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DEVELOPING A COMPREHENSIVE PUBLIC POLICY STRATEGY FOR THE TOURISM SECTOR: WELCOME TO THE POST-COVID-19 PANDEMIC

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ABSTRACT

This study analyzes the impact of the COVID-19 pandemic on the tourism sector. Policy research is chosen to formulate appropriate policies for the government. Quantitative and qualitative descriptive methods carried out the analysis. Descriptive analysis is used by looking at various existing policies and the impact of these policies on the tourism sector. At the same time, the quantitative method is used to see the determinant factors that affect the tourism sector. Qualitative methods allow researchers to explore several possibilities broadly in analyzing the subject matter. The data used is sourced from the Central Statistics Agency and the Ministry of Finance of the Republic of Indonesia. The researcher concludes that there should be adjustments to existing policies to support the acceleration of recovery in the tourism sector. The government can consider the determinants that affect the number of tourists to support the policies that will be formulated.

Keywords: *COVID-19 Pandemic, Tourism Sector, Policy Research.*

ABSTRAK

Penelitian ini menganalisis dampak pandemi COVID-19 terhadap sektor pariwisata. Policy research dipilih untuk merumuskan kebijakan yang tepat bagi pemerintah. Analisis dilakukan dengan metode deskriptif kuantitatif dan kualitatif. Analisis deskriptif digunakan dengan melihat berbagai kebijakan yang ada dan dampak kebijakan tersebut terhadap sektor pariwisata. Sedangkan metode kuantitatif digunakan untuk melihat determinant factor yang memengaruhi sektor pariwisata. Metode kualitatif memungkinakan peneliti untuk mengeksplorasi beberapa kemungkinan secara luas dalam menganalisis pokok persoalan. Data yang digunakan bersumber dari Badan Pusat Statistik dan Kementerian Keuangan Republik Indonesia. Peneliti berkesimpulan bahwa seharusnya terdapat penyesuaian kebijakan yang ada untuk mendukung percepatan pemulihan sektor pariwisata. Determinan-determinan yang memengaruhi jumlah wisatawan dapat diperhatikan kembali oleh pemerintah untuk mendukung kebijakan yang akan dirumuskan.

Kata Kunci: *Pandemi COVID-19, sektor pariwisata, penelitian kebijakan.*

JEL : H21; I28; L83; O23; Z32

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Introduction

Coronavirus disease 2019 (COVID-19) is a pandemic outbreak caused by a newly identified coronavirus, presently known as *severe acute respiratory syndrome coronavirus 2* (SARS-CoV-2) (Acter et al, 2020). This virus is an enveloped RNA virus that has been detected in humans and wildlife in Wuhan City, Hubei Province, China. Epidemiological investigators first linked the outbreak to a seafood store that sold live animals but was later closed for disinfection. However, diseases are spread by human-to-human contact. The World Health Organization (WHO) received its first report on COVID-19 on 31 December 2019. COVID-19 was declared a global pandemic by the World Health Organization on 30 January 2020 (Abd El-Aziz & Stockand, 2020) As of July 28, 2021, the second wave of COVID-19 had entered Indonesia, with new cases reaching 47,791, deaths totaling 1,824, and a cure rate of 43,856. Physical

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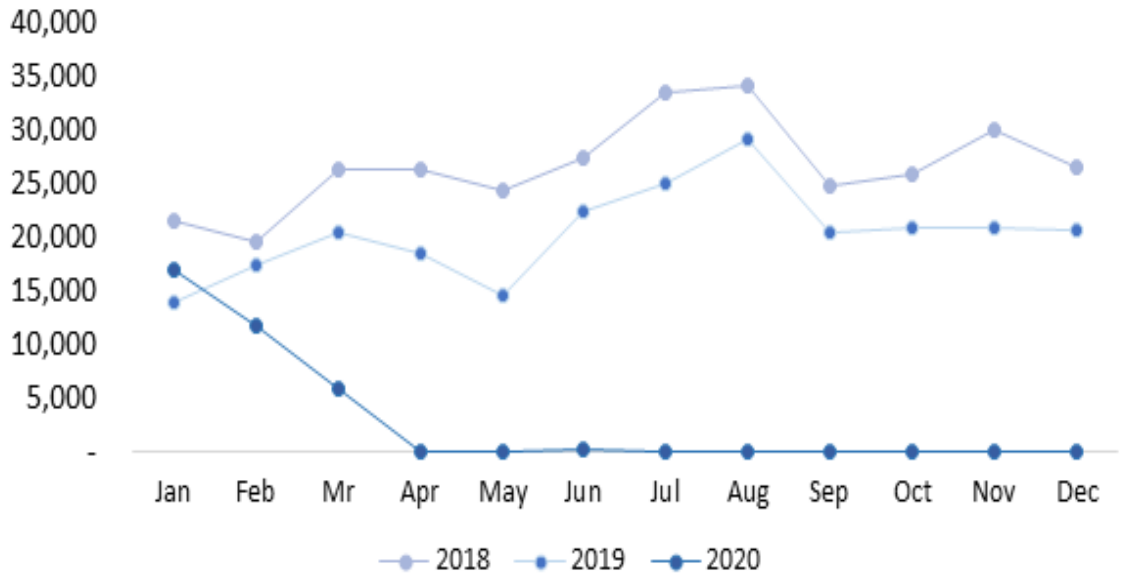
contact restrictions and lockdowns are the primary preventive measures, which is why work-from-home and school-from-home policies have been implemented. The policy has been in place for more than a year, beginning in March 2020. The policy was gradually softened as the number of cases decreased but was reintroduced firmly in July 2021 (Astuti et al., 2021). The government implements physical limits and area locks through the Policy for the Enforcement of Restrictions on Community Activities (PPKM). This approach destabilizes the corporate world's value chain, causing numerous enterprises in various sectors and sizes to cease operations temporarily or permanently (Budastra, 2020; Kartiko & Rachmi, 2021).

Tourism is one of the sectors undergoing economic turmoil. Tourism has multiple effects on economic growth (Brida *et al.*, 2020; Durbarry, 2004; Gwenhure & Odhiambo, 2017). *First*, tourism is a source of foreign exchange to purchase capital goods. *Second*, tourism growth spurs infrastructure investment. *Third*, tourism growth stimulates other economic sectors through direct, indirect, and induced impacts. *Fourth*, tourism adds to increased job and income prospects. *Fifth*, tourism generates scale economies (Yakup, 2019). Tourism plays a role in spreading technological information, promoting R&D, and building human capital (Lastres & Cassiolato, 2005; Liu, Abby & Wall, 2006; Xiao & Smith, 2007).The tourism sector may help a country's economy by lowering unemployment and increasing productivity. Tourism is one of the critical industries that must be leveraged for national development. Tourism development aims to increase people's income, improving community welfare and economic progress. Tourism is considered a strategic asset to support development in places with tourism potential (Anyu Liu & Wu, 2019; Sánchez López, 2019; Šergo *et al*., 2009).

The coronavirus pandemic (COVID-19) has produced an unprecedented crisis in the tourism economy, owing to the sector's rapid and significant shock. According to the OECD's prediction on the impact of COVID-19, international tourism will fall by 60% in 2020. If the recovery is delayed until December, this prediction might rise to 80% if the recovery is delayed until December. International tourism is likely to rebound first in specific geographic areas (OECD, 2020; Poulaki & Nikas, 2021). Indonesia's creative industry and tourism sector are no exceptions. Since February 2020, the number of international tourists entering Indonesia has declined dramatically, reaching a peak of only 158,000 in April 2020. In total, only about 4.052 million foreign tourists entered Indonesia in 2020. It may say that this figure is alarming, as it represents just approximately 25% of the total number of tourists who entered Indonesia in 2019. This also affects the state's tourism profits. Widespread social restrictions and the closure of entry and exit points to and from Indonesia resulted in an Rp. 20.7 billion drop in state revenue from the tourism sector. Worse, the reduction in international visitors directly affects hotel occupancy in Indonesia. In January and February, occupancy remained between 49.17 and 49.22 percent. However, it increased to 32.24 percent in March and worsened to 12.67 percent in April (Ministry of Tourism and Creative Economy, 2020).

East Java is one of the provinces impacted by the COVID-19 pandemic. The prohibition on foreigners entering Indonesian territory, which took effect in early April 2020, significantly impacted the number of foreign tourist trips to East Java. When comparing January to April 2016 to 2020, foreign tourists visiting East Java was only 34,542, the lowest level in the last five years. According Central Bureau of Statistics (2020a) the number of international tourist visits in April 2020 was just 21, the lowest number ever recorded in East Java. All 21 visitors to East Java were Indonesian nationals, which means that all Indonesian people residing abroad who entered East Java were Indonesian citizens. This cause is guided by the Ministry of Law and Human Rights of the Republic of Indonesia's Regulation No. 11 of 2020 on the temporary ban on foreigners entering Indonesian territory, which took effect on April 2, 2020, significantly impacting the number of incoming foreign tourists to Indonesia, particularly to East Java (Central Bureau of Statistics, 2020a).



Source: Central Bureau of Statistics (2020a), processed

Chart 1: Number of International Tourists Coming to East Java through Juanda Entrance in 2018 – 2020

The decline of the tourism industry impacted the tourism support sector as well. One example of these sectors is Accommodation and Food and Beverage. The Accommodation and Food and Beverage Provision business field is expected to perform worse than in 2020. Accommodation and food and beverage services, which is the primary business sector that supports the tourism sector, has been seriously impacted by the COVID-19 pandemic. Positive cases of COVID-19 began to appear at the end of the first quarter of 2020, prompting the government to implement a policy of limiting communal activities in order to contain the spread of the virus. Throughout the second, third, and fourth quarters of 2020, numerous tourist destinations encountered closures or restrictions on operating hours and visitor capacity. This resulted in a substantial decline in hotel occupancy and food and beverage sales at shopping centers. Additionally, it is suspected that the increasing positive trend in COVID-19 throughout 2020, as well as the reduction in business and household income in 2020, contributed to consumers deferring spending on leisure activities (Indonesian Central Bank, 2021).

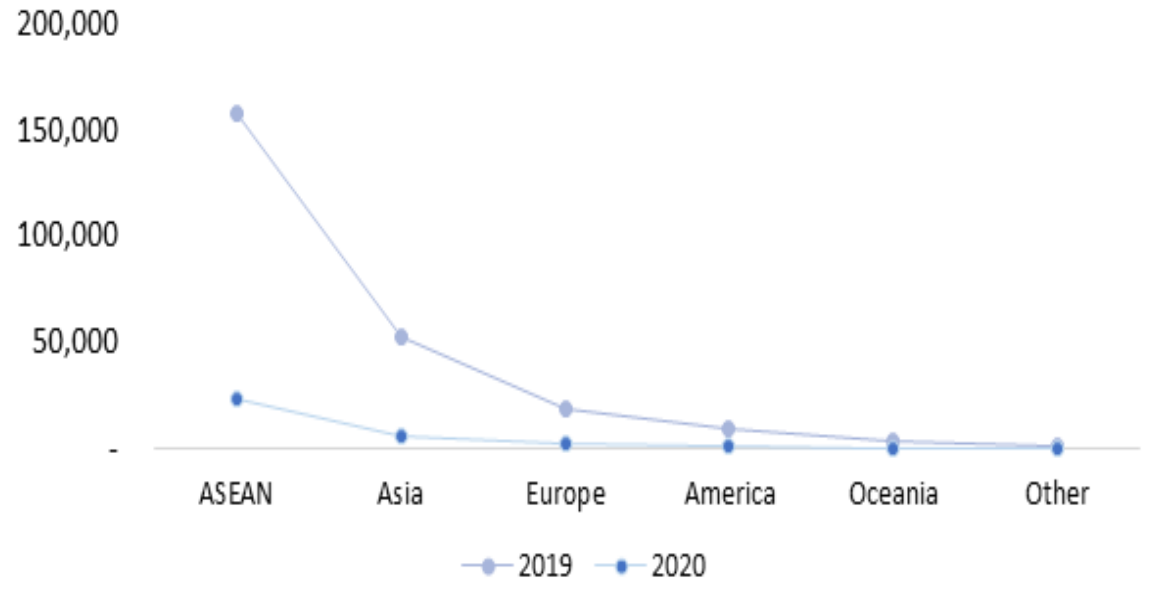
The catastrophic consequences of COVID-19 on global health and, in particular, tourism may have allowed us to rethink the system of the tourism sector. As the pandemic has affected the countries from which most international travelers originate. In these countries, travelers transit, and leading tourist destinations, policymakers can redesign their policies to ensure that the pandemic does not become severe in the future. The government has carried out various policies to reduce the impact of the COVID-19 pandemic. In this case, the government has launched the National Economic Recovery Program (PEN). The PEN program comprises several coverages: health, priority programs, social protection, MSME and corporate support, and business incentives. This study aims to examine the policies implemented by the government in responding to the impact of the pandemic on the tourism sector. The government must implement appropriate policies to balance state revenues and expenditures to support economic growth and stability. The government must pay attention to tax contributions from the revenue side, which historically has been the primary source of state revenue. On the expenditure side, the government must monitor the implementation of these funds to ensure they are used appropriately and prioritize priority activities for pandemic prevention. A comprehensive strategy is needed to prepare for the post-pandemic in the tourism sector. The revival of the tourism sector will provide a multiplier effect on the economy, making it profitable. The analysis carried out does not only involve quantitative analysis. The author

offers a qualitative analysis to explore further the strategies offered by previous research and the existing empirical facts. Specifically, the author will discuss further related policies in the fields of health, social security, monetary policy, fiscal policy, and financial policy related to the PEN program. In fiscal policy, various tax policies and incentives will be explored. The urgency of these policies will be assessed for further evaluation. This is because there is a time limit for some incentives in the PEN program.

Literature Review

Development of Foreign Tourists

The number of foreign tourist visits to East Java Province in 2020 was 35,035, which was down by 85.64 percent compared to the previous year, which reached 243,899 visits. This data is taken from the number of foreign tourist arrivals through Juanda International Airport, Surabaya. The highest international tourist visits to East Java Province in 2020 were from the ASEAN area, with 23,589 visits (67.33 percent) (67.33 percent). The second highest visit came from the ASIA region other than ASEAN with 6,301 visits (17.98 percent) and in the third-place came from the European region with 2,882 visits (8.23 percent) (8.23 percent). Foreign tourists from the Americas came in next, with 1,287 trips (3.67 percent), while the Oceania area was in the fifth position with 620 visits (1.77 percent) (1.77 percent). The proportion of tourist visits reveals that the largest market share of international tourists who come to East Java Province still comes from neighboring nations in the Asian region, mainly ASEAN (Central Bureau of Statistics, 2020b).



Source: Central Bureau of Statistics (2020b), processed

Chart 2: Development of Foreign Tourist Visits by Region of Origin, 2019-2020

The drop in international tourist arrivals happened from all regions. The drop in foreign visitor arrivals is due to the COVID-19 pandemic sweeping the planet. Globally, international visitor visits to East Java Province declined by 85.64 percent compared to 2019, totaling 243,899 visits. The highest fall happened in foreign tourists from the Americas, which amounted to 86.29 percent. Foreign visitors from the Americas who visited the province of East Java largely came from the United States, totaling 989 visits or 2.82 percent of the total foreign tourists. The second rank is Canadian tourists, with 232 visits or 0.66 percent. Foreign tourist arrivals from the Middle East fell 85.41 percent, second only to America. Foreign tourists from Saudi Arabia made the most visits, with 59. The following order is for foreign visitors

from Yemen to make 36 trips. Kuwait, Hong Kong, and the United Arab Emirates saw the greatest declines in tourist trips to East Java. Kuwaiti nationals' visits declined by 100% compared to 2019, owing to the absence of Kuwaiti tourists in the province of East Java in 2020. After that, Hong Kong's tourist arrivals fell 99.92 percent, from 1,315 trips in 2019 to one in 2020. Meanwhile, tourists from the United Arab Emirates reduced their visits from 137 to seven, a fall of 94.89 percent (Central Bureau of Statistics, 2020b).

Theories of Government Expenditure and Economic Conditions

Government spending, particularly in non-industrialized nations, plays a crucial role in fostering economic growth, national development, and increased competitiveness and generating positive effects for the rest of the economy—activities (e.g., private consumption and investment). Government investment (i.e., spending on infrastructure including education, research, roads, and telecommunications development with long-term benefits), public consumption, and interest payments make up the majority of total government spending (i.e., spending related to the operational costs of government agencies such as purchases in goods and services). services for consumers or salaries) and transfer payments (i.e., expenditures not involving the transition of goods and services) (Iheanacho, 2016; Iluzia Iacob & Palei; Shonchoy, 2010).

There are two major theories that exist for the theory of government spending, namely Wagner's Law and the Keynesian Hypothesis (Paul & Furahisha, 2017). There is a causal relationship between national income and government spending, as demonstrated by Wagner's law. Wagner's law is also known as the "law of expanding the state's role." Adolf Wagner was the first person to study the correlation between economic growth and government activity. Wagner presents three primary reasons for expanding the government's role (Taweel, 2010; Tomic, 2015; Vatter & Walker, 2015).

i. Industrialization and modernization contributed to the expansion of the private sector. Spending on enforcement and law and order increased as a result;
ii. the real income positively affects the elastic income expenditure for "culture and welfare" Wagner argues that the government is a more effective provider of education and culture.
iii. infrastructure development, such as railway projects, must be carried out by the government because private companies cannot raise the necessary funds.

According to the Keynesian (the second theory) macroeconomic perspective, government spending causes economic growth. Government spending has a causal relationship with economic activity. According to the Keynesian hypothesis, government spending is the cause of economic growth. His perspective contradicts Wagner's Law. According to Keynes, government spending is an exogenous factor. Government spending is a tool for promoting economic expansion. According to him, public spending will contribute positively to economic growth. Government spending will have a multiplier effect on aggregate demand if it increases. Keynes proposed that governments could stimulate the economy during a recession by borrowing from the private sector. Through numerous spending programs, money is returned to the private sector. A high level of government consumption will boost employment, profits, and investment (Abbas, 2021; Egiyi, 2021; Elveren, 2022).

Government Expenditures and Economic Conditions

Through economic stabilization, investment activity encouragement, and other means, public spending in developed nations maintains a steady growth pace (Muritala & Taiwo, 2011; Stiglitz, 1996; Tsoklinova, 2016). Public spending on infrastructural facilities contributes

significantly to economic growth. The mechanism by which government spending on public infrastructure is anticipated to influence economic growth is highly dependent on the precise shape and size of the overall public expenditure dedicated to economic and social development projects in the economy. When public expenditures occur, the expenditures may be directed toward specific investments or may result in the reallocation of resources that can be spent in the economy's private sector. According to research undertaken by Muritala & Taiwo (2011), there is a positive correlation between real GDP and recurring capital expenditures. This indicates that government spending can stimulate economic expansion.

Human Development Index and Economic Conditions

The Human Development Index (HDI) measures a population's physical and non-physical quality. Physical quality is measured by life expectancy, while non-physical quality is determined by the average number of years a population attends school and the literacy rate. The outcomes of testing the impact of HDI on the economy are mixed. According to Muqorrobin (2017) research, the human development index has a negative and statistically significant impact on economic growth in East Java province. For every 1 percent increase in economic growth, the human development index will decline by 0.19 percent. In contrast, economic growth will fall by 19.29 percent if the human development index improves by 1 percent. Other studies contend that the human development index has a significant and negative impact on economic growth (Susanto, 2013).

Tax Incentive Policy Theory

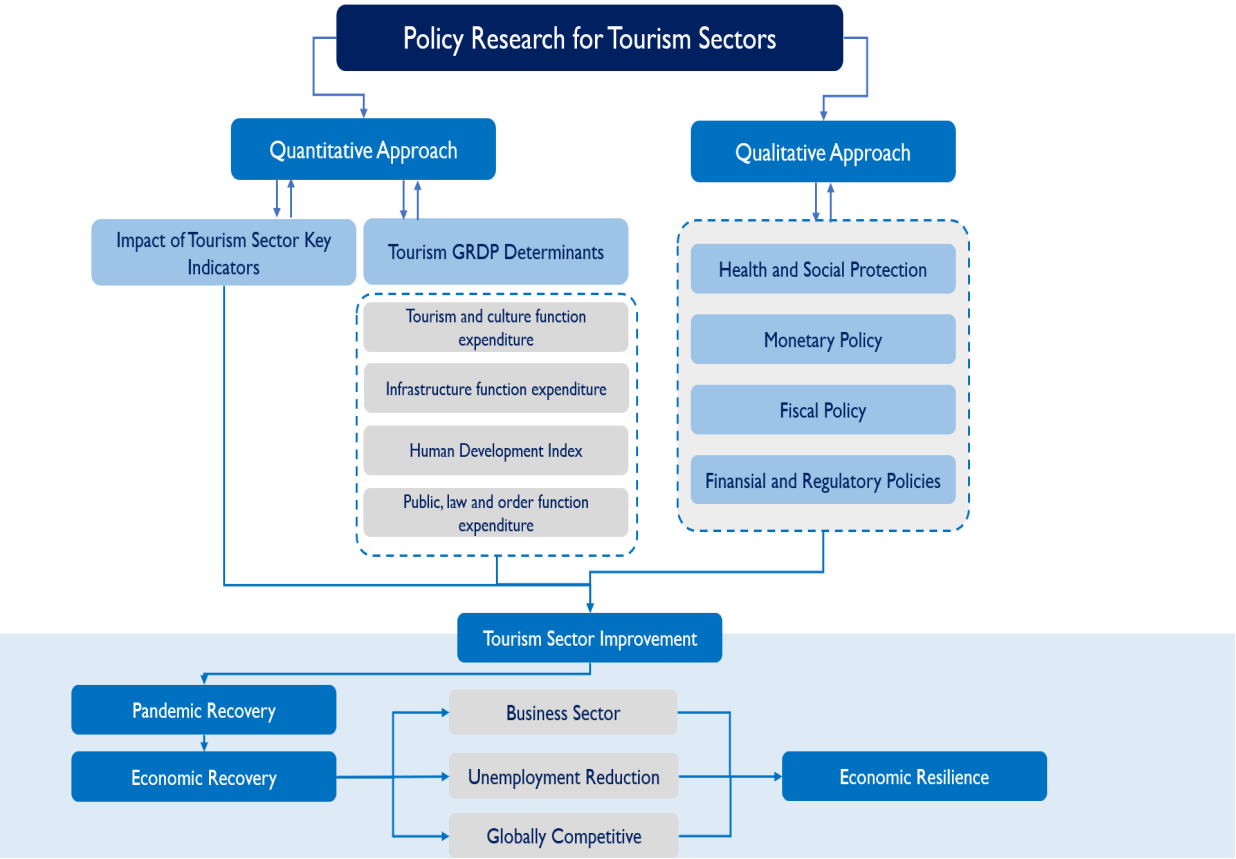
Numerous countries have used various strategies to boost domestic competitiveness, one of which is tax incentives. Devereux & Maffini (2007) indicates that taxes significantly impact investment location. According to Tavares-Lehmann et al. (2012) tax incentives can boost the attractiveness of domestic investment if the host country's tax incentives are more favorable than the home country's tax treatment. Developing countries provide tax incentives to increase investment attractiveness, recoup losses caused by market mechanisms, achieve a more equitable income distribution, address macroeconomic concerns (such as reducing unemployment, increasing market demand, and encouraging investment), and balancing the state budget (Francis, 2016; Mikesell, 2001; Munongo et al., 2017; Zee et al., 2002). Tax holidays, tariff reductions, decreased investment costs (tax allowances), investment tax credits, and financing incentives are just some of the tax incentives used by developing countries. These are often used strategies by developing countries to stimulate the economy in general and domestic investment in particular.

Fairness Heuristic Theory

This theory analyzes the elements that influence the community's behavior as taxpayers in meeting their tax responsibilities. According to this view, the primary conduct that can boost tax authorities' compliance is public trust (Lind, 2001). According to Lind (2001) and Alm et al. (1992) says that someone will follow paying taxes on time if they view the authorities (tax authorities) positively, treat all individuals equally, and do not take advantage of or profit from taxes already paid. That individual compensates for it. According to Lind (2001), the public will closely monitor the tax authorities' activities. The public's attention is focused on the fairness of the tax authorities' acts. It is considered that the relationship between procedural justice evaluations and distributive justice judgments is not a one-way street (Brockner & Wiesenfeld, 1996; Van den Bos et al., 1998). It is clear from the model of personal interest in assessing procedural justice that the assessment is substantially impacted by efforts to profit (Lind & Tyler, 1988).

Research Methodology

The following types of research are policy research. Policy research is the practice of researching to support policies or evaluate fundamental societal problems consistently to assist policymakers in resolving issues through action-oriented or practical recommendations. The quality of policy research is not determined by the scientific rigor of the research method but by the usefulness or relevance of the research findings in resolving the issues at hand (Ika, 2017). This research employs a descriptive methodology using quantitative and qualitative methodologies. The quantitative approach is a research methodology that stresses the numerical study of real-world problems. While the qualitative technique was chosen to build a fiscal policy strategy based on the constructed model and literature review, the quantitative approach was also considered.



Source: Processed by the Author

Figure 1: Research Framework

The use of quantitative methods is carried out to analyze the two models built in the study. The first model is used to analyze the relationship and relationship of tourism indicators to the tourism sector itself. This model uses several variables as proxies. The dependent variable used in this study is the number of tourists. This first model will be further developed into six econometric models. At the same time, the second model was built to analyze the factors that affect the tourism sector. The dependent variable used is the tourism sector's Gross Regional Domestic Product (GRDP). While the independent variables used, include expenditure in tourism and culture, infrastructure expenditure, human development index, and public, law, and order function expenditure. A qualitative approach is made by looking at existing policies and giving comments by researchers. Researchers will recommend new policies to replace or add policies that the government has prepared. This aspect needs to use a quantitative approach to explore the many possibilities.

Data Collection and Variables

The data used in this study is secondary data published by the Central Statistics Agency (BPS) of East Java Province and the Ministry of Finance of the Republic of Indonesia. Secondary data from the Central Statistics Agency (BPS) of East Java Province was downloaded via http://www.jatim.bps.go.id, while secondary data from the ministry of finance was downloaded via https://djpk.kemenkeu.go.id/. The first research model uses time-series data from 2009 to 2016 with monthly details. So the number of units of observation used in this study is 95 data.

Table 1: Variable Operationalization For The First Model

Number	Variable	Unit	Source of Data
1	Star Hotel Room Occupancy Rate (TPKHB)	Percent	Central Bureau of Statistics of East Java
2	Non-Star Hotel Room Occupancy Rate (TPKHNB)	Percent	Central Bureau of Statistics of East Java
3	Average Length of Stay of Star Hotel Guests (RLMTHB)	Day	Central Bureau of Statistics of East Java
4	Average Length of Stay of Non-Star Hotel Guests (RLMTHNB)	Day	Central Bureau of Statistics of East Java
5	Night Room Used by Star Hotels (MKTHB)	Evening	Central Bureau of Statistics of East Java
6	Night Room Used by Non-Star Hotel (MKTHNB)	Evening	Central Bureau of Statistics of East Java
7	Number of Star Hotel Guest Nights (JMTHB)	Evening	Central Bureau of Statistics of East Java
8	Number of Non-Star Hotel Guest Nights (JMTHNB)	Evening	Central Bureau of Statistics of East Java
9	Number of Star Hotel Guests (JTHB)	People	Central Bureau of Statistics of East Java
10	Number of Non-Star Hotel Guests (JTHNB)	People	Central Bureau of Statistics of East Java
11	Total Number of Guests (TJM)	People	Central Bureau of Statistics of East Java
12	Increase (Growth) Number of Guests (GRTJM)	Percent	Central Bureau of Statistics of East Java
13	Number of Tourists (JW)	People	Central Bureau of Statistics of East Java

Table 2: Variable Operationalization For The Second Model

Number	Variable	Unit	Source of Data
1	Tourism and culture function expenditure (TCE)	IDR	Ministry of Finance of the Republic of Indonesia
2	Infrastructure function expenditure (IFE)	IDR	Ministry of Finance of the Republic of Indonesia
3	Human Development Index (HDI)	Percentage	Central Bureau of Statistics of East Java
4	Public, law and order function expenditure (PLOE)	IDR	Ministry of Finance of the Republic of Indonesia
5	GDP on Tourism Sector (GRDPTS)	IDR	Central Bureau of Statistics of East Java

Research Model

In the first model, researchers analyzed quantitative data with an econometric approach. The quantitative analysis used in this research is multiple linear regression using the PLS (Pooled Least Square) method. This analysis is used to determine the relationship between tourism and hotel sectors. The results are used to formulate policies at the provincial

level of East Java. If these two sectors show a linkage, then the formulation of policies in the tourism sector can also consider the hotel sector. The data for this study were processed using STATA 15 and Microsoft Excel 2016. The following are the six econometric models used to describe the first model in this study:

Table 3: First Model Expansion

Model 1:	$JW_1 = \beta_0 + \beta_1 TPKHB + \beta_2 TPKHNB + \varepsilon$
Model 2:	$JW_2 = \beta_0 + \beta_1 TPKHB + \beta_2 TPKHNB + \beta_3 RLMTHB + \beta_4 RLMTHNB + \varepsilon$
Model 3:	$JW_3 = \beta_0 + \beta_1 TPKHB + \beta_2 TPKHNB + \beta_3 RLMTHB + \beta_4 RLMTHNB + \beta_5 MKTHB + \beta_6 MKTHNB + \varepsilon$
Model 4:	$JW_4 = \beta_0 + \beta_1 TPKHB + \beta_2 TPKHNB + \beta_3 RLMTHB + \beta_4 RLMTHNB + \beta_5 MKTHB + \beta_6 MKTHNB + \beta_7 JMTHB + \beta_8 JMTHNB + \varepsilon$
Model 5:	$JW_5 = \beta_0 + \beta_1 TPKHB + \beta_2 TPKHNB + \beta_3 RLMTHB + \beta_4 RLMTHNB + \beta_5 MKTHB + \beta_6 MKTHNB + \beta_7 JMTHB + \beta_8 JMTHNB + \varepsilon$
Model 6:	$JW_6 = \beta_0 + \beta_1 TPKHB + \beta_2 TPKHNB + \beta_3 RLMTHB + \beta_4 RLMTHNB + \beta_5 MKTHB + \beta_6 MKTHNB + \beta_7 JMTHB + \beta_8 JMTHNB + \beta_9 JTHB + \beta_{10} JTHNB + \beta_{11} TJM + \beta_{12} GRTJM + \varepsilon$

Note:

β_n	= Regression Coefficient
JW	= Number of Tourists
TPKHB	= Room Occupancy Rate for Star Hotel
TPKHNB	= Room Occupancy Rate Non-Star Hotel
RLMTHB	= Average Guest Length of Stay for Star Hotel
RLMTHNB	= Average Guest Length of Stay for Non-Star Hotel
MKTHB	= Hotel Night Room Used for Star Hotel
MKTHNB	= Hotel Night Room Used for Non-Star Hotel
JMTHB	= Hotel Number of Guest Nights for Star Hotel
JMTHNB	= Hotel Number of Guest Nights for Non-Star Hotel
JTHB	= Number of Star Hotel Guests
JTHNB	= Number of Non-Star Hotel Guests
TJM	= Total Number of Guests,
GRTJM	= Increase (Growth) Number of Guests
ε	= error

The second model of this study uses balanced panel data, consisting of time series data, namely data for the last 12 years from 2001 to 2012, and cross-section data covering 38 districts/cities in East Java province and East Java province itself. So, the number of observa-

tion units used in this study is 468. This study utilized Microsoft Excel and Stata 15 software for data processing and testing purposes. Excel was utilized for the collection of variable data. While Stata 15 was used to determine descriptive statistics and regression analysis, it was used to determine descriptive statistics. The second model used in this study is as follows:

$$GRDPTS = \beta_0 + \beta_1 TCE + \beta_2 IFE + \beta_3 HDI + \beta_4 PLOE + \varepsilon \quad (1)$$

Note:

β_n	= Regression Coefficient
GRDPTS	= GDP on Tourism Sector
TCE	= Tourism and culture function expenditure
IFE	= Infrastructure function expenditure
HDI	= Human Development Index
PLOE	= Public, law and order function expenditure
ε	= error

There are three estimation models in panel data regression: Pooled Least Square (PLS), Fixed Effect Models (FEM), and Random Effect Models (REM) (Nachrowi & Usman, 2006).

a) *Pooled Least Square*
Assuming there is no difference in the value of the intercept and the slope of the regression results. The common effect model is as follows.

$$Y_{it} = \alpha + \sum_{j=1}^{K} \beta_j X_{jit} + \varepsilon_{it}; i = 1,2,3,...,N; j = 1,2,3,...,K; t = 1,2,3,...,T \quad (2)$$

b) *Fixed Effect Model*
Assumes that the slope coefficient is constant, but the intercept value is not constant. The following is a fixed effect model [4]

$$Y_{it} = \alpha_i + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + ... + \beta_j X_{jit} + \varepsilon_{it} \quad (3)$$

c) *Random Effect Model*
The random effect model uses residuals, which are considered to have a relationship between the cross-section and the time series. Random effect models can be written as follows

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + ... + \beta_j X_{jit} + \varepsilon_{it} \quad (4)$$

Formal Tests of Specification

The data in the second model is contained in the panel data type. As previously mentioned, panel data combines cross-sectional and time-series data, so the number of observations becomes quite vast (Deaton, 1985; Dielman, 1983; Lillo & Torrecillas, 2018). Therefore, we need a particular technique for analyzing the model with panel data. When utilizing the PLS technique, the panel data regression is comparable to cross-section or time-series data (Hamiye Bayaztas & Bandyopandhyay, 2020; Zulfikar, 2019). However, the cross-section and time-series data must be merged to obtain a data pool. This data pool will be used as a unit in the estimated model. The shortcoming of the PLS approach is that there is no evident change across study people and over time, whereas, in data, there may be an intercept that is not constant. Thus, a particular strategy is needed if there is a high chance in the intercept for each individual and the research time so that the FE (fixed effect) method occurs. At the same time, the random effect model uses a different technique in expressing the variations

between people and time compared to the FE model. In the RE model, these discrepancies are accommodated through mistakes by considering that errors can be associated throughout the time series and cross-section (Nachrowi & Usman, 2006). In order to identify which model is best employed, three experiments were carried out as follows:

1) *Chow Test*

   The Chow test determines whether a panel data model is regressed using the PLS or FE model. Hypothesis 0 (H_0) of this test is supported by the PLS model. However, Hypothesis 1 (H_1) rejects H_0. When the probability value of Prob > F is less than H_0 is rejected, indicating that the FE model is preferable for doing regression, the Chow test will be conducted with Stata 15 software.

2) *Breusch Pagan – LM Test*

   This test determines whether the RE or PLS model is superior. The null hypothesis H_0 in this test is the PLS model, while the alternative hypothesis H_1 is the RE model. If the F Prob > chibar^2 is negligible, the RE model will be more appropriate.

3) *Hausman Test*

   The Hausman test is used to determine whether FE or RE is the superior model. The RE model improves the Hausman test's null hypothesis 0 (H_0). Hypothesis 1 (H_1) of this model, meantime, rejects H_0 when the Prob > chi^2 is less than it.

Result and Discussion

The analysis begins by looking at the descriptive statistics in Table 4 and Table 5. Base on Table 5, the average number of tourists every month in East Java is around 16.3 thousand people. Based on the previous year's data, the smallest number was 9,916, with the highest number around 23,126. The variables TPKHB and TPKHNB are proxies for the Star Hotel Room Occupancy Rate and Non-Star Hotel Room Occupancy Rate. The average TPKHB and TPKHNB are 52 and 32 percent, respectively. This implies that the Star Hotel Room Occupancy Rate is higher than the Non-Star Hotel Room Occupancy Rate. The Average Length of Stay of Star Hotel Guests compared to the Average Length of Stay of Non-Star Hotel Guests has a higher value, at 1.8 days. The maximum duration of the Average Length of Stay of Star Hotel Guests is also higher than the Average Length of Stay of Non-Star Hotel Guests, three days. The average value of Night Room Used by Star Hotels is less than the Number of Non-Star Hotel Guest Nights. The average value for Night Room Used by Star Hotels is around 225,603. At the same time, the average value for the Number of Non-Star Hotel Guest Nights is 252,753. The maximum value for Star Hotel Guest Nights is also automatically lower than the Number of Non-Star Hotel Guest Nights. This is a consequence of the lower value of Night Room Used by Star Hotels compared to the Number of Non-Star Hotel Guest Nights. An overview of the comparison of each variable can be seen in Figure 2-9.

Base on Table 5, the average local government expenditure for the tourism and culture sector is 3.5 billion rupiahs. Based on these data, it can be seen that there are local governments that do not budget for expenditures for the tourism and culture sector. The largest expenditure for the tourism and culture sector is owned by the Regional Government of East Java Province with 98.4 billion rupiahs. Infrastructure expenditures are budgeted at an average of 88.3 billion rupiahs. The Regional Government of East Java Province owns the largest expenditure on infrastructure, with a total expenditure of 1.07 trillion rupiahs. The average value of the human development index in East Java is around 68 percent. The highest Human Development Index in East Java was obtained by Malang City and Surabaya City, with 78 percent. Public, law, and order function expenditures in East Java have an average of 12.5 billion

rupiahs. The maximum value of 1.2 trillion rupiahs is owned by the Regional Government of East Java Province.

Table 4: Descriptive Statistics of Model 1

This table summarises descriptive statistics untuk . We report mean, maximum, minimum, and Standard Deviation (SD) of main variables used in the study. All variables are in month time units.

Variable	Observation	Unit	Mean	Std. Dev.	Min	Max
Number of Tourists (JW)	96	People	16,398.020	2,684	9,916	23,126
Star Hotel Room Occupancy Rate (TPKHB)	96	Percent	52.166	9.4619	40.630	86
Non-Star Hotel Room Occupancy Rate (TPKHNB)	96	Percent	32.711	1.993	25.940	36.310
Average Length of Stay of Star Hotel Guests (RLMTHB)	96	Day	1.859	0.2276	1	3
Average Length of Stay of Non-Star Hotel Guests (RLMTHNB)	96	Day	1.021	0.1436	1	2
Night Room Used by Star Hotels (MKTHB)	96	Evening	225,603	159,966	78,859	1,003,696
Night Room Used by Non-Star Hotel (MKTHNB)	96	Evening	252,753.1	171,676.5	87,545	1,014,610
Number of Star Hotel Guest Nights (JMTHB)	96	Evening	426,017.5	275,170.2	184,137	1,719,711
Number of Non-Star Hotel Guest Nights (JMTHNB)	96	Evening	526,696.2	378,395.9	203,402	2,280,418
Number of Star Hotel Guests (JTHB)	96	People	233,495.7	165,617.8	95,494	1,139,616
Number of Non-Star Hotel Guests (JTHNB)	96	People	387,791.6	270,547.8	144,962	1,652,797
Total Number of Guests (TJM)	96	People	621,287.3	380,137.3	276,322	2,140,002
Increase (Growth) Number of Guests (GRTJM)	96	Percent	-0.121	0.7808	-3.675	0.6967

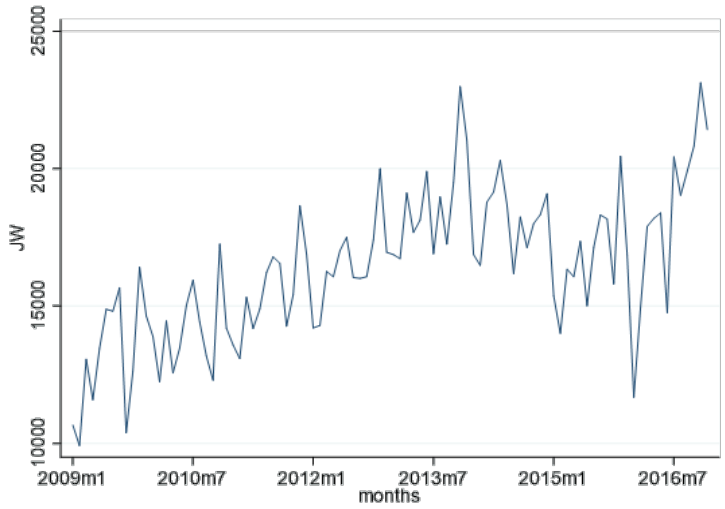
Source: STATA Processed

Table 5: Descriptive Statistics of Model 2

This table summarises descriptive statistics. We report mean, maximum, minimum, and Standard Deviation (SD) of main variables used in the study.

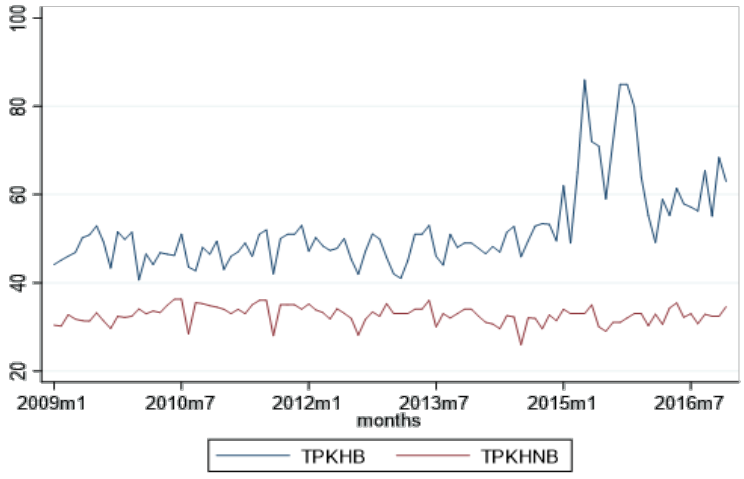
Variable	Observation	Unit	Mean	Std. Dev.	Min	Max
GDP on Tourism Sector	468	Rupiah	7,897,426	28,800,000	107,876	304,000,000
Tourism and culture function expenditure	468	Rupiah	3,500,000,000	7,850,000,000	-	98,400,000,000
Infrastructure function expenditure	468	Rupiah	88,300,000,000	118,000,000,000	-	1,070,000,000,000
Human Development Index	468	Percentage	68	7	49,7	78
Public, law and order function expenditure	468	Rupiah	12,500,000,000	87,900,000,000	-	1,200,000,000,000

Source: STATA Processed



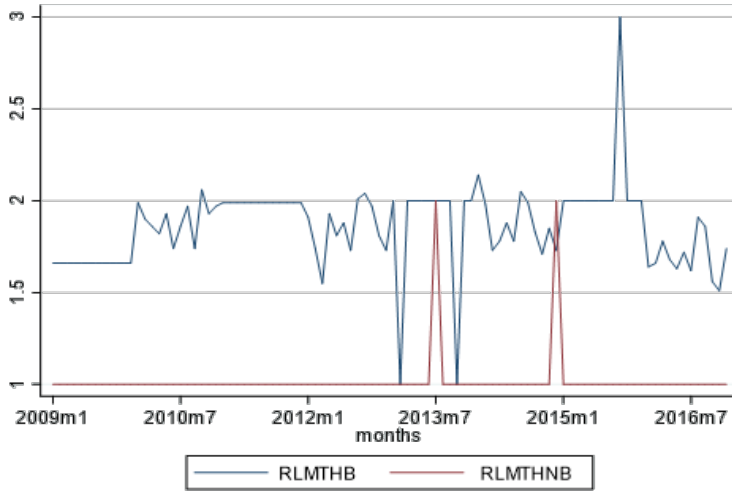
Source: STATA Processed

Figure 2: Number of Tourist



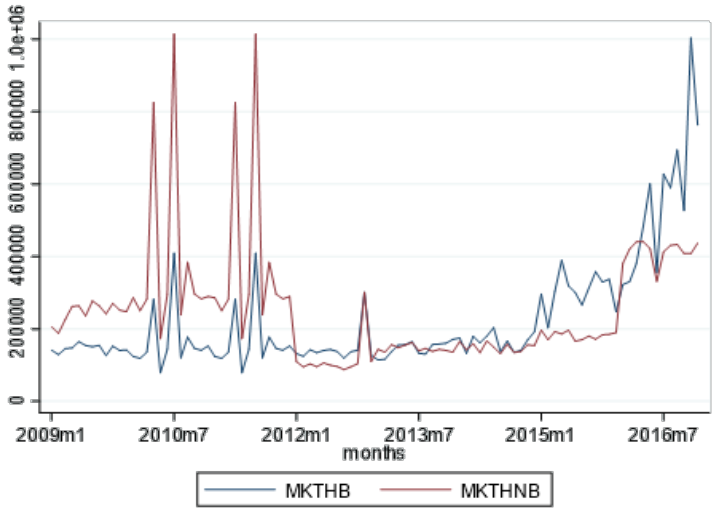
Source: STATA Processed

Figure 3: Star Hotel Room Occupancy Rate and Non-Star Hotel Room Occupancy Rate



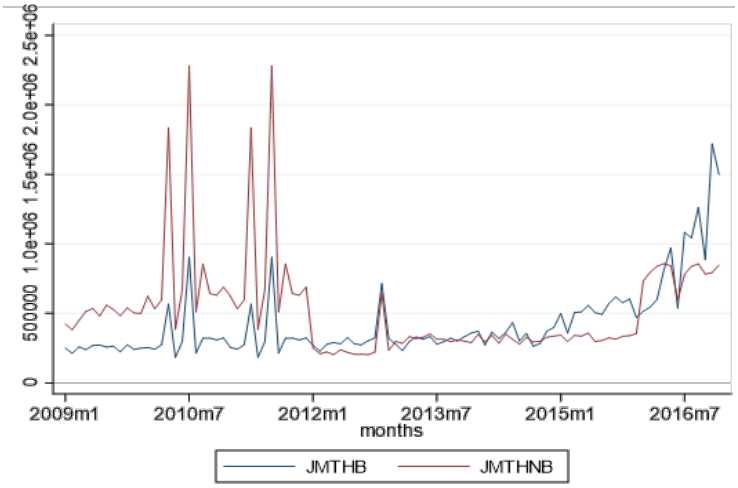
Source: STATA Processed

Figure 4: Average Length of Stay of Star Hotel Guests and Average Length of Stay of Non-Star Hotel Guests



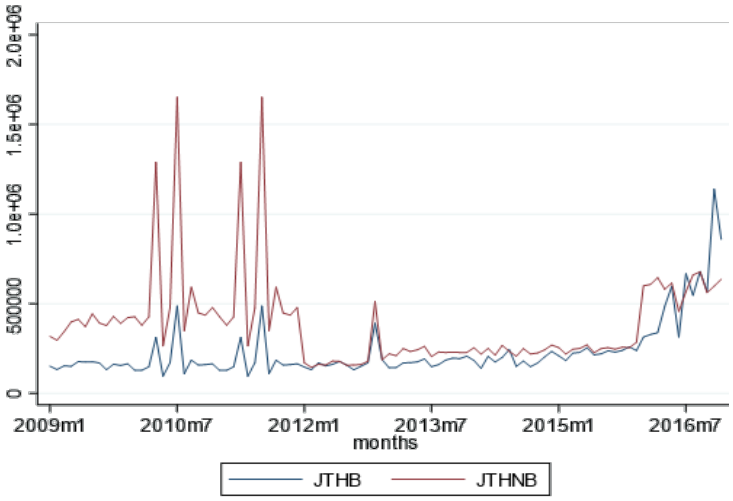
Source: STATA Processed

Figure 5: Night Room Used by Star Hotels and Night Room Used by Non-Star Hotel



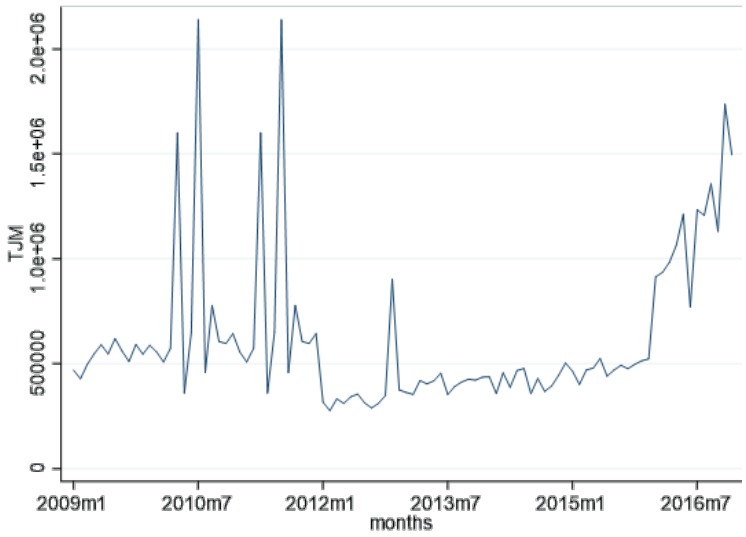
Source: STATA Processed

Figure 6: Number of Star Hotel Guest Nights and Number of Non-Star Hotel Guest Nights



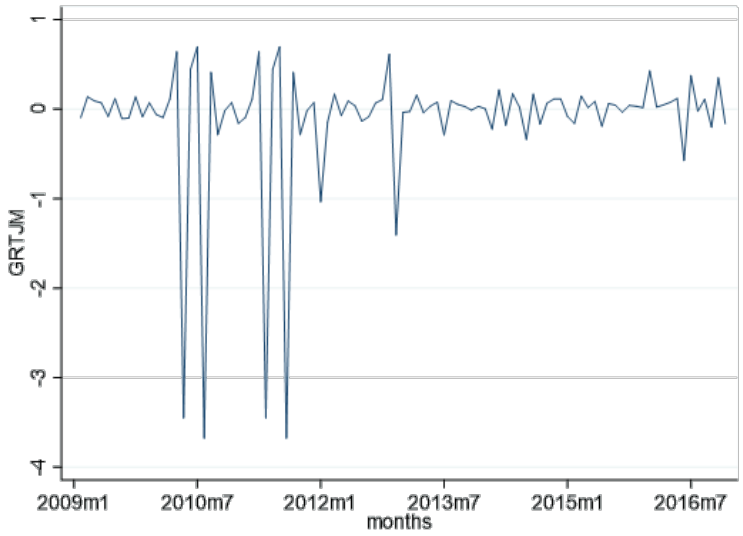
Source: STATA Processed

Figure 7: Number of Star Hotel Guests and Number of Non-Star Hotel Guests



Source: STATA Processed

Figure 8: Total Number of Guests



Source: STATA Processed

Figure 9: Increase (Growth) Number of Guests

Number of Tourists and Tourism Indicators

According to the table above, it can be concluded that this research model can adequately explain the effect of independent variables on the dependent variable of tourist numbers. This is demonstrated by the fact that the value of Prob > chi2 is less than 0.05, more precisely 0.0000 in each model. Additionally, the table above indicates that the research model's highest R-squared value is 82.38 percent, indicating that the existing independent variables can account for 82.38 percent of the variation in the number of tourists. As can be seen from the regression analysis above, all variables affect the number of tourists in East Java. The first indicator that plays a role in the tourism sector is the Room Occupancy Rate (TPKHB – TPKHNB). Room Occupancy Rate is one indicator that can reflect the level of productivity of the accommodation service business. If the Room Occupancy Rate increases and tends to approach 100 percent, most of the rooms are sold. The significant relationship between the Room Occupancy Rate and the Number of Tourists shows that when the Room Occupancy Rate is high, the Number of Tourists is also high. The second indicator is the Average Length of Stay of Guests (RLMTHB – RLMTHNB). Average Length of Stay of Guests shows guests' average length of stay. This indicator provides an overview of how long guests stay

in a hotel/accommodation. The ability of a hotel/accommodation to attract tourists to stay more comfortable can be reflected in the size of the average length of stay of guests. The previous regression results show that the average length of stay of guests at non-star hotels can be used as a reference in seeing the increase in the number of tourists compared to star hotels. This can indicate that the longer the tourists stay at the non-starred hotel shows the influence on the number of tourists visiting the area.

Table 6: Regression Result between Number of Tourists and Tourism Indicators (Model 1, Model 2, and Model 3)

Ind. Var	JW					
	Model 1		Model 2		Model 3	
	Coef.	Prob.	Coef.	Prob.	Coef.	Prob.
C	- 12,881.010	0.2580	-21,572.380	0.0330	17,349.150	0.1500
TPKHB	- 282.376	0.0000	- 275.747	0.0000	229.732	0.0010
TPKHNB	1,021.663	0.0020	1,040.531	0.0000	414.628	0.0340
RLMTHB			187.328	0.9660	- 5,740.145	0.0580
RLMTHNB			27,395.050	0.0000	15,256.020	0.0000
MKTHB					-14,393.770	0.0000
MKTHNB					11,180.520	0.0000
JMTHB						
JMTHNB						
JTHB						
JTHNB						
TJM						
GRTJM						
Prob>F	0.0000		0.0000		0.0000	
R^2	**0.2192**		**0.4286**		**0.7723**	

Source: STATA Processed

One of the hotel's productivity can be seen from the number of rooms sold or used every night, called room night used (MKTHB – MKTHNB). The room night indicator used is the third indicator used as an indicator in the tourism sector. In the third model, this indicator has a significant relationship to the number of tourists. The two variables, namely MKTHB and MKTHNB, show that both star and non-star hotels can be used as indicators or measures of the number of tourists. When more rooms are used, it shows an increase in tourists. The fourth indicator is the number of guest nights. Based on the fourth model, the variable JMTHB – JMTHNB significantly affects the number of tourists. The greater the value of the number of guest nights indicates a tendency to increase the number of tourists. However, the regression results in several models show that the number of guest nights in star hotels that are getting bigger has a negative effect on the number of tourists. This anomaly can be identified by tourists considering accommodation costs carefully by considering hotel choices. For an extended period, of course, star hotels will cost a lot compared to non-star hotels.

The fifth indicator that influences the number of tourists is the number of guests at star hotels and non-star hotels (proxied by the variables JTHB, JTHNB, TJM, and GRTJM). The increase in the number of hotel guests will encourage the tourism sector around the hotel. This can be identified with many hotel guests, so shopping centers, tourist attractions, restaurants, and other tourism sector supporting services can be affected. Indirectly, the presence of hotel guests in both star and non-star hotels also contributes to the number of tourists in the tourism sector. Not to mention several hotels provide tour guide services that can encourage growth in this sector to increase tourists. In other words, the number of hotel

guests can have a multiplier effect on the tourism sector and other supporting services for the tourism sector. Empowerment of the tourism sector and other supporting services of the tourism sector is very much needed. The government can work with the private sector (hotel owners) to work with the government to accelerate the recovery of the tourism sector after the COVID-19 pandemic.

Table 7: Regression Result between Number of Tourists and Tourism Indicators (Model 4, Model 5, and Model 6)

	JW					
Ind. Var	**Model 4**		**Model 5**		**Model 6**	
	Coef.	**Prob.**	**Coef.**	**Prob.**	**Coef.**	**Prob.**
C	10,295.330	0.4540	11,879.390	0.4300	-5756.88	0.7750
TPKHB	179.906	0.0220	188.718	0.0350	142.748	0.0890
TPKHNB	499.831	0.0180	512.068	0.0300	527.9334	0.0170
RLMTHB	- 1,675.818	0.6150	- 14.765	0.9970	798.8493	0.8490
RLMTHNB	13,025.060	0.0000	13,852.470	0.0000	11306.08	0.0020
MKTHB	446.727	0.9380	- 300.224	0.9640	2811.67	0.6560
MKTHNB	- 8,402.803	0.3610	- 8,235.266	0.4270	-6240.3	0.5350
JMTHB	-13,782.870	0.0100	-16,033.570	0.0180	-18202.5	0.0060
JMTHNB	18,580.650	0.0400	14,687.240	0.1970	6929.899	0.5230
JTHB			2,879.824	0.6780	-25001	0.0130
JTHNB			3,749.249	0.7190	-34499.2	0.0170
TJM					69094.73	0.0000
GRTJM					-4.80918	0.9940
Prob>F	0.0000		0.0000		0.0000	
R-square	**0.7904**		**0.7917**		**0.8238**	

Source: STATA Processed

Influence of Tourism Expenditure, Infrastructure Expenditure, Human Development Index, Public Expenditure on GRDP in Tourism Sector

The empirical results of this study show a relationship between variables supporting the view put forward by the Keynesian school, where public spending has a positive relationship with growth. The higher the level of government spending tends to encourage economic growth because with the more significant government spending, the demand for the domestic output of goods and services will also increase, it will stimulate investment and, in the end, will encourage an increase in the output of goods and services and absorb labor. The relationship of other variables is also in line with Wagner's Law which states that not all public spending has a positive relationship with growth. Some types of public spending have a negative relationship because significant government spending will encourage an increase in taxes.

The Chow test was conducted to determine whether the research model was better estimated using the Pooled Least Square or Fixed Effect method. The results of the Chow test to show the first and second models show that the value of Prob > F is smaller than alpha 5%, so the regression model is more accurately estimated using the Fixed Effect method. The Lagrange Multiplier test determines whether the research model is better estimated using the Pooled Least Square or Random Effect method. The Lagrange Multiplier test results for the first and second regression models show the value of Prob > chibar2, which is smaller than 5% alpha. The research model is more accurately estimated using the Random Effect method. Hausman test was conducted to determine whether the research model is better

estimated using the Fixed Effect or Random Effect method. The Hausman test results for the first model show a p-value greater than 5% alpha. These results indicate that the most appropriate research model is estimated using the Random Effect method. The Hausman test results for the second model show that the p-value is smaller than 5% alpha. These results indicate that the most appropriate research model is estimated using the Fixed Effect method.

Table 8: Regression Result between Tourism Expenditure, Infrastructure Expenditure, Human Development Index, Public Expenditure on GRDP in Tourism Sector

This table reports the results of the relationship between the independent variables that affect the tourism sector and the dependent variable, namely the performance of the tourism sector as proxied by the GRDP of the tourism sector. The significant coefficients at the 10%, 5% and 1% levels are marked with *, **, ***, respectively.

Ind. Variables	GRDPTHR		
	Pooled Least Square	*Fixed-Effect*	*Random-Effect*
TCE	0.0000***	0.0000***	0.0000***
IFE	0.0000***	0.0000***	0.0000***
HDI	0.3740	0.5140	0.0990*
PLOE	0.0490**	0.0000***	0.0000***
Constant	0.7860	0.5260	0.3350
Prob>F	0.0000	0.0000	0.0000
Observations	468	468	468
Sample size	39	39	39
R-square	0.8577	0.7704	0.8541

Source: STATA Processed

Table 9: Best Model Estimation

Number	Estimation Model	Prob > F	Result
1	Chow Test	Prob > F = 0.000	*Fixed Effect*
2	LM Test	Prob > chibar^2 = 0.000	*Random Effect*
3	Hausman Test	Prob > chi^2 = 0.4196	*Random Effect*

Source: STATA Processed

Table 10: Regression Result between Tourism Expenditure, Infrastructure Expenditure, Human Development Index, Public Expenditure on GRDP in Tourism Sector *(In the Condition of Elasticity)*

This table reports the results of the relationship between the independent variables that affect the tourism sector and the dependent variable, namely the performance of the tourism sector as proxied by the GRDP of the tourism sector. The significant coefficients at the 10%, 5% and 1% levels are marked with *, **, ***, respectively.

Ind. Variables	Ln_GRDPTHR		
	Pooled Least Square	*Fixed-Effect*	*Random-Effect*
Ln_TCE	0.0130**	0.0090**	0.0140**
Ln_IFE	0.7010	0.0670*	0.0670*
HDI	0.0000***	0.0000***	0.0000***
Ln_PLOE	0.0930*	0.0000***	0.0000***
Constant	0.0000	0.0000	0.0000
Prob>F	0.0000	0.0000	0.0000
Observations	468	468	468
Sample size	39	39	39
R-square	0.1179	0.0872	0.0883

Source: STATA Processed

Table 11: Best Model Estimation

Number	Estimation Model	Prob > F	Result
1	Chow Test	Prob > F = 0.000	*Fixed Effect*
2	LM Test	Prob > chibar^2 = 0.000	*Random Effect*
3	Hausman Test	Prob > chi^2 = 0.000	*Fixed Effect*

Source: STATA Processed

Based on the previous regression results, it can be concluded that government spending and the government development index affect the GRDP of the tourism sector. This is in line with the thesis that improving the quality of people's welfare requires increasing efficiency and effectiveness in government administration and public services in the regions, especially how local governments allocate their budgets for consumption expenditures or investments that support economic growth.Improving the quality of people's welfare necessitates increasing the efficiency and effectiveness of government administration and public services in the regions, particularly how local governments allocate their budgets for consumption or investment expenditures that support economic growth. According to the government, spending more money on local governments has a more significant impact on regional economic and welfare metrics. Local government spending is anticipated to stimulate an increase in the economy via increased labor productivity and encourage investors to invest in the region so that it can be reflected in the increase in GRDP and economic growth, which serves as a benchmark for the regional government spending's impact. It is impossible to separate the financial management capabilities of each region from the success of implementing regional autonomy to further accelerate development for the community's welfare.

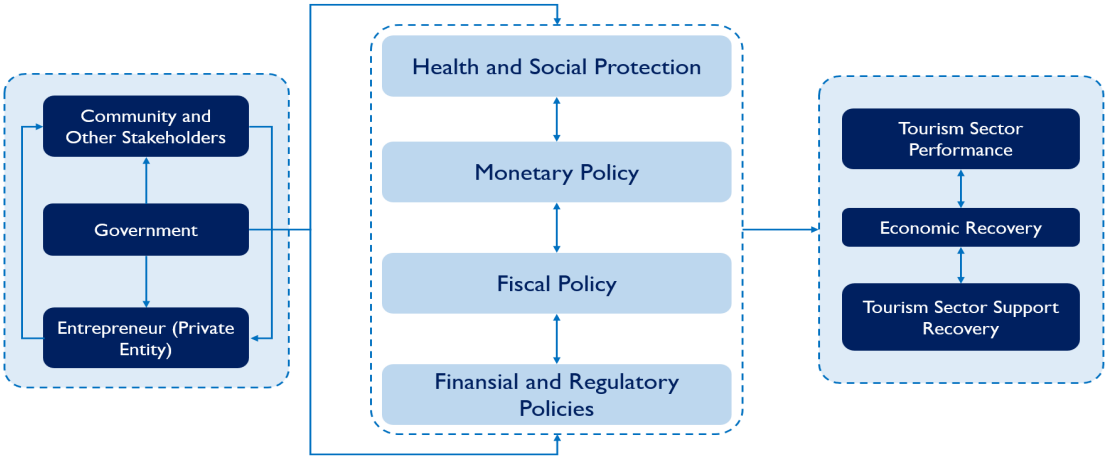
The government is acutely conscious of the significance of the regional financial situation in executing its responsibilities for regional development. A better and more precise budget allocation towards achieving the objectives of the Regional Revenue and Expenditure Budget (APBD) expenditure strategy is a measure of the capability of regional financial management. Each form of expenditure in the area reveals that the amount of operational expenditure and capital expenditure allotted by the Regional Government in the APBD is heavily influenced by the goals and objectives to be attained through regional expenditure. Improving public sector services will enhance public infrastructure and facilities. It is anticipated that the addition of existing infrastructure by the regional government will stimulate economic growth in the region. Regional economic expansion will stimulate a rise in the per capita income of the population. Based on the results of the preceding regression, it is clear that a region's poor human development index can impede its economic success. In contrast, a higher human development index can expedite a region's economic development. Croes (2012) discovered a connection between human development and tourism expansion. For instance, residents will have more significant influence over their resources (education, health, and income) when tourism increases. The relationship between tourism and human development was also mutually reinforcing. This indicates that the relationship is stable, and policymakers can reap various benefits for the economy and the populace.

Policy Response for the Tourism Sector

The devastating effects of COVID-19 on global health and, in particular, tourism may have provided us with an opportunity to rethink the tourism sector system more critically. Because the pandemic has impacted the countries from which most international tourists originate, the countries through which tourists transit, and the leading tourist destination countries, policymakers can redesign their policies to ensure that the pandemic does not become severe in the future. A lethal shot at the COVID-19 pandemic's long-term consequences. The hotel has suffered significant financial loss due to cancellations and reduced bookings. Due to the pandemic, Airbnb's market value has fallen by nearly half. Property owners are liable

for rates, taxes, and loan payments due to Airbnb cancellations. Hotel chains worldwide have implemented widespread layoffs and furloughs in anticipation of imminent business failure. After this chapter, most hotels must make debt payments and rate payments. The majority of global hotel chains eliminate dividends and Capital expenditure (CAPEX).

Financial policy measures are needed by the tourism industry in the course of recovery from the COVID-19 pandemic to eliminate industry, sector, or business difficulties. It is crucial to maintain tourist activities during the pandemic and help with interest and taxes problems so that tourism enterprises, especially SMEs, may continue their activities (Sengel et al., 2022; Sengel & Erkan, 2021; Skare et al., 2021). Here, the critical responsibility falls on the banks and the government. Economic and financial performance can improve with intensive and solid banking sector operations and output after the pandemic. The finance strategy is one of the primary components that the country has devised to limit the impact of COVID-19 on the tourism industry. In this environment, both fiscal and monetary policies are established and implemented. The financial and monetary measures implemented by European Union countries can empirically lessen the impact of COVID-19 on the tourism industry (Sengel & Erkan, 2021). Caldecott (2020) underlines that with the correct post-pandemic financial recovery strategies and packages, COVID-19 can become a 'transition finance' that satisfies the Sustainable Development Goals.



Source: Processed by the Author

Figure 10: Policy Strategy Framework in the Tourism Sector

The policy strategy adopted for the tourism sector can be seen in the image above. In formulating policies in the tourism sector, the government must pay attention to several existing elements. The first element is the tourism sector entrepreneur. In order to achieve success in tourist development, it is vital to comprehend both the perspective of the government as a regulator and the perspective of the entrepreneur as a business actor. The government must pay close attention and ensure that tourism growth provides advantages while limiting socioeconomic costs and environmental consequences. On the other hand, focused and profit-driven businesspeople cannot act arbitrarily in their pursuit of profit but must conform to government laws and restrictions. Such as using spatial regulations, permits, licenses, accreditation, and legislation. The second factor to consider in policy formulation is the community and other tourism sector stakeholders. Individuals receive income if they perform labor and are compensated for it. Tourism entrepreneurs, hotel and restaurant staff, travel agency employees, transportation service providers, tour guides, souvenir sellers, tourist attractions, and various other positions exist in the tourism industry. The secondary

impact of the tourism industry is employment income, whereas the direct impact is business income for organizations and foreign exchange earnings. This primary income is utilized to pay employee salaries and wages and dividends to business owners. So that the second and first components of the tourism industry are genuinely related.

Based on the above framework, it is necessary to implement four policy tools simultaneously to overcome the impact of the pandemic on the tourism sector. The first is the policy regarding health and social security. This is a government priority policy, from testing and treatment to expanding social assistance and implementing cash transfers to households, from recruiting new medical staff to expanding social assistance. Vaccination is essential in the tourism industry to instill a sense of safety in visitors. As a result of layoffs and financial losses, employees and households impacted by the tourism industry require direct monetary assistance. The second strategy is fiscal policy. Measures include efforts on the income side (delaying filings and payments, tax incentives, and reducing social contributions), spending (low-interest loans to companies and spending prioritization), and financing a larger fiscal deficit. The third policy consists of monetary policy. There may be room for rate cuts in several nations. It is also important to provide liquidity to solvent banks. The fourth policy is comprised of financial, industrial, and trade policies. Interventions include banks' tolerance of domestic private loans under strict conditions to prevent future financial instability, reduction of collateral requirements, cancellation of all but the essential company registration procedures, and reduction of import restrictions and tariffs.

The anticipated outcomes of implementing the policies above are an improvement in the tourism sector's performance, economic recovery, and the recovery of the tourism support sector. Since the beginning of the crisis, government support has been in place to protect visitors and employees and ensure business continuity once containment measures are in place. Financial assistance is provided to the largest number of workers and businesses as quickly as possible. The tourism industry has benefited significantly from the government's general economic stimulus and support measures applicable and accessible to tourism workers and businesses of all sizes. OECD identified three supports that the government should provide to accelerate the tourism sector's recovery in 2021 (OECD, 2020). The first is visitor protection. Countries are taking steps to provide assistance and information in various languages and formats to travelers outside their usual environment. The second factor is the worker and business support. The tourism industry benefits from cross-cutting measures implemented by the government to provide workers with flexibility and support. The government could concentrate on providing financial assistance to small and medium-sized tourism businesses, such as delaying VAT payments. Non-financial support, such as providing information and consulting services to comply with the new regulations, is also provided. The third is destination support. The impact of a pandemic on destinations varies based on several variables, with those most reliant on international markets likely to be the hardest hit (urban, rural, and natural areas). The nature of the tourism offering, the effect of travel restrictions on visitor flows, the scale and complexity of business operations, the size of the domestic tourism market, and tourism's role in the broader economy are also essential factors. Frequently, tailored responses will be required.

Fiscal Policy Response for the Tourism Sector

According to Sengel et al. (2022), the tourism industry requires tax relief in addition to expediting recovery and promoting investment. Kholbadalov (2021) analysis reveals that tax incentives in the form of investment tax incentives (including in free tourism zones) are highly successful in reducing the tax burden on tourism entities and creating jobs. The impact of tax incentives in tax deductions on lowering the tax burden and creating jobs is insignificant. The marginal effective tax rate has decreased due to tax advantages in tax holidays and investment tax incentives for a specific length of time, particularly tax holidays of 3 to 5 years, investment tax benefits of 3 to 7 years, and tourist-free zones. Exhaustive cost-benefit

analysis reveals that the effectiveness of tax benefits in the tourism industry accelerates job creation through investment tax incentives. The following are recommendations for fiscal incentives in the form of tax incentives that can be accommodated by the government, both central and local governments.

Tax Incentives for the Tourism Sector

Tax incentives that entrepreneurs in the tourism sector can utilize Income Tax Article 21 borne by the government, Final Income Tax for MSMEs borne by the government, Exemption of Article 22 Import Income Tax, Article 25 Income Tax Installment Reduction by 50%, and Preliminary return of VAT as a risky PKP low for taxpayers who submit Periodic Notification Letters of VAT overpayment of refunds of a maximum of 5 billion rupiahs. The government-funded income tax under Article 21 is expected to mitigate the impact of the COVID-19 pandemic, which results in job loss. Additionally, the government's requirements that Article 21 Income Tax be paid in cash result in higher take-home pay for employees. This is believed to increase household consumption to the point where it can sustain the economy. In general, it is hoped that the decrease in Article 25 income tax payments and the government-funded final income tax on SMEs will stabilize the company's cash flow. Given that operating expenses remain constant but revenue declines, this incentive is perfect for tourism. Tax incentives related to the COVID-19 pandemic are governed by the Minister of Finance of the Republic of Indonesia's Regulation Number 3 /PMK.03/2022 on Tax Incentives for Taxpayers Affected by the 2019 Corona Virus Disease Pandemic. According to this legislation, tax incentives are available until June 2022. With this timeframe, the government may wish to explore prolonging incentives until conditions improve prior to the pandemic.

Value Added Tax Aspect for Tourism Sector

Value Added Tax (VAT) is an indirect tax in which the tax burden can be shifted ahead or backward in time. Entrepreneurs allocate the tax burden to be transferred forward, especially to the buyer (Schenk et al., 2015). VAT is levied at every point along the manufacturing and distribution chains, creating a sizable tax base. VAT is levied on a broad range of commodities (including services). Additionally, this tax is objective. Tax incidence is determined by objective variables, specifically the presence of taxable conditions, occurrences, or legal actions, referred to as tax objects (Sukardji, 2015). The imposition of Value Added Tax in the Tourism Sector is regulated in the Regulation of the Minister of Finance of the Republic of Indonesia Number 71/PMK.03/2022 concerning Value Added Tax on the Delivery of Certain Taxable Services. This regulation states that travel agency services and travel agent services in tour packages, transportation facility bookings, and lodging facility bookings are subject to Value Added Tax. On a 10% tax imposition basis, the Taxable Entrepreneur effectively administers 1.1 percent of the customers.

During the COVID-19 pandemic, confirmed Taxable Entrepreneurs providing travel bureau services will charge consumers 101.1 percent of the replacement price. As a result, travel bureau service entrepreneurs confirmed as PKP will appear to be more expensive than non- taxable employers travel bureau service entrepreneurs. This will be a critical factor in a customer's decision on which service provider to choose during a pandemic. According to this regulation, a tourism sector entrepreneur cannot deduct input tax on the acquisition of Taxable Goods and Taxable Services, the importation of Taxable Goods, and the utilization of intangible Taxable Goods and Taxable Services from outside the customs area within the customs area to provide Tourism Services. According to the author, this can be detrimental to start-up companies operating in the tourism sector. This cause of the initial outlay can be greater than their income. So it can result in an overpaid tax that the entrepreneur should refund. The prohibition on crediting input taxes causes the initial expenditure (input tax) to

be an expense in the entrepreneur's income statement. Incentives that the government can provide are by giving them the freedom of choice to credit the input tax that they have previously had.

Income Tax Aspect for Tourism Sector

Income Tax is a tax levied on a tax subject on income received or earned during a taxable year or on income earned during a portion of a taxable year if the tax subject's tax responsibility begins or ends during the tax year. The Income Tax Law regulates the application of taxes on objects in the form of income received or earned by an individual during a tax year (Suandy, 2011). During the current COVID-19 pandemic, entrepreneurs in the tourism sector can take two income tax benefits. *First*, the Government bears the final income tax. The Taxpayer who qualifies for this incentive has a specific gross revenue and is liable to Final Income Tax under Government Regulation Number 23 of 2018. Incentive beneficiaries are obliged to provide a report on the realization of the final Income Tax borne by the Government via specified channels on the www.pajak.go.id page no later than the twentieth day following the end of the fiscal year. Period of Taxation (Taxpayers do not need to deposit 0.5 percent final Income Tax). The report on the realization of final Income Tax borne by the Government comprises information on income tax payable on income received/earned by the Taxpayer, including revenue from transactions with withholding agents/collectors. The Taxpayer submits a photocopy of the Certificate for transactions with cutters/collectors. By and large, all sorts of tourism enterprises and their derivative industries categorized as MSME Taxpayers (Government Regulation Number 23 of 2018) are eligible to receive government-funded MSME Final Income Tax incentives.

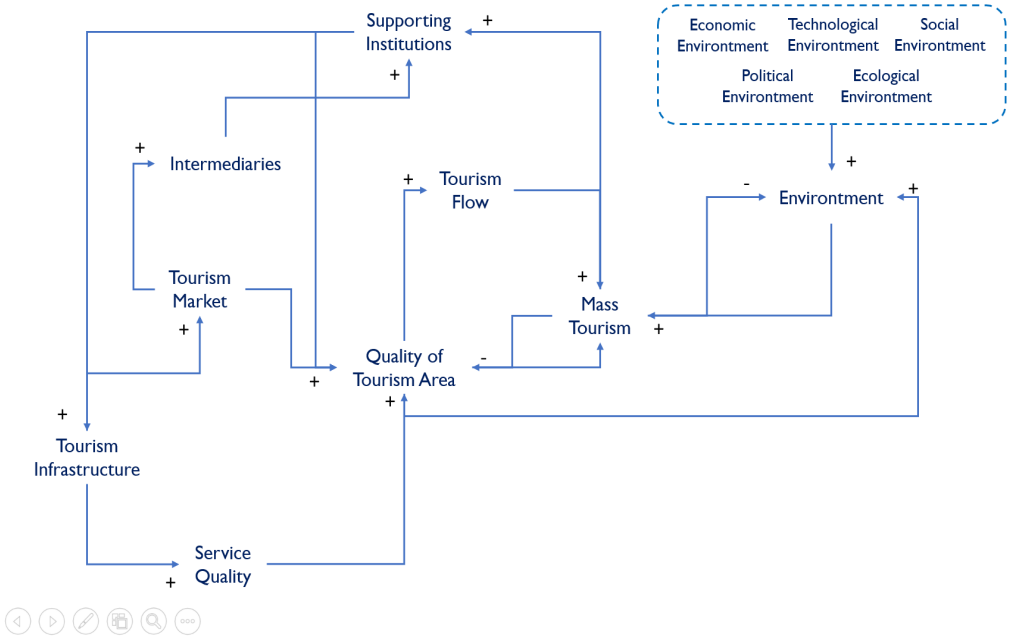
Second, namely, the reduction of Article 25 income tax installments. This incentive does not reduce the actual tax liability. Article 25 income tax installment reduction incentives are implemented so that a business does not experience tax overpayment due to their reduced income. Income Tax Article 25 is usually imposed on business entities no longer classified as MSME Taxpayers. They make monthly payments to pay off the tax they owe at the end of the year, so it does not get too big. Based on these two treatments, there are dissimilarities. Suppose it is reviewed in the first treatment. In that case, entrepreneurs classified as MSME Taxpayers do not make income tax payments, while large companies continue to make payments (only allowed to reduce the number of installments due to declining income/profits). So that for equal treatment, the same treatment should be given, namely by being borne by the government. It is used to speed up the cash recovery of the company.

Local Tax Aspect for Tourism Sector

Local taxes are mandatory contributions to regions owed by individuals or entities that are coercive based on the law, without receiving direct compensation. They are used for regional needs for the greatest prosperity of the people. Local taxes are a broad category of taxes that may be imposed on the tourism industry. Taxes on the tourism industry include hotel taxes, restaurant taxes, and entertainment taxes. These taxes are levied on consumers who engage in tourism-related activities or purchases. The government can implement tax incentives by deferring, exempting, or bearing the cost of tax payments. These options can be tailored to each region's fiscal capacity. Tax incentives can alleviate entrepreneurs' administrative burdens even when these taxes are imposed on consumers. Consumers' perceptions of lower prices can motivate them to shop more. This is what various parties anticipate for the economy to resume normal operation.

Regulatory Policy Response for the Tourism Sector

Figure 11 is a model of the tourist system and the influence diagram produced by Jere-Jakulin (2017). The positive symbol (+) on the arrow shows that the effect is favorably related to the cause. Entities joined by a + sign reflect the gain cycle. Since no actual entity can grow forever, we must pay attention to growth boundaries. This constraint is created by negative feedback (-). (-). The figure displays the relationship between entities as follows: Supporting institutions (central government, ministries, local governments) are optimistic (+) in influencing tourism infrastructure, which affects (+) the tourism market, and the tourism market positively affects the growth of intermediaries (+) and intermediaries that influence (+) supporting institutions.



Source: Processed by the Author with Adaptation from Research (Jere-Jakulin, 2017)

Figure 11: Policy Strategy Framework in the Tourism Sector

Baum & Szivas (2008) highlighted that government involvement in the tourism sector also supports human resource (HR) development. The country and its administration are substantially developing an enabling environment for effective HRD in tourism through policy and planning and delivery of actual HRD projects. Human resources enable tourism enterprises, destinations, and countries to operate efficiently and competitively in the global economy. In a pandemic, unemployment can produce social exclusion or, naturally, involvement in work which implies contributing to social inclusion and reducing fragmentation in society. Figure 11 shows a political environment that supports the entire tourism sector. The political environment can mean regulatory support in the tourism sector, including in Human Resources and all its aspects. So this is where the government plays an active role in the tourism sector's contribution. The progress of the tourism sector will contribute to an increase in government revenues and macroeconomic indicators.

Conclusion

Shocks to the tourism industry compelled various stakeholders to intervene to expedite the crisis resolution. Governments are no exception, as they have a duty to their constituents. The government's fiscal stimulus package must be capable of meeting this sector's needs. The government may extend the incentive period until the tourism industry reverts to pre-pandemic performance levels. Economic recovery options for the tourism sector include

providing value-added tax incentives, income taxes, and local taxes. The government can reconsider the determinants that may affect the tourism industry. The government can assist the tourism sector in this endeavor by establishing a program that will attract many local tourists to East Java. Cultural exhibitions and performances have the potential to attract both domestic and international tourists.

The East Java government can polish the business environment surrounding tourist destinations to attract millions of domestic and international tourists. This can be accomplished by supporting a solid innovation infrastructure system and human resources staffed with the best talent, enabling the tourism business world to bring innovation to other sectors that support tourism, including the government, which pays special attention to developers. All capabilities, funding, and incentives will be directed toward developing the tourism industry to attract tourists to East Java. We believe that fostering collaboration between stakeholders and sectors in developing tourist destinations, national super-priority tourist destinations, and other national tourist destinations will become a factor in enhancing Indonesia's competitiveness in developing tourist destinations. Thus, plans and objectives to attract millions of domestic and international tourists are not insurmountable. East Java tourist destinations are competitive on a regional and national level and with tourist destinations owned by other countries' regions.

Research Limitations

Finally, with the various difficulties and challenges that exist, this research is also not free from several shortcomings. Although this study accommodates two research approaches, namely quantitative and qualitative, the limited data in building the model is a limitation in analyzing problems in the tourism sector. The available data does not include when the pandemic came to Indonesia. So researchers have not been able to compare the data using a statistical approach related to the effects comprehensively. From the model side, this research is not free from limitations. One of the limitations is that the model in this study only focuses on analyzing the role of government spending and the human development index. On this basis, a qualitative approach is needed to narrate how the government will take policies in the future. Further research should be able to explore actors in the tourism sector directly using both quantitative and qualitative methods so that the policies that the government can take can later be more empirical based on events in the field.

Bibliography

Abbas, N. A. (2021). The relationship between government expenditure and economic growth in Jordan an econometric study during the period of 1990-2018. *International Journal of Management*, *12*(1).

Abd El-Aziz, T. M., & Stockand, J. D. (2020). Recent progress and challenges in drug development against COVID-19 coronavirus (SARS-CoV-2)-an update on the status. *Infection, Genetics and Evolution*, *83*, 104327.

Acter, T., Uddin, N., Das, J., Akhter, A., Choudhury, T. R., & Kim, S. (2020). Evolution of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) as coronavirus disease 2019 (COVID-19) pandemic: A global health emergency. *Science of the Total Environment*, *730*, 138996.

Alm, J., McClelland, G. H., & Schulze, W. D. (1992). Why do people pay taxes? *Journal of Public Economics*, *48*(1), 21–38.

Astuti, E. S., Nugroho, A. S., Juniftha, D. Y., Huda, N., Pujarama, R. A., & Abdulah, R. (2021). *Kajian Tengah Tahun INDEF 2021: Bola Liar Vaksinasi Ekonomi?* INDEF.

Baum, T., & Szivas, E. (2008). HRD in tourism: A role for government? *Tourism Management*, *29*(4), 783–794.

Brida, J. G., Gómez, D. M., & Segarra, V. (2020). On the empirical relationship between tourism and economic growth. *Tourism Management*, *81*, 104131.

Brockner, J., & Wiesenfeld, B. M. (1996). An integrative framework for explaining reactions to decisions: interactive effects of outcomes and procedures. *Psychological Bulletin*, *120*(2), 189.

Budastra, I. K. (2020). Dampak sosial ekonomi covid-19 dan program potensial untuk penanganannya: studi kasus di kabupaten lombok barat. *Jurnal Agrimansion*, *21*(1), 48–57.

Caldecott, B. (2020). Defining transition finance and embedding it in the post-Covid-19 recovery. *Journal of Sustainable Finance & Investment*, 1–5.

Central Bureau of Statistics. (2020a). *Berita Resmi Statistik - Perkembangan Pariwisata Jawa Timur April 2020*.

Central Bureau of Statistics. (2020b). *Statistik Pariwisata Provinsi Jawa Timur 2020*.

Croes, R. (2012). Assessing tourism development from Sen's capability approach. *Journal of Travel Research*, *51*(5), 542–554.

Deaton, A. (1985). Panel data from time series of cross-sections. *Journal of Econometrics*, *30*(1–2), 109–126.

Devereux, M. P., & Maffini, G. (2007). *The impact of taxation on the location of capital, firms and profit: A survey of empirical evidence*. Citeseer.

Dielman, T. E. (1983). Pooled cross-sectional and time series data: A survey of current statistical methodology. *The American Statistician*, *37*(2), 111–122.

Durbarry, R. (2004). Tourism and economic growth: the case of Mauritius. *Tourism Economics*, *10*(4), 389–401.

Egiyi, M. A. (2021). The Use of Public Expenditure in the Advancement of National Economy: A Comparative Study of the United Kingdom and Nigeria. *International Journal of Economics and Public Policy*, *5*(2), 1–9.

Elveren, A. Y. (2022). The Political Economy of Militarism. *The Oxford Handbook of Economic Imperialism*, 389.

Francis, N. (2016). State tax incentives for economic development. *Washington, DC: Urban Institute. Http://Www. Urban. Org/Research/Publication/State-Tax-Incentives-Economic-Development*.

Gwenhure, Y., & Odhiambo, N. M. (2017). Tourism and economic growth: A review of international literature. *Tourism: An International Interdisciplinary Journal*, *65*(1), 33–44.

Hamiye Beyaztas, B., & Bandyopadhyay, S. (2020). Robust estimation for linear panel data models. *Statistics in Medicine*, *39*(29), 4421–4438.

Iheanacho, E. (2016). The contribution of government expenditure on economic growth of Nigeria disaggregated approach. *International Journal of Economics and Management Sciences*, *5*(5), 1–8.

Ika, S. (2017). Kebijakan Hilirisasi Mineral: Policy Reform untuk Meningkatkan Penerimaan Negara. *Kajian Ekonomi Dan Keuangan*, *1*(1), 42–67.

Iluzia Iacob, A., & Palei, T. (2015). 2nd Global Conference on Business, Economics, Management and Tourism Assessing the Impact of Infrastructure on Economic Growth and Global Competitiveness. *Procedia Economics and Finance*, *23*, 168–175.

Indonesian Central Bank. (2021). *Laporan Perekonomian Provinsi Jawa Timur Februari 2021*. Indonesian Central Bank

Jere-Jakulin, T. (2017). Systems approach to tourism: a methodology for defining complex tourism system. *Organizacija*, *50*(3).

Kartiko, N. D., & Rachmi, I. F. (2021). Strategi Pemulihan Pandemi Covid-19 bagi Sektor UMKM di Indonesia. *Jurnal Syntax Transformation*, *2*(5), 624–637.

Kholbadalov, U. S. (2021). The effectiveness of tax incentives in the tourism sector of Uzbekistan. *International Journal of Business, Economics & Management*, *4*(2), 335–343.

Lastres, H. M. M., & Cassiolato, J. E. (2005). Innovation systems and local productive arrangements: new strategies to promote the generation, acquisition and diffusion of knowledge. *Innovation: Management Policy and Practice*, *7*(2/3), 172–187.

Lillo, R. L., & Torrecillas, C. (2018). Estimating dynamic Panel data. A practical approach to perform long panels. *Revista Colombiana de Estadística*, *41*(1), 31–52.

Lind, E. A. (2001). Fairness heuristic theory: Justice judgments as pivotal cognitions in organizational relations. *Advances in Organizational Justice*, *56*(8).

Lind, E. A., & Tyler, T. R. (1988). *The social psychology of procedural justice*. Springer Science & Business Media.

Liu, Abby, & Wall, G. (2006). Planning tourism employment: a developing country perspective. *Tourism Management*, *27*(1), 159–170.

Liu, Anyu, & Wu, D. C. (2019). Tourism productivity and economic growth. *Annals of Tourism Research*, *76*, 253–265.

Mikesell, J. L. (2001). Sales tax incentives for economic development: why shouldn't production exemptions be general? *National Tax Journal*, *54*(3), 557–567.

Ministry of Tourism and Creative Economy. (2020). *Trend Pariwisata 2021*. https://s3-kemenparekraf.s3.ap-southeast-1.amazonaws.com/Buku_Tren_Pariwisata_2122_825b87ea0f.pdf

Munongo, S., Akanbi, O. A., & Robinson, Z. (2017). Do tax incentives matter for investment? A literature review. *Business and Economic Horizons (BEH)*, *13*(1232-2017–2411), 152–168.

Muqorrobin, M. (2017). Pengaruh Indeks Pembangunan Manusia (IPM) Terhadap Pertumbuhan Ekonomi Provinsi Jawa Timur. *Jurnal Pendidikan Ekonomi (JUPE)*, *5*(3).

Muritala, T., & Taiwo, A. (2011). *Government expenditure and economic development: Empirical evidence from Nigeria*.

Nachrowi, N. D., & Usman, H. (2006). *Pendekatan Populer Dan Praktis Ekonometrika Untuk Analisis Ekonomi Dan Keuangan*.

OECD. (2020). *Tourism policy responses to the coronavirus (COVID-19)*. OECD Geneva.

Paul, F., & Furahisha, G. (2017). Government expenditure and economic growth nexus: Wagner's law or Keynesian hypothesis for Tanzania? *African Journal of Economic Review*, *5*(1), 32–47.

Poulaki, I., & Nikas, I. A. (2021). Measuring tourist behavioral intentions after the first outbreak of COVID-19 pandemic crisis. Prima facie evidence from the Greek market. *International Journal of Tourism Cities*.

Sánchez López, F. (2019). Unemployment and growth in the tourism sector in Mexico: Revisiting the growth-rate version of Okun's law. *Economies*, *7*(3), 83.

Schenk, A., Thuronyi, V., & Cui, W. (2015). *Value added tax*. Cambridge University Press.

Şengel, Ü., & Erkan, M. K. (2021). Financial policies of european union countries regarding the Tourism Industry in COVID-19 Process. *İşletme Araştırmaları Dergisi*, *13*(1), 123–135.

Şengel, Ü., Işkın, M., Çevrimkaya, M., & Genç, G. (2022). Fiscal and monetary policies supporting the tourism industry during COVID-19. *Journal of Hospitality and Tourism Insights*.

Šergo, Z., Gržinić, J., & Poropat, A. (2009). *Links between tourism, employment, unemployment, and productivity: case of Croatia*.

Shonchoy, A. (2010). *What is happening with the government expenditure of developing countries-a panel data study*.

Škare, M., Soriano, D. R., & Porada-Rochoń, M. (2021). Impact of COVID-19 on the travel and tourism industry. *Technological Forecasting and Social Change*, *163*, 120469.

Stiglitz, J. E. (1996). Some lessons from the East Asian miracle. *The World Bank Research Observer*, *11*(2), 151–177.

Suandy, E. (2011). Perencanaan Pajak. In *Jakarta: Salemba Empat* (Vol. 5).

Sukardji, U. (2015). Pajak Pertambahan Nilai Edisi Revisi 2015. *Depok: Rajawali Pers*.

Susanto, A. B. (2013). Pengaruh Indeks Pembangunan Manusia (IPM) dan Inflasi Terhadap Pertumbuhan Ekonomi di Kabupaten Lamongan. *Jurnal Pendidikan Ekonomi (JUPE)*, *1*(3).

Tavares-Lehmann, A. T., Coelho, Â., & Lehmann, F. (2012). Taxes and foreign direct investment attraction: A literature review. *New Policy Challenges for European Multinationals*.

Taweel, M. B. M. (2010). *Estimating the Relationship Between GDP Growth and Government Expenditure in Libya: An Analysis of Wagner's Law*. University of Abertay Dundee.

Tomić, Z. (2015). Analysis of the impact of public education expenditure on economic growth of European Union and BRICS. *Economic Analysis*, *48*(1–2), 19–38.

Tsoklinova, M. (2016). Foreign Direct Investment as a Factor for Economic Stability. *Third International Multidisciplinary Scientific Conference on Social Sciences and Arts SGEM*, 273–280.

Van den Bos, K., Wilke, H. A. M., Lind, E. A., & Vermunt, R. (1998). Evaluating outcomes by means of the fair process effect: Evidence for different processes in fairness and satisfaction judgments. *Journal of Personality and Social Psychology*, *74*(6), 1493.

Vatter, H. G., & Walker, J. F. (2015). *The Rise of Big Government*. Routledge.

Xiao, H., & Smith, S. L. J. (2007). The use of tourism knowledge: Research propositions. *Annals of Tourism Research*, *34*(2), 310–331.

Yakup, A. P. (2019). *Pengaruh Sektor Pariwisata terhadap Pertumbuhan Ekonomi di Indonesia*. Universitas Airlangga.

Zee, H. H., Stotsky, J. G., & Ley, E. (2002). Tax incentives for business investment: a primer for policy makers in developing countries. *World Development*, *30*(9), 1497–1516.

Zulfikar, R. (2019). *Estimation model and selection method of panel data regression: an overview of common effect, fixed effect, and random effect model*.