

# Tourism Recovery Strategy Towards a New Normal in Yogyakarta 2020

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**Abstract.** The shocks caused by the COVID-19 pandemic have a significant impact on the tourism sector and the economy. Yogyakarta is one of the domestic and international tourist destinations in Indonesia. Unfortunately, the Yogyakarta tourism sector is also affected by the pandemic. The study aims to measure the impact and recovery strategies in Yogyakarta tourism. This study uses a survey to collect the data. The Input-Output analysis examines the impact, while descriptive statistics analyze the recovery strategies. The results show that the negative growth of tourists and hotels during the pandemic. The tourism industry suffered heavy losses, and many did layoffs. Four industries in the tourism sector are vital sectors. The simulations show output, final value-added, household income, and labor declining in 2020. The recovery of the tourism sector requires a long stage. The tourism industry must pay attention to changes in tourist preferences post-pandemic. Tourists prefer destinations that are clean and healthy. Yogyakarta must begin to the recovery of tourism gradually. The first phase starts in June 2020 and expects to lead to a new normal in 2022. It is necessary to prepare several action plans for the recovery process. The action plan includes developing health protocols, creating digital tourism, tourism information systems, and SMART Tourism. Thus, Yogyakarta must build a SMART Tourism in the post-pandemic. SMART Tourism is an innovation in the tourism sector by utilizing information technology in integrating tourism activities.

**Keywords:** COVID-19, Tourism, Recovery Strategies.

## 1. INTRODUCTION

World Health Organization (WHO) has declared the coronavirus a pandemic since March 2020. This pandemic has a multidimensional impact: human health and their socio-economic [1],[2],[3]. The pandemic caused huge and global losses, worse than the global financial crisis. The impact is higher in the service and tourism sectors [4].

Tourism is one of the sectors hardest hit by the

pandemic. It is due to a decline in travel supply and demand. So, it led to a fall in tourism prices. Chanona et al. [5] also state that tourism demand changes because it places it at risk of infection. The World Travel and Tourism Council (WTTC) has warned that 50 million jobs in the travel and tourism may be at risk. So, there potential layoffs in those industries [2]. The impact on tourism depends on the crisis nature, the duration, and others [6].

Hoque et al. [7] state that currently, the tourism sector

faces unprecedented threats. The tourism associations are stopping operational activities from preventing coronavirus from spreading. Affected countries focus on managing the pandemic rather than increasing income. Thus, there was a significant declining tourists in several countries.

Countries that more focused on the service sector have a higher risk—the more significant the tourism sector, the higher the impact of the crisis in a country. Greece, Italy, Spain, Portugal are likely to be the most affected countries. So, if the worst-case scenario occurs, there will be a considerable slump for these countries. The impact is on reducing GDP from 8 percent to 10 percent [8].

Craven et al. [9] pessimistic about economic recovery in only a short time. Pessimism Craven et al. [9] has the support of Khalilzadeh [6]. Businesses in the pandemic and post-pandemic periods focus on seven things are:

- 1) Guaranteeing employees; 2) Forming COVID-19 team responses; 3) Adequate liquidity; 4) Supply chain stabilization; 5) Stay close to customers; 6) Do the plan, and 7) Set the purpose. Based on experience, tourism will recover within one or two years after the end of the pandemic.

Indonesia's health sector and economic growth were also affected by the pandemic. This economic impact is broader than the economic crisis in 1997/1998. All industries affected by this pandemic. There is a slowdown in the growth of Gross Domestic Product (GDP) in the first quarter of 2020. National economic growth in the first quarter (2.97%) fell by two percent compared to the fourth quarter of 2019 (4.97%). Meanwhile, the economy in Yogyakarta is minus 0.17 percent in the first quarter of 2020. The slowdown was due to a pandemic weakening all industries. All of these trigger the need for post-pandemic where IKBLj is the Direct Backward Linkage Index of sector j and aij is the input coefficient between sector j originating from the i sector.

The index of direct linkage to the future of sector i is obtained by the formula :

$$IKDLi = \frac{\sum_{j=1}^n a_{ij}}{n_{ij}} \quad (2.2)$$

**1.1. Our Contribution**

This research is to analyze the impact of the coronavirus on the Yogyakarta tourism industries. This study developed a recovery strategy of the tourism industry during and after the pandemic. The researcher hopes that this research can provide technical guidance for the government in making policies related to the recovery of the tourism industry.

**1.2. Paper Structure**

The rest of the paper is organized as follows. Section 2 regarding data and research methods. Section 3 discusses the impact of the pandemic on the economy of Yogyakarta and the preferences of tourists visiting Yogyakarta, the steps to recover tourism in Yogyakarta, the strategy to recover tourism in Yogyakarta using SMART Tourism. Section 4 conclusion.

**2. BACKGROUND**

Research data consists of primary and secondary data. Primary data come from an online tourist survey on May 14-30, 2020. There are 391 respondents had filled out the survey. Secondary data includes DIY 2015 Output Input Tables and macroeconomic statistical data. Secondary data come from Tourism Office, Statistics Indonesia (BPS), and Bank Indonesia.

There are several analytical tools used; descriptive statistics, input-output models, ranking, and deviation. Descriptive statistics provide an overview of the Yogyakarta tourism industry during the pandemic. The ranking analyzes rank tourist preferences before and after the pandemic. Deviation gives the difference in changes in preferences. Input-output measures the role, impact, linkages of the tourism sector with other sectors. Table IO used in this study in Table 35 of the DIY sector in 2015. The tourism sector and creative industries' classification includes food-beverage industry; textiles; footwear & leather; wood, rattan & bamboo; trading; hotel & restaurant; transportation; communication; and other services. The index of direct relevance to the back of sector j obtained by the formula:

$$IKBLj = \frac{\sum_{i=1}^n a_{ij}}{n_{ij}} \quad (2.1)$$

where IKDLi is the Direct Future Linkage Index of sector i and aij is the input coefficient between sector j originating from sector i. Measuring the impact of changes in final demand on regional economic tourism growth is done by the shock rate in Table I-O. The measurement results will show changes in the tourism output.

**3. DISCUSSION**

Why is the tourism industry and the creative industry important in Yogyakarta? There are 11 sectors in the 2015 input-output table. The role of tourism and the creative industry in Yogyakarta is 55.37 percent. Based on the 2015 Input-Output Table, the total output value reached Rp.104,998.25 billion [10]. Change in tourism and the

creative industry will drive economic growth.

There are four critical sectors in the tourism and creative economy in Yogyakarta; (1) Wood, Rattan and Bamboo Industries; (2) Hotels and Restaurants; (3) Air Transportation; and (4) Communication.

These four sectors have quite strong backward and forward linkages with other sectors. Economic recovery prioritized in the four key sectors to have a multiplier effect. So, it will generate other sectors.

Furthermore, the IO table determines the economic impact of the tourism industry and the creative economy until 2020. The impact analysis uses the growth of the food and beverage, hotels and restaurants, and transportation output. It showed an average of 5% until 2019, and -15% in 2020. In 2019 the development of the tourism sector can increase the ADHB GRDP of Rp 57,062 billion. In 2020, the tourism sector in the ADHB GRDP fell to Rp 52,662 billion or decreased by -7.72% compared to the previous year. The impact on household

income and employment also decreased by -6.03 percent and -4.885 percent.

The pandemic will change tourist behavior later. Tourists will focus on the health and safety of the trip. The survey showed that there was a change in the preferences of visiting Yogyakarta. However, the choice of many destinations is still the first ranked preferences. The third rank of preference has changed. It changes from many lodging choices to a clean and comfortable environment factor. There is a significant average deviation in the clean and comfortable environments factor. If before COVID-19, the average score is 3.8, after COVID-19, it becomes 3.5 or decreases by 0.3. The excellent hygiene/culture preference score also improved by 0.35 from 4.5 to 4.1. After the pandemic, tourists pay more attention to clean and comfortable environmental factors. They also pay more attention to hygiene/healthy culture factors (see Table 1).

**Table 1. Preference for Visiting Yogyakarta**

Preference for Visiting Yogyakarta	Before		After		Deviation
	Rank	Score	Rank	Score	
Low cost of living	2	2,5	2	2,7	-0,21
Many destination choices	1	2,4	1	2,5	-0,12
Many lodging choices	3	3,6	4	3,7	-0,06
Clean and comfortable environment	4	3,8	3	3,5	0,30
Healthy/hygiene culture	6	4,5	5	4,1	0,35
Friendliness of the community	5	4,0	6	4,3	-0,26

Note: The smaller the score, the more tourists like it. Source: 2020 survey results

Ease of access to Yogyakarta destinations is still the main attraction. There is a changing interest in the second and third rank. In the after COVID-19, the second rank was an exciting attraction, and the third rank was an

excellent amenity. Low cost is no longer attract tourists to visit Yogyakarta like before pandemic. There is a score increase of tourist interest in Yogyakarta destinations. It relates to excellent amenities, easy access, and exciting attractions (see Table 2).

**Table 2. Interest in Yogyakarta Destinations**

Interest in Yogyakarta Destinations	Before		After		Deviation
	Rank	Score	Rank	Score	
Easy Access	1	2,3	1	2,2	0,14
Interesting Attractions	3	2,8	2	2,7	0,10
Good Amenity	4	3,4	3	3,2	0,20
Interesting Promotion	5	3,6	5	3,6	-0,03
Low Cost	2	2,8	4	3,2	-0,41

Note: The smaller the score, the more tourists like it. Source: 2020 survey result

Tourism is a complex system involving all levels of business networks. The tourism sector has backward and forward linkages with various industries. The need for

multi-system handling, including the economic and health system [6]. The need for innovation in the tourism sector during a pandemic. It will make better tourism and

better innovation. Innovation will make it easier to deal with changes in tourist behavior after a pandemic.

Mass tourism, the mainstay of several destinations, must turn into class tourism. Class tourism is tourism, with a limited number of visitors. The tourism sector must continue to expand the market. Improving the infrastructure of health services, hygiene, sanitation, security, and reliable information is very important for tourists. It is necessary to map tourism areas to maintain high-value destinations. Tourism does not need massive development in various regions. Tourist awareness about health and environmental increased after the pandemic. It requires the professionalism of the tourism industry for sustainable tourism [10].

Tourism and travel have the most considerable risk of starting operations during a pandemic. So, this requires another complementary policy. To [11] explained that the government must look at the case more seriously and have a contingency plan. Bakar and Rosbi [12] stated that the importance of economic recovery mechanisms after the pandemic. The government still needs to develop the COVID-19 vaccine. Preventive policies must be there so as not to cause a more significant impact on the tourism sector. Ranasinghe [13] argues the need for standard operating procedures and keep social distancing. The government must also be ready to fund the tourism sector until it can operate like usual.

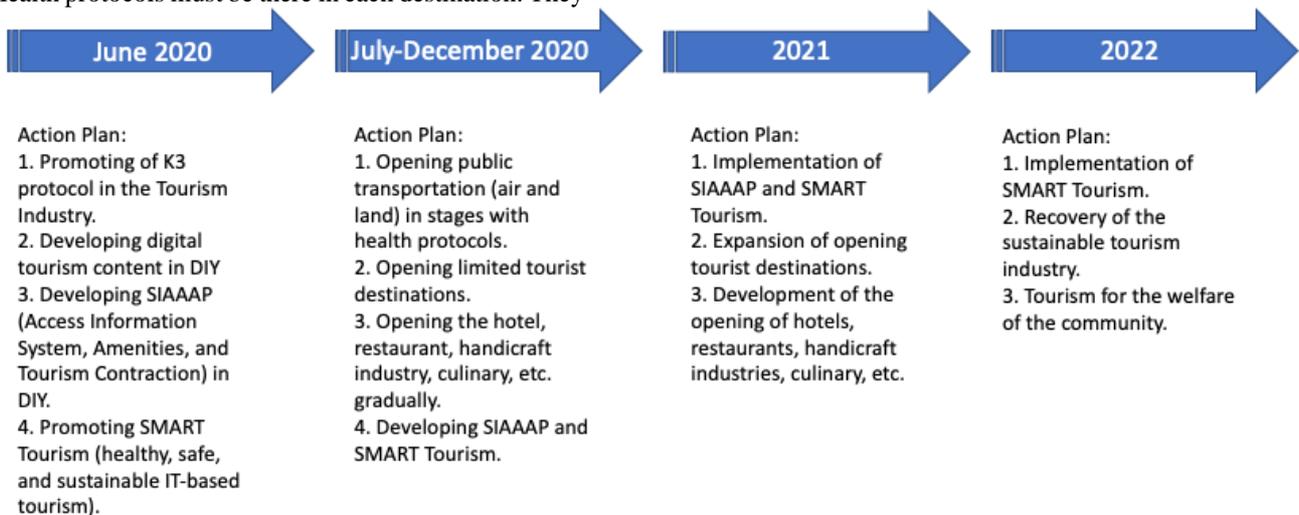
The government and the tourism industry can focus on opening tourism. They can open class tourism and offer healthy recreation. Diversification of tourism does not only include the place and type of tourism. However, it must focus on increasing trust tourism. Health protocols must be there in each destination. They

have to provide a clean destination that adds more value to tourists.

The government should restore the tourism sector step by step. Firstly, it starts with opening the hotel and restaurant, manufacturing industry, and destinations. The hotel might need safety and hygiene certification to convince consumers. They can provide hand sanitizers, regulate the buffet time, dining tables arrangement, and non-cash transactions. The government must also contribute to the recovery of other industries.

The government and the tourism industry can offer digital traveling. The public can enjoy tourism without having to visit the destination. The use of technology is also for online offers destinations and restrictions visitors. The manager prepares online ticket purchases and capacity availability information at the destination. The government's help is Tourist destinations must focus on health, facilities, clean environment, price, and creative attractions. The manager starts collaborating with various other parties. Promotion must also be intensive by cooperating with several parties. It can speed recovery up because of the views of these parties essential to provide a new concept on health protocols. Limitation of visitors every day and will increase by existing conditions.

Recovery of the tourism industry in Yogyakarta needs several stages. The first phase will begin in June 2020 by carrying out a series of action plans. The first action plan is to develop a K3 (Occupational Health and Safety) protocol for tourism industries. Every tourism industry in Yogyakarta must have a K3 unit to guarantee visitors (see Figure 1).



**Figure 1. Roadmap to Tourism Industry Recovery in Yogyakarta**

SMART tourism is also increasing the use of technology,

The second action plan is the creation of digital

tourism content. This digital tourism is the visualization of a trip to Yogyakarta. The preparation of digital tourism

can involve influencers and social media activists. So, they can attract and convince tourists that Yogyakarta is healthy and safe. The third plan of action is creating the SIAAAP (Access, Amity, and Tourist Attraction Information System) Yogyakarta. This system informs destinations access, visitor capacity, ticket availability, amenities availability, and attractions destination. This system is for the sustainable management of Yogyakarta tourism.

Restrictions on visits according to the destination's capacity can do through SIAAAP. At the initial stage, 50 percent of tourism destination capacity will start in June-July 2020. The trial will be in August 2020. In 2021, the visits can open 100 percent according to the capacity of each destination. Determination of destination capacity considers the environment, health, social, and economy.

Visitors can check amenity capacity and availability online. The system can track the available capacity for tourist visits. Attractions information in each destination is also on SIAAAP. Tourists can choose the visit time based on attractions and the capacity of the place. Booking tickets to enjoy attractions can also do online.

The fourth plan of action is to develop SMART Tourism. SMART Tourism is sustainable tourism based on information technology. The system builds awareness to use information technology in their business activities sustainable tourism awareness, maintaining health, and the environment.

The second phase will start from July to December 2020. All public transport must have health and safety protocols first. The destinations will open following the readiness of each destination in applying K3. Hotel, restaurant and culinary business activities will run little by little. SMART Tourism trial guarantees the health and safety of the tourism industry. Monitoring will be online because of the integrating tourism information system. The SMART Tourism checks whether all protocols are in place for the tourism industry. Development of SMART Tourism through feedback on the results of this trial. SMART Tourism will change the paradigm of mass tourism into classy tourism.

The third stage is the recovery process of the tourism industry in 2021. SMART Tourism is fully implemented, with no more violations of sustainable tourism protocols. Hotel, restaurant, and other tourism supporting industry will restore through prudential policies. By the end of 2022, Yogyakarta tourism will succeed in recovered with SMART Tourism.

#### **4. CONCLUSION**

Tourism is one of the sectors that hardest hit by COVID-19 pandemic. It shows the negative growth of tourists and hotels in Yogyakarta during the pandemic. Many tourism industries suffered losses, so they did employee layoffs. The tourism sector is a mainstay sector

in Yogyakarta. The role of the tourism sector for the Yogyakarta economy is quite dominant. Tourism activities involve many industries. The crisis in the tourism sector will have an impact on the crisis in the supporting sectors. There are four critical sectors in Yogyakarta is (1) Wood, Rattan, and Bamboo Industries;

(2) Hotels and Restaurants; (3) Air Transportation; and (4) Communication. The four sectors have close and backward links. The crisis occurring in the four sectors will attract sectors related to the key sectors. The shock simulation shows a decrease in output, net value-added, employment opportunities, and household income in the tourism sector. The recovery of the tourism sector in Yogyakarta need several stages until done. Tourism in Yogyakarta needs to change from relying on mass tourism to class tourism. The need for tourist restrictions according to the optimal capacity for sustainable tourism. The development of Tourism SMART requires information technology innovation. The importance of collaboration between the tourism industry stakeholders to develop SMART Tourism. The tourism industry needs to pay attention to tourist preferences after the pandemic. Tourists pay attention to cleanliness and health in all aspects. The tourism industry needs to develop and take health protocols. The health protocol ensures that Yogyakarta is safe and comfortable as a destination. The tourism industry in collaboration with local governments, can make digital tourism. Digital tourism is a visualization of safe and comfortable travel. Tourists can watch digital tourism in advance of each attraction in Yogyakarta.

Through the development of innovative tourism, health protocols, and international standard tourism service standards, Yogyakarta's tourism returned to normal around 2022. 2020 is the year of SMART Tourism development and a transition period towards a new normal era. Yogyakarta will execute SMART Tourism in 2021. So, tourism in Yogyakarta will become more classy, quality, and reliable in 2020.

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#### **REFERENCES**

- [1] Wen, J., Wang, W., Kozak, M., Liu, X., & Hou, H. (2020). Many Brains Are Better Than One: The Importance Of Interdisciplinary Studies on COVID-19 In And Beyond Tourism. *Tourism Recreation Research*,1-4. DOI: <https://doi.org/10.1080/02508281.2020.1761120>

- [2] Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Iosifidis, C., .. & Agha, R. (2020). The Socio- Economic Implications of The Coronavirus And COVID-19 Pandemic: A Review. *International Journal of Surgery*. DOI: <https://doi.org/10.1016/j.ijssu.2020.04.018>
- [3] Ozili, P. K., & Arun, T. (2020). Spillover of COVID-19: Impact On The Global Economy. del Rio-Chanona, R. M., Mealy, P., Pichler, A., Lafond, F., & Farmer, D. (2020). Supply and demand shocks in the COVID-19 pandemic: An industry and occupation perspective. Arxiv: <https://arxiv.org/abs/2004.06759>
- [4] Khalilzadeh, J. The Future of The Global Tourism System Post COVID-19. Available at: <https://business.ecu.edu/wp-content/uploads/sites/152/2020/04/THE-FUTURE-OF-THE-GLOBAL-TOURISM-SYSTEM-POST-COVID-19Final.pdf>
- [5] Hoque, A., Shikha, F. A., Hasanat, M. W., Arif, I., & Hamid, A. B. A. (2020). The Effect of Coronavirus (COVID-19) in The Tourism Industry in China. *Asian Journal of Multidisciplinary Studies*, 3(1), 52-58. Available at: <https://asianjournal.org/online/index.php/ajms/article/view/213>
- [6] Fernandes, N. (2020). Economic Effects of Coronavirus Outbreak (COVID-19) on The World Economy. Available at SSRN 3557504. DOI: <http://dx.doi.org/10.2139/ssrn.3557504>
- [7] Craven, M., Liu, L., Mysore, M., & Wilson, M. Available at SSRN 3562570. DOI: <https://doi.org/10.2139/ssrn.356270>
- [8] Maliszewska, M., Mattoo, A., & Van Der Mensbrugge, D. (2020). The Potential Impact Of COVID-19 on GDP and Trade: A Preliminary Assessment. DOI: <https://doi.org/10.1596/1813-9450-9211>
- (2020). COVID-19: Implications for business. *McKinsey & Company*. Available at: [https://www.aedcr.com/sites/default/files/docs/mckinsey-full\\_article.pdf.pdf](https://www.aedcr.com/sites/default/files/docs/mckinsey-full_article.pdf.pdf)
- [9] Nepal, S. K. (2020). Travel and tourism after COVID-19—business as usual or opportunity to reset?. *Tourism Geographies*, 1-5. DOI: <https://doi.org/10.1080/14616688.2020.1760926>
- [10] To, W. M. (2020). *How Big is the Impact of COVID-19 (and Social Unrest) on the Number of Passengers of the Hong Kong International Airport* (pp. 1-9). Working Paper. DOI: <https://doi.org/10.13140/RG.2.2.12999.04002>
- [11] Bakar, N. A., & Rosbi, S. (2020). Effect of Coronavirus disease (COVID-19) to tourism industry. *International Journal of Advanced Engineering Research and Science*, 7(4). DOI: <https://dx.doi.org/10.22161/ijaers.74.23>
- [12] Ranasinghe, R., Karunarathna, C., & Pradeepamali, J. (2020). After Corona (COVID-19) Impacts on Global Poverty and Recovery of Tourism Based Service Economies: An Appraisal. Available at SSRN 3591259. DOI: <http://dx.doi.org/10.2139/ssrn.35912597>