

The Contribution of Tourism Sector to Locally Generated Revenue in Indonesia's Top Priority Tourist Destination



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ABSTRACT

This research is aimed to analyze the association between tourist expenditure, labor force in accommodation sector and room occupancy rate with locally generated revenue (PAD) in five province of top priority tourist destination in Indonesia (North Sumatera, Central Java, West and East Nusa Tenggara and North Sulawesi). We use data of tourism statistics from Statistics Bureau and Ministry of Creative Economy. By applying random effect panel data analysis, we found that all variables are significantly associated with PAD. Our empirical estimates shows that a one percent increase of labor force in accommodation sector is associated with 0.0075% increase in PAD, one percent increase of room occupancy rate associated with 2.85% increase in PAD while one percent increase of tourist expenditure is associated with 0.257% increase in PAD. The individual effect estimates show higher impact in Central Java and North Sumatera compared to West and East Nusa Tenggara and North Sulawesi and thus further confirming our presumption that there are some disparities between tourism spots in West and Eastern part of Indonesia.

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1. Introduction

Indonesia is one of the biggest archipelagic countries in the world. With its diversity in culture and natural resources, Indonesia has an opportunity to develop its tourism industry. Nizar (2019) stated that tourism has been one of the main growing industries in the world shown by the growth of tourist visitors and local revenue coming from tourist consumption. Thus, tourism could become a potential source of income for local government. To exploit the economic opportunity of the tourism industry, local government should develop programs to utilize the natural tourist attractions spots and improve infrastructure around those tourist spots. Programs to develop tourism potential in the regions are aligned with the National regulations No.10 Year 2009 which stated that tourism activities are aims to improve social welfare, increase both regional and national income, widen job opportunities, give equal opportunities for small and medium business, and hence will contribute to regions' overall development.

Alouw (2021) stated that tourism is a critical sector that should be integrated as part of a country's development process. Sari (2014) stated that tourist spots may contribute to the region's income. This statement is in line with empirical findings by (Sushanti et al., 2019) showing that halal tourism may promote the local economy in the East Lombok district. According to the Tourism Competitiveness Index from World Economic Forum, Indonesia has been among the fastest-growing nations in the tourism industry. Indonesia has been on the rank 70th in 2013 and improved to rank 40th in 2019. However, compared to neighboring countries such as Thailand and Malaysia, Indonesia is still left behind. Thus, the development of tourism industries and infrastructure should be pursued to improve Indonesia's competitiveness in the global tourism industry.

Indonesia's government has developed strategic planning to boost the tourism sector, one of the strategies is by assigning 10 priority of tourism destinations and they are called "Bali Baru" or "New Bali". Those 10 priorities of tourism destinations are Danau Toba (North Sumatera), Tanjung Kelayang (Bangka Belitung); Seribu Islands (DKI Jakarta), Borobudur Temple (Central Java), Bromo Tengger-Semeru (East Java), Labuan Bajo (East Nusa Tenggara), Wakatobi (South-East Sulawesi) and Morotai (North Maluku). These 10 destinations were further pursued into 5 top priorities in 2019; they are Danau Toba (North Sumatera), Borobudur Temple (Central Java), Mandalika (West Nusa Tenggara), Labuan Bajo (East Nusa Tenggara), and Likupang (North Sulawesi).



Figure 1. Geographical Map of 5 Provinces as Top Priorities of Tourist Destination

Source: Badan Informasi dan Geospasial (BIG)

The main goals to develop the tourism industries are to boost economic growth and increase regional revenue so that it can contribute to the region's overall development process. Below table shows an increasing number of locally generated revenue (PAD) of the provinces within 5 top priorities tourism destinations during 2017-2019.

Table 1. Locally Generated Revenue of 5 Provinces of Top Priorities Tourist Destinations

Province	Year		
	2017	2018	2019
North Sumatera	5.287.469.402	5.638.960.579	5.761.270.412
Central Java	12.547.513.389	13.711.836.038	14.437.914.236
West Nusa Tenggara	1.684.468.710	1.660.417.707	1.807.482.746
East Nusa Tenggara	1.047.491.567	1.095.269.979	1.258.958.953
North Sulawesi	1.146.674.828	1.253.804.978	1.286.006.930

Source: Statistics, Indonesia

The data presented in the above table has shown that tourism industries has helped these 5 provinces to increase their PAD from 2017 to 2019. This fact is in line with research finding by Sari (2018) that shows positive association between tourism activities and regional income. Higher regional income will enable local government to improve region's development progress. In addition, Santosa (2013) stated that locally generated revenue is considered the region's endowment, thus its increase will accelerate the region's economic growth. The locally generated revenue is a picture of the region's financial capacity. Generally, regions are dependent on local tax to generate local revenue. By exploiting tourism potency, local government could optimize its revenue. Sabrina (2018) in her research showed that the tourism sector contributes to local revenue through the number of tourist visitors, occupancy rates of hotel accommodation, tax contribution from accommodation and local restaurants, as well as overall visitors' spending during their stays in the regions.

The other main factor that may contribute to the locally generated revenue is the labor force in the tourism industry. Kurniawan, et.al. (2017) stated that labor is the driver of the region's development process. According to the data from the Statistics Bureau (BPS), the labor force in the tourism industry is fluctuating during the period 2011-2019, with the highest number recorded in Central Java while the lowest number is recorded in North Sulawesi. The region's development process needs to be supported by a higher number and quality of labor force.

Along with tourism spots, accommodation facilities available in the region will create demand from tourists. The number of accommodations available in the regions is often considered a productivity indicator in the tourism industry. Handayani (2012) stated that the tourism industry will generate more revenue through consumption in the accommodation sector. According to the data from the Statistics Bureau (BPS) hotel's occupancy rate during 2011-2019 shows an increasing trend. Suastika and Yasa (2017) show that a hotel's occupancy rate is positively associated with the region's revenue. A higher occupancy rate is related to the increase in locally generated revenue.

Another factor that may contribute to the region's revenue from the tourism sector is tourists' spending during their stays in the region. According to the data from the Ministry of tourism and creative economy, the highest tourist spending is recorded in Central Java and North Sumatra. The overall trend shows a fluctuation pattern that may be influenced by inflation and the nation's economic conditions. However, tourist spending is considered one of the main factors that contribute to regions' revenue from the tourism sector (Putra, et.al. (2021), Suastika and Yasa (2017), Munanda and Amar (2017)).

Research on tourism mostly focuses on the demand side of tourism sector (Song et al., 2012). In emerging countries research on economic contributions of tourism sectors are still limited. With the current tourism strategy developed by Indonesia's government through top priority tourist destinations program, it is then interesting to explore the contribution of this strategy to improve local economy. We hypothesize that labor force in the accommodation sector, room occupancy rate, and tourists' spending are determinant factors which may affect the locally generated revenue in the 5 provinces of top priority tourist destinations. We argue that these factors promote higher income in the tourism sector and will subsequently contribute to the regional income. Our estimates aims to give empirical evidence of factors determining the locally generated revenue from tourism sectors. By knowing the determinants

and sources of tourism sector income, the local government may formulate further strategies to optimize regional revenue through development in the tourism industry.

2. Literature Review

Tourism defines as a leisure activity that generates utility for individual and may result in either positive or negative socio-economic impact both nationally and globally. The theoretical argument of tourism demand under neo-classical economic theory lies on the budget allocation concept. Each individual undergoes multi-stage process to allocate budget between normal and leisure good consumption (Smeral and Weber, 2000). In the tourism context, they further consider choosing several bundles of tourism options. It is also noted by (Smeral and Weber, 2000) that the decision made by the individuals are corresponding to their utility maximization problem, which is also affected by the income and price factors.

In the macroeconomic perspective, tourism activities contributes to the local and national economic progress. In the context of global competition, tourism sector should be supported by government policy such that its potential will be optimally utilized to support local and national development process (Song et al., 2012). Based on this theory, we try to formulate the analysis to measure the empirical association between tourism activity and local revenue. We argue that more intense tourism activity in a region will give more contribution to local revenue.

Locally Generated Revenue (PAD)

Wulandari and Iryanie (2017) stated that locally generated revenue is one component of the Regional Revenue and Expenditure Budget (APBD). Local government optimizes locally generated revenue (PAD) through exploring several sources such as regional taxes, regional retribution, managing regional assets and wealth, and other legitimate income sources based on decentralization Law Number 33-year 2004. According to Law No. 28 year 2009, local tax is a mandatory contribution owed by an individual or entity to the region which is forcibly collected based on the law without receiving direct compensation and is used for regional needs to bring welfare to the society. On the other hand, regional retribution is collected based on Law No. 29 year 2009. Regional retribution is a payment for services; or the granting of certain permits specifically provided by the Regional Government to individuals or entities.

Other sources of locally generated revenue are wealth and asset management. Law Number 33-year 2004 classifies the types of results from the management of separated regional assets which is specified according to the object of income. It also includes the share of profits on equity participation in regionally owned companies/BUMD, state-owned companies/BUMN, and private-owned companies and community groups. In addition, Law Number 33-year 2004 explains that other legitimate income is provided for budgeting regional revenues that are not included in the type of tax and the results of separated regional wealth management. Halim (2004) explains this income is regional revenue originating from outside regional taxes and levies or other legitimate regional government property and is provided to budget regional revenues. This type of income includes the proceeds from the sale of regional fixed assets that are not separated, receipts of demand deposits, receipts of deposit interest, fines for delays in the implementation of work, and receipts of compensation for losses or loss of regional assets, as well as gains on the difference in the exchange rate of the rupiah against foreign currencies.

Locally Generated Revenue (PAD) is income sourced from the region itself, among others, Regional Retribution, Separated Regional Assets, and Other Legitimate Income. According to Yovita (2011), the funds obtained from PAD become one of the supporting factors in carrying out regional obligations to finance expenditures and costs in regional development and become a tool to put a lot of money into the regional treasury. PAD fund is useful for assisting the implementation of regional development, in this case, (Mahpudin, 2020) shows empirical evidence of the contribution of PAD funds to improve economic well-being in East Nusa Tenggara.

Through the optimization of several sources of locally generated revenue, it is hoped that the regional government can improve its ability in the administration of regional affairs. Regional financial policies are directed at increasing PAD as the main source of regional income that can be used by regions in implementing regional government and development according to their needs and can reduce dependence on funds from the central government. Locally generated revenue (PAD) is claimed as another way to obtain additional funds that can be used for expenditure purposes determined by the region itself. Therefore, increasing income is something that is desired in each region.

Local Labor Force

According to Law Number 13-year 2003 concerning Manpower, a manpower is anyone who can do work to produce goods and services both to meet the needs of himself and the community. Murti (2014) explains that workforce is an individual or group of individuals who offers skills and abilities to earn profits and for the individual himself will get wages according to the skills he has. The workforce can be grouped into two parts, namely the labor force and non-working labor force. Labor force is part of the workforce that is actually involved or trying to be involved in production activities, namely the production of goods and services. According to the Central Statistics Agency (BPS), Non-Working labor Forces are workers aged 15 years and over whose activities are still in school, taking care of the household, and so on and do not carry out activities that can be categorized as working, while not working or looking for work.

According to Smith and Todaro (2005) population and labor force growth are factors determining the spur of economic growth. The number of workers is a measure of the size of a domestic market. Gwijangge (2018) explains that labor is an important production factor, because the productivity of other production factors depends on the productivity of labor. In addition, labor is the driver of development, which is one way to increase production output. In relation to generating regional income, labor force who works in the regional business contributed to regional income through their participation in local business and production process.

In the tourism sector, we look into the accommodation business workforce. They are individual who works in the accommodation business or lodging services. The definition of an accommodation business is a business that uses a building specifically for the public that provides lodging services, food, and beverages. In this case, what is included in the type of accommodation business is hotels and other accommodations such as inns, guesthouses, homestays, and others. Previous research by Kurniawan, et al. (2017) shows that the labor force is direct and positively associated with regional income in Kutai Barat, Muchtolifah (2010) also found that the labor force is significant and positively associated with PAD in Mojokerto. Further, (Winanto, 2019) stated that increasing labor absorption in the labor market has a positive and significant impact on economic growth in Ponorogo Regency, in line with this empirical finding, Ajala (2008) also found that employment in the tourism sector in Ethiopia positively associated with regional income. On the other hand, Hartati (2017) found that labor forces are not significantly associated with regional income. These results from previous research become our grounds to pursue further empirical evidence of the association between locally generated revenue (PAD) and the labor force.

Room Occupancy Rate

Room Occupancy Rate is a comparison (in percentage) of the number of rooms rented or occupied with the number of rooms available in the hotel. Room Occupancy Rate shows whether an accommodation is demanded by tourists. The occupancy rate tells us whether the demand for hotel room by visitors has been fulfilled with the overall room availability. It also tells us whether there is excess demand compared to the room availability or in the other hand whether there is excess supply compared to room demand by visitors. Hutasoit (2016) explains that hotels are temporary residences or lodgings that are used during travel or vacations in tourist destinations. In addition, by paying attention to and improving hotel services, it will be an attraction for tourists to stay at the hotel. With good facilities and infrastructure, tourists will choose a hotel as a comfortable resting place.

Previous research by Udayantini, et al (2015) shows that occupancy rate is significant and positively associated with regional income of Buleleng. In line with that research, Suastika and Yasa (2017) also shown that occupancy rate is significant and positively associated with regional income for the whole districts and regency in Bali province. Another research in North Sulawesi, West Sumatera, Karang Asem Central Java, Palembang and Denpasar also shown similar results (Tangkilisan, et. al. (2019); Sari (2014); Sari (2018); Sabrina and Mudzhalifah (2018); Wijaya and Djayastra (2014)). In this paper, we pursue further empirical estimates of the association between occupancy rates and locally generated revenue (PAD) within 5 province of top priorities tourist destinations.

Tourist Expenses

Basically, tourist spending is a process of consumption of goods and services carried out by tourists during the trip. Yoeti (2008) explains that consumption or tourist expenditure is expenditure to buy goods and services made by tourists to meet their needs, desires, and expectations during their visit in the tourism spots. Tourist expenditures usually include hotel accommodation, bars and restaurants, local transportation, travel, souvenirs, art products and other necessities. Travel expenses include accommodation expenses, food and beverage expenses, expenses for all transportation (land, water, air), purchases of fuel and lubricants, vehicle rental expenses, expenses for seminars or meetings, travel package expenses, expenses for tour guides, expenses for cultural arts performances, museums and cultural relics, as well as entertainment/recreation services, expenses for shopping, expenses for treatment, other expenses, refers to other expenses other than those mentioned.

Yoga et al (2015) believe that the level of tourist consumption is strongly influenced by the pattern of tourist shopping behavior. Therefore, an important key to improving economic return from tourism activities is through providing positive impressions and experiences during tourist visits. Through these tourist transactions, demand for tourist destinations will increase and have an impact on employment. Therefore, tourists' consumption will subsequently increase the income from tourism sector. We argue that tourist consumptions are having positive association with regional income. Previous research has shown that tourist visits and consumptions are positively related to regional's income (Putra, et.al (2021); Sabrina and Mudzalifah (2018); Wijaya and Djayastra (2014)). In line with the previous research, we argue that tourist consumptions are positively related to regional's income in the 5 province of top priorities tourist destinations.

3. Research Method

The data for this study is obtained from Indonesia's Statistical Bureau (BPS) and Ministry of tourism and creative economy. We use 5 provinces of top priority tourist destinations data, they are North Sumatera, Central Java, West Nusa Tenggara and North Sulawesi. The time span for the data included in this research is within 2011-2019 period. The variable used for our analysis are locally generated revenue (PAD), local labor force in the accommodation business, room occupancy rates and average domestic tourist expenditures. We obtained data for locally generated revenue (PAD) from Provincial Financial Statistics published by BPS. Data for labor force in the accommodation business is obtained from hotel and other accommodation statistics published by BPS, occupancy rate data is obtained from hotel occupancy statistics published by BPS, and tourist expenditure is obtained from domestic tourist statistics published by ministry of tourism and creative economy.

This study uses one dependent variable, namely locally generated revenue (PAD) and three independent variables, namely accommodation business workers, room occupancy rates, and domestic tourists' expenditures. The method used in this research is panel data regression analysis with the random effect approach as suggested by the hausman test result provided in the later section. Panel data is a combination of time series and cross section data. In our dataset, the time period is between 2011-2019 while the cross-section unit is 5 provinces of top priority tourist destinations as mentioned in above paragraph. To do the panel data regression estimates with the random effect approach we use following model:

$$\text{LOG_PAD} = \alpha + \beta_1\text{TK}_{it} + \beta_2\text{THK}_{it} + \beta_3\text{LOG_PW}_{it} + e_{it} \dots \dots \dots (1)$$

where:

PAD = Locally generated revenue

α = Constant

$\beta_1, \beta_2, \beta_4$ = Regression Coefficient

TK = Labor force in accommodation sector

THK = Room Occupancy Rate

PW = Tourist Expenditure

i = Cross-Section, Province of Super Priority Tourism Destinations in Indonesia

t = Time-Series, Year 2011-2019

e_{it} = Error term in province i in period t

Before we run the regression analysis, we use Chow and Hausman test to determine the best approach to run our model. After we run the data, we do several statistical tests such as t and f test to do our hypothetical testing.

4. Results and Discussion (bold, 12 pt)

Descriptive Statistics

This section will provide the descriptive statistics estimates of the variable used in the panel data regression analysis. Figure 4.1 to figure 4.4 portrays the fluctuations of each variable within period 2011 to 2019 in the 5 provinces of top priority tourist destinations. Overall, we may see the gap between provinces in the western (North Sumatra and Central Java) and eastern part (West and East Nusa Tenggara and North Sulawesi) of Indonesia. From the data description we get a picture of the difference progress between provinces over the observation periods. Detail explanation of each graph is provided below the figure.

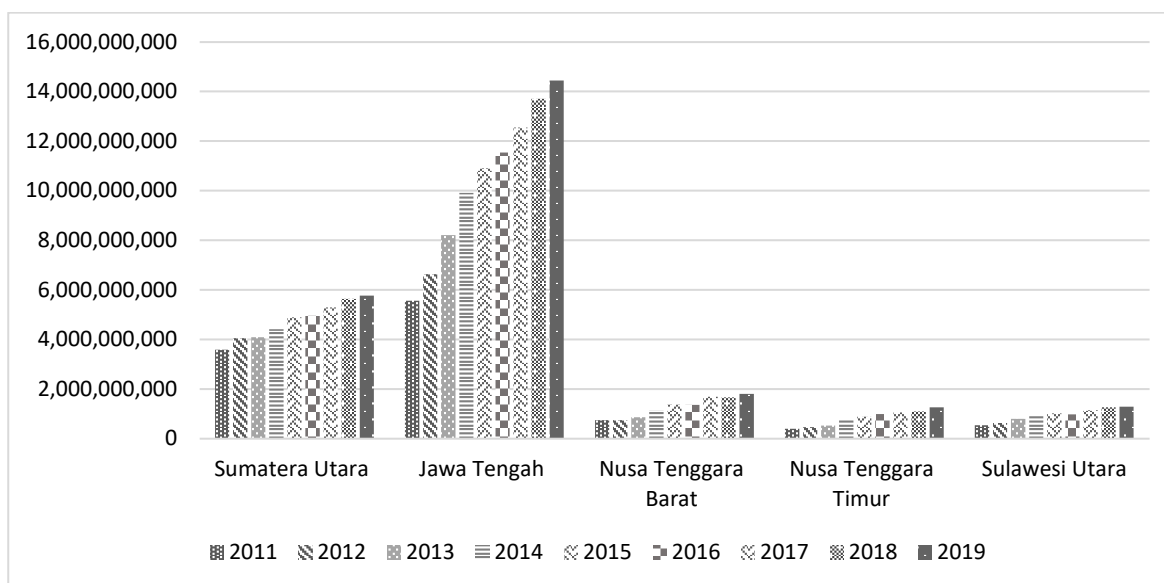


Figure 4.1. Locally Generated Revenue
Source: Province Financial Statistics, Badan Pusat Statistik (BPS)

Based on the data portrayed in figure 4.1 above, we can see that the highest regional income is generated by Central Java province in 2019, while the lowest is recorded in East Nusa Tenggara in 2017. From the above figure we could also see the disparity between provinces located in western parts of Indonesia (in this case represented by North Sumatera and Central Java) and eastern parts of Indonesia (in this case represented by West and East

Nusa Tenggara and North Sulawesi). The regional income of North Sumatera and Central Java is substantially higher than Nusa Tenggara and North Sulawesi. Even though these 5 provinces are listed as the top destinations' priorities, there are still financial capacity gaps between those provinces. In addition, the above figure shows a consistent and higher PAD growth of central Java compared to another province. The overall trend is showing a persistent increase of PAD in all provinces. However, higher growth is occurred in western parts province (North Sumatera and Central Java). These facts may be prompted by the overall higher economic development in western part of Indonesia.

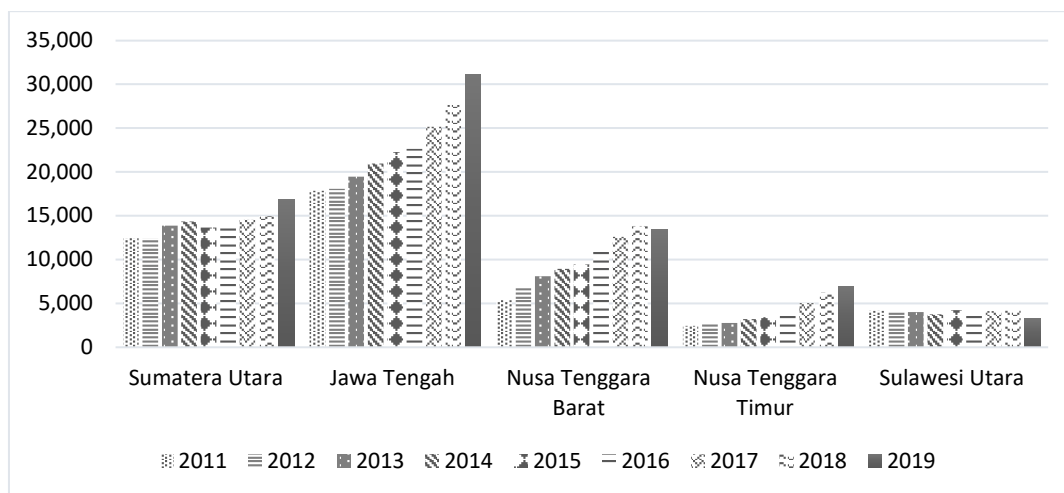


Figure 4.2. Labor Force in Accommodation Sector
Source: Hotel and Other Accommodation Statistics, Badan Pusat Statistik (BPS)

Figure 4.2 above portrays the data of labor force in accommodation sector in the 5 provinces of top priorities tourist destinations within period of 2011-2019. The overall data shows an increasing trend with the highest growth recorded in Central Java. In this figure we can also see the disparity between western and eastern parts provinces. Western parts provinces represented by North Sumatera and Central Java recorded higher numbers of total labor force compared to eastern parts (West and East Nusa Tenggara and North Sulawesi).

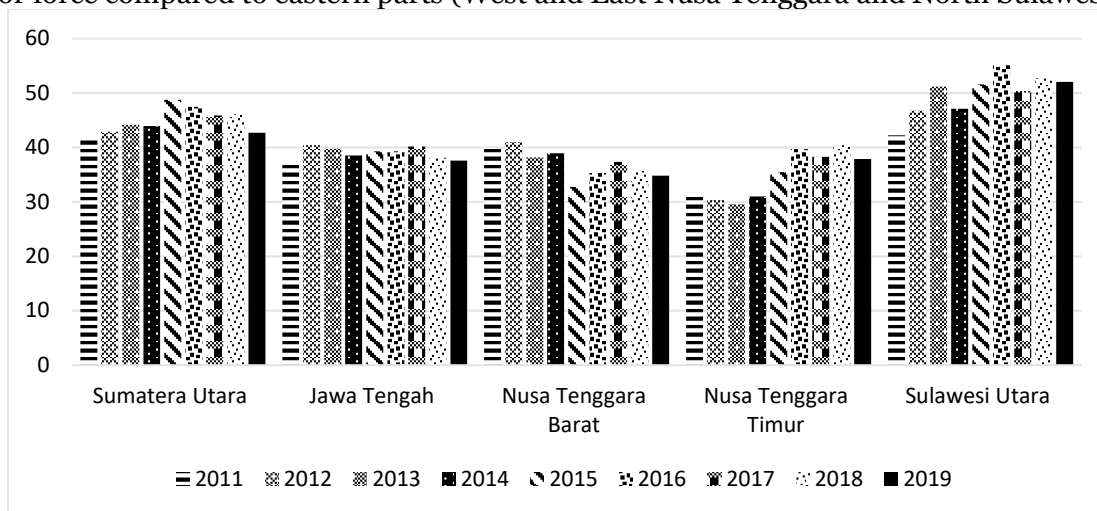


Figure 4.3. Room Occupancy Rate
Source: Hotel Occupancy Rate Statistics, Badan Pusat Statistik (BPS)

Figure 4.3 above portrays the room occupancy rate data of the hotel and other accommodation services within the 5 provinces of top priorities tourist destinations. We can see the overall fluctuated trends of the room occupancy rates. In addition, the overall figures don't indicate disparity of room occupancy rate between provinces in the western and eastern parts of Indonesia.

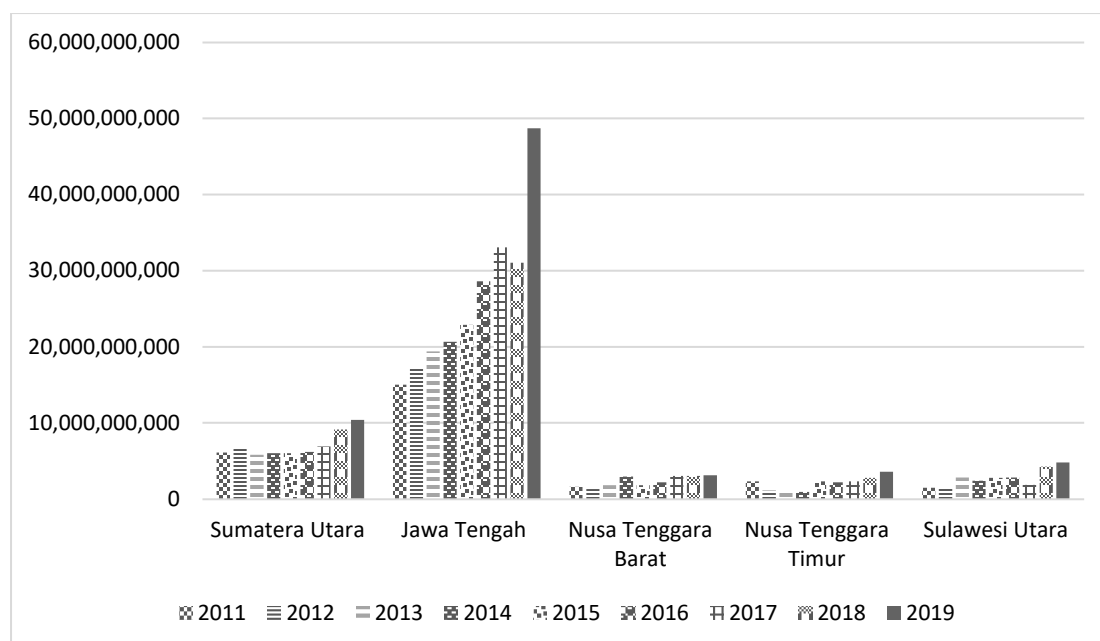


Figure 4.4. Tourist Expenditures (in Thousand Rupiah)
Source: Tourist Statistics, Kemenparekraf

Figure 4.4 above portrays average tourist expenditure within period 2011-2019 in the 5 provinces of top priorities tourist destinations. The above figure shows a substantial gap between tourist expenditure in Central Java and North Sumatera compared to other provinces. Highest tourist expenditure is recorded in the year 2019 in Central Java. Tourist expenditure is a crucial factor determining regional’s income from tourism sector. Higher expenditure spent by visitors means higher income for the regions. From this figure we may see that even though West and East Nusa Tenggara and North Sulawesi are part of top priorities tourist destinations, overall tourist spending in that regions are still very small. From the overall description of the data, we find that there are some economic disparities between tourism spots in western and eastern parts of Indonesia. We suggest that eastern parts of Indonesia should be more supported to develop its tourism potential.

Regression Results

Before we pursue our regression estimates, firstly we run the chow test and Hausman test to determine the best method to run our data. The hypothesis for the chow test is:

H₀: Common effect model

H₁: Fixed Effect Model

Below table gives the summary of the chow test results:

Effect Test	Statistic	d.f.	Prob
Cross Section F	12.2347	(4,37)	0.000
Cross Section Chi Square	37.9222	4	0.000

Source: data processed

Based on the chow test results in Table 4.1 above, we found that the cross-section F probability 0.000 less than 5% level of confidence. Thus, we can conclude that we accepted the alternative hypothesis with the fixed effect model as the option to run our dataset. Further, to compare further options between fixed and random effect approaches, we run the Hausman test. The hypothesis for Hausman Test is:

H₀: Random effect

H₁: Fixed Effect

The result is summarized in below table:

Table 4.2. Hausman Test

Effect Test	Chi Square Statistic	d.f.	Prob
Cross Section Random	2.5535	3	0.4657

Source: data processed

Based on the Hausman test results in table 4.2 above, we found that the probability of cross-section random is more than 5% level of significance. Thus, we can conclude that we cannot reject the null hypothesis and the best approach to run our dataset is by using random effect method.

Table 4.3 Panel Random Effect Regression Results
Dependent Variable: Log (PAD)

Variable	Coefficient	Std.Error	t-stat	Prob.
Constant	13.73478	2.31446	5.9343	0.0000
Labor Force	0.000075	0.00001	4.8598	0.0000
Occupancy rate	0.028458	0.01041	2.7338	0.0092
Log (Tourist Expenditure)	0.257431	0.11875	2.1678	0.0360
<hr/>				
R-Square	0.75861			
Adjusted R-Square	0.74094			
F-Statistic	42.9491			
Prob (F-Statistic)	0.00000			

Source: data processed

Based on the table 4.3 above all independent variables shows probability value less than 5% confidence level. The labor force variable has a prob value of 0.0000, the occupancy rate variable has a prob value of 0.0092 and the tourist expenditure variable has a prob value of 0.0360. This means that all independent variables are having significant association with dependent variables Log-PAD (locally generated revenue). Coefficients of labor force of 0.000075 shows that a 1% increase of labor force in accommodation sector associated with 0.0075% increase in PAD (locally generated revenue). Room occupancy rate also shows positive association with PAD and the coefficient is 0.0285 means that 1% increase of the room occupancy rate associated with 2.85% increase in PAD. The coefficient for tourist expenditure is 0.257 which means 1% increase in domestic tourist expenditure is associated with 0.257% increase in PAD. In addition, the above table also shows the F-statistic of the model. F-probability of our model is less than 5% confidence level which means that the overall model is fit to explain the association between independent variables of labor force, room occupancy rate and tourist expenditure with the dependent variable PAD (locally generated revenue). The adjusted R-square of the model is 0.741 which means 74.1% variation of log-PAD can be explained by independent variables included in the model. While the remaining 25.9% is explained by other variables outside of this study.

Further, we estimate the individual effect of our model. Individual effect describes differences of each province in terms of the association between independent variables and dependent variables in the model. Table 4.5 below summarize the individual effect estimates for each province in our dataset.

Table 4.5. Individual Effect

Cross Section (Provinces)	Cross-Section Effect
North Sumatera	0.348674
Central Java	0.287083
West Nusa Tenggara	-0.177292
East Nusa Tenggara	-0.074984
North Sulawesi	-0.383481

Source: data processed

The total individual effect for North Sumatera province is 14.083 comes from the addition of constant 13.734 and individual fixed effect 0.349. This means that if all the independent variables' growth are constant it will associate with the constant growth of PAD in North Sumatera as much as 14.083%. The total individual effect for Central Java is 14.021 comes from the addition of constant 13.734 and individual fixed effect 0.287. This means that if all the independent variables' growth are constant it will associate with the constant growth of PAD in Central Java as much as 14.083%. The total individual effects for West Nusa Tenggara, East Nusa Tenggara and North Sulawesi are 13.557, 13.659 and 13.351 respectively. It comes from the addition of constant and individual fixed effect for each respective province. This means that if all the independent variables' growth are constant it will associate with the constant growth of PAD in West Nusa Tenggara, East Nusa Tenggara and North Sulawesi as much as 13.557, 13.659 and 13.351 percent respectively.

From the above regression results we found the empirical evidence of significant association between labor force in accommodation sector, room occupancy rate and domestic tourist expenditure to the regional's income (PAD). These results are in line with our hypothesis and also supporting previous research in different regions (Udayantini, et al (2015); Suastika and Yasa (2017); Tangkilisan, et. al. (2019); Sari (2014); Sari and Yuliarmi (2018); Sabrina and Mudzhalifah (2018); Wijaya and Djayastra (2014)). The positive association between labor force and PAD, means that workers in a region who are involved in production process will further contribute to increase local revenue.

On the other hand, Alouw (2021) explains that the increase in hotel occupancy rates will contribute to higher revenue in tourism sector. Hutasoit (2017) states that more inflows of tourist will increase demand for hotel accommodation. The higher the tourist demand for hotel lodging, the higher it's contribution on Locally Generated Revenue (PAD) through local taxes and regional levies in the case study province.

Tourist expenditure is an indicator that affects the value of income obtained from the tourism sector. Anuar, et.al. (2012) explaining that every money spent by tourists will encourage economic activity in tourist destinations and will have an impact on regional income. Every expense incurred has a positive impact on the economy of the area visited, either directly or indirectly. The higher the expenditure made by tourists in the area visited, the greater the benefits obtained for the economic revenue of the area. From our regression estimates we suggest that local government should optimize its revenue through providing more job opportunities in tourism sector, better monitoring of accommodation business and constructing better infrastructure and facilities in tourists' destinations.

5. Conclusion

Our research is aimed to find the empirical evidence of the association between labor force in accommodation sector, room occupancy rate and domestic tourist expenditure to the regional's income (PAD) in the 5 provinces of top priorities tourist destination. We found that all independent variables are statistically significant to explain the variation in dependent variable (PAD). The regression estimates shows that any increase of labor force in accommodation sector is associated with 0.0075% increase in PAD. In addition, increase in room occupancy rate and domestic tourist expenditure is associated with 2.85% and 0.257% increase in PAD.

The individual effect estimates suggest that higher impact happen in North Sumatera and followed by Central Java. These results further support our argument that there are some economic impact disparities between tourism spot in the West part of Indonesia (in this case represented by North Sumatera and Central Java) and East part of Indonesia (in this case represented by North Sulawesi, West and East Nusa Tenggara). Given this fact, government should put more concern in the development process of tourism sector in the Eastern part of Indonesia. The limited contribution to the regional's income from tourism sectors in Eastern part of Indonesia may be caused by underdevelopment of tourism infrastructure. Apart from our data displayed in previous section, this argument also supported by (Kaming & Raharjo, 2017), they do field survey to generate index for infrastructure in eastern regions in Indonesia,

such as Nusa Tenggara, Maluku, Sulawesi and Papua. They found that most infrastructure in those regions ranging from the airport, seaport, roadway, and tourism infrastructures are in bad conditions. In addition, *Potensi Desa Statistics* report for the year 2019 from Indonesia's Statistical Bureau also shows the gap of primary infrastructure availability between provinces in western and eastern part of Indonesia, with eastern regions are lagging behind. Local government should optimize potential income source from tourism sectors through development program of tourism infrastructures. On the other hand, Central government should also support the tourism industry especially in Eastern parts of Indonesia through acceleration of infrastructure development to provide better access to tourism spots. Better infrastructure and tourism services will subsequently bring more visitors to hidden paradise of tourist attractions in Indonesia.

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