

DETERMINANTS OF DOMESTIC TOURISM DEMAND IN INDONESIA

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ABSTRACT

Domestic tourists have an essential role in the development of tourism in Indonesia. Knowledge of the variables that cause domestic tourists to travel is essential as one step to driving national tourism. This study aims to identify the economic variables that affect the travel of domestic tourists. The impact of changes in income, fuel prices, and the exchange rate of Rupiah per the US dollar will be estimated and tested. Dummy variables are also used to represent the Covid-19 pandemic in 2020. Multiple regression models will be used to analyze the relationship and influence of these variables on domestic tourists travelling using time series data for the period 2001-2020. An important finding in this study is the significance of income and fuel prices variables. It shows that income and transportation costs are the determining factors for domestic tourists travelling in Indonesia. Another finding is that the Covid-19 pandemic in 2020 caused a decrease in domestic tourist travel.

Keywords: Domestic Tourist, Regression Analysis, Covid-19

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ABSTRAK

Wisatawan nusantara mempunyai peranan penting dalam kepariwisataan di Indonesia. Pengetahuan mengenai variabel-variabel yang menentukan perjalanan wisatawan nusantara sangat penting sebagai salah satu langkah untuk menggerakkan pariwisata nasional. Penelitian ini bertujuan untuk mengidentifikasi variabel-variabel ekonomi yang mempengaruhi perjalanan wisnus. Dampak perubahan pendapatan, harga bahan bakar minyak, dan nilai tukar rupiah terhadap dolar Amerika Serikat akan diestimasi dan diuji. Variabel dummy yang merepresentasikan pandemi Covid-19 tahun 2020 juga digunakan. Model regresi berganda akan digunakan untuk menganalisis hubungan dan pengaruh variabel-variabel tersebut terhadap perjalanan wisnus menggunakan data runtun waktu periode 2001-2020. Temuan penting dalam penelitian ini adalah signifikansi dari variabel pendapatan dan harga bahan bakar minyak. Ini menunjukkan pendapatan dan biaya transportasi menjadi faktor penentu bagi perjalanan wisnus di Indonesia. Temuan lainnya adalah pandemi Covid-19 tahun 2020 menyebabkan penurunan perjalanan wisnus.

Kata Kunci: Wisatawan Nusantara, Analisis Regresi, Covid-19

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Introduction

Tourism has become one of the world's largest and fastest-growing economic sectors in recent decades. In the 2020-2024 National Medium Term Development Plan (RPJMN), the government has determined tourism as one of the priority sectors in national development. Linkages across sectors of tourism activity can be a supporting link for moving forward national development. Thus, tourism is expected to accelerate economic growth and, in turn, can improve people's welfare. Various policies are carried out to support national tourism development. Intensive promotions continue to be carried out and accompanied by service improvements, so it is hoped that the number of foreign tourist arrivals (tourists) and domestic tourist trips will continue to increase.

Tourism development in Indonesia has focused on bringing in as many foreign tourists as possible so that the foreign exchange earned continues to increase. Even with a massive population with various traditions and customs, foreign tourists have great potential to drive tourism in Indonesia. Research related to tourism demand also focuses more on foreign tourists, including [Taupikurrahman \(2022\)](#), [Taupikurrahman et al. \(2019\)](#), [Nahar et al. \(2019\)](#), [Kusumah \(2018\)](#), and [Mariyono \(2017\)](#). The development of domestic tourists has received less attention. Studies on tourism demand related to domestic tourists are also limited, including [Riantoro \(2021\)](#), [Komalasari & Ganiarto \(2019\)](#), [Pratomo \(2017\)](#), and [Yusendra \(2015\)](#).

Indonesia Tourism Satellite Accounts (ITSA) data shows that the consumption value incurred due to domestic tourist travel is greater than that of foreign tourists ([BPS, 2022](#)). The total consumption of domestic tourists is far above that of foreign tourists. Figure 1 shows the comparison of the contribution of consumption value due to the travel of domestic tourists with foreign tourists.

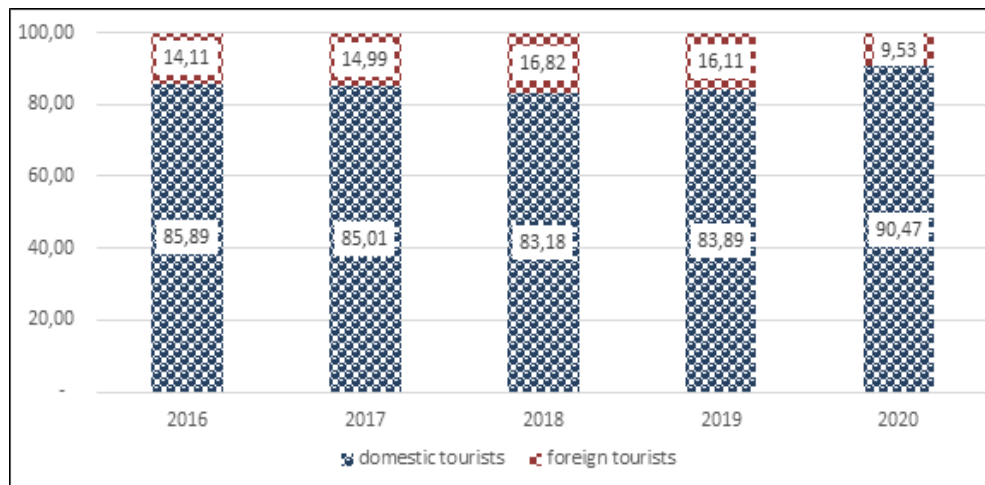


Figure 1: Composition of Travel Consumption of Domestic Tourists and Foreign Tourists (Percent), 2016-2020

Source: [BPS \(2022\)](#)

The consumption of domestic tourists comes from the expenditure of foreign tourists and the expenditure of Indonesian residents who travel abroad or national tourists (wisnas) while in the country. Most of the consumption of domestic tourists comes from the expenditure of foreign tourists, while the expenditure of domestic tourists is relatively small. It shows the importance of foreign tourists travelling in tourism and the national economy. Knowing the factors that cause Indonesian residents to travel within the country is necessary so that the policies or marketing are right on target.

It is undeniable that many factors cause a person to travel. Song et al. (2012), Li et al. (2005), and Lim (1997; 1999) summarize the variables used in tourism demand analysis since the 1960s. Of the 100 studies on the tourism demand function studied, Lim (1997) found that the most widely used variables to explain tourism demand were income, prices, and transportation costs.

In addition to knowing the variables that affect tourism demand, understanding the elasticity of the results obtained is also very important. Peng et al. (2015) stated that the elasticity of tourism demand varies depending on the location, the data and size of the demand variable used, and the modelling method used. Understanding how and why differences in the elasticity of demand occur is essential to formulate an effective destination marketing strategy.

Based on the above background, the authors are interested in investigating what economic variables affected foreign tourists' travel in Indonesia from 2001-2020. The economic variables that will use include income, transportation costs, and the relative price of tourism. It is important to research because it can assess the effectiveness and appropriateness of policies and their contribution to improving tourism in Indonesia. In addition, we will also investigate the impact of the Covid-19 pandemic on foreign tourists.

The problem in this research is whether the variables of income, transportation costs, tourism prices, and the Covid-19 pandemic affect the travel of domestic tourists in Indonesia. This research investigates these variables' influence on domestic tourists' trips. The significance and contribution of this study are to add to the research literature on the determinants of domestic tourists' travel in Indonesia by providing empirical evidence during the research period. In addition, it can be used as input and evaluation material for policymakers in the tourism sector regarding the effectiveness of tourism marketing and promotion in increasing the number of foreign tourist trips.

Literature Review

Archipelago Tourists

BPS (2021) defines a domestic tourist or domestic tourist as someone who travels in the territory of Indonesia with a trip duration of fewer than six months and does not aim to earn income at the place visited. Moreover, it is not a routine trip, such as going to school or work, visiting commercial tourist objects, staying in commercial accommodation, and traveling a distance of at least 100 (one hundred) kilometres round trip.

Tourism Demand Model

According to Song and Witt (2000) in Proença & Soukiazis (2005), tourism demand is defined as the number of products consumed by tourists during specific periods and conditions, which are controlled by explanatory factors used in the demand function.

In economic theory, as with the demand for other goods and services, the tourism demand function depends on the budget size available for spending and tourism's preferences for other goods and services. Economists also state that tourism income and prices also affect tourism demand. In addition, tourism demand can also be influenced by non-economic problems such as psychological factors and social environment (Sinclair & Stabler, 1997).

Most of the published studies use quantitative methods to forecast tourism demand. Furthermore, Song & Li (2008) categorize tourism demand modelling and forecasting methods into quantitative and qualitative methods. They also categorize the development of quan-

titative forecasting techniques into three groups: time series models, econometric approaches, and other new methods. Time series models and econometric approaches are the most popular quantitative forecasting techniques.

Time series models only require historical observations of a variable, so these models are less expensive in data collection and model estimation. However, time series models are not helpful in situations where the interdependence relationship between tourism demand and other related factors is a significant concern. Another approach is the econometric model. One of the main advantages of the econometric approach over time series models is its ability to analyze causal relationships between the dependent variable and the factors that influence it. In the case of tourism demand, econometric analysis has empirical use in interpreting changes in tourism demand from an economist's perspective, providing policy recommendations, and evaluating the effectiveness of existing tourism policies.

The facts show that most published studies on the tourism demand function use econometric analysis. These studies include [Taupikurrahman \(2022\)](#), [Tantowi \(2021\)](#), [Sarwoko et al. \(2020\)](#), [Nahar et al. \(2019\)](#), [Taupikurrahman et al. \(2019\)](#), [Kusumah \(2018\)](#), and [Mariyono \(2017\)](#). The results of these studies show the importance of using econometric models in identifying the factors that influence tourism demand. Furthermore, the value of elasticity can also be calculated and forecasted.

Factors Determining Tourism Demand

Many factors influence tourism demand. [Song et al. \(2012\)](#), [Li et al. \(2005\)](#), and [Lim \(1997, 1999\)](#) summarize the variables used in tourism demand analysis since the 1960s. The dependent variable most widely used in these studies is the number of tourist arrivals, then expenditure or receipts from tourists. In addition, economic variables are the most numerous and have become the focus of most research on the tourism demand function. Of the 100 studies on the tourism demand function studied, income, price, and transportation costs are the most widely used variables as independent variables ([Lim, 1997](#)). [Cunha \(2001\)](#) in [Proença & Soukiazis \(2005\)](#) have grouped potential factors that can influence deciding a trip as follows:

- a. Socioeconomic factors include income levels, relative prices between origin and destination, demographics, urbanization, and length of vacation time.
- b. Technical factors, namely the ease of communication and transportation.
- c. Psychological and cultural factors describe a person's personal preferences and lifestyle.
- d. Other factors are related to unexpected events, such as political instability, climate problems, natural disasters or disease outbreaks.

Furthermore, [Prideaux et al. \(2007\)](#) also suggested including other variables that can describe the political, economic, social, and cultural situation in the formation of the tourism demand model. It is done to improve forecasting techniques.

Research Methods

Selection of Variables and Data Sources

Based on the studies on tourism demand that have been described, this research will use the following variables:

- a. The number of domestic tourists is the dependent variable (dependent variable).
- b. Real gross domestic product per capita (GDP) will be used as an approach to the average income of the Indonesian population.
- c. The average premium price (BBM) will be used for transportation costs. The use of premium as a tourism price approach is based on the reason that premium is the type of fuel oil most widely used by the community.

- d. The exchange rate of the rupiah against the United States dollar (exchange rate) is an approach to the relative price of Indonesian tourism to other countries.
- e. The dummy variable used to present the Covid-19 pandemic in 2020.

The data used in this study are secondary data obtained from publications or reports from various institutions from 2001-2020. Data for domestic tourists and GRDP were obtained from BPS publications, and the average exchange rate of the rupiah against the United States dollar was obtained from the website of [Bank Indonesia \(2022\)](#). In contrast, data on average premium prices were obtained from various sources such as Ministerial Regulations, news media, and other sources. Meanwhile, for data processing using the help of Microfit software 5.50.

Model Specification

This research will use multiple regression analysis. All variables will be transformed into logarithmic form (log) to facilitate interpretation and analysis. According to [Gujarati \(2003\)](#), besides overcoming heteroscedasticity, another advantage of the logarithmic transformation is that the coefficient shows the elasticity value of the dependent variable to the independent variable. The specifications of the proposed model are as follows:

$$\log WISNUS_t = \beta_0 + \beta_1 \log PDBK_t + \beta_2 \log BBM_t + \beta_3 \log KURS_t + \beta_4 D_{19} + u_t \quad (1)$$

The expected parameter estimation results from the proposed model are 1 and 3 > 0 (GDP and KURS have a positive effect), while 2 < 0 (fuel has a negative effect).

Model Significance Test

The significance test of the model proposed in this study is by looking at the coefficient of determination (R^2), the overall test (F test), and the partial test (t-test). The value of R^2 shows how much variation of all the independent variables can explain the dependent variable. In this case, how variations in GDP per capita variables, inflation rates, and premium retail prices can explain the variations in domestic tourist trips in Indonesia.

Then an F-test was carried out to see how all the independent variables jointly affect the dependent variable and to test whether the existing regression model is significant. While the statistical t-test is used to test how each independent variable influences the dependent variable.

Assumption Test

Classical assumption tests were also carried out in addition to statistical tests to get a good model, as described in the previous section. The classical assumption test that will be carried out in this study includes the normality test, serial correlation test, heteroscedasticity test, and functional form (RESET). One of the advantages of Microfit 5 is that diagnostic tests for serial correlation, normality, functional form (RESET), and heteroscedasticity tests are automatically displayed with regression results ([McKenzie & Takaoka, 2013](#)).

Results and Discussion

Development of Indonesian Tourist Travel 2001-2020

The number of domestic tourist trips (wisnus) in Indonesia tends to increase from 2001-2020, except in 2019 and 2020. One of the causes of the decline in foreign tourist travel in 2020 is allegedly the Covid-19 pandemic that has hit the world since late 2019. However, it was only detected in Indonesia in March 2020.

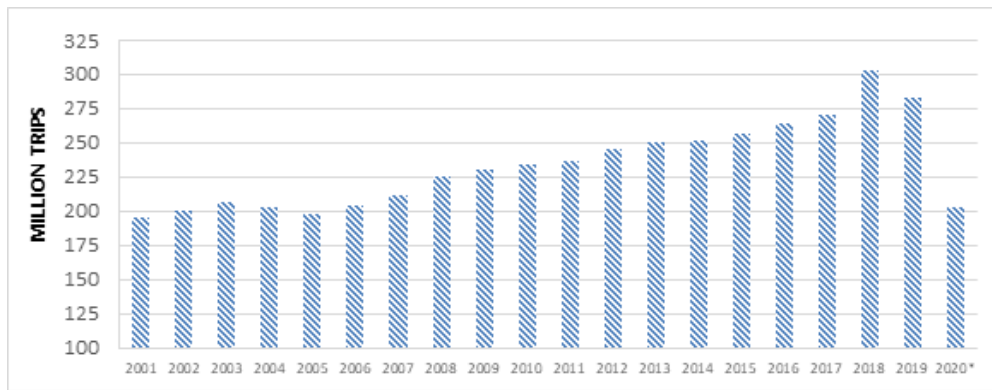


Figure 2: Number of Domestic Tourist Trips 2001-2020

* approximate figures

Source: BPS (2020)

Viewed by region of origin, foreign tourists’ trips are dominated by provinces on the island of Java. It is understandable, considering that the provinces on the island of Java have the largest population and are the centre of the economy in Indonesia. East Java is the province that accounts for the highest number of foreign tourists, followed by Central Java and West Java.

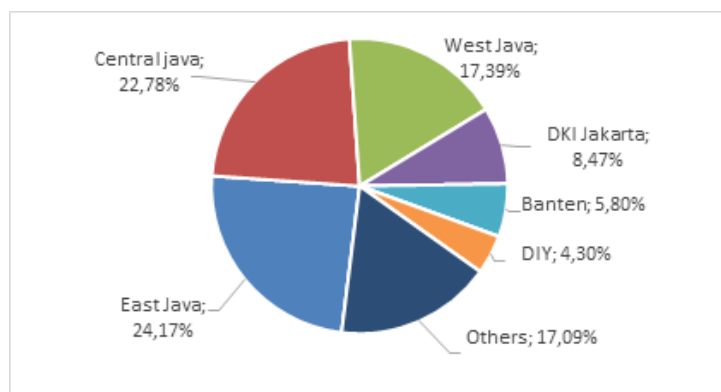


Figure 3: Distribution of the Number of Foreign Tourists Travelling by Province of Origin, 2020

Source: BPS (2021)

Variables Affecting Wisnus Travel

This section will describe the variables that affect foreign tourists’ travel in Indonesia based on data for the period 2001-2020. Table 1 displays the descriptive statistical values of all the variables used in this study. It shows that the GDPK and BBM data are more varied than the WISNUS and KURS data. The value of the coefficient of variation for the WISNUS and KURS variables is relatively small, while the GDPK and BBM variables are pretty significant.

Table 1: Descriptive Statistics of Research Variables

Variable	Unit	Obs	Average	Std Dev	Minimum	Maximum	Coefficient of Variation (%)
WISNUS	Thousand trips	20	233.715.0	31,343.2	195,770.7	303.535.6	13.41
GDPK	Million Rp	20	31,386.2	17,660.2	8,195.6	59,317.9	56.27
BBM	Percent	20	4,861.9	2,197.6	1,450.0	8,500.0	45.20
EXCHANGE RATE	Rupiah	20	10,9000.0	2,135.4	8,574.4	14,481.0	19.59

Source: data processed with Microfit 5.50

Table 2 shows the final results of the research model regression. Furthermore, testing is carried out based on economic, statistical and econometric criteria on the estimation results that have been obtained. Based on the economic criteria, the estimated results of the equation parameters are as expected. It is indicated by the sign and magnitude of the parameter estimation value to describe the relationship between the dependent variable and the explanatory variables.

Table 2: Regression Results of the Research Model

Bound variable: logWISNUS

Variable	Coefficient	Std Dev	Prob.
C**	5.58190	0.498220	11.2036
logPDBK **	0.68488	0.088561	7.7335
logBBM *	- 0.07186	0.030001	-2.3953
logEXCHANGE	0.03763	0.059865	0.6286
D ₁₉ **	- 0.32931	0.029361	-11.2158
R ² -adj = 0.95821		F = 109.9210 (0.000)	DW = 2.0929

Note: **, * indicate significant at α levels of 1% and 5%

Source: data processed with Microfit 5.50

Furthermore, statistical criteria are used to test the resulting equations. The value of the coefficient of determination (adj-R²) of the compiled equation is relatively high, namely 0.95821. It shows that the explanatory variables (PDBK, BBM, KURS, and D19) used in the equation can explain 95.82 per cent of the variable variability in the number of domestic tourists travelling in Indonesia. Other variables outside the model explain the rest (4.18 per cent).

While the value of the F statistic is 109.9210 with a probability value of 0.000, these results indicate that at the α 1% significance level, all independent variables jointly affect the dependent variable, namely the number of domestic tourists' trips. In other words, in the 2001-2020 period, the number of foreign tourist trips in Indonesia was influenced by average income, premium prices, the rupiah exchange rate against the dollar, and the Covid-19 pandemic.

Furthermore, a partial test is carried out on each variable to test whether an individual explanatory variable affects the dependent variable. This partial test uses t-test statistics. The estimation results show that at a significance level of 5 per cent, all variables significantly affect the number of domestic tourists' trips, except for the average rupiah exchange rate against the United States dollar (KURS). The variable real GDP per capita (PDBK) has a positive effect, while the average premium retail price (BBM) and the Covid-19 pandemic have a negative effect.

In addition, the classical assumption test was also carried out to obtain a good model. The assumption test includes normality, serial correlation, heteroscedasticity, and function specification tests. The results of this assumption test can be seen in Table 3. The LM and F-test results show that all are not significant at the 5 per cent level. There are no problems regarding the assumption of serial correlation, normality, specification, and heteroscedasticity in the proposed model.

Table 3: The Results of the Regression Model Assumption Test

Statistic test	LM version	F version	Decision
Serial correlation	0.049088 [0.825]	0.034446 [0.855]	Ho can't be denied
Function specifications	0.345230 [0.557]	0.245900 [0.628]	Ho can't be denied
Normality	4.337700 [0.114]	NA	Ho can't be denied
Heteroscedasticity	1.664800 [0.197]	1.634300 [0.217]	Ho can't be denied

Notes: ** and * indicate significant at the 1% and 5% levels. Numbers in brackets indicate probability values. To calculate this test, the Microfit 5.50 . software is used

Source: data processed with Microfit 5.50

The explanation for each variable used in the compiled model is as follows:

Income

The estimation results show that the income variable coefficient (GDP) has a sign as expected (positive) and is significant at 1 per cent. The GDPK coefficient value is 0.68488, which means that an increase in GDPK by 1 per cent, *ceteris paribus*, will increase the rate of the number of foreign tourists travelling by 0.68 per cent. Travel tourists are usually income sensitive when selecting travel destinations. [Nguyen's study \(2021\)](#) shows that of 155 tourism demand model studies, most (81.9 per cent) have an income elasticity value greater than one, which confirms the luxury nature of tourism travel. However, the estimation results in this study, the value of income elasticity for domestic travel is less than one. It shows that domestic travel is not sensitive to changes in income (inelastic).

[Yusendra \(2015\)](#) found that although the income factor influences a person to travel, personal motivation is the main factor for a person to travel. These personal motivations include physical motivation (relaxation, health, etc.), social (visiting family, friends, colleagues, etc.), and so on.

This finding is in line with research conducted by [Taupikurrahman \(2022\)](#), [Tantowi \(2021\)](#), [Muryani et al. \(2020\)](#), [Sarwoko et al. \(2020\)](#), [Taupikurrahman et al. \(2019\)](#), [Kusumah \(2018\)](#) who found that tourist travel to income is inelastic. However, tourism actors in Indonesia must monitor the national economic situation to make appropriate policies to anticipate the increase in the number of foreign tourists travelling in the future.

Transportation Costs

[Truong et al. \(2017\)](#) state that there is a strong relationship between transportation accessibility factors, which will impact transportation costs, and tourism supply and demand. The results of the estimation of the transportation price coefficient, which is approximated by the average retail price of premium (BBM), have a sign as expected (negative) and are significant at α of 5 per cent. It means that transportation costs affect domestic travel. A coefficient value of 0.07186 indicates that an increase in fuel prices by 1 per cent, *ceteris paribus*, can reduce domestic tourists' travel rate by 0.072 per cent.

This finding shows that transportation has a very close role in foreign tourists' travel. The results of the 2020 Wisnus Survey also reveal that transportation costs make up a sizeable portion (17.98 per cent) of foreign tourists spending ([BPS, 2021](#)). [Yusendra \(2015\)](#) also found that transportation and road access determine the destination of foreign tourists' trips. At the same time, [Riantoro \(2021\)](#) and [Ismayanti et al. \(2011\)](#) found that accessibility (distance, transportation, travel intensity) is one of the factors that encourage Indonesians to travel.

While looking at the elasticity value, the estimated coefficient of the fuel variable is less than one. It shows that foreign tourist travel is not sensitive to changes in transportation prices (inelastic). However, in determining the policy to increase fuel prices, the government needs in-depth calculations and studies to anticipate the decline in the number of foreign tourists travelling that may occur.

Tourism Price

Tourism prices are an essential indicator for providers of tourism goods and services. It is because tourism prices are directly related to tourist demand. The results of the estimation of the rupiah exchange rate against the United States dollar (KURS) as an approach to the relative price of Indonesian tourism to tourism in other countries have a sign as expected (positive), but not significant at the level of 5 per cent. It shows that foreign tourists' trips are not affected by changes in Indonesian tourism prices compared to other countries. This result is different from [Yusendra's \(2015\) research](#), which found that price is one factor determining the journey of foreign tourists.

Although not significant, the positive sign of the coefficient can also mean that when the value of the rupiah depreciates against the US dollar, domestic tourists' trips can increase. The depreciation of the rupiah against the US dollar means that overseas tourism is more expensive than domestic tourism, so some residents who will travel abroad are diverted to the country. [Tantowi \(2021\)](#) research found that travel by Indonesians abroad is negatively affected by the relative price of tourism in the destination country to tourism in the country. However, [Nguyen \(2021\)](#), in his research on domestic tourism in ASEAN countries, found that tourism demand is more sensitive to its price than to substitute prices.

Data from the 2020 Archipelago Tourist Survey shows that most foreign tourists travel (30.98 per cent) mainly want to visit friends/family ([BPS, 2021](#)). This finding can be explained by the motivation of domestic tourists to travel. In Indonesia, there is also a tradition of routine travel carried out by some residents, namely going home on holidays, such as Eid al-Fitr and Christmas. To make this homecoming trip, usually, the cost factor is no longer the primary consideration; that is important to gather or meet with family and relatives. However, the elasticity of demand can change from time to time, so the government and tourism businesses must design appropriate marketing strategies in anticipation of market changes and changing travel tastes and preferences ([Peng et al., 2015](#)).

Covid-19 Pandemic

The dummy variable that represents the Covid-19 pandemic, which began to be detected in Indonesia in early March 2020, had a negative and significant impact on wisnus travel. Not only domestic tourist trips, in general, but the Covid-19 pandemic has also resulted in a drastic decline in tourism trips. The World Tourism Organization (UNWTO) stated that 2020 was the worst year for tourism due to the Covid-19 pandemic ([WTO, 2022](#)). Several studies, including [Amrita et al. \(2021\)](#), [Abbas et al. \(2021\)](#), [Prayudi \(2020\)](#), and [Sugihamretha & Gde \(2020\)](#) found that the Covid-19 pandemic had a negative effect on the performance of the tourism sector.

Conclusion

The government has designated tourism as one of the priority sectors in national development. The cross-sector linkage of tourism activities is expected to support national and regional development, accelerating economic growth and improving people's welfare. Ne-

sparnas data reveals that the travel of domestic tourists has the most significant contribution compared to other components. It shows the great potential of foreign tourists to drive tourism in Indonesia. This study aims to identify the variables that affect foreign tourists' travel in Indonesia. With data from 2001-2020, this study uses multiple regression analysis. This study found that the average income approximated to real GDP per capita positively and significantly affected the number of foreign tourists travelling.

Meanwhile, transportation costs approximated by the average premium price negatively and significantly affect the number of foreign tourists travelling. An elastic value of less than one indicates that domestic tourist travel is not sensitive to either income or transportation prices. The Covid-19 pandemic has also significantly affected the decline in foreign tourist travel. This finding implies that maintaining economic growth is necessary to increase the growth of foreign tourists travelling in Indonesia. The policy of increasing fuel prices must be considered carefully and carefully because it can have an impact on reducing foreign tourists' trips.

This study has limitations as well as suggestions for further research. This study focuses on economic variables and does not include tourism variables such as the availability of accommodation, tourism objects, and travel packages. Further research is recommended to include these variables to know the effect of the availability of tourism facilities on foreign tourists' trips.

References

- Abbas, J., Mubeen, R., Iorember, P. T., Raza, S., & Mamirkulova, G. (2021). Exploring the impact of COVID-19 on tourism: transformational potential and implications for a sustainable recovery of the travel and leisure industry. *Current Research in Behavioral Sciences*, 2, 100033. <https://doi.org/10.1016/j.crbeha.2021.100033>
- Amrita, N. D. A., Handayani, M. M., & Erynayati, L. (2021). Pengaruh Pandemi Covid-19 Terhadap Pariwisata Bali [The Effect of the Covid-19 Pandemic on Bali Tourism]. *JURNAL MANAJEMEN DAN BISNIS EQUILIBRIUM*, 7(2), 246–256. https://doi.org/https://doi.org/10.47329/jurnal_mbe.v7i2.824
- Bank Indonesia. (2022). *Kurs Transaksi Bank Indonesia [Bank Indonesia Transaction Rates]*. <https://www.bi.go.id/id/statistik/informasi-kurs/transaksi-bi/Default.aspx>
- BPS. (2020). *Jumlah Perjalanan Wisatawan Nusantara [number of Domestic Tourist Trips]*. https://www.bps.go.id/indikator/indikator/view_data/0000/data/1189/sdgs_8/1
- BPS. (2021). *Statistik Wisatawan Nusantara 2020 [Nusantara Tourist Statistics 2020]*. <https://www.bps.go.id/publication/2021/12/14/fab1c19a78b537d19ced25db/statistik-wisatawan-nusantara-2020.html>
- BPS. (2022). *Tourism Satellite Account Indonesia 2016-2020*. <https://www.bps.go.id/publication/2022/07/05/b3c824a618fff5f53bab4d8e/tourism-satellite-account-indonesia-2016-2020.html>
- Gujarati, D. N. (2003). *Basic Econometrics* (4th ed.). McGraw-Hill Companies.
- Ismayanti, I., Djamhur, I., & Levyda, L. (2011). Indonesian Tourists' Preferences Influence of Conscious and Unconscious Motives. *The Winners*, 12(1), 11–23. <https://doi.org/10.21512/tw.v12i1.680>
- Komalasari, F., & Ganiarto, E. (2019). Determinant Factors of Indonesian Millennials' Revisit

- Intention: A Case of Labuan Bajo. *FIRM Journal of Management Studies*, 4(2), 177–199. <https://doi.org/10.33021/firm.v4i2.801>
- Kusumah, A. H. . (2018). Tourism Demand Modelling: Price and Income Elasticity. *Journal of Indonesian Tourism, Hospitality and Recreation*, 1(1), 49–57. <https://doi.org/10.17509/jithor.v1i1.13748>
- Li, G., Song, H., & Witt, S. F. (2005). Recent developments in econometric modeling and forecasting. In *Journal of Travel Research* (Vol. 44, Issue 1, pp. 82–99). <https://doi.org/10.1177/0047287505276594>
- Lim, C. (1997). Review of international tourism demand models. In *Annals of Tourism Research* (Vol. 24, Issue 4, pp. 835–849). [https://doi.org/10.1016/s0160-7383\(97\)00049-2](https://doi.org/10.1016/s0160-7383(97)00049-2)
- Lim, C. (1999). A Meta-Analytic Review of international tourism demand. *Journal of Travel Research*, 37(3), 273–284. <https://doi.org/10.1177/004728759903700309>
- Mariyono, J. (2017). Determinants of Demand for Foreign Tourism in Indonesia. *Jurnal Ekonomi Pembangunan: Kajian Masalah Ekonomi Dan Pembangunan*, 18(1), 82–92. <https://doi.org/10.23917/jep.v18i1.2042>
- McKenzie, C. R., & Takaoka, S. (2013). Microfit 5.0. *Journal of Applied Econometrics*, 28(1), 170–175. <https://doi.org/10.1002/jae.2308>
- Muryani, Permatasari, M. F., & Esquivias, M. A. (2020). Determinants of tourism demand in Indonesia: A panel data analysis. *Tourism Analysis*, 25(1), 77–89. <https://doi.org/10.3727/108354220X15758301241666>
- Nahar, F. H., Adha, M. A., Azizurrohan, M., Ulfi, I., & Karimah, H. (2019). International Tourism Demand in Indonesia: Gravity Model Approach. *Jejak*, 12(2), 298–317.
- Nguyen, H. Q. (2021). Elasticity of tourism demand by income and price: evidence from domestic tourism of countries in ASEAN. *Cogent Social Sciences*, 7(1), 1996918. <https://doi.org/10.1080/23311886.2021.1996918>
- Peng, B., Song, H., Crouch, G. I., & Witt, S. F. (2015). A Meta-Analysis of International Tourism Demand Elasticities. *Journal of Travel Research*, 54(5), 611–633. <https://doi.org/10.1177/0047287514528283>
- Pratomo, D. S. (2017). The Analysis of Domestic Travelers in Indonesia. *JEJAK*, 10(2), 317–329. <https://doi.org/10.15294/jejak.v10i2.11296>
- Prayudi, M. A. (2020). Dampak Covid-19 Terhadap Pariwisata di Daerah Istimewa Yogyakarta [The Impact of Covid-19 on Tourism in the Special Region of Yogyakarta]. *Jurnal Nusantara*, 3(2), 14–20.
- Prideaux, B., Laws, E., & Faulkner, B. (2007). Events in Indonesia : Exploring the Limits to Formal Tourism Trends Forecasting Methods in Complex Crisis Situations. *Crisis Management in Tourism*, 353–374. <https://doi.org/https://doi.org/10.1079/9781845930479.0353>
- Proença, S. A., & Soukiazis, E. (2005). Demand for Tourism in Portugal: A panel Data Approach. *Discussion Paper No. 29*.
- Riantoro, D. (2021). Analisis Faktor - Faktor Determinan Jumlah Pengunjung Taman Wisata Taman Manneken Prati Manokwari [Analysis of Determinant Factors in the Number of Visitors to the Manneken Prati Manokwari Tourism Park]. *JURNAL LENSEA EKONOMI*,

- 15(2). <https://journal.feb.unipa.ac.id/index.php/lensa/article/view/185>
- Sarwoko, S., Raharti, R., Ridwan, R., & Agustina, D. (2020). Pendekatan Model Gravitasi untuk Mengestimasi Permintaan Pariwisata Di Indonesia [The Gravity Model Approach for Estimating Tourism Demand in Indonesia]. *Jurnal Perspektif Ekonomi Darussalam*, 6(2), 163–189. <https://doi.org/10.24815/jped.v6i2.17850>
- Sinclair, M. T., & Stabler, M. (1997). *The Economics of Tourism* (1st ed.). Routledge.
- Song, H., Dwyer, L., Li, G., & Cao, Z. (2012). Tourism economics research: A review and assessment. In *Annals of Tourism Research* (Vol. 39, Issue 3, pp. 1653–1682). <https://doi.org/10.1016/j.annals.2012.05.023>
- Song, H., & Li, G. (2008). Tourism demand modelling and forecasting-A review of recent research. *Tourism Management*, 29(2), 203–220. <https://doi.org/10.1016/j.tourman.2007.07.016>
- Sugihamretha, & Gde, I. D. (2020). Respon Kebijakan: Mitigasi Dampak Wabah Covid-19 Pada Sektor Pariwisata [Policy Response: Mitigation of the Impact of the Covid-19 Outbreak on the Tourism Sector]. *Jurnal Perencanaan Pembangunan: The Indonesian Journal of Development Planning*, 4(2), 191–206. <https://doi.org/10.36574/jpp.v4i2.113>
- Tantowi, A. (2021). Determinants of Indonesia's Residence Traveling Abroad. *Jurnal Ilmu Ekonomi Terapan*, 6(1), 158–170. <https://doi.org/10.20473/jiet.v6i1.26101>
- Taupikurrahman, T. (2022). Determinants of international tourism demand in Indonesia: FMOLS panel. *ECONOMIC FORUM: Journal of Economics, Management and Accounting*, 24(2), 299–306.
- Taupikurrahman, T., Irawan, T., & Widyastutik, W. (2019). The International Tourism Demand for Indonesia: Expenditure Approach. *International Journal of Sciences: Basic and Applied Research*, 48(6), 119–127. <https://www.semanticscholar.org/paper/The-International-Tourism-Demand-for-Indonesia%3A-Taupikurrahman-Irawan/774a5ebc312b7f9d977fd237a93c8aaf4c4bd54a>
- Truong, V., Nguyen, & Shimizu, T. (2017). The effect of transportation on tourism promotion: Literature review on application of the Computable General Equilibrium (CGE) Model. *Transportation Research Procedia*, 25, 3096–3115. <https://doi.org/10.1016/j.trpro.2017.05.336>
- WTO. (2022). *UNWTO World Tourism Barometer and Statistical Annex, January 2022*. UNWTO. <https://www.e-unwto.org/doi/abs/10.18111/wtobarometereng.2022.20.1.1>
- Yusendra, M. A. E. (2015). Analysis of Factors Influencing Decisions on the Selection of Tourist Destinations for Domestic Tourists of the Archipelago. *Journal of Masters in Management*, 1(1), 46–64.