



# Analysis of Indonesian Domestic Tourist Quality (Case Study: Domestic Tourist Digital Survey 2021)

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**Abstract.** Domestic tourism is being the main focus of the government strategy to revitalize the tourism sector. It is then crucial to consider elements that can raise the quality of tourism, in terms of domestic tourists and increase the added value rather than merely number of trips. The analysis of quality is important in tourism to support the idea of sustainable tourism, which is promoted in the 8th agenda of Sustainable Development Goals (SDGs). Quality analysis must be done in micro modelling that takes into account tourist characteristics and particular travel-related features because this sector depends on tourism demand and tourist expenditure in tourist locations. Thus, the goal of this study is to give a general overview of the qualities and characteristics of domestic tourists and to examine how these attributes affect their quality. The results of descriptive analysis method indicate that Indonesian domestic visitors' quality remains poor. Age, genders, education level, employment status, transportation mode, accommodation type and travel companion affect the quality of domestic tourists.

## 1. Introduction

Tourism is a sector that is expected to maximize the potential of natural and cultural diversity of a country, which in Indonesia, is reflected in the big amount of type and number of destinations [1]. This condition makes Indonesia has big opportunity to attract many visitors, from both inside and outside the country. Remarkably, despite being a sector that is consistently showing increase in GDP contribution, the government in RPJMN (*Rencana Pembangunan Jangka Menengah Nasional* or National Middle-Term Development Plan) 2020-2024 [2] states that only a minor portion of this resources has been managed and developed to support the national tourism sector in order to encourage and accelerate national economic.

The performance of this sector can be viewed from many sides, one of which is the visitors (tourist) side. Internal tourism activities in Indonesia itself include activities carried out by domestic tourists and foreign tourists. For these past few years, there is an interesting trend that most of tourism activities in Indonesia are still dominated by domestic tourists, up to tens of times compared to the trips made by foreign tourists. Other tourist-related metrics, such as tourist expenditure, also reveal the similar trend. This may indicate that there is significant room for domestic visitors to boost the tourism sector in general [3].

After the pandemic, this huge potential of domestic tourism is finally more seen and realized. The physical restriction in order to break the virus' spread chain forced a halt to human mobility and interaction. Many sectors, notably tourism, were affected. Tourism sector and industry was likewise the first to be hit and might be the last to recover [4].



In 2020, trips made by domestic tourists even reach up to one hundred and twenty times more than visits by foreign tourists. In addition, the contraction in foreign tourist expenditure, amounting to 75%, was far greater than the contraction that occurred in domestic tourist expenditure, which amounted to 54%. Domestic tourists' presence inevitably become the center of attention to revitalize the tourism sector in the coming years, so the government definitively decided to adjust the national tourism orientation to focus more on domestic tourists [5], [6], [7].

Since 2020 as well, the government had presented a concept that has become the direction of national tourism development, namely "quality tourism", in the 2020-2024 Strategic Plan of Ministry of Tourism and Creative Economy (*Rencana Strategis (Renstra) Kementerian Pariwisata dan Ekonomi Kreatif*) [6]. Unlike the previous strategic plan (2015-2019), which aimed to expand quantity in the form of the number of trips and visits, the focus of sector development tourism in this period is quality, in the form of tourism added value, one of which is from the tourist expenditure side. The adaptation of the concept of quality actually is sustainability, which in the short term is expected to provide economic benefits for local communities and destinations as well as to become a driving force for the national economy; and in the long term, to maintain the sustainability of tourism resources.

Pitana [8] stated that basically, quality tourism is one that is able to improve the welfare of local communities and tourist satisfaction. The post-pandemic period is a time when people are entering a new tourism economic era where there is a need for increasingly high-quality tourism, that the government has begun to develop as stated in *Renstra 2020-2024*. One measure that is often used in measuring the quality of tourism from tourist perspective is tourist expenditure.

Academically, quality tourists are those who have a high spending power and contribute economically at the tourist destinations [8]. Tourism is an expenditure-driven economic activity, therefore it is crucial to be able to identify the factors that influence tourist consumption behavior and estimate the influence of these factors on spending patterns [9]. The macroeconomic approach provides a broad understanding but does not fully consider specific issues related to tourism products; therefore, microdata analysis of individual consumption is required to account for the diversity and heterogeneity of behavior and travel preferences.

Along with the government's purpose to focus on increasing the added value of tourism sector, it is quite important and crucial to evaluate the quality of tourists since domestic tourists are expected to be the strength of tourism sector recovery post-pandemic and quality tourists are associated with the sustainability of the sector. Research that has been conducted previously still examines it in aggregate, such as that conducted by Mubarok (2016) [10] who explained the factors that influenced the number of domestic tourist trips in Indonesia in 2008-2013 using panel data regression analysis. Other research conducted in the domestic tourism sector still uses methods that explain in general terms, such as research by Suharto (2020) [11] and Yuniati (2018) [12] which examines the profile and characteristics of foreign tourists using descriptive analysis.

There have only been a few previous studies that have explored the quality of tourist, especially for domestic tourists, as well as studies that use more representative data and micro analysis that provide a more general information about domestic tourist, especially in Indonesia. Hence the purpose of this study is to analyse the general description of Indonesian domestic tourist' quality and characteristics then to analyse how those characteristics influence the quality of the tourist.

## 2. Literature Review

Tourist spending, which is often a measure of tourism demand, can also be an approximation of tourist quality [13]. High purchasing power is a measure of the quality of tourists because it relates to the sustainability of tourism both for the local community and for the tourists in the coming times [8]. Rosello-Nadal [14] defines the quantity and the quality of tourists as the number of tourists and the average expenditure of tourists, respectively, as the decomposition of tourism demand. Thus, the higher tourist spending, the higher the quality of tourism expected. Tourist expenditure refers to the amount paid to obtain consumption goods and services and valuables, for their own use or for giving to others, for and during tourist trips [15].



The national statistical office of Indonesia, known as Statistics Indonesia (BPS) defines domestic tourists as residents who travel within the territory of a country (Indonesia) with a travel duration of less than twelve months and are not aiming to earn income at the place visited and are not traveling for regular work or school.

The demand perspective in the 2008 International Recommendations for Tourism Statistics (IRTS) for tourism statistics identifies tourists through socioeconomic characteristics of tourists and specific aspects of the trip [15]. These characteristics and aspects are then elaborated as the factors that can affect individual (micro) tourist spending [16]. The socioeconomic characteristics are genders, age, education level and employment status while specific aspects of the trip are duration of the trip, transportation mode, accommodation type and travel companion.

Tourist spending behavior is influenced by age since it is intimately tied to the rationality of consuming behavior choices and resource ownership [17]. People are more prone to spend money on leisure and entertainment goods, such as travel, as they age older. Traveling costs more money for older people since it is associated with increased spending power [18].

Gender has little effect on how tourists travel in some circumstances [17]. However, it is not uncommon for men and women to favor distinct travel places and tourism activities. Women have a high shopping motivation and the tendency to become heavy spenders, therefore they tend to spend more money when traveling [19].

A higher level of education allows for more access to information and knowledge, as well as demonstrating financial capacity because it increases one's chances of getting a better job and earning more money [17]. The amount of education is related to the activities that tourists engage in while traveling, with tourists with lower education focusing on fundamental expenses (needs). Tourists with a greater level of knowledge, on the other hand, tend to spend more on whims [20].

Individuals who work are associated with stability, therefore they are more likely to travel. Jobs that create cash will alleviate the financial restraints that prevent people from traveling [21]. Similarly, [22] found that whether or not there are household observations and how many people work in a family can be an essential component in predicting consumption decisions when traveling.

Duration of the trip is defined by IRTS 2008 [15] as the number of nights spent on tours that include overnight activities and is considered one day regardless of the number of hours spent on tours that do not include overnight stays. Travel time is an important element in the demand for tourism services in order to evaluate costs associated with trips taken. There is a positive association where the longer the trip, the more money tourists spend [23].

The mode of transportation refers to the primary method of transportation utilized by tourists [15], where the primary mode is often based on the mode with the greatest distance. When tourists travel, the means of transportation has a significant impact on their movement and behaviour. The importance of transportation in tourism as a link and support is a fundamental influence of tourist choices and spending patterns [24].

Overnight tourists typically require some form of accommodation for their overnight stay, and this type of accommodation typically accounts for a sizable amount of total expense [15]. Travel expenses can vary based on the type of hotel chosen. Tourist accommodation preferences are directly tied to thoughts about the facilities supplied and comfort throughout the tour [25].

Excursions can be taken in groups, with travellers sharing all or a portion of the activities, visits, and expenses associated with the tourist trip [15]. Tourists who travel together and split their expenses are referred to as travel groups or groups. This is related to travel, which is typically a location to interact, thus determining spending behaviour is vital, since traveling in groups involves shared preferences and is tied to the flexibility of spending money when traveling [26].

### 3. Methodology

The research uses individual data from domestic tourists sourced from micro data from the Domestic Tourist Digital Survey in Indonesia in 2021 obtained from BPS. The survey was conducted using quota sampling and because data was collected through a non-probability sampling, *Superpopulation Model*



was used to predict the units chosen by the sample. The unit of analysis in this study is domestic tourists with personal purpose and not business/professional. Thus, the number of samples of tourists who become the unit analysis is 29100 domestic tourists with personal purpose.

The variables used are quality of tourists as the dependent variable. The categorization of quality in this research is thus simply separated into above average and below average because average spending is used as a quality strategy, and there is still very little research as well as conceptions and definitions regarding the term quality itself. Meanwhile, genders, age, education level, employment status, transportation mode, accommodation type and travel companion are the independent variables. Table 1 gives a breakdown of each variable's categories.

**Table 1.** Summary of research variables.

Variable	Category	Dummy	References
Quality of tourist (Y)	Below average*	0	Rosselló-Nadal J & HE (2019)
	Under average	1	
Age (X1)	< 25 years*	0	Chen et al. (2021);
	≥ 25 years	1	Carr (1998) [27]
Gender (X2)	Male*	0	Bernini & Cracolici (2015);
	Female	1	Cragg&Schofield (2009)
Education Level (X3)	≤ High school*	0	Azam (2022) [28]
	≥ Diploma *	1	
Employment Status (X4)	Not working*	0	Bernini & Fang (2021);
	Working	1	Lin et al. (2021)
Trip Duration (X5)	≤ 3 days*	0	Yuniati (2018)
	> 3 days	1	
Transportation Mode (X6)	Public/rental transport*	0	Aisah et al. (2021) [29]
	Private land transport	1	
Accommodation Type (X7)	Hotel*	0	Park et al. (2019)
	Non Hotel	1	
Travel Companion (X8)	Yes (In Group)*	0	IRTS 2008
	No (Individually)	1	

Note: \* = reference category

This study uses descriptive and inferential analysis. Descriptive analysis is utilized to provide an overview of the quality of domestic tourists in Indonesia in 2021, as well as the characteristics of domestic tourists. Visualization in graphic form was employed in the descriptive analysis to illustrate the profiles and characteristics of each domestic tourists in 2021. Inferential analysis uses binary logistic regression analysis, to see the relationship between the dependent variable and a group of independent variables [30], in this case to understand the impact of tourist characteristics on its quality.

In this study, the quality is divided into two simply categories. Hence, binary logistic regression is a simple yet suitable analytical approach to provide a summary of the impact of tourist's characteristics (which are available in categorical form) through the odds ratio. The initial binary logistic regression model proposed in this study is as follows:

$$g(x) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 \quad (1)$$

Note:

- $\beta_0$  : intercept
- $\beta_1, \beta_2, \dots, \beta_8$  : regression coefficients of independent variables
- $X_1$  : Age
- $X_2$  : Gender
- $X_3$  : Education Level
- $X_4$  : Employment Status
- $X_5$  : Trip Duration
- $X_6$  : Transportation Mode
- $X_7$  : Accommodation Type



$X_6$  : Travel Companion

The purpose of regression analysis is to develop the best and most appropriate model to describe the relationship between a dependent variable and a set of independent variables [30]. Logistic regression accommodates the dependent variable that is not continuous and when there are two categories of the dependent variable, logistic regression is called binary logistic regression. The dichotomous category on the dependent variable is "success" which is usually denoted by 1 and "fail" which is denoted by 0. The general form of binary logistic regression with as many as  $p$  explanatory variables directly specifies  $\pi(x)$ , namely the probability of "success" is as follows:

$$\pi(x) = \frac{\exp[\alpha + \beta_1 x_1 + \dots + \beta_p x_p]}{1 + \exp[\alpha + \beta_1 x_1 + \dots + \beta_p x_p]} \quad (2)$$

Model parameter test is carried out either simultaneously or partially. Simultaneous testing to assess the effect of the significance of all variables together in the model using the likelihood ratio test. The hypothesis tested:

$H_0 : \beta_1 = \beta_2 = \dots = \beta_p = 0$  (there is no significant coefficient in the model)

$H_1$  : there is at least one  $\beta_j \neq 0$ ,  $j = 1, 2, \dots, p$  (there is at least a significant coefficient in the model)

The test statistic used is the G test statistic as follows:

$$G = -2 \ln \left[ \frac{L_0}{L_1} \right] \sim \chi_{(p)}^2 \quad (3)$$

The  $L_0$  is the likelihood value of logistics regression model without independent variables. The  $L_1$  is the likelihood value of logistics regression model with all the independent variables. The G test statistic follows a chi-square distribution with degrees of freedom  $p$ ,  $\chi_{(p)}^2$ . At the  $\alpha$  significance level, if  $G > \chi_{(p)}^2$  or the p-value  $< \alpha$ , the likelihood ratio test will reject  $H_0$ . When  $H_0$  is rejected in the likelihood ratio test, it means that with a significance level of  $\alpha$ , there is at least one independent variable that has a significant effect on the dependent variable.

When the simultaneous significance test results in a decision to reject  $H_0$ , it is followed by a partial test using the Wald test to see which independent variables have a significant effect on the dependent variable. The hypothesis tested:

$H_0 : \beta_j = 0$  (the  $j^{\text{th}}$  independent variable has no effect on the dependent variable)

$H_0 : \beta_j \neq 0$  (the  $j^{\text{th}}$  independent variable has effect on the dependent variable)

The test statistic used is the Wald test statistic as follows:

$$W_j = \left( \frac{\hat{\beta}_j}{se(\hat{\beta}_j)} \right) \sim N_{(0,1)} \quad (4)$$

The  $\hat{\beta}_j$  is the estimated value of the regression coefficient. The  $se(\hat{\beta}_j)$  is the standard error of  $\hat{\beta}_j$ . The Wald test statistic follows a standard normal distribution. At the  $\alpha$  significance level, if  $|W_j| > Z_{\alpha/2}$  or p-value  $< \alpha$ , Wald's test will reject  $H_0$ . When  $H_0$  is rejected in the Wald test, it means that with a significance level of  $\alpha$ , the  $j^{\text{th}}$  independent variable has a significant effect on the dependent variable.

Model evaluation is then carried out to test the goodness of the model obtained. Evaluation can be done in several ways, including validation of estimated opportunities and graphs of prediction accuracy [31]. The classification table is a form of validation of the probability of prediction results which displays the percentage of predictions that are correctly classified in each possible category of the dependent variable [30]. The results obtained from the results of the model evaluation include the confusion matrix, the total accuracy value (accuracy), specificity, and sensitivity.

**Table 2.** Classification table.

Observed	Predicted		Total
	$\hat{Y} = 1$	$\hat{Y} = 0$	
$Y = 1$	True Positive (TP)	False Negative (FN)	TP+FN
$Y = 0$	False Positive (FP)	True Negative (TN)	FP+TN
Total	TP+FP	FN+TN	TP+FN+FP+TN

$$Accuracy = \frac{TP + TN}{TP + TN + FP + FN} \quad (5)$$

$$Sensitivity = \frac{TP}{TP + FN} \quad (6)$$

$$Specificity = \frac{TN}{TN + FP} \quad (7)$$

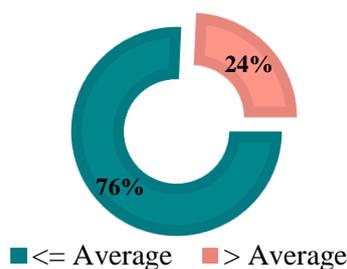
Furthermore, the extent to which a prediction matches the actual data is possible to see graphically through the receiver operating characteristic (ROC) curve where the model is considered to be getting better when the area under the curve is getting bigger, because this shows greater sensitivity and smaller 1-specificity. of the resulting models.

The results of binary logistic regression modelling are interpreted in an association measure called the odds ratio (OR) which explains the tendency of a "success" or "fail" event to occur through a comparison of the propensity of the two possible events to occur. OR is expressed in the equation:

$$OR = \frac{\pi(1)}{1 - \pi(1)} / \frac{\pi(0)}{1 - \pi(0)} \quad (8)$$

#### 4. Results and Discussions

One of the government's policy directions and initiatives is to focus on quality tourism development, with the ultimate goal of boosting the contribution of the tourism creative economy sector to the national economy. The emphasis on quality tourism has shifted the direction of tourism development and orientation, which in the 2014-2019 RPJMN [2] prioritized quantity with the primary goal of increasing the number of tourists, to be directed towards value-added tourism in the 2020-2024 RPJMN. This shift in perspective is projected to deliver not just economic benefits, but also the well-being and happiness of the local community, as well as long-term tourist satisfaction, for years and generations to come.

**Figure 1.** Domestic tourists based on quality in Indonesia, 2020.

Source : BPS Domestic Tourist Digital Survey of 2021 (processed).

Figure 1 shows that in 2021, most domestic tourists will still have spending below average. Only 24%, or roughly one-fourth of all tourists, spend more money than the typical domestic tourist expenditure. With tourist spending as a metric of tourism quality, this could indicate that tourism quality in Indonesia is still fairly low and needs to be improved. In fact, domestic tourism is still the main focus for the orientation of the Indonesian tourism market segment, as explained in the Ministry of Tourism and Creative Economy Strategic Plan [6] regarding the recovery of the Indonesian tourism sector after



the pandemic. So, it is important to analyse what factors can improve the quality of Indonesian tourism, especially in domestic or domestic tourism.

Tourist characteristics information is critical for tourism development. An appropriate study of tourist characteristics will be able to provide insight for the management and development of quality tourism products, strategies, and policies. In addition, in the development of quality tourism, collaboration between the demand and supply sides is needed. It is this demand side that is closely related to the quality or characteristics of tourists. The characteristics of the domestic tourists can be seen in Table 3.

**Table 3.** The quality of domestic tourists in Indonesia based on tourists' characteristics.

Variable	Category	Percentage	Quality	
			$\leq$ Average	$>$ Average
Age	$< 25$ years*	16.96%	81.19%	18.81%
	$\geq 25$ years	83.04%	74.21%	25.79%
Gender	Male*	69.52%	75.05%	24.95%
	Female	30.48%	77.24%	22.76%
Education Level	$\leq$ High school*	34.77%	82.61%	17.39%
	$>$ High school*	65.23%	72.04%	27.96%
Employment Status (X4)	Not working*	26.22%	81.11%	18.89%
	Working	73.78%	73.80%	26.20%
Trip duration (X5)	$\leq 3$ days*	66.23%	85.41%	14.59%
	$> 3$ days	33.77%	56.71%	43.29%
Transportation mode (X6)	Public/rental transport*	40.02%	64.15%	35.85%
	Private land transport	59.98%	83.44%	16.56%
Accommodation Type (X7)	Non Hotel*	69.55%	82.54%	17.46%
	Hotel	30.45%	60.14%	39.86%
Travel Companion (X8)	Yes (In Group)*	48.97%	83.05%	16.95%
	No (Individually)	51.03%	68.69%	31.31%

Source: BPS' Domestic Tourist Digital Survey of 2021 (processed)

Note: \* = reference categories used in logistic regression analysis

Table 2 presents the percentage of the sample of domestic tourists in Indonesia based on the quality and characteristics. It can be seen that domestic tourists in Indonesia in 2021 mostly are aged 25 years and over (83.04%), male (69.52%), with at least diploma as their level of education (65.23%), working (73.78%), travelling for a maximum of three days (66.23%), using private land transportation (59.98%), staying at non-hotel accommodation (69.55%) and doing trip individually (51.03%). Furthermore, for each group of domestic tourists in each category of all variables, apparently it is found that most of them has expenditure below average. This fact emphasizes that the quality of tourists in Indonesia is still quite poor, regardless of the category of each characteristic.

Following the descriptive analysis, a binary logistic regression is used to learn more about the tendency of each independent variable to influence the quality of domestic tourists in Indonesia. However, first, the parameter estimator will be tested simultaneously. This test was carried out using the likelihood ratio test where the statistical value of the G test would be compared with the chi-square statistical value with a significance level of 5%. The test results shows that the statistical value of the G test obtained is 6559.1 with a p-value of 0.000. The G value obtained is greater than  $\chi^2_{0.05;8} = 15.5073$ . Therefore, the decision is to reject  $H_0$ , which means that at a significance level of 5%, there is at least one variable that influences the quality of domestic tourists in Indonesia.

Subsequently, partial testing makes it possible to determine the effect of independent variables on the quality of domestic tourists. The test was carried out with the Wald test at a significance level of 5%. The test results are shown in table 4 as follows:

**Table 4.** The output of Wald test.

Independent Variables	$\hat{\beta}$	$se(\hat{\beta})$	Wald	<i>p-value</i>	$Exp(\hat{\beta})$
Constant	-4.044	0.065	-62.364	0.000*	0.018
Age (1)	0.473	0.049	9.707	0.000*	1.604
Gender (1)	-0.167	0.036	-4.650	0.000*	0.846
Education Level (1)	0.431	0.036	11.855	0.000*	1.539
Employment Status (1)	0.250	0.041	6.132	0.000*	1.284
Trip duration (1)	1.487	0.033	45.485	0.000*	4.425
Transportation mode (1)	0.636	0.032	19.666	0.000*	1.889
Accommodation Type (1)	1.475	0.034	43.816	0.000*	4.372
Travel Companion (1)	1.062	0.033	31.768	0.000*	2.894

\* = significant variables at  $\alpha = 5\%$

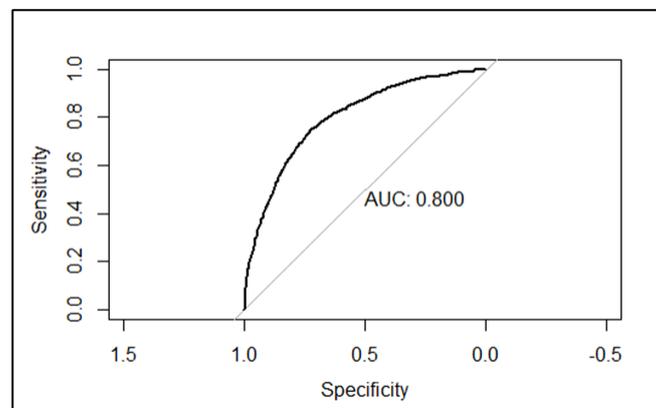
Table 4 shows that all the independent variables significantly affect the dependent variable, that can be seen by the *p-value* that is smaller than  $\alpha$  ( $0.000 < 0.05$ ). That being so, it can be concluded that the independent variables that have significant effect the quality of domestic tourists in Indonesia are age, gender, education level, employment status, trip duration, transportation mode, accommodation type and travel companion.

Based on the model obtained, an evaluation will be carried out to find out whether the model that has been formed is fit to explain the quality of domestic tourists in Indonesia. Tests were carried out using the classification table and the area under the ROC (receiver operating characteristic) curve.

**Table 5.** Classification table.

<i>Observed</i>		<i>Predicted</i>		<i>Percentage Correct</i>
		Domestic Tourists' Quality $\leq$ Average	$>$ Average	
Domestic Tourists' Quality	$\leq$ Average	15985	6110	72.34
	$>$ Average	1762	5243	74.85
<i>Overall Percentage</i>				72.95

The classification table shown in Table 5 displays an overall percentage value of 72.95 percent. This shows that the accuracy of the model formed to be able to correctly classify the quality of domestic tourists is 72.95 percent. From the table also obtained sensitivity and specificity values, respectively 74.85 percent and 72.34 percent. The accuracy of the model in classifying the quality of domestic tourists above the average is 74.85 percent, while the accuracy of the model in classifying the quality of domestic tourists below the average is 72.34 percent.

**Figure 2.** ROC curve.



The area under the ROC curve (AUC) shows the accuracy obtained from the estimated model which technically measures the measure of discrimination between categories in the dependent variable [30]. The greater the AUC value, the better the model predicts the probability of quality in the above average category compared to those in the below average category. The AUC value ranges from 0 to 1, where an AUC value of 1 indicates an entirely correct prediction and vice versa. The AUC result obtained from the estimation model in this study is 0.800 which in [30] is categorized as a prediction with a very good level of accuracy (excellent). Following that, the most important part of obtaining information from logistic regression analysis is the interpretation of the odds ratio, that is showed in table 4. The odds ratio (OR) value for each dependent variable that affects the quality of domestic tourists in Indonesia in 2021 is  $\exp(\hat{\beta})$ .

For the age variable, the tendency of domestic tourists over the age of 25 to have above-average spending is 1.6 times compared to domestic tourists aged 25 and under. This finding explains that tourists with an older age will tend to have greater spending or quality. This is in line with the descriptive analysis in the table 2 which shows that the participation of domestic tourists is dominated by those aged over 25 years. This result is also in line with the research of [17], at an older age, there is a tendency to spend for recreation and entertainment purposes.

From the regression coefficient of the gender variable, the odds ratio value is 0.846. This result means that the tendency for male domestic tourists to spend above the average is  $\frac{1}{0.846}$  or 1.2 times compared to female domestic tourists. This finding is quite different from several previous studies but the trend of spending between the genders can also be confusing because the results depend on other factors that influence it, for example the companion of the trip taken. In Indonesia itself in 2021, the results of the general overview show that domestic tourists are dominated by those who are male. Therefore, the tendency for the high quality of domestic tourists is in the male sex group.

Education level gives an odds ratio of 1.539. That is, the tendency for domestic tourists with a minimum education level of diploma to have spending above the average is 1.5 times compared to domestic tourists with a maximum education of high school. Bernini & Cracolici [17] explain these findings, that apart from being closely related to better jobs and greater income, higher education indicates wider access to information and knowledge so that there are greater opportunities to spend more money at destinations. Ferrer-Rosell [20] also explained tourists with a lower level of education will tend to focus on activities that are closely related to basic needs, while tourists with a higher level of education, in addition to fulfilling basic needs, will also tend to spend their money on desires so that in the end they will spend more. So, in general, the higher the education level of tourists, the greater the spending or it can be said the tourists are of higher quality.

The tendency of working domestic tourists to have spending above the average is 1.3 times compared to non-working domestic tourists. Work is closely related to income so someone who has a job will have money to spend while traveling. This is in line with Bernini & Fang [21] which explains that individual employment status is a big determinant of spending when traveling because working individuals will tend to participate in tourism activities because apart from being related to income, work is also related to individual economic stability where work generates income. income will reduce the economic constraints for travel. Another finding by Lin [22] explains that even on a larger scale, for example in a household, whether or not and how many people work in a household will be important factors that determine participation and the level of expenditure when carrying out tourism activities.

Domestic tourists with a trip length of more than three days have tendency to spend above the average is 4.4 times compared to domestic tourists who travel for a maximum of three days. UNWTO [15] itself has stated that travel duration is an important input for determining tourism demand and estimated tourist spending. This finding is in line with research [23] which states that travel time and spending will have a positive relationship because longer travel time provides more opportunities for tourists to explore destinations and spend more money.

Domestic visitors who use modes of transportation other than private land transportation have 1.9 times the tendency to spend more than the average. In line with the findings of Md Khairi et al. [32],



that using public transportation and renting requires more money compared to using privately owned transportation, because the main factors that influence the choice of modes of transportation in tourist destinations are distance and cost. Good and proper public transportation significantly increases tourist spending at tourist attractions because it can increase tourist motivation to travel longer and spend more money [33].

For accommodation, the odds ratio is 4.4 which means that the tendency for domestic tourists who use hotel accommodation to have expenses above the average is 4.4 times compared to domestic tourists who use other kind of accommodation. Tourist expenses can vary depending on the type of accommodation chosen and of course staying at hotels and inns will cost more than staying at a relative's house or not staying and not using accommodation. Park et al. [9] in their research put forward similar findings where spending on accommodation in hotels would be significant for tourists with the expenditure group being in a high quintile.

Relating to travel companions, domestic tourists traveling alone tend to have expenditures above the average of 2.9 times compared to domestic tourists traveling in groups. Travel is often a socialization event so that the presence or absence of travel companions has a significant effect on total spending at tourist destinations [9]. This finding is in line with research by [34] that traveling alone has a significant positive effect on spending. Another study with similar findings is the study by Lin et al. [26] who approached the number of household members who travelled. The more family members, the lower the level of expenditure incurred when traveling because group members will tend to negotiate and lead to savings behavior.

## 5. Conclusion and suggestions

Based on the findings of the previous chapter's analysis and discussion, the following conclusion can be reached is that the quality of Indonesian domestic visitors is still relatively low, as seen by their expenditure in 2021. The profile of domestic tourists' characteristics shows that the visitors mostly are aged 25 years and over, male, with at least diploma as their level of education, working, travelling for a maximum of three days, using private land transportation, staying at non-hotel accommodation and doing trip individually.

Age, genders, education level, employment status, transportation mode, accommodation type and travel companion affect the quality of domestic tourists. Domestic tourists who are more than 25 years old, male, have a minimum education diploma, have a job, travel for more than three days, use public or rented modes of transportation, stay at hotels or inns and travel alone tend to have the qualities above average.

Based on the data and debate, as well as the preceding conclusions that domestic tourists have a high travel volume with low spending levels, the recommendation that can be made is that in order to improve the quality of tourism in general, the government as the main policy maker related to tourism needs to focus on supporting the tourism industry from the supply side so that the demand for tourism products from the tourist side can increase.

Tourist destinations should be presented appealingly and coexist with varied activities as well as the supporting facilities at tourist destinations should be available in good standard and well-maintained condition. Broader and more attractive promotions can be carried out by utilizing technological advances and various available social media platforms. Safe public spaces and information centers should be available and easily accessible at tourist destinations.

Future research is expected to develop this research with more in-depth information, for example by using variables that can represent economic factors and incorporate regional elements to make comparisons using multilevel analysis.



## References

- [1] Rahmayani D, Oktavilia S, Suseno DA, et al. Economics Development Analysis Journal Tourism Development and Economic Growth: An Empirical Investigation for Indonesia Article Information. *Economics Development Analysis Journal* 2022; 1: 1–11.
- [2] Presiden RI. Narasi Rencana Pembangunan Jangka Menengah Nasional Tahun 2020-2024, <https://jdih.bappenas.go.id/peraturan/detailperaturan/1037> (2020, accessed 21 September 2022).
- [3] Maulana A. Pemetaan Prospek Pasar Wisatawan Nusantara di Indonesia. *Jurnal Kepariwisata Indonesia* 2019; 13: 1–15.
- [4] Harianja R, Putra RR, Mustofa ANA, et al. Perilaku Berwisata Wisatawan Nusantara Pasca Pandemi Covid-19. *PARIWISATA BUDAYA: JURNAL ILMIAH AGAMA DAN BUDAYA* 2022; 7: 34–44.
- [5] Putra MSP, Yustiani D, Astawa IND. Wisatawan Nusantara sebagai Pengungkit Ekonomi Bali di Era Pandemi Covid-19. *Jurnal Ilmiah Hospitality Management* 2021; 12: 59–73.
- [6] Kemenparekraf. Peraturan Menteri Pariwisata dan Ekonomi Kreatif/Kepala Badan Pariwisata dan Ekonomi Kreatif Nomor 12 Tahun 2020 tentang Rencana Strategis Kementerian Pariwisata dan Ekonomi Kreatif/Badan Pariwisata dan Ekonomi Kreatif Tahun 2020-2024, [www.jdih.kemenparekraf.go.id](http://www.jdih.kemenparekraf.go.id) (2020).
- [7] UNWTO Highlights Potential of Domestic Tourism to Help Drive Economic Recovery in Destinations Worldwide | UNWTO, <https://www.unwto.org/news/unwto-highlights-potential-of-domestic-tourism-to-help-drive-economic-recovery-in-destinations-worldwide> (accessed 27 March 2023).
- [8] Pitana IG. Kajian Antara Quantity dan Quality dalam Pariwisata, <https://www.balipost.com/news/2020/02/12/104081/Kajian-antara-Quality-dan-Quantity...html> (2020, accessed 26 October 2022).
- [9] Park S, Woo M, Nicolau JL. Determinant Factors of Tourist Expenses. <https://doi.org/10.1177/0047287519829257> 2019; 59: 267–280.
- [10] Mubarak H. Faktor-faktor yang Memengaruhi Jumlah Perjalanan Wisatawan Nusantara di Indonesia Tahun 2008-2013. *Politeknik Statistika STIS*, 2016.
- [11] Eko Suharto. Analisis Profil dan Karakteristik Wisatawan Nusantara Asal Jawa Tengah. *Proceeding SENDI\_U* 2020; 774–780.
- [12] Yuniati N. Profil dan Karakteristik Wisatawan Nusantara (Studi Kasus di Yogyakarta). *Jurnal Pariwisata Pesona* 2018; 3: 175–190.
- [13] Maulana A, Chamma FPPK, Amory IDGRAA. The Mapping of Quality Tourists Prospects for Indonesia's Tourism Markets. *Binus Business Review* 2020; 11: 167–174.
- [14] Rosselló-Nadal J, HE J. Tourist arrivals versus tourist expenditures in modelling tourism demand. <https://doi.org/10.1177/1354816619867810> 2019; 26: 1311–1326.
- [15] United Nations World Tourism Organization. *International Recommendations for Tourism Statistics* 2008. United Nations, 2010.
- [16] Wang Y, Davidson MCG. A Review of Micro-analyses of Tourist Expenditure. <http://dx.doi.org/10.1080/13683500903406359> 2010; 13: 507–524.
- [17] Bernini C, Cracolici MF. Demographic Change, Tourism Expenditure and Life Cycle Behaviour. *Tour Manag* 2015; 47: 191–205.
- [18] Chen TS, Hwang MS, Chang YJ. The effect of wealth effect and population aging on tourism expenditure. <https://doi.org/10.1080/1368350020211937959> 2021; 25: 1852–1865.
- [19] Craggs R, Schofield P. Expenditure-Based Segmentation and Visitor Profiling at the Quays in Salford, UK. *Tourism Economics* 2009; 15: 243–260.
- [20] Ferrer-Rosell B, Coenders G, Martínez-García E. Determinants in Tourist Expenditure Composition — The Role of Airline Types. *Tourism Economics* 2015; 21: 9–32.
- [21] Bernini C, Fang R. Living Standard and Chinese Tourism Participation. *International Journal of Tourism Research* 2021; 23: 287–300.



- [22] Lin VS, Qin Y, Li G, et al. Determinants of Chinese households' tourism consumption: Evidence from China Family Panel Studies. *International Journal of Tourism Research* 2021; 23: 542–554.
- [23] Yang CW, Wu CL, Lu JL. Exploring the interdependency and determinants of tourism participation, expenditure, and duration: An analysis of Taiwanese citizens traveling abroad. <https://doi.org/10.1177/1354816619896656> 2019; 27: 649–669.
- [24] Amir S, Osman MM, Bachok S, et al. Local Economic Benefit in Shopping and Transportation: A study on Tourists' Expenditure in Melaka, Malaysia. *Procedia Soc Behav Sci* 2016; 222: 374–381.
- [25] Eugenio-Martin JL, Inchausti-Sintes F. Low-cost Travel and Tourism Expenditures. *Ann Tour Res* 2016; 57: 140–159.
- [26] Lin VS, Mao R, Song H. Tourism expenditure patterns in China. *Ann Tour Res* 2015; 54: 100–117.
- [27] Carr N. The Young Tourist: A Case of Neglected Research. *Progress in Tourism and Hospitality Research* 1998; 4: 307–318.
- [28] Azam M. Microeconomic Determinants of Domestic Tourism Expenditure in India. *IZA Discussion Papers*, <https://ideas.repec.org/p/iza/izadps/dp15245.html> (2022, accessed 4 July 2023).
- [29] Aisah N, Aji Suseno D, Ekonomi Pembangunan J, et al. Analisis Pemilihan Moda Transportasi dalam Kunjungan Wisatawan. *Efficient: Indonesian Journal of Development Economics* 2021; 4: 1108–1127.
- [30] Hosmer DW, Lemeshow S. *Applied Logistic Regression*. 2000.
- [31] Peng C-YJ, So T-SH. *Logistic Regression Analysis and Reporting: A Primer*. [http://dx.doi.org/10.1207/S15328031US0101\\_04](http://dx.doi.org/10.1207/S15328031US0101_04) 2010; 1: 31–70.
- [32] Md Khairi ND, Ismail HN, Syed Jaafar SMR. Tourist behaviour through consumption in Melaka World Heritage Site. <https://doi.org/10.1080/1368350020181491534> 2018; 22: 582–600.
- [33] Le-Klähn DT, Hall CM. Tourist use of public transport at destinations – a review. <https://doi.org/10.1080/136835002014948812> 2014; 18: 785–803.
- [34] Rashidi TH, Koo TTR. Sci-Hub | An analysis on travel party composition and expenditure: a discrete-continuous model. *Annals of Tourism Research*, 56, 48–64 | [10.1016/j.annals.2015.10.003](https://doi.org/10.1016/j.annals.2015.10.003). *Ann Tour Res* 2016; 56: 48–64.