APEC

Asia-Pacific
Economic Cooperation

Advancing Free Trade
for Asia-Pacific **Prosperity**

Tourism Industry of APEC Region in the COVID-19 Recovery Period: Current Situation, Trends and Challenges

APEC Tourism Working Group

April 2023

Tourism Industry of APEC Region in the COVID-19 Recovery Period: Current Situation, Trends and Challenges

Final Report

APEC Tourism Working Group

April 2023

Table of contents

Abstract

The COVID-19 pandemic has made a negative impact on most economic sectors in the world, especially on the tourism industry. For many APEC economies, tourism is one of their leading industries. The project will explore the situation of the recovering tourism market in APEC economies, explain the new tendencies of the tourism market and share the best practices. Moreover, a recovery index model has been created to analyze relevant data, which are from both objective and subjective sides. Besides, some information about recovery status and related cases of tourism recovery are also shared.

Through research and calculation, the project has drawn the main conclusions: (1) Compared with before the outbreak of the pandemic, tourism in APEC region after the pandemic has recovered to about 40% of the previous level, and the recovery situation is relatively good; (2) Regional economies have gradually opened up their entry and exit policies, and adopted different measures to revive the tourism industry. The development of tourism is relatively optimistic.

Last but not least, combined with index statistics and case analysis, this project also puts forward the following suggestions: (1) Governments need to make more resilient post-pandemic cross-border travel policies in response to COVID-19; (2) Strengthen the role of technology empowerment in promoting the post-pandemic recovery of regional cross-border tourism; (3) Enhance connectivity and air routes among APEC economies; (4) Carry out online marketing and promotion activities for destinations with cultural characteristics; (5) Promote the revival of cross-border tourism through business and trade activities.

I. Introduction

Tourism employed one in every ten people globally, providing livelihoods to millions of people in developed and developing countries through a complex value chain of interconnected industries. Over the decades, tourism has experienced continued growth and greater diversification and become one of the fastest growing economic sectors in the world. In accordance with 2019 data, tourism contributed 10.3%[1] of global Gross domestic product (GDP) and generated 7%[2] of global trade.

Compared with 2019, the COVID-19 pandemic caused about 70% decline in international tourist arrivals in 2020. And in 2020, 62 million jobs were lost, leaving just 272 million employed across the sector globally. This 18.5% decrease was felt across the entire Travel & Tourism ecosystem, with Small and Medium Sized Enterprises (SMEs) being particularly affected[3].

This project combines both quantitative and qualitative research. The objective is to construct a recovery index to dynamically evaluate and monitor post-pandemic tourism recovery in the APEC region. The project adopts multiple data sources such as Online Travel Agency (OTA) reservation, Google Trends, real-time pandemic data and traditional data such as interviews and questionnaires. Besides, best practice and lessons learned on digital technology utilization, policy making, destination online marketing and new form of industries have also been collected to provide references for APEC economies in this project.

This project could benefit APEC economies in various aspects. First, government officials from APEC economies who are responsible for policy making will have a more accurate and holistic perspective of the current tourism recovery and can thus improve relevant strategies and policies. Second, tourism practitioners could also acquire some quantitative reference to and insights about utilizing digitization and innovations in terms of tourism industry recovery. Third, ordinary tourists who expect to travel cross border will also have some knowledge about the whole situation in APEC region and gain more support when planning their trip.

---

[1] https://www.statista.com
[2] https://www.un.org
[3] https://wttc.org

II.   APEC Cross-border Tourism Recovery Index

As a pillar industry of APEC member economies, tourism is greatly affected by COVID-19, particularly cross-border tourism. APEC tourists' travel intention and their preferences on cross-border tourism service greatly changed. Tourism practitioners and governments are supposed to respond to such changes. Thereby, a better understanding of changes and new tendencies of tourism after the COVID-19 pandemic in APEC region is both necessary and important. To respond to these changes and requirements, an index model has been developed to evaluate cross-border tourism market recovery in APEC region by combing both objective and subjective data.

In order to make sure that the recovery index is reliable and trustworthy, literature review and expert panel assessment were conducted in the first place to identify dimensions and specific indicators of the index. Based on the expert panel assessment, we adopted Analytic Hierarchy Process (AHP) to refine the index dimensions and indicators, including recovery speed, recovery status and perceived recovery status. Subsequently, based on the identified index indicators, questionnaire was designed and distributed to officials, industry representatives, and general tourists from all the economies in the APEC region via Amazon MTurk to get their perceptions of the recovery status. Moreover, we collaborated with booking platforms such as Trip.com and Google Trends to obtain the objective online booking data, destination connection as well as COVID-19 related data from several open data sources. Armed with the subjective and objective data, AHP was adopted to confirm weight and calculate the index values.

In the long run, the index model and its values not only help unveil the recovery of cross-border tourism in APEC region, but also provide valuable references for policy makers and tourism practitioners in terms of policy making and tourism sector adjustment for the long-term recovery. In the future, we suggest implementing regular pandemic prevention and control measures, fully advancing work resumption, leveraging high technology to minimize human-to-human contact, embracing openness and cooperating for mutual benefit, as well as strengthening our confidence and hope for the recovery of tourism.

This report is organized as follows: The first section provides the details of data collection, including the expert panel data, objective data and subjective data; The

second section depicts the specific modeling procedures—AHP; The third section summarized and reported the index values from three aspects—recovery speed, recovery status and perceived recovery status.

1. Data Collection

1.1 Subjective data

1.1.1 Expert panel assessment

To develop the APEC cross-border tourism recovery index, we firstly identified an initial pool of recovery indicators based on literature review. Then, respectable academics and experienced practitioners in hospitality and tourism from all the twenty-one APEC economies and APEC observers were invited to review the recovery indicators in terms of redundancy, content validity, applicability, representativeness, and wording (Appendix 1). A total of sixteen experts agreed and participated in the assessment. Based on the assessment of the expert panel, we adopted Analytic Hierarchy Process (AHP) to calculate the weight of each recovery indicator, which serves as the foundation and precondition to calculate the index value.

1.1.2 Questionnaire data

According to the expert panel assessment data, the stakeholder's perceptions of the recovery status need to be taken into consideration. In this respect, a questionnaire was designed to evaluate industry practitioners' perceptions. The questionnaire includes: the remuneration package and number of employees; intentions to invest in cross-border tourism and perceived recovery level; travelers' intention to travel across borders and perceived recovery level; government officials' perceived recovery level and their willingness to open border and receive oversea tourists. With the help of *Amazon MTurk*, the questionnaire was distributed to officials, industry representatives, and general tourists from all the economies in the APEC region. Eventually, a total number of 507 questionnaires from 17 APEC economies were collected.

1.2 Objective data

1.2.1 COVID-19 related data

Tourism recovery is highly relevant to the real-time COVID-19 situation in APEC member economies. Thus, we collected COVID-19-related data from several open

data sources, including "*Our World in Data*"[1], "*Worldometers*"[2], "*Oxford COVID policy tracker*"[3], and specific data items like the number of vaccinated people, the number of newly confirmed infection cases. We also used "Oxford government response index" to depict the member economies' opening degree. These data items are adopted in our model to reflect the dynamic developments of COVID-19 in the APEC region, since they are believed to have the most significant relationship with cross-border tourism recovery.

1.2.2 OTA booking data

Trip.com, a top online travel agency in the APEC region, cooperated with our project and provided some crucial online booking data, including the total hotel, airline, and attraction booking data in 2019 and 2022 in the same month. We utilized the booking data to evaluate the current status of APEC cross-border tourism recovery compared with those in 2019.

1.2.3 Google index data

Google destination insight involves destination connection (via online search and booking behavior). We collected APEC economies' connection data from Google destination insight to analyze the travel intention among APEC member economies by their searching and booking behaviors[4].

---

[1] *https://github.com/owid/COVID-19-data/tree/master/public/data*

[2] *https://www.worldometers.info/COVID-19/#countries*

[3] *https://github.com/OxCGRT/COVID-policy-tracker/tree/master/data/timeseries*

[4] *https://destinationinsights.withgoogle.com/intl/zh-CN_ALL/*

2. Index Modeling: AHP

2.1 Modeling

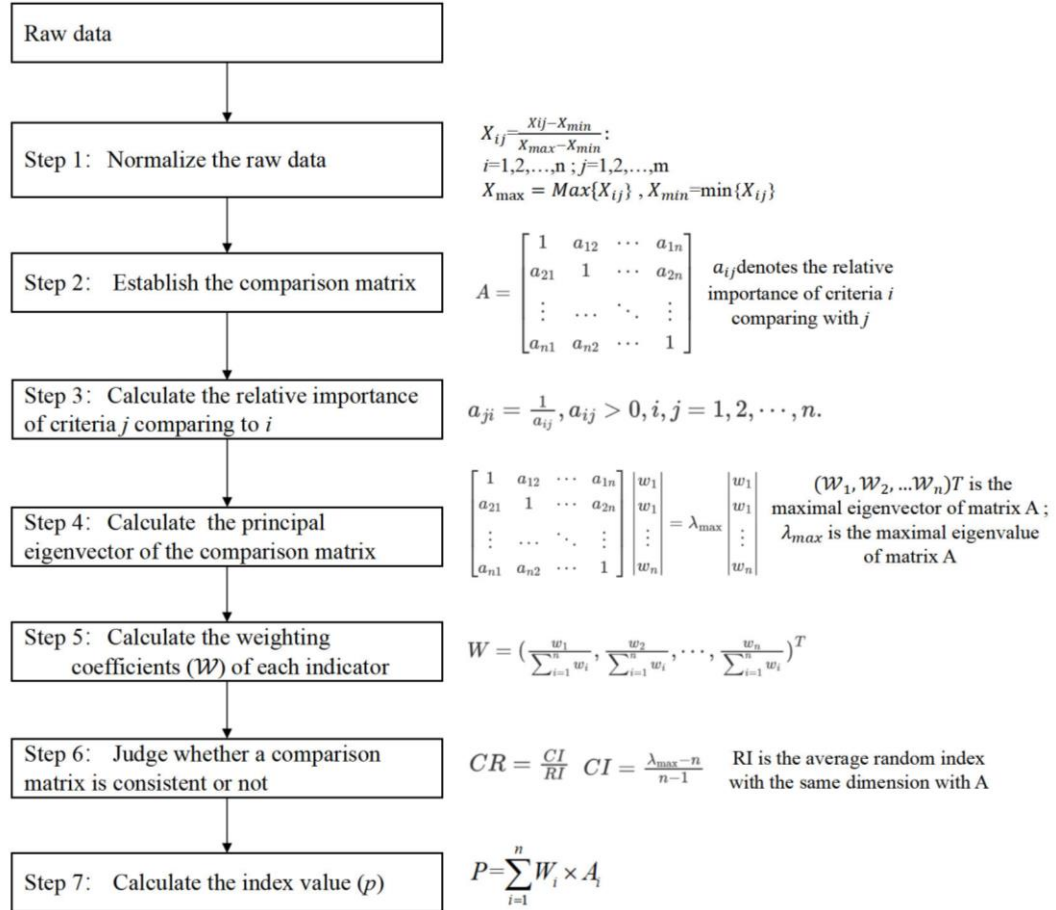The whole modeling procedure is as shown in Figure 1.

Figure 1. APEC Cross-border Tourism Recovery Index Model

Step 1. S*tandardization*: The data was collected from different sources, including questionnaire data, booking data from OTA, Google index data and COVID-19-related data from several open data sources. Thus, to compile and compare numbers of different sizes, we firstly normalized the raw data by "max-min" normalization (Figure 1).

Step 2. *Comparison matrix construction:* based on the expert panel assessment data, we established a comparison matrix to assess the relative values of the indicators on a pair basis. As shown in Figure 1, a_{ij} denotes the relative importance of criteria of i comparing with j.

Step 3. R*elative importance calculation*: the relative importance of criteria of *j* comparing to *i* was calculated according to the following formula: $a_{ji}=\frac{1}{aij}$. A point intensity scale of importance between two indicators was adopted to express degree of preference between the two indicators. In detail, 1 represents the two indicators were equally important, 0.33 indicates that *j* is slightly more important than *i*, 0.2 indicates *j* is clearly more important than *i*, 0.14 indicates *j* is strongly more important than *i*, and 0.11 indicates *j* is extremely more important than *i*.

Step 4. P*rincipal eigenvector of the comparison matrix calculation*: Based on the comparison matrix, the principal *eigenvector of the comparison matrix was constructed. As shown in Figure 1, w₁, w₂,…, wₙ* refer to the weights obtained by the comparisons.

Step 5. W*eighting coefficients (w) of each indicator calculation: The first step is to reduce the pair-wise comparison matrix to a comparison vector, i.e. a set of scores (or partial values) representing the relative performance of each alternative. The values in the pair-wise comparison matrix are interpreted as ratios of these underlying scores.*

Step 6. C*onsistency judgement*: a measure of the inconsistency in each set of judgments was needed. The consistency ratio (CR) is computed from the eigenvalue, λmax, which often turn out to be larger than the value describing a fully consistent matrix according to the following formula: $CR = \frac{CI}{RI}$

Consistency index (CI) was defined according to the following formula:

$$CI = \frac{\text{Pricipal eigenvalue - size of matrix}}{\text{size of matrix - 1}} = \frac{\lambda_{max} - n}{n - 1}$$

RI is the average random index with the same dimension with A. That CR is 0.1 or less than is generally stated to be acceptable.

Step 7. I*ndex value calculation*: based on the determined weight of the index and the questionnaire data, online booking data, Google index data and COVID-19-related data, the comprehensive score of the index (*P*) is calculated according to the following formula: $P=\sum_{i=1}^{n} W_i \times A_i$

2.2 Indicators of recovery index model

Based on the literature review and the expert panel assessment, indicators for the degree of recovery could include the following dimensions: recovery status, recovery speed, and stakeholders' perceptions of the recovery status. Table 1 summarizes these dimensions and their AHP-calculated weights.

Table 1. Recovery indicators and their weights.

Dimension weight		Level weight	
Recovery speed	30.01%	Online booking data month on month	58.57%
		Pandemic trend data month on month	41.43%
Recovery status	28.09%	Online booking data year on year	47.21%
		Average price data year on year	28.47%
		Travel enterprises data year on year	24.32%
Perceived recovery status	41.90%	Google destination searching data month on month	34.85%

2.2.1 Recovery speed

Since many economies have adopted regular pandemic prevention and control measures and are gradually opening their borders to overseas tourists, it is necessary to explore the monthly recovery speed. First, we measured the factor by comparing the APEC economies' opening degree derived from the "Oxford Government Response Index" monthly. We also compared and took into consideration the proportion of vaccinated persons and infected persons in the total population on a month-on-month basis. Second, we measured this factor by comparing month-on-month online booking data (e.g., booking data in June, 2022 and in July, 2022). The AHP results showed that 30.01% of the index model can be explained by recovery speed.

2.2.2 Recovery status

The direct factor related to recovery status is the comparison between the current data and the data from 2019. The project measures this factor by comparing the online booking data, average travel product price data, and a number of tourism enterprises data year-on-year (e.g., comparing booking data in June 2022 with those data in June 2019). According to the AHP on subjective data, this dimension takes up 28.09% of the total index model.

2.2.3 Stakeholder's perceptions of the recovery status

The potential tourists' interests and intentions to travel across borders play an important role in APEC's tourism recovery. Therefore, we firstly measured the factor by comparing year-on-year destination searching data from Google destination insight by APEC economy travelers (e.g., searching data in July, 2022 and in July, 2019). Besides, we obtained some subjective data using crowd-sourcing survey platform Amazon MTurk. This includes perceptions of the recovery status from industry practitioners, travelers and government officials. The AHP results revealed that this dimension takes up 41.90% of the total index result.

3. Index Results

As shown in Figure 2, the overall cross-border tourism recovery index in APEC region was 42.6% based on the data collected from 2019 and May to August, 2022. May 2022 achieved the best recovery status, up to about 50% of the pre-pandemic level in May 2019. The recovery status of other three months levels out at about 40%.
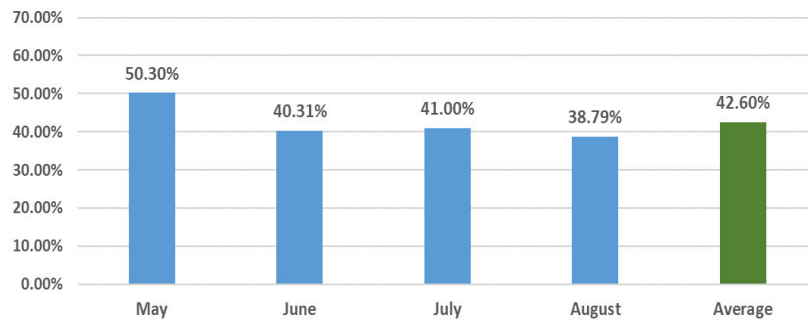

Figure 2. Overall recovery index in the APEC economies

The following sections dissect the three specific index values: recovery speed, recovery status, and perceived recovery status. They illustrate the cross-border tourism market recovery status in APEC region in detail.

3.1 Recovery speed of the APEC region

Overall, the recovery rate was 45.85%. Figure 3 shows that the recovery speed declined from 61.21% in May,2022 to 30.01% in August 2022. The recovery speed in July 2022 was 5.81% higher, but quickly became 18.98% lower in August 2022. This fluctuation indicates that the recovery speed of cross-border tourism in APEC region is still unstable and that some APEC economies are still experiencing sudden pandemic hits that are affecting the recovery rate.
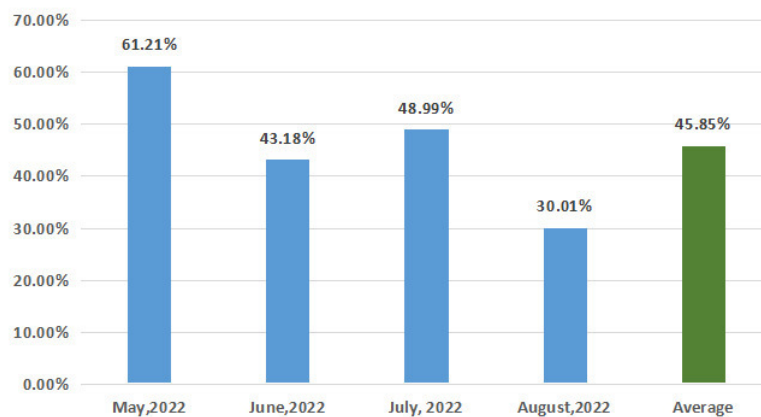

Figure 3. Recovery speed in the APEC economies

3.1.1 Pandemic dynamic trend in APEC region

Figure 4 shows the dynamic trend of the pandemic in the APEC region from May to August 2022 and it indicates the overall volatility of the pandemic in APEC economies. Due to the unstable nature of the COVID-19 pandemic, the number of infected persons in the APEC region has been fluctuating. In August 2022, the proportion of infected individuals declined compared with July 2022. This may be because the number of people completing COVID-19 vaccination increased. With effective anti-covid measures taken by all APEC economies, the pandemic is mitigated. This also contributes to a manageable recovery in cross-border travel.
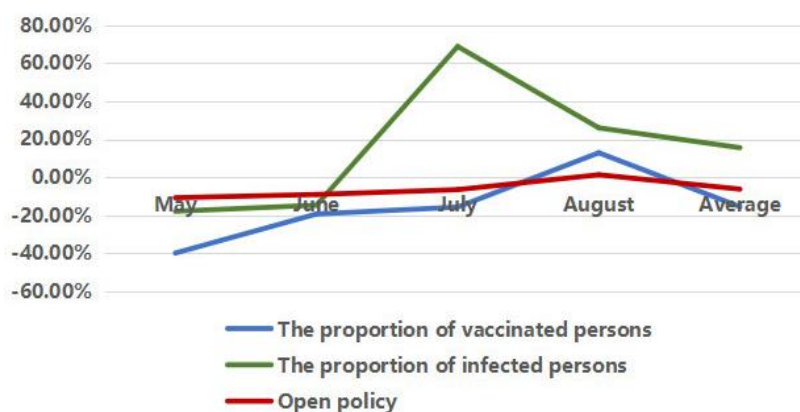

Figure 4. Pandemic trend data month on month

In order to reflect the openness of APEC member economies, we collected data from the "Oxford Government Response Index". A lower response index represents a higher degree of policy openness and vice versa. As shown in Figure 5, the government response index declined from May to July 2022, indicating a slight increase in policy openness (Figure 4). In July and August of 2022, the response level steadily decreased (Figure 5), indicating that the degree of policy openness gradually increased (Figure 4) and tended to be positively stable.

Figure 5. Government response index in the APEC economies

3.1.2 Online booking trends month on month

Figure 6 illustrates the comparison results of the numbers of airline orders, accommodation bookings and attraction ticket orders month to month (e.g., comparing booking data in June 2022 with those data in July 2022). On average, online booking rates for airline tickets and attraction tickets show positive month-on-month growth, while accommodation booking rates show negative month-on-month growth.

More specifically, the growth rate of international airline orders decreased slightly in June 2022 compared to May 2022 and increased by 69.18% in July 2022 compared to June. The airline orders in August observed another significant decline, by approximately 59.76% compared with the growth rate in July 2022. This fluctuation indicates that the rate of recovery of international airline orders is volatile. Similarly, there were many fewer accommodation bookings in May and June 2022 than in April and May 2022, after which there is rapid growth in July and another decline in August. Therefore, the recovery of the hotel and international aviation industries were highly related.

The value of attraction ticket reservations dropped by nearly 90% in May 2022 compared with April 2022. However, from June to August 2022, online ticket reservations for tourist attractions in the APEC region increased nearly 50%.

Figure 6. Online booking trends month on month

3.2 Recovery status of the APEC region

As shown in Figure 7, the overall recovery of APEC economies is 51.67%, 48.4%, 51.45%, and 53.03%, respectively, compared with the same month in 2019. Based on this, it can be concluded that the recovery of cross-border tourism in APEC region is relatively stable, leading to a recovery of about 51.14% compared with the same overall period in 2019.
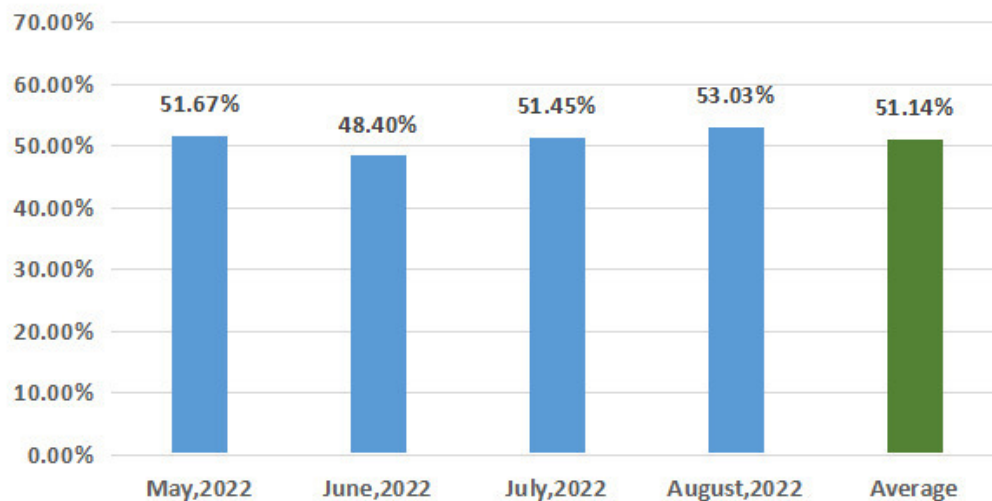

Figure 7. Recovery Status in the APEC economies

3.2.1 Online booking comparison 2019 vs. 2022

Figure 8 shows the changes of online bookings during May to August of this year compared with May to August 2019. Specifically, compared to the same period in 2019, plane ticket orders in the APEC region increased from May to July, but fell in August 2022, compared with the same period in 2019. Overall airline orders were only about 40% of the average during the same period in 2019.

Bookings of attraction tickets during May and June 2022 were about 50% higher than they were during the same period in 2019. However, in July, there was a significant decrease in the number of bookings compared to July 2019. The decrease may be explained by the significant increase in the percentage of people infected with COVID-19 in July 2022. The decrease was less significant in August 2022, likely due to the increasing number of people completing COVID-19 vaccination, and effective anti-pandemic measures in all APEC economies.

With respect to hotel bookings, the APEC region achieved a 40% increase in May 2022 compared to 2019. However, due to the impact of the pandemic, the accommodation reservation has changed to "negative growth" since June.

All in all, it can be concluded that in the four observed months from May to August 2022, bookings for international flights, hotels or tourist attractions were 58.16%, 41.8% and 14% lower, respectively, than they were during the same period in 2019. In light of this booking data, the recovery of cross-border tourism in the APEC region after the pandemic still has a long way to go.
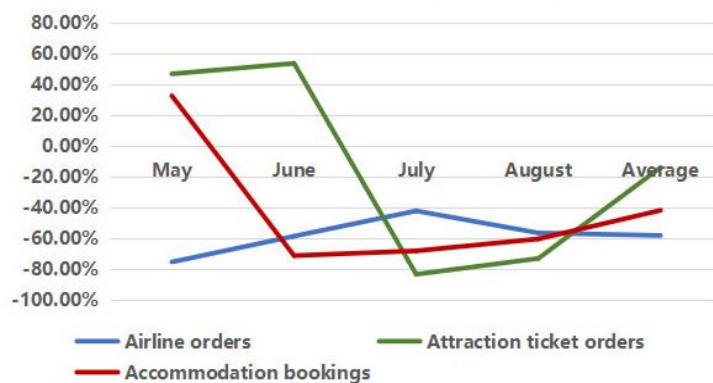
Figure 8. Year-on-year online booking data

3.2.2 Average price comparison 2019 vs. 2022

Figure 9 shows the average price comparison between 2019 and 2022 during the same period of time (May to August), including the average prices of airline tickets, hotel and attraction tickets.

It can be seen that the prices of tourist attractions were relatively stable, maintaining an average increase of 3.67% compared to the same period in 2019. In comparison, the average price of plane tickets is 93.86% higher than during the same period in 2019, making it expensive to travel. The average room price shows fluctuations compared to the same period in 2019. In May, June and August 2022, it was about 30% lower than the same period in 2019, while it was 3.57% higher in July 2022 than in July 2019.
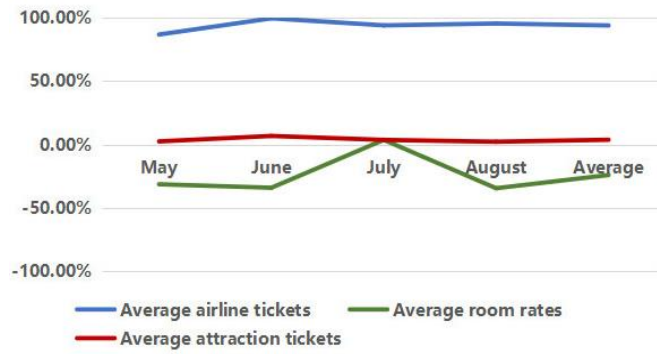
Figure 9. Average year-on-year price data

3.2.3 Travel service provider comparison 2019 vs. 2022

Figure 10 depicts comparisons of travel service providers between 2019 and 2022. The graph shows a comparison of the number of air routes, accommodations, and attractions between May 2022 and August 2022 to the same months in 2019.

As shown in this figure, the number of flights from May to August was an average of 86.79% lower than in 2019. The number of accommodations in May 2022 decreased by 53.23% compared May 2019. Fortunately, due to effective measure to control the COVID-19 pandemic, the number of accommodations in June, July and August 2022 increased by 6.38%, 15.07%, 8.62% compared with the same period in 2019. Likewise, the number of attractions has gradually increased. Compared with 2019, the number of attractions from May to August 2022 rose by 6.19%, 19.44%, 23.27% and 15.87%, respectively.

Figure 10. Year-on-year travel enterprises data

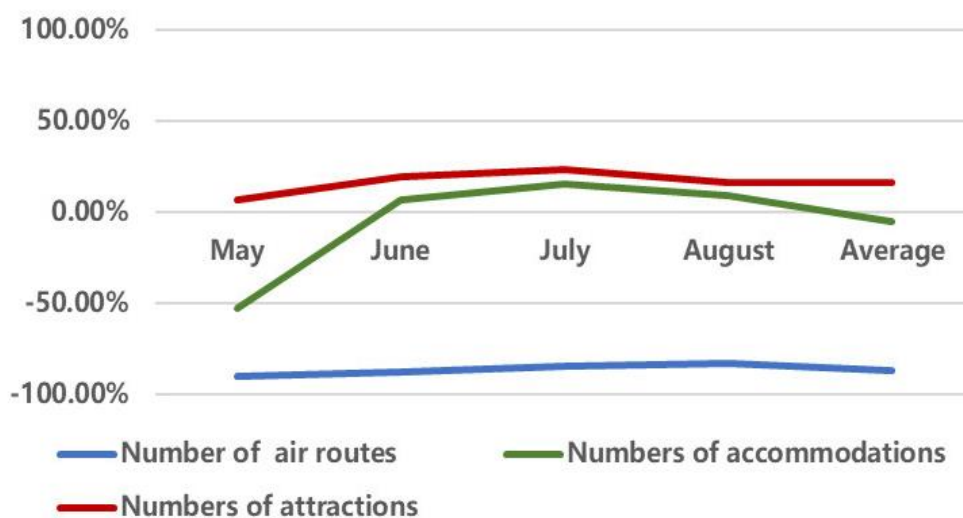## 3.3 Perceived APEC region recovery

Figure 11 illustrates perceptions of recovery during May to August 2022. The perceived recovery index varies in the range of 28.26-41.58%. The perceived recovery status rose by 6.37% from July to August 2022.

The main reason is that the number of COVID-19 cases in the APEC region rose for the first three months of the observation period (as shown in Figure 4), meaning that tourists were reluctant to travel due to safety concerns.

Due to the effective control of the COVID-19 pandemic, the number of confirmed COVID-19 cases in the APEC region decreased significantly in August 2022, making people much more likely to travel. Thus, the perceived recovery index gradually increased. On average, the perceived recovery status in the APEC region was about 34.32%, which indicates that more than a third of people in APEC region have the intention to travel abroad.
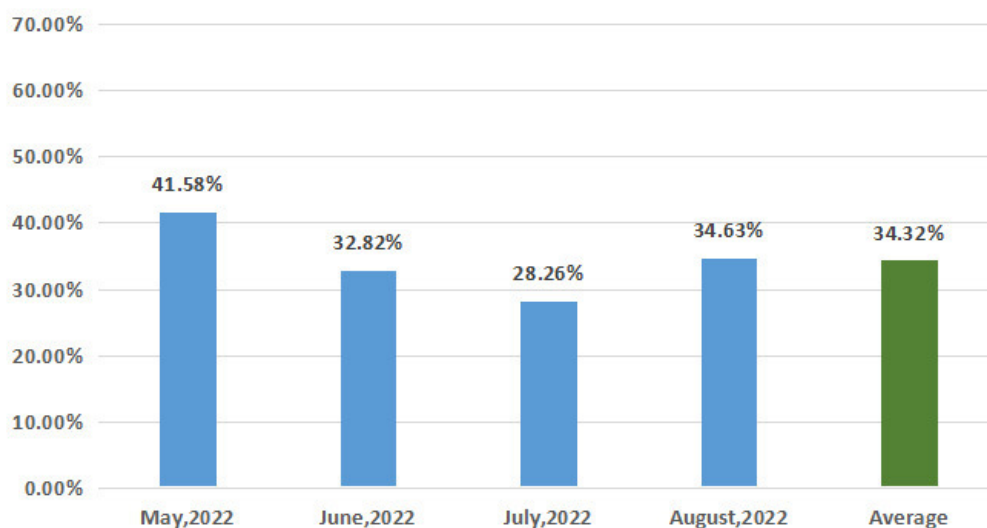
Figure 11. Perceived recovery status in APEC economies

Additionally, Google Destination Insights data also show an increased connection between online search and booking behavior from July to August 2022. As shown in Figure 15, it can be observed that the variation trend of the Google search is in line with the trend of the perceived recovery status in Figure 12. From May to July 2022, the trend line for the search volume of relevant keywords was basically flat. In August, there was a significant increase in search behavior. On the one hand, tourists were concerned about safety due to the COVID-19 pandemic. On the other hand, August is the summer vacation, so many tourists have more leisure time, leading to more travel.

Figure 12. Perceptions of cross-border tourism recovery level (Google destination insights)

III. Representative Cases

This section addresses six cases from Australia, China, Korea, Malaysia, and Viet Nam. These case studies can serve as lessons for APEC member economies on how to recover from the COVID-19 pandemic.

1. Australia

Background

In non-COVID years, the visitor economy has traditionally been Australia's fourth-largest export sector. It represents a wide catchment of industry and sub-industry componen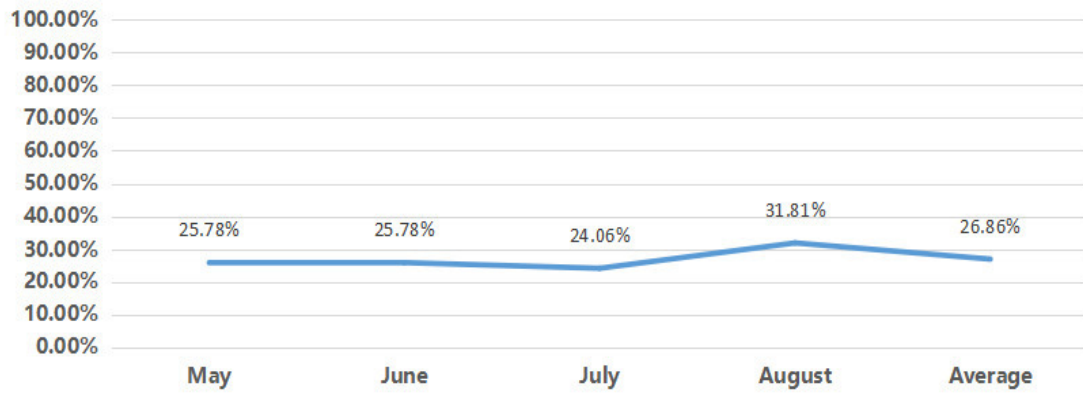ts, such as domestic and international travel; business, leisure, culture and hospitality services; aviation; ground transport; international education; and accommodation services.

The domestic component of Australia's visitor economy is significantly larger than the international component, but both parts work together in driving Australia's economy, well-being, and its identity. The visitor economy creates jobs, investment, and opportunities for cities and regions and also contributes to communities by driving socioeconomic development. Tourism and international education not only promote cultural exchange and international cooperation but also contribute to Australia's soft power overseas through positive visitor experiences.

Challenges

During the COVID-19 pandemic period, Australia's domestic visitor economy grew both in expenditure volume and in expenditure proportion. How to re-balance the visitor economy and to safely restore international visitation is a major challenge. The pandemic caused huge losses to Australia's tourism and related industries. International border closures and the related sharply lower consumer demand led to more than a 95% drop in the total number of cross-border passengers in Australia from the second quarter of 2020 to late 2021.

Australia's internal borders (i.e. between the various states) were also closed from time to time to prevent virus spread. In the context of these movement restrictions, major changes took place in the patterns of Australian tourism, e.g. tourism enterprises switched focus from the international market to the domestic tourism market. When travelling was permitted, Australians travelled widely within Australia

and their average number of domestic nights per visit increased. However, because domestic visitors spend less per trip than international visitors, the net effect was a smaller visitor economy.

Measures

1. To restore accessibility, Australia has improved its inbound tourism policy

- Cruise ships can enter Australian territory;
- Unvaccinated visa holders will no longer need a travel waiver to enter Australia;
- Tourists no longer need to fill out a digital passenger declaration form for air travel, nor do they need to fill out a sea travel declaration form or provide proof of their vaccination status.

2. Invest in destination marketing to bring back tourists

- Australia launched its new "Come and Say G'day" global campaign to support the Australian tourism industry rebuild.

- Tourism Australia also launched targeted international campaigns such as the "Work and Play the Aussie Way" to target working holiday makers, the "Don't Go Small. Go Australia" that targeted key markets for Australia, the "Australia is Yours to Explore" that targeted previously recently opened countries such as Singapore, Japan, and South Korea, and the "Be the First" campaign that regionally targeted New Zealand visitors to Australia.

- While international borders were closed, Tourism Australia focused on carrying out the "Holiday Here This Year" and "Event Here This Year" campaigns to drive local Australian visitation within Australia.

3. Support the Australian tourism sector with a long term sustainable growth strategy

4. In March 2022, Australia launched a long-term strategy for Australia's visitor economy recovery and return to sustainable growth, THRIVE 2030.
5. Australia's THRIVE 2030 strategy addresses the challenges created by COVID-19 and pre-existing structural issues, including workforce availability and skills, and digital capability of small tourism businesses.
6. The strategy sets an ambitious yet achievable target to regain Australia's pre-pandemic visitor expenditure of AUD166 billion by 2024, and to grow it to AUD230 billion by 2030.

7. The strategy has seven policy priorities that industry and government will work on together, under three key themes to guide implementation:

8. diversifying markets, experiences and destinations. This includes supporting the respectful inclusion of First Nations peoples and cultures in the visitor economy.

9. modernising the visitor economy workforce, infrastructure and business practices, including ensuring accessibility for people with disability.

10. collaborating with other businesses, within and across governments, and between industry and government at every level. This will be informed by high quality data and insights.

4. Major airlines are working to accelerate the pace of recovery and improve the accessibility of domestic and international flights

- Airlines such as Qantas,Jetstar and Virgin have shifted their focus to creating new domestic routes, with regional centers benefiting from new route connections and offering consumers more options;

- A new airline, Bonza, is seeking to promote competitiveness by developing new routes to encourage travel to regional destinations, particularly those not serviced by other airlines..

Outcomes

The recovery of tourism in Australia has been remarkable.

- According to statistics released by the Bureau of Infrastructure and Transport Research Economics (BITRE) domestic passenger levels are near or exceeding pre-COVID-19 levels, reaching as high as 97 per cent during the June 2022 school holidays. There was a slight decrease over September 2022 to 91.3 per cent;

- The continuous intensification of air ticket competition among Australian airlines has accelerated their recovery, while its travel agencies still have a long road to recovery.

Highlights and experiences

Strengthening the connectivity of domestic and international routes and improving the accessibility of the outside world are important steps in the recovery of Australian tourism.

- Australia is predominantly a long-haul destination. Foreign tourists mainly rely on air and sea routes to enter Australia, and the recovery of traffic is key to opening tourism channels. The Australian government has adopted a series of policies to restore the aviation industry.

- Australia also focuses on new media and celebrity appearances in tourism product marketing, highlighting the concept of vacationing in Australia, while emphasizing local tourism culture and natural resources to stimulate tourist demand. Therefore, for the recovery of tourism after the pandemic, one of the main tasks for recovery is to restore tourist destinations and increase external traffic, while at the same time working on marketing and promotion of the economy's main tourist attractions.

Figure 13. "Come & Say G'day" Campaign 2022

Figure 14. "Don't go small, GO AUSTRALIA" Campaign 2022

2.   China

Background

The pandemic has indirectly accelerated the digitization process in China, which has created a new engine that has accelerated industrial development. The scale of China's smart tourism industry is also expanding, and digital transformation has become a key component for the recovery of tourism after the pandemic. At present, the digital

marketing environment in China has gone through significant changes. Social media has become a major player, and a large number of We-Media platforms have emerged. The rapid development of digitization has enhanced users' digital experience and promoted an efficiency revolution and an industrial transformation. Shiji Group is a representative of China's hotel industry that focuses on the construction of information systems for hotels and tourist attractions. As a leading technology provider for China's consumer industry, Shiji Group has provided a wide range of services for several major industries around the world, including those in hotel, catering, retail, and tourism.

Challenges

The current problems facing China's tourism industry are how to promote the digital transformation tourism, extract value from data to improve mobility, and enhance the experience of tourists through digital technology.

First, during the pandemic, the drop-in occupancy rate has led to a precipitous decline in the operating income of the domestic hotel industry. The tourism industry is facing various challenges such as obsolete technologies, talent shortages, and insufficient funds etc. Second, the hotel industry is making efforts to combine technology and structural change develop value and improve problem-solving.

Third, in a post-pandemic world, it is essential to think about how to connect more consumers. Developing a new platform is a big challenge for information system companies.

Measures

1. In light of plans to promote international tourism, China has relaxed its inbound tourism policy by:

- Relaxing border restrictions and allowing some foreign tourists and passengers to enter the border;
- Allowing those with valid APEC business travel cards and students with valid study residence permits to enter China;
- Changing the entry quarantine at the Hong Kong Airport to "0+3" without the need of a pre-departure PCR test and post-arrival quarantine;
- Not imposing quotas on travel to Hong Kong, China, applicable to visitors from all parts of the Chinese Mainland and Macao, China.

2. Tourism marketing in the context of digital transformation

- Hosting of the Beijing Olympic Winter Games;
- Digital immersive experience marketing of tourist attractions;
- SEM and SEO marketing;
- Social media marketing and KOL marketing.

3. Digital marketing strategies adopted by various stakeholders

- The Chinese government launched various policies to promote digital transformation. The 14th Five-Year Plan in 2021 promoted the development of smart tourism. The government also actively built digital tourism platforms, such as "Zhelihaowan" and the "One-code Tour of Guizhou";
- Airlines also adopted new strategies. Civil airports have made full use of intelligent equipment to reduce the risk of COVID-19 transmission, improve the efficiency of airport quarantine, and use artificial intelligence, the Internet, big data, and other technologies to achieve contact-free services and improve operational efficiency;
- Digital services such as "three-code integration" and "scenic spot reservation" were launched by major tourist attractions that use big data to monitor the flow of people and traffic, among other data. They have also created supporting services such as smart parking lots and smart restaurants. One example is the "Smart Town" digital transformation practice in the Old Town of Lijiang.

Outcomes

Statistics show that in 2021, the transaction scale of China's online travel market recovered somewhat.

- The active users of China's online travel apps rebounded slightly in the first half of the year, showing positive market recovery. Although China's online travel market failed to recover rapidly in 2021, the pandemic became less severe and residents' demand for travel began to increase;
- The digitization of domestic tourism-related industries such as hotels, tourist attractions, and tourism transportation has far exceeded that of 2019.

Highlights and experiences

The digital transformation of the tourism industry and the use of data are key engines for the recovery of China's tourism industry.

- The digital transformation of the tourism industry is helpful for enhancing the secondary consumption of tourists. Currently, China vigorously promotes the innovative development of tourist attractions and the continued improvement of business content, forms, and products. Digital technology has increased the safety, experience, and innovativeness of tourism products;
- While the pandemic has greatly impacted tourism, it has also created development opportunities. Tourism businesses should seize opportunities, meet challenges, eliminate obsolete industries, usher in industrial reform, and promote industrial innovation.

Figure 15. Olympic Games in Beijing 2022

Figure 16. Digital marketing

3. Korea

Background

Korea's tourism and cultural industries are closely integrated, and the Hallyu is an important tool to promote Korea's tourism industry. Korean departments of culture,

sports, and tourism in the administrative system work together to promote tourism through the Hallyu. The Korea Tourism Organization, an executive branch, specializes in domestic and international tourism. The Organization has released its mission statement, vision, core values and goals for 2026 to help revive the Korean tourism industry by promoting arts and culture.

Challenges

The challenge facing Korea's tourism industry is how to increase domestic visitors to its attractions and promote the economy's attractiveness as a tourist destination.

First, the pandemic has affected international tourism in the ROK. According to statistics from the Ministry of Culture, Sports and Tourism in 2020, the number of inbound and outbound tourists to Korea dropped by more than 80% from 2019 to 2020. Korea's tourism revenue fell by 49.7% in 2020 compared to 2019 due to a drop in inbound and outbound tourists, while spending dropped by 54.0%. Korea's international tourism is in urgent need of recovery.

Second, although international tourism is affected by the pandemic, there is room for domestic tourism to grow. Various measures can be taken to increase the number of domestic tourists. How to increase the number of domestic tourists is the most pressing issue facing Korea's tourism industry.

With that, the two most important issues facing the tourism industry in Korea are: making Korea tourism more attractive to international and domestic tourists; reviving the tourism industry as soon as possible.

Measures

1. Korea has improved its current inbound tourism policy to recover international tourism

- Nucleic acid tests are not required before entry, only an antigen rapid test is required before entry;
- No immediate nucleic acid test is required upon arrival in Korea;
- There is no need to quarantine after arriving in the ROK;
- Rapid antigen test is required within six days of arrival in Korea;
- Visitors are free to participate in outdoor activities and are not forced to wear masks;
- The tax allowance is increased.

2. Korean tourist destinations are made more attractive through cultural marketing campaigns including:

- "Feel the Rhythm" campaign;
- Cultural and artistic performances during the pandemic;
- Places where Korean dramas are filmed become tourist destinations;
- K-pop, fashion shows, and musical dramas.

3. Multiple stakeholders should cooperate to accelerate the recovery of tourism

- The Korean government introduced a number of policies. The government recently lifted all entry quarantine restrictions and began to re-issue tourist visas. The visa-free entry policy on Jeju Island was resumed.
- Airports, airlines, and major travel agencies have launched a variety of preferential travel products. For example, the Korea National Tourism Organization has signed an agreement with Incheon International Airport to promote tourism and develop a transfer tour program. Incheon International Airport will resume operations around the clock when restrictions on takeoff and landing hours and no-fly hours for international flights are lifted.

Outcomes

According to official statistics, the number of foreign visitors to Korea reached nearly 100,000 in February 2022, which was a 52.5 percent increase. This indicates that the recovery of the economy's tourism industry is just around the corner.

- Tourism is one of the pillar industries of Korea, and the cultural tourism is one of the key strategic industries of the economy. The increase in the number of inbound tourists is expected to boost domestic demand.
- In the face of low economic growth, the revival of tourism is significant for Korea. Although there are no exact statistics on Korea's tourism in 2022, it is believed that the tourism industry will soon return to its pre-pandemic level with these measures taken.

Highlights and experiences

The international spread of Hallyu and various festivals and cultural activities are the key to attracting tourists and accelerating the recovery of Korean tourism.

- With the expansion of the Hallyu's influence in the world, tourist activities underscored by Hallyu elements, such as concerts, TV series shooting locations,

shopping, music, and food have greatly increased the income of Korea's tourism industry;

- With the rapid development of modern society, cultural tourism is becoming a popular and vibrant form of tourism. The influence of cultural factors behind modern tourism activities will be more profound and far-reaching. In order to enhance tourism and improve its international competitiveness, we must attach great importance to cultural development in relation to tourism.

Figure 17. "Feel the Rhythm" Campaign 2021

Figure 18. 'KOCIS, Korean Culture Scene' Performances to Exhibitions

4. Malaysia

Background

Tourism is the second largest foreign exchange earner in Malaysia, which creates a large number of jobs for local residents. Eco-tourism is one of the biggest tourist hot spots in Malaysia. Malaysia is famous for its rain forests, beaches, and coral reefs. Yet

in recent years, man-made pollution is serious in tourist destinations. Although the number of flights and tourists has greatly reduced in Malaysia after COVID-19, the pandemic outbreak prompted an opportunity to change and enhance the local ecological environment. It has an important impact on the re-development of tourism products, the sustainable ecology, and the recovery of tourism in Malaysia.

Challenges

The problem that Malaysian tourism faces is how to promote the sustainable development of tourism destinations, apply to the new consumer trend, and adjust the domestic tourism development mode.

First, the epidemic has challenged the traditional tourism model in Malaysia. The tourism industry is moving towards a more equal, meaningful, responsible, and sustainable development approach. The local government and tourism enterprises should constantly adjust according to the post-pandemic tourism situation, which has forced Malaysia to focus on domestic tourism.

Second, Malaysia has been affected by air pollution for many years, and the overload of tourists before the epidemic brought great pressure on the local environment. The epidemic has changed consumers' consumption concept and promoted tourists' consumption concept to be more environmentally friendly, hygienic, and safe.

Measures

1. Changes inbound tourism policy to attract more international tourism

- No nucleic acid test is required before entry;
- No nucleic acid test or quarantine is required upon arrival;
- There is no need to check the vaccination status before entry;
- No travel insurance or medical insurance is required;
- Visitors are free to participate in outdoor activities and are not forced to wear masks.

2. Promotes theme-rich tourism marketing strategies to improve the attraction of destination

- Creative and Digital Advertising Priority Strategy;
- Market customization and brand marketing;
- Sales promotion in emotion;
- Ecological tourism protection activities in Malaysia;

- Hold conferences, fashion shows, art and calligraphy exhibitions, and food festivals;
- PRE 2.0 Program: this program provides discounts and rebates under the Association of Travel Agents sector, land transportation, theme parks, scuba diving, home stay, and air transportation.

3. Launches a series of sustainable tourism development strategies

- Malaysia Airlines' initiative to harness aircraft waste and use the Airbus 350. It reduces gas emissions while enhances the passenger comfort experience. It is one of the key drivers of MAG's long-term Business Plan 2.0;
- In 2021, the Malaysian government announced "sustainable development" as one of the development goals of the five-year plan, and the local government also launched the "Plastic Roadmap" environmental actions;
- After the epidemic, Malaysia increased the number of eco-friendly accommodations. There are currently 9 environmentally friendly hotels in Malaysia. Many of them use no straws, plastic cups, improved building materials, and other measures to save energy and environmental protection. For example, Kloe Hotel uses wood, metal, and stone instead of polymer.

Outcomes

According to current tourism recovery estimates, Malaysia's tourism industry is expected to fully recover to pre-pandemic levels in 2019 in 2024.

- Malaysia's foreign visitor arrivals in 2022 will reach 30% of the 2019 level. The visitor arrivals in Malaysia are expected to have a gradual growth in 2022 and 2023;
- Tourism is one of the pillar industries of Malaysia. The cost of the tourism industries' transformation and product development is high, and the recovery of tourism is slow, but it will be helpful for the long-term development of the tourism industry.

Highlights and experiences

One of the experiences of Malaysia's tourism recovery is to actively cater to the change in tourist demand after the epidemic and promote the sustainable development of tourist destinations.

- With the normalization of the epidemic, Tourism Malaysia focuses on the development of domestic tourism based on the its tourism resources and culture.

At the same time, it changes the traditional tourist destination perception. It makes the tourist destination more environmentally friendly, ecological, and safe and appeals to tourists to protect the environment；

● Tourism Malaysia has strengthened cooperation with airlines and tourism enterprises. Digital publicity and management mode is also one of the experiences of its recovery.
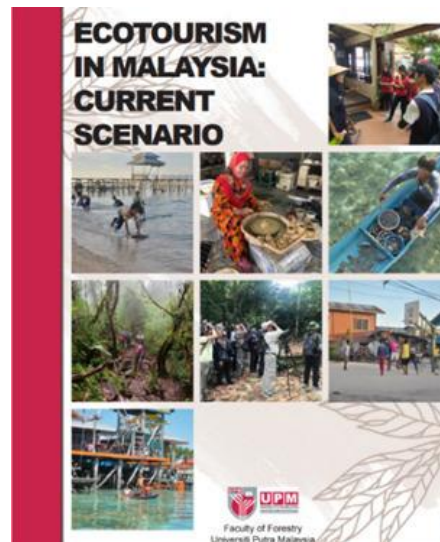

Figure 19. Ecotourism conservation activities in Malaysia

Figure 20. Malaysian food festival in 2022

5. Russia

Background

During the last decades, the tourist and recreational services sector in Russia was characterized by negative net export of tourist services. However, the pandemic and related to its restrictions on travel abroad positively impacted the development of

local tourism and provided a significant increase in domestic tourist flow for the first time in many years. Outbound tourism decreased by 80% and spendings abroad by 27 billion dollars in 2020. 53% of the Russian tourists, who had traveled abroad in 2019, preferred domestic travel in 2020. The main increase occurred after removal of COVID-19 restrictions: in April 2021, the growth amounted to 162%, and in May – 197% compared to the same periods last year. It is worth noting that the high activity of domestic travel in the summer of 2020 made it possible to avoid a situation of a negative balance in tourist services. Although the turnover of tourist service decreased by 60% compared to last year, by the end of 2020, Russia entered the top three among the G20 countries in absolute terms of the rate of recovery of domestic tourism turnover.

Challenges

The tourist sector in Russia became one of the most affected due to imposed quarantine restrictions. The government, while eliminating the consequences of the COVID-19, took a number of measures that were supposed to help restore demand for tourist service.

The main challenge for the Russian tourism was the need to provide the high quality of services. Due to the reorientation to the domestic market, the Russian tourism sector faced high demand and wasn't ready to provide high-quality service to a full extent. Thereby, personnel training in this sector became one of the key objectives.

Secondly, expensive logistics and its quality were paid special attention, due to the long distances between cities, undeveloped infrastructure in some regions, as well as the expansion of tourist offers.

Attracting a huge number of tourists remains a challenge for all economies after the COVID-19 pandemic, including Russia. Both business and government should develop more effective marketing solutions and branding of new and existing areas.

Measures

1. State support

- Allocating the budget for the arrangement of beaches, domestic tourist routes, purchase of tourist equipment;
- Creating the electronic travel guides, development of applications and audio guides, creation of a barrier-free environment for tourists;
- Creating modular campsites, car camping and glamping;

- Offering soft loans for the construction and reconstruction of hotels;
- Lowering taxation for businesses in the tourism industry.

2. Digital and financial solutions for tourists

- The "internal cashback" received broad support: it implied refund for domestic tourism (cashback) up to 20% of the cost of the trip to the "Mir" card when paying online;
- Expanding subsidies for certain categories of citizens (pensioners, children, low-income families);
- Developing mobile application "Travel without COVID-19", including for downloading a "P.C.R test" (works on the entire territory of the Eurasian Economic Union.

3. Other initiatives to attract tourists

- Removing of COVID-19 barriers (cancellation of P.C.R testing);
- Regions that previously offered only expensive holidays began to make alternative routes for mass consumption (Altai, Baikal);
- All-Russian competition "Masters of Hospitality". Both business and students with their own initiatives take part. The nomination goes in 4 main directions: management, startups, territorial development and the future of tourism;
- Launching 30 domestic tourist routes according to single standards;
- Simplifying immigration procedures to Russia which are available for foreigners based only on hotel booking (19 economies participate in the program).

Outcomes

A number of measures taken to offset the effect of the COVID-19 pandemic have already achieved the following results:

- The growth of domestic tourism continued after the removal of COVID-19 restrictions in other economies. The year 2022 maintained the growth trend, for example, the number of citizens visiting domestic tourist destinations increased by 6% in 9 months of 2022 compared to 2021;

- The number of bus trips increased 1.5 times, the turnover of non-chain hotels increased by 12%, and the turnover of Internet sites selling bus tours doubled. Train ticket sales increased by 45%;

- New travel formats have become available: railway, arctic, ecological and creative-craft;

- New resorts are opening in different regions.

Highlights and experiences

The challenges faced by the industry in 2020 gave a great impetus to the development of the sector in Russia. Thanks to the efforts of the government and business, it was possible to attract attention of tourists to cultural destinations in different regions. The Russian richness in natural beauty gives the potential for the development of ecotourism and active leisure.

- The active digitalization of the industry simplifies the work of both tour operators and the planning of travel for tourists themselves;

- The COVID-19 period revealed the huge untapped potential of domestic tourism and highlighted what needs to be improved..

Figure 21. Kamchatka acid lake, volcano crater

Figure 22. Maslennica festival, Moscow

6.   Viet Nam

Background

Tourism recovery and development in Viet Nam has benefited from government's positive guidance, flexible policy and industry's effective cooperation. Tourism security, airport facilities and border control are important means to restore passenger flow. Ministry of Culture, Sports and Tourism of Viet Nam is a government agency that manages public services in the fields of culture, sports and tourism in accordance with the law. At the beginning of the epidemic, Viet Nam government implemented at the domestic level a series of phased control measures, such as border blockade, visa suspension and vaccination. Viet Nam's government announced that starting from 15 March, 2022, it will fully resume international and domestic tourism activities through land, rail and sea routes under the new normal, in accordance with the epidemic prevention and control regulations applicable to international inbound and outbound tourists and domestic tourists.

Challenges

Now, the main issues Viet Nam's tourism industry facing after the border opening include: how to promote the recovery of domestic tourism enterprises, and how to revive the confidence of domestic and international tourists in the safety of Viet Nam.

Firstly, Viet Nam's tourism industry suffered heavy losses after the COVID-19 pandemic since 2020. Statistics show that Viet Nam's tourism revenue in 2020 and 2021 fell by 58% and 76% respectively compared with 2019.

Secondly, the total number of tourists receiving accommodation, catering and other services in Viet Nam dropped by 44% in 2020 compared with 2019. Travel agencies received 3.7 million tourists, down 80.1%. Meanwhile, international tourists dropped by 78.7%. These show that Viet Nam's tourism industry is in urgent need of recovery measures.

Measures

1. The government of Viet Nam adopts phased prevention and control policies to recover international tourism

- From March 2020 to April 2021, borders were closed and entry visas were stopped;

- From June to September 2020, an urban lockdown was imposed;
- From 8 March 2021, priority groups, including tourism practitioners, started to receive vaccination;
- From 2022, vaccination recipients were expanded. New preventive measures were introduced on 15 September, including disinfection, masks, vaccines, drugs, treatment, technology, awareness-raising campaigns and others;
- From 15 March 2022, borders were opened, domestic air and rail transport were allowed to relax restrictions, and public transport and passenger routes were all resumed.

2. Tourism campaigns to boost destination markets are launched according to the change of control policies

- Carry out the campaign of "Vietnamese people travel in Viet Nam";
- Introduce the slogan of "Viet Nam tourism: a safe and attractive destination";
- Carry out the campaign of "Live fully in Viet Nam";
- Carry out a series of safe-Viet Nam tourism activities to boost inbound tourism.

3. Orderly recovery of tourism can be achieved through phased control

- In the early stage of the pandemic in 2020, the government of Viet Nam closed international borders, stopped issuing visas, and blocked tourism activities in infected cities, such as Da Nang City. At the same time, Viet Nam introduced a series of financial and monetary policies and social welfare measures to subsidize unemployed tourism practitioners, such as reducing the deposit of tourism enterprises by 80%;
- In 2021, Viet Nam's government identified tourism workers as a priority group for vaccination campaigns. At this time, Viet Nam actively advocated safe, civilized, orderly and attractive ways to conduct tourism activities. The government of Viet Nam advocated domestic tourism and put forward a series of promotion slogans;
- In 2022, the scope of vaccination had been expanded. Five cities—Phu Quoc Island, Khanh Hoa, Quang Nam, Da Nang, and Quang Ninh—had been opened to the the public as pilot destinations. The pilot effects have been good. Therefore, Viet Nam's government has opened up its border and vigorously promoted safe inbound tourism.

Outcomes

With the opening of the Viet Nam border in March 2022, its tourism recovery will accelerate.

● Tourism is one of the pillar industries of Viet Nam. Statistics for the first half of 2022 show that the number of international tourists reached 1,219,800, and tourism revenue reached 3.566 billion Vietnamese dongs ($15 billion);

● Ninety percent of Viet Nam's accommodation agencies have resumed operations, and 431 international travel agencies have been newly registered. In April 2022, Viet Nam hosted the 31st Southeast Asian Games. In September, the International Tourism Exhibition was held in Ho Chi Minh City. The above data show that Viet Nam's tourism industry is recovering well.

Highlights and experiences

The government of Viet Nam adopted phased control policies and precise marketing positioning in a rapid and effective manner. This is the main reason for its rapid tourism recovery.

● The rapid recovery of Viet Nam's tourism industry is due to its rapid response mechanism and strict control measures in the early stage of the pandemic;

● Viet Nam's government launched powerful publicity campaigns and introduced vivid slogans after the brief lockdown;

● In the post-pandemic period, Viet Nam's government decisively opened its borders.. Furthermore, the government, tourism companies, aviation and other sectors carried out tourism campaigns to boost recovery. It can be seen that the secret of tourism recovery lies in the active policy guidance by the government and the coordination and cooperation of various industry players.

Figure 23. "Live fully in Viet Nam" Slogan

Figure 24. "Viet Nam NOW" campaign

IV. Conclusions and Recommendations

1. Conclusions

First, according to a comprehensive analysis of the data obtained, the overall recovery index of cross-border tourism in all APEC economies is 42.6%, including a 45.85% recovery speed index, 51.14% recovery status index, and 34.32% perceived recovery status index. The recovery speed continued to decline from 61.21% in May to 30.01% in August. The recovery status is relatively stable, recovering to 51.14% compared to the same period in 2019. People's perceptions of recovery vary, with the economic recovery index ranging from 28.26% to 41.58%.

Second, through six regional tourism recovery case analyses, we concluded that government policies of prevention and control of tourism, tourist enterprise digital transformation, upgrading of formats and modest economic diversification, regional international transportation, ecological sustainability of tourism activities, and cultural fusion are important for tourism recovery.

2. Recommendations

Our analysis of the above tourism recovery cases allows us to make the following recommendations:

First, governments need to make more resilient post-pandemic cross-border travel policies. APEC economies can make cross-border tourism policies according to their own methods of pandemic prevention and control. They can strengthen policy coordination and information sharing through various communication channels and mechanisms. The policies of pandemic prevention and control are important factors affecting the recovery of regional cross-border tourism.

Second, the role of technology empowerment in promoting the recovery of regional cross-border tourism after the pandemic should be strengthened. Economies should also enhance pandemic prevention and control and reduce the risk of the pandemic by using science and technology, while also making sure that tourism is resilient. APEC can strengthen and improve information services, security, and tourism through big data and other technological means.

Third, connectivity and air routes among APEC economies should be improved. APEC regions need to speed up the restoration of connectivity and facilitate people-to-people exchanges through the resumption of cross-border flights. Additionally, quarantine and customs clearance policies need to be adjusted and dynamically managed in light of the pandemic.

Fourth, an emphasis should be placed on online marketing and promotion activities. In combination with local cultural resources, various festival activities can be held to attract tourists. Attract international tourists by holding special events, opening up airline routes, providing hotel concessions, and offering other activities. By using the natural resources of each economy, APEC can strengthen ecological tourism and sustainable development, highlighting the concepts of environmental protection and public health.

Fifth, APEC economies can promote the revival of cross-border tourism through business and trade activities. APEC economies can also organize business, artistic, and educational activities to enhance the density and frequency of personnel exchange, promoting the recovery of tourism from a business perspective.

Appendix 1:

Task for Expert Panel   *June 07, 2022*

Study Topic: Tourism Industry of APEC region in the COVID-19 recovery period: current situation, trends and challenges

Task: Assistance with content validity check of factors (indicators) influencing the cross-border tourism recovery status of APEC region during the COVID-19 recovery period.

INSTRUCTION

You have been selected to take part in a survey about the validity check of recovery status indicators. The recovery status indicators are shown in the sheet on the next page.

Could you please take a few moments to complete the short evaluation survey below?

A. In the right column of the item sheets, rate each item as being:

5. **Clearly representative** as an indicator of the cross-border tourism recovery status

4. **Somewhat representative** as an indicator of the cross-border tourism recovery status

3. **Neutral**

2. **Relatively unrepresentative** as an indicator of the cross-border tourism recovery status, or

1. **Very unrepresentative** as an indicator of the cross-border tourism recovery status.

B. Suggest an alternative indicator for the cross-border tourism recovery status.

C. Modify the indicators to make them clear, readable, and coherent.

D. Identify any indicators which you consider objectionable as a respondent.

E. Offer any suggestions you feel might contribute to the project.

It would be appreciated if these tasks could be completed before June 10, 2022.

	rate the cross-border tourism with the following items: **5. Clearly representative** **4. Somewhat representative** **3. Neutral** **2. Relatively unrepresentative** **1. Very unrepresentative**
Travelers' perceptions of cross-border tourism recovery	
Travelers' intentions to travel across borders	
Practitioners' perceptions of cross-border tourism recovery	
Practitioners' intentions to invest cross-border tourism	
Practitioners' perceptions of employee remuneration package	
Practitioners' perceptions of the number of employees	
Government official's perceptions of cross-border tourism recovery	
Government official's inclination to open border	
Government official's inclination to receive overseas tourists	
The proportion of vaccinated persons in total population	
The proportion of infected persons in the total population	
Open policy	

The Number of air routes	
The Number of accommodations	
The Number of attractions	
Average airline tickets price	
Average accommodation booking rate	
Average admission fee of tourist attractions	
Airline orders	
Accommodation bookings	
Admission tickets order	
Others (Please specify if any)	
Other suggestions (Please specify if any)	

Appendix 2:

Two Seminars held under APEC Project: APEC Tourism Recovery Index Release and Best Practice Sharing (TWG 02 2021A)

Under the plan, two seminars (opening seminar, closing seminar) have been held as scheduled in the APEC project: "APEC Tourism Recovery Index Release and Best Practice Sharing" (TWG 02 2021A). The successful convening of the two seminars ensured the smooth progress of this project.

Opening Seminar

On the morning of April 28 2022, the opening seminar was held online in the lecture hall of Beijing International Studies University (BISU). Dr. Ning DENG took the chair, associate professor and vice dean of tourism sciences school of BISU, director of the digital culture and tourism research center of BISU and head of the APEC project (TWG 02 2021). Ms. Yanjie WANG, deputy director-general, bureau of international exchanges and cooperation, ministry of culture and tourism of the People's Republic of China, delivered an opening speech. The opening seminar consisted of two agendas; "Representative Cases Sharing for Cross-border tourism Recovery" and "Representative Cases Sharing for Cross-border tourism Recovery".

Revolving around "Representative Cases Sharing for Cross-border tourism Recovery", the research group invited Mr. Bowen Sun, executive secretary-general of Trip.com Institute, general manager of inbound tourism, Trip.com Group, China, Mr. Ben JARVIS, Director, APEC Governance and Reform, Department of Foreign Affairs and Trade, Australia, Mr.Parin MEHTA, director of Airbnb Asia Pacific, Mr. Setthawith CHERAVINIH, former vice president of Thai travel agency association, managing director of White Elephant Travel Agency, Thailand, and Ms.Diana GALLIAMOVA, apple solutions consultant of Apple Inc., Russia, as speakers to share their experiences and understandings on the utilization, policy making and online marketing with digital technology from an economic standpoint and based on their own fields they working in. They provide solutions and suggestions with expectation for the recovery of cross-border tourism in the APEC region after the pandemic.

Whereas during the second agenda of "Representative Cases Sharing for Cross-border tourism Recovery", Dr. Chun LIU, associate professor of Tourism Science School of

BISU, gave an introduction to the project including its background, the index model, representative cases and future direction. Subsequently, Dr. Haiyan SONG, associate dean and chair professor from the school of hospitality and tourism management, The Hong Kong Polytechnic University, Dr. Xiang LI, chairperson of the Department of Tourism and Hospitality Management, Temple University in the United States, and Dr. Jingjing YANG, associate professor of Macao institute for tourism studies and associate editor of tourism management, proposed constructive suggestions on the index model of the project, offering their thoughts about the current situation of cross-border tourism in their own economies.

Delegates and observes present in the opening seminar are from different economies, including China, Hong Kong, China, the United States, Australia, Russia, Thailand, Viet Nam, Malaysia, New Zealand, as well as observers from Macao, China.

Closing Seminar

On the morning of September 23 2022, closing seminar for concluding the project was held in the lecture hall of BISU with a hybrid of online and offline. Ms. Yanjie WANG, deputy director-general, bureau of international exchanges and cooperation, ministry of culture and tourism of the People's Republic of China, and Dr. Wei CHENG, professor and vice-president of BISU, delivered speeches in the seminar, presided over by Dr. Ning LV, professor, and dean of the school of tourism sciences of BISU.

Firstly Dr. Chun LIU, associate professor of the tourism science school of BISU, the representative of the project team, has summed up the core achievement of the research project— "APEC post-COVID Cross-border Tourism Recovery Index". This indicated that cross-border tourism activities among 21 economies in the APEC region have recovered by about 40% compared with the same period in 2019, among which hotels and air tickets booking rate by about 60% of the same period in 2019, and the open policy of each economy is still the most important factor affecting the recovery of cross-border tourism in post-COVID. By using multi-source data such as OTA reservation, network review, network search, pandemic situation, questionnaire, the index integrated with big data and traditional data, in an endeavor to investigate and estimate the post-pandemic recovery of tourism in the APEC region.

Whereafter, speeches were delivered by Dr. Yang YANG, associate professor of tourism and hospitality management, Temple University in the United States, Mr. Alexander TRUPP, associate professor and associate dean (research and postgraduate) of hospitality and service management school in Sunway University, Malaysia, Ms.

Wen HE, Shiji Group marketing general manager of Greater China, Dr. Peiyi DING, fellow of Griffith University. Australia, Mrs. Tran Thi Phuong NHUNG, deputy director general of international cooperation dept, Viet Nam National Administration of Tourism, Ministry of Culture, Sports and Tourism, Dr. Nadezda SOROKINA, assistant professor of Woosong University, Korea, and other APEC member economies, as well as Mr. Paul WONG, president of Macao leisure tourism services innovation association, Macao China. They shared their experiences and best practice learned from their respective economies during post-pandemic industry recovery and digital empowerment with regards to fields of digital technology utilization, policy-making, online marketing and new form of industry, and fully expressed their ardent hopes for restarting cross-border tourism in the future.

Participants in the closing seminar came from China, Hong Kong, China, the United States, Australia, Korea, Malaysia, Viet Nam, Mexico, Russia, as well as observers from Colombia and Macao, China.

The Achievements of Two Seminars

Thirty-seven participants from 9 APEC economies are invited to the opening seminar, and 30 participants from 10 APEC economies are invited to the closing seminar. At the end of these two seminars, attendees provided feedback on the seminars, the response has been tremendous.

The majority of the participants claimed that seminars serve as good opportunities to develop their knowledge and skills relevant to their practices, through which they can make some observations and gain insights. Besides, they also let us know what we can do next time through a feedback survey:

- Send all the materials to participants ahead of time for preparation.

- Interactions among participants through Webinar need to be strengthened.

- Results of the projects could be announced earlier if possible.