Tourism Demands for Ecotourism Spots in Indonesia Using Google Trends

Demanda turística de lugares de ecoturismo en Indonesia utilizando Google Trends

BAMBANG MANTIKEI
https://orcid.org/0000-0003-3907-873X
bmantikei@gmail.com
Palangka Raya University, Indonesia

ABSTRACT

The search engine is regularly used to predict future tourist visits to a destination because of the correspondence between tourist visit patterns and keyword search patterns. This means that there is an unspecified delay from someone searching for keywords until the time of his/her visit to the destination. Even so, keywords that are searched in search engines still inform interest in visiting. Therefore, this research focused on 15 ecotourism destinations in Indonesia with keyword coverage related to worldwide reach. We found that urban conservation and ecotourism destinations experienced a decrease in interest in visiting.

Keywords: Demand, ecotourism, forecast, google.

RESUMEN

El motor de búsqueda se utiliza regularmente para predecir futuras visitas turísticas a un destino debido a la correspondencia entre los patrones de esas visitas turísticas y los patrones de búsqueda de palabras clave. Esto significa que hay un retraso no especificado desde que alguien busca palabras clave hasta el momento de su visita al destino. Aun así, las palabras clave que se buscan en los motores de búsqueda todavía informan a los turistas sobre el interés de visitar. Por lo tanto, esta investigación se centró en 15 destinos de ecoturismo en Indonesia con cobertura de palabras clave relacionadas con el alcance mundial. Descubrimos que los destinos de conservación urbana y ecoturismo experimentaron una disminución en el interés de visitar.

Palabras clave: Demanda, ecoturismo, google, pronosticar.

INTRODUCTION

There has been an interest in using Google Trend as a tool to predict tourist visits to a destination. Studies on visits to Belgium and Barcelona have been shown to be well predicted using keywords on Google Trend. The same thing also applied to Toraja, one of Indonesia's ecotourism destinations. The following figure shows the compatibility between the keyword trend of Google Trend and "Bali" keyword with a tour visit one month after that (Tana Toraja Statistics Bureau: 2018) and with the exclusion of China. This is because Google is not dominantly used as a search engine in mainland China. Previous studies were criticized for not considering the bias of different platforms especially in China (Dergiades et al.: 2018, pp.108–120). This graph also uses a lag time of 1 month because the average planned visit and real tourist visit time is one month. This graph is not very coincided but it is clear that both trends show the same and harmonious patterns. The higher the Bali keyword is used on Google, the more visits to the destination a month after that.
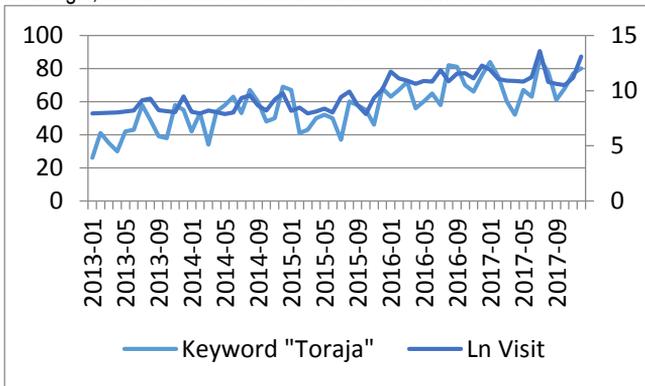
Figure 1. Pattern of Tourist Visits to Toraja and "Toraja" Keyword Pattern on Google
Source: Author

The Covid-19 situation gives its own complexity to the pattern of decision making for tourists to visit. In ordinary times, tourists can plan an average of one month before departure. During Covid-19, this is constrained by uncertainty when the crisis ended, whether the visit is an excess of a previous delay, or whether tourists will lose interest and cancel before the visit. However, searching for certain keywords can show a positive attitude to the destination. According to the theory of planned behavior, behavior is determined by intentions and intentions are determined by attitudes, subjective norms, and perceptions of behavioral control. Barriers from Covid-19 can only affect subjective norms and behavioral control, but not attitudes, especially if there is prior knowledge about how to avoid Covid-19 (Zhu & Deng: 2020, pp.1–23). If the crisis situation is over, subjective norms and behavioral control can be positive and helpful for attitudes to lead to intentions and finally, behavior to visit destinations.

Until now, there have been no studies that predict post Covid-19 tourism using Google Trend. This research is filling the gap by estimating world interest in ecotourism in Indonesia at the time of Covid-19 and hence, giving advice on how the Indonesian government can take action to encourage and promote ecotourism in Indonesia.

LITERATURE REVIEW

The International Ecotourism Society defines ecotourism as responsible travel to natural areas that conserve the environment and improve the welfare of local communities (Rhama: 2020, pp.1-17). However,

Utopía y Praxis Latinoamericana; ISSN 1316-5216; ISSN-e 2477-9555
Año 25, n° extra 10, 2020, pp. 283-296
285

in practice, the concept of ecotourism can be interpreted differently depending on the place and provider (Thompson et al.: 2018, pp.257–276). For example, it can be interpreted merely as managing various activities for visitors, providers, and interested parties (Ramazanova et al.: 2018, pp.109–118). In Indonesia, ecotourism is defined as responsible travel activities in natural places and/or areas created based on natural rules. In essence, ecotourism is a concept that reflects complex interactions between social, ecological, and economic variables (Wilson et al.: 2017, pp. 77–79).

Ecotourism behavior is known to have a positive impact on satisfaction with life for tourists who adhere to the principle of ecotourism and there are substantial comfort benefits for tourists visiting ecotourism destinations. On the other hand, for destinations, there are economic, social and environmental impacts that can be positive or negative, depending on the effectiveness of management. Classified as positive economic impacts are increased employment opportunities, community household income, infrastructure, protected area financing, and business partnerships, while negative impacts include unfair and unequal income distribution, reduced access to natural resources, loss of income due to protected areas, increased fluctuations in the price of daily needs and land, and the presence of external land ownership.

Studies have identified factors that influence a person to visit an ecotourism destination. Teerovengadum's research (2019) found three important factors of visiting intentions, namely attitudes, interests, and willingness to pay more. All three are then determined by environmental identification, namely a person's social position based on experience, in relation to and how we interact with the environment (Ramírez et al.: 2019; Teerovengadum: 2019; Ramírez et al.: 2020). Other research identifies factors of awareness of consequences, ascertaining responsibility, cultural involvement, personal norms, and attitudes towards conservation as determinants of intention to behave responsibly towards the environment to tourists (Kiatkawsin et al.: 2020, pp.1–15). These factors, unfortunately, are factors that originate from tourists, not from destinations.

At present, there are no studies examining the intention of tourists to visit ecotourism destinations in the Covid-19 period. It is understandable that a general visit at the time of Covid-19 makes the destination safety factor the main factor determining the intention to visit. Wen, Kozak, Yang and Liu (2020) predicted that Covid-19 will change the pattern of community travel towards tourism that is free and independent, luxurious, health and fitness oriented, slow, and smart. Meanwhile, Peters, Peters and Peters (2020) identified the trend of tourists to make a visit in a short time, to a familiar, economical place, guaranteeing security and safety, and allowing internet access. On the other hand, Li, Nguyen and Coca-Stefaniak (2020) found that friendliness (staying open during Covid-19 and showing resilience to epidemics) and impressions (low Covid-19 infection and high cure rates) increase one's chances to visit post Covid-19 destinations. Lin (2020) identified crowd perception as an inhibiting factor for pro-environment tourist behavior.

From the above review, destination factors that play a role in determining the decision to visit during the Covid-19 pandemic period can include crowds, resilience, information technology, easy access, security and safety, familiar, free and independent, luxurious, health and fitness oriented, slow, and smart. These factors can largely be met by ecotourism destinations but in varying degrees depending on location. Ecotourism locations by type can vary but in the Indonesian context, these destinations can be divided into cultural, reserve, island, diving, volcano, beach, heritage, and lake types. The following table summarizes the characteristics of each type of ecotourism based on visit criteria in Covid-19 period (Table 1).

The discussion shows that there are differences in the degree of attractiveness of ecotourism destinations related to new trends of tourists during the Covid-19 period. In general, island and beach destinations have mass characteristic that tourists should avoid because they allow a higher spread of the virus. The beach is said to be a global paradise, nudity, exhibitionism, comfort, and enjoyment while the island reflects separateness, exclusivity, and holism. Even so, this destination is familiar, complete with infrastructure, including information technology infrastructure, and luxury. Sabang Island for example, is an island commonly visited by cruise ships.

Type	Definition	Relation to Covid-19	Example
Beach	The main attraction is the beauty of the beach and marine cuisine	Crowded, easy access, fast, non-resilient, information technology, free and independent	Pangandaran
Island	The advantage that is highlighted is the tropical island landscape	Not too crowded, varied access, slow, free and independent, luxurious	Sabang, Derawan
Heritage	Destinations with the appeal of past legacies	Crowded, easy access, fast, not familiar	Borobudur
Cultural	Destinations that offer cultural richness of local communities	Crowded, easy access, fast, not resilient	Kota Tua, Toraja
Volcano	Tourism with volcano crater as the main destination	Crowded, difficult access, slow, smart	Batur, Rinjani, Bromo
Lake	Tourism with lake as the main destination	Crowded, difficult access, luxurious	Toba
Reserve	A terrestrial conservation area opened for ecotourism	Not too crowded, healthy and fit, not free, slow, difficult access, smart	Tanjung Puting, Komodo
Diving	A maritime destination with the main attraction of natural underwater life	Not too crowded, difficult access, fast, limited security and safety	Bunaken, Wakatobi, Raja Ampat

Table 1. Classification of Indonesian Ecotourism Destinations

Source: Author

Heritage and cultural destinations are more socially oriented and therefore vulnerable to the spread of Covid-19. As a result, this destination should be chosen more than the beach and island destinations. Lake and volcano destinations are more difficult to reach and more natural with infrastructure that is not as complete as beaches and islands. This destination is not safe in the sense of safety, but offers isolation because it is visited less frequently. The most rare and limited destinations are conservation and diving areas because the initial formation is for minimal contact with humans for nature conservation needs. This area lacks infrastructure and is difficult to reach but safe from Covid-19. Knowledge about which destinations will be chosen by tourists will inform about the characteristics of tourists who prioritize the most of the characteristics of tourism in the Covid-19 period in visiting ecotourism destinations in Indonesia.

METHODS

The tool used to study travel intention trends was Google Trend. Google Trend is a possibility of separation based on location to the sub-national level where the search is done. Data per country can be downloaded in numeric form so that it can be analyzed statistically. The data used was aggregate search volume data which combined all periods in the search time span. The location that Google used to estimate the real location of the searcher was the user's IP address.

To ensure data obtained relating to tourism, the category used was Travel. There were four search modes to choose from: Web Search, Image Search, News Search, Google Shopping, and YouTube search. This research used Web Search data because it was most commonly used in finding information about destinations. The keywords used were destination names. The use of destination names avoided bias due to language. In addition, language bias could also be reduced because Indonesian used Latin text which was Google's default text. Meanwhile, destination names were almost certainly unique and if not, they were dominant compared to synonym terms in other languages. The search data used was Worldwide data so there

Utopía y Praxis Latinoamericana; ISSN 1316-5216; ISSN-e 2477-9555
Año 25, n° extra 10, 2020, pp. 283-296
287

was a potential for platform bias. The country that was most likely to bias the platform was China because Google was not used in this country. Therefore, we need to limit if the countries studied did not include China or countries with a dominant search engine other than Google. Worldwide data was then downloaded in the aspect of interest by region so it was clear which countries which would do the searching. Indonesia automatically entered into Worldwide data. Search data was standardized data based on the highest volume. The data from Indonesia could be ascertained the highest because it was a country with a large population, and destinations that were researched were the most well-known and sought after locally. The search time span was two periods. The period before Covid-19 in this case was 2019. The current period of Covid-19 was the last 90 days, in this case March 26 - June 26, 2020. To validate this, we looked at the list of keywords related to destinations provided by Google Trend. If the five most related keywords were all related to tourism, it could be said that the data we had was valid.

The destinations used were destinations listed as ecotourism development destinations in the Indonesian Ministry of Tourism and Creative Economy. The Ministry of Tourism established 15 DMOs (Destination Management Organization) as tourism development destinations. The government is trying to develop a destination development strategy through ecotourism with the aim of achieving economic targets, environmental targets, socio-cultural targets, and destination quality management goals. The 15 DMOs that became destinations in this research are shown in Figure 2 below.

Figure 2. Ecotourism Destination Map in this Research
Source: Nirwandar (2015)

Figure 2 shows that the 15 destinations are spread across all major islands in Indonesia. Each destination has its own uniqueness. Based on the main attractions of the destinations, the 15 destinations can be divided into eight types as shown in the previous Table 1. Explanation of each destination is as follows.

The ecotourism destination on the Sumatra Island (westernmost area) consists of two points namely Sabang and Toba. Sabang is an island destination, located at the northwestern tip of Indonesia where local people have been encouraged to build ecological intelligence to support ecotourism (Aswita et al.: 2018, pp.393–402). On the other hand, Toba is the largest vast volcanic lake in Indonesia.

Java Island is the most populous island in Indonesia and can be considered as the smallest large island in the country. The capital city of Jakarta is on the Java Island and there is an urban ecotourism destination in the city center, namely Kota Tua. It is the center of the preservation of the city's history and is developed from a cultural perspective to allow tourists to visit as if they go to the past of Jakarta several hundred years ago, complete with human activities in it. On the south coast, there is Pangandaran destination that is a beach as a mass tourist destination. In the central part of Java, there are two ecotourism destinations: Borobudur-Java and Bromo-Tengger-Semeru. Borobudur-Java is a heritage destination because Borobudur is a temple

that was built around the 7th century AD. Meanwhile, Bromo-Tengger-Semeru is a volcano complex that is best known for its extensive craters and the surrounding landscape of very large craters.

There are a series of islands informally referred to as the Sunda Kecil islands in the further east of Java. The islands are divided administratively into three provinces. From west to east are Bali, West Nusa Tenggara and East Nusa Tenggara. Bali is the most famous tourist destination in Indonesia with predominantly Hindu religion. Even so, the ecotourism destination in Bali is Batur, a volcano. Rinjani on the Lombok Island, West Nusa Tenggara, is also a volcano. Even so, the cultural atmosphere in Rinjani is very different because the majority of Lombok is inhabited by Islamic people and the Sasak tribe. There is the Komodo-Kelimutu-Flores in the further east side. The main attraction of this ecotourism destination complex is the Komodo megafauna that is conserved on Komodo Island. The rest is Kelimutu and Flores. Kelimutu is a volcanic lake and Flores is a multi-ethnic cultural destination that is on the Flores Island.

There are two destinations in Kalimantan Island, namely, Tanjung Puting and Derawan. Tanjung Puting is a conservation area for Orang Utan megafauna. Actually, there are several other orangutan conservation areas opened to ecotourism in Kalimantan, such as Sebangau, but Tanjung Puting is considered the best and the oldest. On the other hand, Derawan is a newly discovered island that has a special appeal from the landscape to biodiversity.

Bunaken, Toraja and Wakatobi are located on Sulawesi island. Bunaken and Wakatobi are marine conservation areas, famous for beautiful coral reefs which make them rely heavily on diving attractions,while Toraja is a unique cultural complex in the mountains.

The final destination is located on the eastern tip, Papua Island. This destination is Raja Ampat, an island complex with the main attraction of coral reefs. The government opened the area for ecotourism, especially diving and encourage indigenous knowledge practices to support ecotourism (Prasetyo: 2019).

Those destinations are used as a keyword on Google Trend. The data obtained were then compared between 2019 data and the last three months data, representing requests before Covid-19 (normal) and requests during Covid-19 period. In this case, numerical data was not considered but rather was a list of countries that did a major search on Google. Countries taken were limited to countries with high search volume.

In each destination, countries were divided into three groups: consistent countries, countries that have lost interest, and new arrivals. Consistent countries were countries that appearred in pre-Covid-19 and during Covid-19 searches. This shows that the people of the country were still attracted to these destinations despite the pandemic. Countries that lose interest were those that appearred only in pre-Covid-19 searches and disappear during the pandemic period. This country reflected a country that has lost interest because of the possibility of feeling insecure, or other factors, so it was no longer interested in finding a destination. New arrivals countries were countries that emerged during the pandemic but did not exist in the pre-pandemic period. This can be interpreted as the emergence of interest precisely because the destination might provide security or other things that were considered superior to other destinations during the pandemic.

Based on these results, the researcher calculated the difference between the number of new arrivals and those who have lost interest. This result can be positive, zero or negative. Positive results indicated more new countries were interested than countries that have lost interest. Negative results illustrated the opposite situation. The researcher classified destinations with positive values as sustainable destinations because this meant that the destination could get tourists from new areas if the destination was opened in the near future. Conversely, destinations with negative values were referred to as endangered destinations because many countries had less interest in these destinations. The researcher then compared the patterns that emerged from these destinations and drew conclusions about what factors might make tourists interested or lose interest in those destinations by referring to the driving and inhibiting factors of travel during the Covid-19 period as identified in the literature review.

Utopía y Praxis Latinoamericana; ISSN 1316-5216; ISSN-e 2477-9555
Año 25, n° extra 10, 2020, pp. 283-296
289

RESULTS

The following table shows the findings for the beach and island destinations (Table 2). The beach was increasing in popularity contrarywise with the island destinations. Derawan even lost 14 countries. Conversely, beach destinations, on the other hand, had attracted interest, but not absolute because there were two countries that have lost interest. There were no new countries that were interested in island destinations, while for coastal destinations, they gained interest from three new countries. It can be concluded that tourists preferred destinations that were crowded, easily accessible, fast, economical, and was supported by information technology and infrastructure because beaches and islands had basic differences in crowds, access, speed, luxury, and technology and infrastructure.

Name	Pangandaran	Sabang	Derawan
Type	Beach	Island	Island
Consistent	6	6	5
Newcomer	3	0	0
Lost Interest	2	11	14
Difference	1	-11	-14
Status	Sustained	Threatened	Threatened
Lost interest countries	India, Singapore	Malaysia, USA, Hong Kong, Singapore, Belgium, Thailand, Netherlands, UK, Spain, India, Italy	Slovenia, Hong Kong, Switzerland, Italy, France, Taiwan, Spain, Germany, UK, Canada, Singapore, Russia, Brazil, China
Consistent countries	France, Netherlands, Malaysia, UK, USA, Vietnam	Germany, Japan, Vietnam, Philippines, Australia, South Korea	Malaysia, India, USA, Netherlands, Australia
Newcomer countries	Canada, Italy, Spain		

Table 2. Results for Beach and Island Destinations

Source: Author

Meanwhile, the data for cultural and heritage destinations are shown at Table 3. Heritage had more consistent tourists and newcomers while on the other hand, cultural destinations experienced the most lost interest. As a result, cultural destinations experienced threats while heritage destinations were actually sustainable. The difference between heritage and cultural destinations lied in familiarity and resilience. Heritage destinations were not familiar, in the sense of being historically unique, but resilient because only few people enjoyed them. Meanwhile, cultural destinations were more intimate because although they were culturally different, tourists to various degrees had similarities in certain cultural aspects. Cultural destinations, however, were not resilient, because they involved large numbers of people, especially in events such as festivals and rituals. The heritage destinations were preferred by tourists showed that tourists prioritized resilience over familiarity. The uniqueness (not familiar) might actually be considered a destination advantage because it could not be found in their area.

Name	Kota Tua	Toraja	Borobudur
Type	Culture	Culture	Heritage
Consistent	0	14	29
Newcomer	0	4	15
Lost Interest	3	20	1
Difference	-3	-16	14
Status	Threatened	Threatened	Sustained
Lost interest countries	Malaysia, Netherland, Brazil	Australia, Austria, Belgium, Canada, Czechia, Greece, Hong Kong, India, Japan, Nepal, New Zealand, Pakistan, Philippines, Poland, Portugal, Romania, Saudi Arabia, Serbia, Tunisia, UAE	Portugal
Consistent countries		Brazil, France, Germany, Italy, Malaysia, Mexico, Netherlands, Singapore, Spain, Switzerland, Thailand, UK, USA	Argentina, Australia, Austria, Belgium, Brazil, Canada, France, Germany, Hong Kong, Hungary, India, Italy, Japan, Malaysia, Mexico, Netherlands, Philippines, Poland, Vietnam, Singapore, South Korea, Spain, Switzerland, Taiwan, Thailand, Turkey, UK, USA
Newcomer countries		Argentina, Russia, South Korea, Vietnam	Brunei, Colombia, Czechia, Ecuador, Finland, Nepal, New Zealand, Pakistan, Romania, Russia, Serbia, Slovakia, Sri Lanka, Sweden, Ukraine

Table 3. Results for Cultural and Heritage Destinations

Source: Author

The volcano and lake destinations are showed in Table 4. Lake destination, although it had difficult access, it was crowded and luxurious, similar with the beach that regularly crowded. Volcano destinations had different levels of sustainability. Bromo destinations in Java were considered sustainable, Batur destinations in Bali were neutral, and Rinjani destinations in Lombok were in danger of being abandoned. When compared between the three volcanoes, Bromo destinations were relatively more complete in infrastructure. In addition, Bromo is consisting of Mount Tengger and Semeru so that the landscape offered was more attractive than Mount Batur or Rinjani which was a single mountain.

Different conditions were found in conservation destinations as shown in Table 5. All conservation destinations, both land and sea, faced threats. The destinations of Bunaken and Wakatobi were most threatened because many tourists left. Raja Ampat destination less threatened because Raja Ampat is a success model of sustainable by the government and NGOs to restore coral reefs in the region. Bunaken and Wakatobi appeared to have been abandoned despite being older than Raja Ampat. Both destinations appeared to be lacking in interest because Raja Ampat was becoming more famous. As can be seen in Table 5, the countries that left Bunaken and Wakatobi remained consistent for Raja Ampat.

In land conservation destinations, Tanjung Puting was less threatened compared to Komodo. Even so, Tanjung Puting enthusiasts were very minimal. There were only three countries that were actively searching for this keyword. This may be because orangutan conservation was not only found in Tanjung Puting. In various places on the Borneo Island, there were orangutan conservation areas. On the other hand, Komodos were very endemic megafauna, localized only on Komodo Island. But this destination did not seem to offer any other attraction besides megafauna. The Indonesian government had actually combined it with the

Utopía y Praxis Latinoamericana; ISSN 1316-5216; ISSN-e 2477-9555
Año 25, n° extra 10, 2020, pp. 283-296
291

Kelimutu destination, a volcanic lake, and Flores, a cultural destination. It seemed that this was not enough to encourage Komodo to be more sought after on Google.

The table 6 combines all the findings from the research into one table. When compared with Figure 2 which maps destination locations, a pattern immediately emerged, namely destinations that were sustained entirely in the Sumatra and Java regions, the islands with the most advanced infrastructure in Indonesia, as well as being the most populous island in Indonesia. Around 78 percent of Indonesia's population is concentrated in Java and Sumatra (Statistics Central Bureau: 2017). This implied that infrastructure and crowd factors were the main drivers for the intention to visit ecotourism destinations in Indonesia during the Covid-19 pandemic.

Another pattern that emerged was that the three most popular destinations in 2019, seen from the number of consistent and lost interest, namely Komodo (56 countries), Raja Ampat (51 countries), and Rinjani (39 countries), all three were under threat, despite the decline of number of countries was relatively low. Sustainable destinations were neither too crowded nor too deserted in 2019 giving rise to great potential in 2020. The three most crowded destinations that were in demand, judging by the number of consistent and newcomers, by 2020 were Bromo (60 countries), Komodo (51 countries), and Toba (49 countries). Komodo, although not sustained, remained a destination with great potential. This showed that the reserve destination did not experience too much decrease when compared to diving destinations.

Name	Bromo	Batur	Rinjani	Toba
Type	Volcano	Volcano	Volcano	Lake
Consistent	32	5	28	34
Newcomer	28	1	6	15
Lost Interest	0	1	11	3
Difference	28	0	-5	12
Status	Sustained	Neutral	Threatened	Sustained
Lost interest countries		Sweden	UAE, Taiwan, Slovenia, Russia, Norway, Argentina, Brazil, Brunei, Colombia, Croatia, Hong Kong	Peru, Ireland, Norway
Consistent countries	Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, Colombia, Ecuador, France, Germany, Hong Kong, India, Italy, Malaysia, Mexico, Netherlands, Peru, Philippines, Poland, Portugal, Russia, Singapore, Spain, Switzerland, Taiwan, Thailand, Turkey, UK, USA, Venezuela, Vietnam	France, Germany, Netherlands, UK, USA	Australia, Austria, Belgium, Canada, Czechia, Denmark, France, Germany, India, Italy, Japan, Malaysia, Mexico, Netherlands, New Zealand, Philippines, Poland, Saudi Arabia, Singapore, Spain, Sweden, Switzerland, Thailand, Turkey, UK, USA, Vietnam	Argentina, Australia, Brazil, Canada, Chile, Colombia, Czechia, Finland, France, Germany, Hong Kong, India, Italy, Japan, Malaysia, Mexico, Netherlands, New Zealand, Vietnam, Pakistan, Philippines, Poland, Romania, Russia, Singapore, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, USA, UK
Newcomer countries	Belarus, Bolivia, Brunei, Costa Rica, Czechia, Denmark, Dominican Republic, Greece, Guatemala, Honduras, Hungary, Israel, Japan, Kazakhstan, Morocco, Nicaragua, Norway,	India	Ireland, Mauritius, Portugal, Slovakia, South Africa, South Korea	Belgium, Cambodia, Croatia, Denmark, Ecuador, Guatemala, Morocco, Saudi Arabia, Slovakia, South Korea, Sri Lanka, Ukraine, UAE, Uruguay, Venezuela

Pakistan, Panama, Paraguay, Puerto Rico, Romania, Slovakia, South Africa, South Korea, Ukraine, UAE, Uruguay				

Table 4. Results for Volcano and Lake Destinations

Name	Tanjung Puting	Bunaken	Wakatobi	Raja Ampat	Komodo
Type	Reserve	Diving	Diving	Diving	Reserve
Consistent	2	17	11	45	47
Newcomer	0	0	2	3	4
Lost Interest	1	11	13	6	9
Difference	-1	-11	-11	-3	-5
Status	Threatened	Threatened	Threatened	Threatened	Threatened
Lost interest countries	Spain	Argentina, brazil, Czechia, Finland, India, Turkey, Switzerland, Norway, Philippines, Poland, Italy	Australia, Austria, Belgium, Canada, Czechia, Ireland, Netherlands, Poland, Singapore, Spain, Sweden, Switzerland, UAE	Hungary, Maldives, Morocco, Norway, Saudi Arabia, St. Helena	UAE, Slovenia, Chile, Cambodia, Algeria, Croatia, Norway, Israel, Lithuania
Consistent countries	UK, USA	Australia, Austria, Belgium, Canada, France, Germany, Malaysia, Netherlands, Russia, Singapore, South Korea, Spain, Thailand, UK, USA, Vietnam	Slovenia, Malaysia, Vietnam, Thailand, Germany, Italy, Brazil, France, UK, USA, India	Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, Colombia, Czechia, Denmark, Finland, France, Germany, Greece, Hong Kong, India, Ireland, Italy, Japan, Luxembourg, Malaysia, Mexico, Netherlands, New Zealand, Philippines, Poland, Portugal, Romania, Russia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, Ukraine, UAE, UK, USA, Vietnam	Argentina, Australia, Austria, Belgium, Brazil, Canada, Colombia, Czechia, Denmark, Egypt, Finland, France, Germany, Greece, Hong Kong, Hungary, India, Iran, Ireland, Italy, Japan, Malaysia, Mexico, Netherlands, New Zealand, Philippines, Poland, Portugal, Romania, Russia, Singapore, Slovakia, South Africa, South Korea, Spain, Sri Lanka, St. Helena, Sweden, Switzerland, Taiwan, Thailand, Turkey, Ukraine, UK, USA, Vietnam
Newcomer countries			South Africa, Mexico	Algeria, Israel, Tunisia	Honduras, Morocco, Saudi Arabia, Serbia

Table 5. Results for Reserve and Diving Destinations

Utopía y Praxis Latinoamericana; ISSN 1316-5216; ISSN-e 2477-9555
Año 25, n° extra 10, 2020, pp. 283-296
293

Name	Type	Consistent	Newcomer	Lost Interest	Difference	Status
Pangandaran	Beach	6	3	2	1	Sustained
Derawan	Island	5	0	14	-14	Threatened
Sabang	Island	6	0	11	-11	Threatened
Kota Tua	Culture	0	0	3	-3	Threatened
Toraja	Culture	14	4	20	-16	Threatened
Borobudur	Heritage	29	15	1	14	Sustained
Batur	Volcano	5	1	1	0	Neutral
Rinjani	Volcano	28	6	11	-5	Threatened
Bromo	Volcano	32	28	0	28	Sustained
Toba	Lake	34	15	3	12	Sustained
Tanjung Puting	Reserve	2	0	1	-1	Threatened
Komodo	Reserve	47	4	9	-5	Threatened
Bunaken	Diving	17	0	11	-11	Threatened
Wakatobi	Diving	11	2	13	-11	Threatened
Raja Ampat	Diving	45	3	6	-3	Threatened

Table 6. Research Results

In overall, destinations that were classified as sustained were beach, heritage, volcano, and lake destinations, while threatened destinations included reserve, cultural, island, and diving. Sustainable destinations had characteristics of crowded, easy access, allow deep exploration (slow), and allow luxurious services. Threatened destinations tended to have characteristics of not too crowded, difficult to access, minimum exploration, and limited safety and security.

Specifically, Toraja and Derawan were the most threatened destinations because implicitly, Toraja only offered limited variations, and Derawan has limited access. On the other hand, Bromo, Toba, and Borobudur (those are related to volcanoes) had the most new arrivals. Infrastructure factors appeared seem to play a role in creating a sense of security for tourists.

DISCUSSION

The results of this research indicated that all sustainable destinations turned out to be in Java and Sumatra that cannot be ignored have the best infrastructure compared to other islands in Indonesia. Infrastructure factors were related to luxury, information technology, speed, and also health care facilities that were relatively needed during the pandemic. However, this also provided the possibility of greater Covid-19 exposure to tourists because such destinations were more crowded. That is, in the context of ecotourism, tourists preferred supporting factors over health risks. Of course, they might also consider remote ecotourism destinations that is less crowded, but with a consequence more difficult to reach health care facilities if problems occured that did not originate from Covid-19, such as injuries or tropical diseases. According to Wong and Zhao (2016) this showed that tourists in general were tourists who were not looking for novelty, because tourists who were looking for novelty tended to avoid geographical convenience.

However, the results also showed that crowded destinations such as Kota Tua and Toraja were abandoned by tourists during the Covid-19 period. Indeed, there was a possibility that the conditions

experienced by Kota Tua experienced language bias. Maybe tourists knew it better as Jakarta, rather than the more specific Kota Tua destinations, thus distorting keywords. On the other hand, Toraja may be abandoned because of the distance, apart from the crowds of people visiting this area.

Moreover, the biggest loss of interest was in the destinations of Toraja and Derawan. Both represented the categories of destinations left by tourists in general, namely island and cultural destinations. Physical isolation by islands and cultural isolation by cultural destinations seemed to explain this problem. Tourists during the Covid-19 period did try to isolate themselves but in the context of the territory and culture that they were familiar with. Tourists tended to seek destinations that were able to connect them to their home country if they experienced health problems such as the spread of the Covid-19 virus.

The government's ability to accommodate the needs of visits to ecotourism destinations in Indonesia is required to assure the sustainability of destinations including the people who depend on ecotourism activities. For example, the government can create more access so it is easy to connect with tourists' country while at the destination. Infrastructure convenience, luxury, and originality may conflict with each other but in this case, if the government are oriented to the needs of tourists in the Pandemic period, then perhaps originality must be compromised. One form of this compromise is to use virtual reality and information technology intensively, so that the physical destination is not much disturbed, and tourists can feel familiarity, luxury, and comfort of infrastructure.

Overall, the theoretical implications of this research reaffirm the thesis of the leisure class theory that tourism is nothing but an archetype of a good life and paradise (Galvani et al.: 2020). Although connectedness with nature is also a good source of life, connection with humans in the group is more prominent as a source of good life in the pandemic.

CONCLUSION

Google Trend is a powerful analytical tool and can been used to predict visits to certain destinations because it is used by potential tourists to plan a tour to a place. While existing research seeks to do forecasting/nowcasting by matching Google Trend keyword data with real data on tourist visits in the field; this research went further by predicting future visits based on what was found on Google Trend.

This current research compared the country's interest before and during Covid-19 period so that patterns of tourist interest to visit ecotourism destinations in Indonesia can be seen. Validation conducted in several ecotourism destinations in Indonesia showed a good ability in predicting the interest of certain countries based on the volume of keywords used and real visits of tourists from related countries. It shows that: i) the two most popular ecotourism destinations in Indonesia (Raja Ampat and Komodo), both of which were conservation destinations, tended to be threatened because the number of countries which were no longer interested in the destinations, ii) ecotourism destinations in the nation's capital also lost interest from tourists, and iii) nature and heritage-based ecotourism destinations such as Pangandaran, Borobudur, and Toba were more likely to be sustainable because of more interest from new countries.

Overall, the use of a method that compares the source countries of keywords before and during Covid-19 is an important indicator to assess how strong the attractiveness of ecotourism destinations in the international level. For destinations that are under threat of decreased interest and, therefore, a reduction in visits, it is necessary to carry out more aggressive promotion measures with more emphasis on safety and health aspects. Sustainable destinations need to improve quality and maintain environmental support when destinations are opened for tourists from various countries. In this way, the principle of sustainability of ecotourism destinations is maintained and the destination does not turn into a mass tourism destination in the future.

It is clear that this research has limitations in many ways. Although we have tried to avoid language bias and platform bias (Dergiades et al.: 2018, pp.108–120), we are still faced with the problem of data sufficiency

Utopía y Praxis Latinoamericana; ISSN 1316-5216; ISSN-e 2477-9555
Año 25, n° extra 10, 2020, pp. 283-296
295

due to the short timeframe for reviewing aspects of keywords during the Covid-19 period in Indonesia. In addition, the method we use is merely descriptive, thus, further analysis using more inferential methods is needed. Moreover, the findings of this research may only be limited to the context of ecotourism in tropical Indonesia. Research in other country contexts is needed to see whether the ecotourism decision making tendencies found in this research also apply in other countries, especially for non-tropical countries.

BIBLIOGRAPHY

ASWITA, D, SURYADARMA, I & SUYANTO, S (2018). "Local Wisdom of Sabang Island Society (Aceh, Indonesia) in Building Ecological Intelligence to Support Sustainable Development". GeoJournal of Tourism and Geosites, 22(2), pp.393–402.

DERGIADES, T, MAVRAGANI, E & PAN, B (2018). "Google Trends and tourists arrivals : Emerging biases and proposed corrections". Tourism Management, 66(22), pp.108–120. https://doi.org/10.1016/j.tourman.2017.10.014

GALVANI, A, LEW, AA & PEREZ, MS (2020). "COVID-19 is expanding global consciousness and the sustainability of travel and tourism". Tourism Geographies. https://doi.org/10.1080/14616688.2020.1760924

KIATKAWSIN, K, SUTHERLAND, I & LEE, SK (2020). "Determinants of Smart Tourist Environmentally Responsible Behavior Using an Extended Norm-Activation Model". Sustainability, 12(4934), pp.1–15.

LI, J, NGUYEN, T & COCA-STEFANIAK, JA (2020). "Coronavirus impacts on post-pandemic planned travel behaviours". Annals of Tourism Research.

LIN, T, LIU, C & YEH, S (2017). "Evaluating the Leisure Benefits of Ecotourism with Data Envelopment Analysis". Applied Ecology and Environmental Research, 15(2), pp.33–41. https://doi.org/10.15666/aeer/1502

LIN, Y (2020). "Role of Deindividuation Between Perceived Crowding and Tourist Behaviors : Moderating Effect of Environmental Knowledge". University of Guelph.

NIRWANDAR, S (2015). "Ecotourism in Indonesia". Jakarta.

PETERS, K, PETERS, J & PETERS, N (2020). "Visit people: Tourism Recovery after disaster".

PRASETYO, N (2019). "Indigenous Knowledge and Practices for Marine Ecotourism Development in Misool, Raja Ampat, Indonesia". University of Otago.

RAMAZANOVA, M, TORTELLA, BD, KAKABAYEV, A & BULAI, M (2018). "Ecotourism as a tool for local sustainable development : The case of Burren, Ireland". Lucrările Seminarului Geografic Dimitrie Cantemir, 46(2), pp.109–118.

RAMÍREZ MOLINA, R., ESPINDOLA, C., RUÍZ, G & HUGUETH, A (2019). "Gestión del Talento Humano: Análisis desde el Enfoque Estratégico". Información Tecnológica, 30(6), pp. 167-176.

RAMÍREZ MOLINA, R., LAY, N & SUKIER, H (2020). "Gerencia Estratégica para la Gestión de Personas del sector minero de Venezuela, Colombia y Chile". Información Tecnológica, 31(1), pp. 133-140.

RHAMA, B (2020). "The meta-analysis of Ecotourism in National Parks". African Journal of Hospitality, Tourism and Leisure, 9(1), pp.1-17.

STATISTICS CENTRAL BUREAU (2017). "78 Persen Penduduk Indonesia Terpusat di Jawa-Sumatera (78% of Indonesian Population Concentrated in Java-Sumatera)". Retrieved June 29, 2020, from https://tumoutounews.com/2017/09/11/penduduk-indonesia-terpusat-di-jawa-sumatera/

TANA TORAJA STATISTICS BUREAU (2018). "Tourism Statistics. Makale". Retrieved from https://tatorkab.bps.go.id/subject/16/pariwisata.html

TEEROVENGADUM, V (2019). "Environmental identity and ecotourism behaviours : examination of the direct and indirect effects". Tourism Review, 74(2), pp.280–292. https://doi.org/10.1108/TR-11-2017-0190

THOMPSON, BS, GILLEN, J & FRIESS, DA (2018). "Challenging the principles of ecotourism : insights from entrepreneurs on environmental and economic sustainability in Langkawi, Malaysia". Journal of Sustainable Tourism, 26(4), pp.257–276. https://doi.org/10.1080/09669582.2017.1343338

WEN, J, KOZAK, M, YANG, S & LIU, F (2020). "COVID-19: potential effects on Chinese citizens' lifestyle and travel". Tourism Review. https://doi.org/10.1108/TR-03-2020-0110

WILSON, R, TORRES, A, SPEARS, D, BIRENDRA, K & JOSIAM, B (2017). "Ecotourism Perceptions and Participation by University Students". In C. Cobanoglu (Ed.), Proceedings of the Graduate Student Research Conference in Business and Economics : 1(1), pp. 77–79. Sarasota, Florida.

WONG, IA & ZHAO, WM (2016). "Exploring the effect of geographic convenience on repeat visitation and tourist spending : the moderating role of novelty seeking". Current Issues in Tourism, 19(8), pp.824–844. https://doi.org/10.1080/13683500.2013.870538

ZHU, H & DENG, F (2020). "How to Influence Rural Tourism Intention by Risk Knowledge during COVID-19 Containment in China : Mediating Role of Risk Perception and Attitude". International Journal of Environmental Research and Public Health, 17(3514), pp.1–23.

BIODATA

B MANTIKEI: Associate Professor of Management Education. Office address: Economic and Business Faculty, Tanjung Nyaho Campus, Palangka, Raya University, H. Timang street, Palangka Raya, Central Kalimantan 73112, Indonesia, Telp./Faks: +62536 3222769, Home address: Soeprapto Street no 5, Palangka Raya, Central Kalimantan 73112, Indonesia, Home: +62536 4213143 ,Handphone: +6281352718400, e-mail: bmantikei@gmail.com

Educational History

Year	Grade	School Name	Subjects
1976	Undergraduate of Economic	Palangka Raya University	Management
1991	Magister	Gadjah Mada University	Management
2012	Doctoral	Universitas Negeri Jakarta	Education Management