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## **Integrated Real Time Tourism Data for Optimizing Indonesian Economic Growth from Tourism Sector (Case Study in 5 Super Priority Tourism Object in Indonesia)**

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### **Abstract:**

Covid-19 pandemic during 2020 has an impact on Indonesian tourism sector. Restrictions on human mobility between regions become the main cause of the decline in the tourism sector throughout 2020. The problem is, in 2019 the Indonesian Ministry of Tourism and Creative Economy has just announced five super priority tourism destinations in Indonesia as the main focus of optimizing and improving tourism in Indonesia. The five super priority destinations are Lake Toba in Samosir Regency, Borobudur Temple in Magelang Regency, Mandalika in Lombok Tengah Regency, Labuan Bajo in Manggarai Barat Regency, and Likupang in Minahasa Utara Regency. Analysis using Klassen Typology shown that five regency where the tourism object located experience an economic contraction in accommodation and food service activities in 2020. In addition, contribution to the Gross Regional Domestic Product (GRDP) has also decreased. Compare with Indonesian Gross Domestic Product (GDP) in accommodation and food service activities, only Magelang and Samosir Regency included in the first quadrant with higher GRDP's growth and contribution than Indonesia. Moreover, unemployment rate in five regency are generally increase during pandemic. In conclusion, the pandemic has an impact on economic contraction and increase the unemployment rate in tourism potential areas in Indonesia. Therefore, efforts are needed to restore the trust of tourists to travel safely in new normal era with a health protocols. This paper suggest to related affairs such as Indonesian Ministry of tourism and Creative Economy to build an integrated data portal that is easily accessible, containing the number of active Covid-19 cases around the tourism object; the ownership of accommodation Cleanliness, Health, Safety, and Environment Sustainability (CHSE) certificate by tourism objects ; and the number of real time tourism object visitors. Hopefully, the tourism sector will grow again, and drive economic growth, especially in Indonesia's five tourism super priority areas.

### **Keywords:**

Tourism; Pandemic; Klassen Typology; GRDP; Unemployment

### **1. Introduction**

The COVID-19 pandemic, which began in March 2020 in Indonesia, has had a socio-economic impact on the people of Indonesia. Based on data from the Indonesian Covid-19 Handling and National economic Recovery Committee, the number of positive cases of Covid-19 in Indonesia from March to December 2020 reached 743,198 positive cases, with a death case of 22,138. Compared to other country in Southeast Asia, Indonesia become the first rank in the number of positive case during 2020 as shown in Figure 1 and Figure 2.

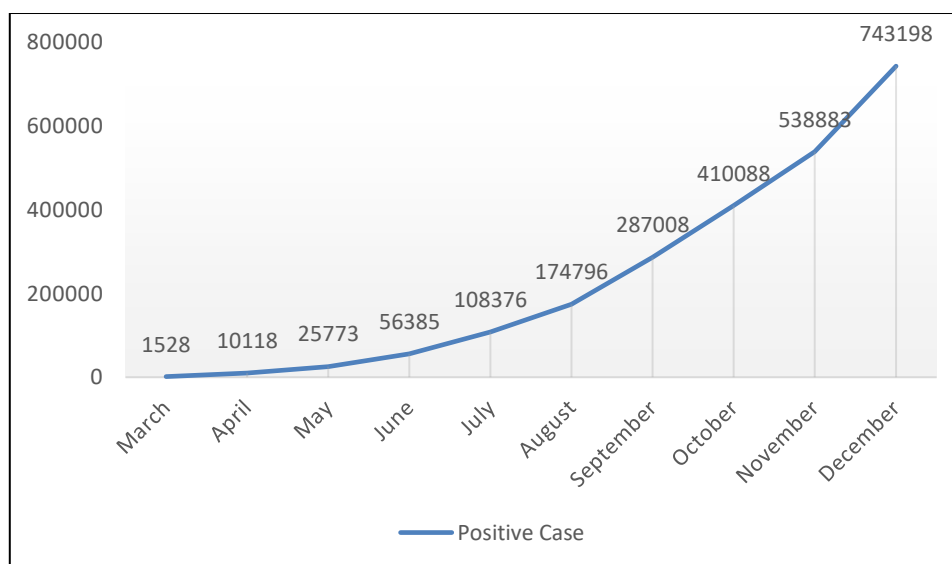


Figure 1. Number of Covid-19 Positive Case in Indonesia, March-December 2020  
Source: <https://covid19.go.id/>

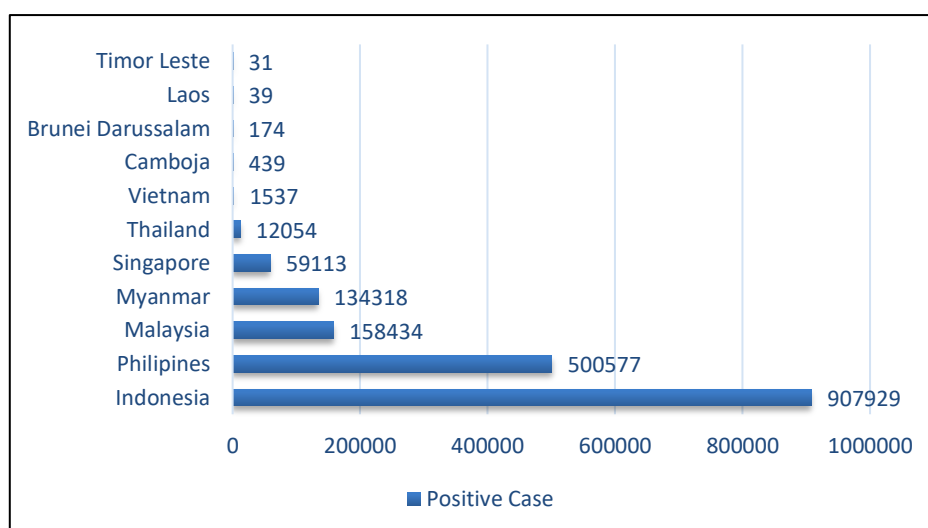


Figure 2. Number of Covid-19 Positive Case in South East Asia, March-December 2020  
Source: Worldometers, 2020

With these conditions, restrictions on mobility between regions, both between countries and between regions, are one of the solutions to control Covid-19. This policy has a direct impact on the number of foreign tourist visits to Indonesia. Based on data from Statistics Indonesia, the number of foreign tourists entering Indonesia in 2019 reached 16,106,954 people from various countries in the world, meanwhile in 2020 the number of foreign tourists who entered was only 4,052,923 or decreased drastically by 74.83 percent.

In addition to the decline in the number of foreign tourist arrivals, the national classified hotel room occupancy rate (ROR) also experienced a drastic decline in 2020. Based on data from the Statistics Indonesia, in 2019, the lowest national ROR for classified hotels occurred in May at 43.53 percent and the highest at 59.39 percent in December. Meanwhile in 2020 the lowest was in April at 12.67 percent and the highest in February at 49.22 percent, a month before the COVID-19 pandemic spread in Indonesia in March 2020.

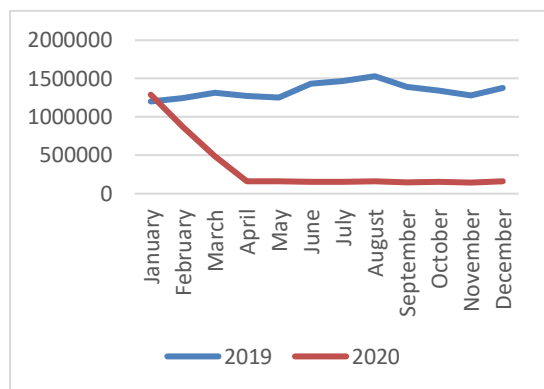


Figure 3. Abroad Tourist Arrival in Indonesia, 2020  
Source: Statistics Indonesia, 2020

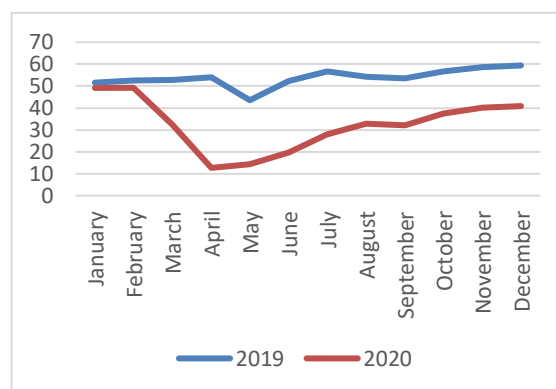


Figure 4. Room Occupancy Rate (ROR) of Classified Hotel in Indonesia, 2020  
Source: Statistics Indonesia, 2020

The problem faced by the Indonesian tourism world is that in 2019 the Indonesian Ministry of Tourism set 5 super priority tourist destinations in Indonesia, namely Lake Toba in Samosir Regency, Borobudur Temple in Magelang Regency, Mandalika in Central Lombok Regency, Labuan Bajo in West Manggarai Regency, and Likupang in North Minahasa Regency. These five super priority destinations are the main focus of the government in optimizing and increasing the economic value of Indonesian tourism. During the pandemic in 2020, the tourism sector which consists of various business fields has experienced an economic contraction.

This paper aims to analyse the impact of the pandemic on the economy in the districts where the super priority tourism destinations are located. In addition, this paper also aims to provide a solution to restore the trust from tourists to travel safely and comfortably, hopefully it will be able to increase Indonesia's economic growth through the tourism sector in new normal era.

## 2. Methodology

To provide an overview of the growth rate of the accommodation and food service activities and its contribution to GRDP, Room Occupancy Rate (ROR), and Unemployment Rate, in the regency where Indonesia's 5 super priority tourist destinations located, this study uses secondary data sourced from Statistics Indonesia publications in 2019 and 2020. This paper uses quantitative methods through descriptive analysis and the Klassen Typology model. Data processing was carried out using Microsoft Excel, and IBM SPSS software.

Descriptive analysis was carried out by tabulating the unemployment rate in 5 regencies during 2019-2020 to see the effects of the pandemic that began in 2020. Furthermore, the Klassen Typology model was used to examine specifically at the accommodation and food services activities, through plotting the growth rate and the contribution of the sector to the overall GRDP in the district.

### 3. Result

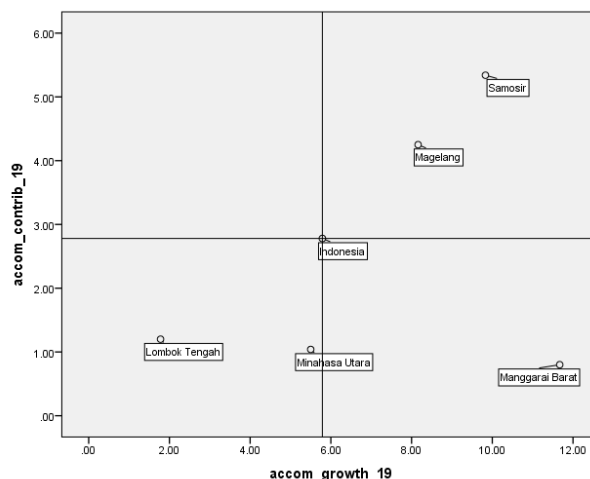


Figure 5. Plotting Result of Klassen Typology Model, 2019

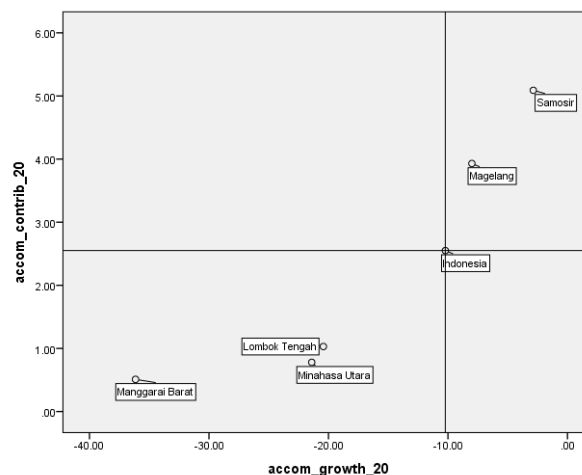


Figure 6. Plotting Result of Klassen Typology Model, 2020

The result of Klassen Typology analysis in the figure 5 and 6, shows the growth rate and contribution of GRDP from accommodation and food service activities, in Lombok Tengah, Minahasa Utara, and Manggarai Barat regencies in 2020 are lower than National growth rate and contribution of accommodation and food service activities into total GDP. This result indicate that covid-19 pandemic has an impact to the accommodation and food service activities in that regencies.

Not only affecting the economic growth and sectoral contribution, the effect of pandemic also cause an increasing in the unemployment rate. Based on Statistics Indonesia data, as shown in table 1 below, the unemployment rate are increase in 4 of 5 regencies, except Samosir where Danau Toba located. This phenomena indicates that decreasing of tourism sector in 5 super priority tourism object, can cause the increasing of unemployment rate, even tough the main focus of this policy is empowering the society around the tourism object located.

Table 1. Unemployment Rate of 5 Super Priority Tourism Object in Indonesia, 2019-2020

Regency	Year	
	2019	2020
Magelang	3.07	4.27
Manggarai Barat	2.42	3.72
Minahasa Utara	4.84	7.88
Samosir	1.25	1.20
Lombok Tengah	2.16	4.36

Source: Statistics Indonesia, 2020

### 4. Discussion and Conclusion

After examining the data, we can conclude that three out of five super priority tourism destinations in Indonesia have experienced the impact of the pandemic, sectoral economic growth which is below the national figure indicates the need for more efforts to support the

economy to rebound. Super priority destinations are expected not only as tourism object but also to grow a creative economic ecosystem that actively involves local residents.

Based on the results of data analysis, this paper suggest a solution to restore tourist confidence to return to travel so that it can eventually trigger an economic rebound from the tourism sector. Related affairs such as Indonesian Ministry of tourism and Creative Economy suggested to build an integrated data portal that can be accessed easily and provide information in real time, about the condition of tourism objects, especially in 5 super priority destinations.

Variables that can be displayed in real time in the portal are:

- Number of active cases of covid-19 in the area around tourism objects
- Ownership of Cleanliness, Health, Safety, and Environment Sustainability (CHSE) certificates by tourism objects
- Trends in the number of visitors to the tourism object

If all these variables can be integrated in one data portal that is easily accessible in real time, then tourists will find it easier to obtain information and be more confident when visiting their destination tourism objects. The Covid-19 health protocol will also be easier to implement, because this real time data will provide updated information so that tourists can avoid crowds.

This solution also will support the newest policy from Indonesian Ministry of tourism and Creative Economy called as Proud to Travel in Indonesia. This policy is a movement initiated by Kemenkomarves (Indonesian ministry of maritime and investment). This movement is expected to support the acceleration of comprehensive tourism development towards the provision of connectivity infrastructure, encourage digital payments using QRIS, provide responsible and sustainable tourism through the implementation and implementation of CHSE which is part of the implementation of health protocols in all tourism destinations including in 5 Super Priority Destinations.

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