotel accommodations has no significant effect on ADHK GRDP. The data processing results show that the P>|z|> A value with a value of 0.095> 0.05.

It seems that the average length of stay of guests in star hotel accommodation may have a positive and significant effect on ADHK GRDP. The data processing results appear to show that the P>|z| < A with a value of 0.003 < 0.05. It seems that the average length of stay of non-star hotel accommodation guests does not have a significant effect on ADHK GRDP. The data processing results indicate that the P>|z|> A value is 0.383> 0.05. It seems that the number of guests staying at star hotels has no significant effect on ADHK GRDP. The data processing results show that the P>|z|> A value with a value of 0.719> 0.05. It would appear that the number of non-star hotel accommodation guests has a positive and significant effect on ADHK GRDP. The data processing results suggest that the P>|z| < A with a value of 0.005 < 0.05.

Table 6. F-Test Results

Prob > chi²	A	Description
$2,22e^{-16}$	0,05	Significant

Source: Data processed by author (2023)

Furthermore, Table 6 of the F test results is used to observe the impact of the independent variables on the dependent variable collectively. The outcomes of data processing in this study indicate that collectively the independent variables affect the dependent variable. This suggests that the Prob>chi2 < A value, with a value of 2.22e-16 < 0.05, maybe a useful indicator.

Table 7. Determination Coefficient Test Results (R^2)

R^2	Description
0,97003	97.003 percent influenced by the eight independent variables

Source: Data processed by author (2023)

Based on the results of data processing in Table 7, the value of R2 shows a result of 0.97003. This means that 97.003 percent of the variable number of star hotel accommodation, number of non-star hotel accommodation, room occupancy rate of star hotel accommodation, room occupancy rate of non-star hotel accommodation, average length of stay of star hotel accommodation guests, average length of stay of non-star hotel accommodation guests, number of star hotel accommodation guests and number of non-star hotel accommodation guests can explain the ADHK GRDP variable. The remaining 2.997 percent is influenced by other variables. The resulting model is as follows:

$$Y = 1.6594e^5 + 2.5403e^3X_1 + 8.7545e^0X_2 + 3.06e^2X_3 + 2.685e^3X_4 - 1.1199e^5X_5 - 3.5741e^4X_6 - 4.7592e^3X_7 + 3.6939e^2X_8$$

The interpretation of the panel data regression model with the best Random Effect Model is as follows.

1. The constant value shows the condition when ADHK GRDP is not influenced by the independent variables. The constant value is 165,940. This means that when not influenced by the eight independent variables, the ADHK GRDP value will increase.

2. The coefficient value of the number of star hotel accommodations (X1) is 2,540.3, meaning that when the number of star hotel accommodations increases by 1 unit, the ADHK GRDP will increase by 2,540.3 billion rupiah, assuming other variables are considered constant.

3. The coefficient value of the number of non-star hotel accommodations (X2) is 8.7545, meaning that when the number of non-star hotel accommodations increases by 1 unit, the ADHK GRDP will increase by 8.7545 billion rupiah, assuming other variables are considered constant.

4. The coefficient value of the room occupancy rate of star hotel accommodation (X3) of 306 means that when the room occupancy rate of star hotel accommodation increases by 1 percent, the ADHK GRDP will increase by 306 billion rupiah assuming other variables are considered constant.

5. The coefficient value of the room occupancy rate of non-star hotel accommodation (X4) is 2.685, meaning that when the room occupancy rate of non-star hotel accommodation increases by 1 percent, the ADHK GRDP will increase by 2.685 billion rupiah, assuming other variables are considered constant.

6. The average length of stay of guests in star hotel accommodation (X5) of -111,990 means that when the average length of stay of guests in star hotel accommodation increases by 1 day, the ADHK GRDP will decrease by 111,990 billion rupiah assuming other variables are considered constant.

7. The average length of stay of guests in non-star hotel accommodation (X6) of -35,741 means that when the average length of stay of guests in non-star hotel accommodation increases by 1 day, the ADHK GRDP will decrease by 35,741 billion rupiah assuming other variables are considered constant.

8. The number of guests in star hotel accommodation (X7) of -0.0047592 means that when the number of guests in star hotel accommodation increases by 1 person, ADHK GRDP will decrease by 4.7592 million rupiah assuming other variables are considered constant.

9. The number of guests in non-star hotel accommodation (X8) of 0.036939 means that when the number of guests in non-star hotel accommodation increases by 1 person, the ADHK GRDP will increase by 36.939 million rupiahs assuming other variables are considered constant.

The results showed that only three variables had a significant effect on ADHK GRDP in the 5 DSP provinces during 2013-2022, namely the variable number of star hotel accommodations (X1), the variable average length of stay of star hotel accommodation guests (X5) and the variable number of non-star hotel accommodation guests (X8). The coefficient value of each independent variable shows that the contribution of variable X1 increases ADHK GRDP by 2,540.3 billion rupiahs each year, the contribution of variable X5 decreases ADHK GRDP by 111,990 billion rupiahs each year, and the contribution of variable X8 increases ADHK GRDP by 36,939 million rupiahs each year, assuming other variables are considered constant.

This study shows a positive signal that supports the findings of Widayanti and Dewanti (2017) which show the number of hotels has a positive and significant effect on Regional Original Revenue (PAD) in DI Yogyakarta. In this study, the number of star hotel accommodations shows a positive and significant effect on ADHK GRDP in 5 DSP provinces. This indicates a positive influence on increasing PAD in the 5 DSP provinces. The negative contribution shown by the variable average length of stay of star hotel accommodation guests to ADHK GRDP strengthens the findings of Fadhila (2019) although the correlation of average length of stay of guests to GRDP shows a strong relationship (Yuliati & Purwati, 2022) does not necessarily make a positive contribution. So a strategy is needed related to the length of stay of star hotel accommodation guests.

Finally, the influence of the number of non-star hotel accommodation guests, which cannot be said to be small, shows the ability of non-star hotel accommodation that needs to be further optimized. These findings support the research of Bujung, et al (2019) on the positive and significant effect of hotel occupancy rates on tourism sector regional revenue in North Sulawesi. Optimization of non-star hotel accommodation promotion strategies needs to receive considerable attention in the future considering that the management of non-star hotel

accommodations is often carried out by the middle class. So it is hoped that by increasing the number of guests at non-star hotel accommodation in the future it will be able to improve the welfare of the community.

CONCLUSION

The results of the analysis have led to the formulation of conclusions that attempt to answer the research hypothesis. Of the eight hypotheses that have been mentioned, three of them are significant. The variables that have been identified as having a significant effect on the dependent variable ADHK GRDP are the variable number of star hotel accommodations, the variable average length of stay of star hotel accommodation guests, and the variable number of non-star hotel accommodation guests. It seems that the number of star hotel accommodation plays an important role, as it can reflect the level of tourism and attractiveness of the region. The presence of more star hotel accommodations may lead to an increase in tourist visits, thereby contributing to the growth of ADHK GRDP.

As for the variable average length of stay of guests in star hotel accommodations, it seems that there is a negative relationship, which means that the longer tourists stay in star hotel accommodations, the ADHK GRDP may depreciate. This may occur because the externalities generated as well as the average length of stay variable are not included in the calculation of ADHK GRDP. Therefore, it seems that the management strategy of Star Hotel accommodation to increase the level of guest satisfaction could have a positive impact on regional economic growth. Then, the variable number of guests in non-star hotel accommodations becomes a crucial factor. While non-star hotel accommodation may not offer the same level of facilities as star hotels, a high number of guests may indicate the potential for wider tourism sector development in the area. The growing number of non-star hotel guests can lead to the expansion of local business opportunities, fostering the creation of new jobs, and supporting local economic growth.

Based on the above conclusions, we suggest some recommendations, including increasing the number of star accommodation hotels, optimizing guest management, managing average length of stay, and monitoring and evaluation. We believe that increasing the number of star accommodation hotels, as recommended by Hypothesis 1, could encourage growth in the number of star hotel accommodations. This increase could potentially stimulate the growth of the ADHK GRDP of the Province of 5 SDP, following the results of the study which showed a positive impact of additional accommodation. Guest management optimization based on the findings from Hypothesis 8 suggests that the management of star hotel accommodation should consider strategies to reduce the negative impact of increasing the number of guests on ADRB ADHK of the 5 SDP Provinces. In contrast, non-star hotel accommodation may wish to consider the potential benefits of an increase in guests as a potential increase in ADHK GRDP.

Concerning Hypothesis 5, it would be beneficial for hotel management to consider policies related to the length of stay of guests. Star hotel accommodations may wish to explore strategies to reduce the impact of an increase in the average length of stay on the decline in ADHK GRDP. Conversely, non-star hotel accommodations may wish to consider ways to optimize the benefits of extended stays. Monitoring and evaluation could be conducted through the implementation of a continuous monitoring and evaluation system. It would be beneficial to be able to measure the impact of the implementation of the recommendations and to adjust strategies if necessary.

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