



**Asia-Pacific
Economic Cooperation**

**Applying Digital Tools
by MSMEs and Individuals
in Travel and Tourism Sector under
COVID-19**

APEC Tourism Working Group

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1 Executive summary

COVID-19 has presented unprecedented difficulties to micro, small and medium-sized enterprises (MSMEs) and individuals in the tourism sector. It will take time for the international tourists to regain confidence in cross-border travel, although it is likely that more APEC economies will lift all travel restrictions soon. The micro, small and medium-sized travel agencies and tour guides who offer services exclusively to the international tourism market continue to face severe pressures. They are taken as a representative group of tourism MSMEs and individuals to understand the far-reaching impacts of the pandemic and their corresponding responses, and how digital tools have helped them in coping with the pandemic.

The COVID-19 has been a trauma for the travel business over the past 2 years, nevertheless, online communications and e-commerce have continued to grow and even accelerate at the same time. Tourism MSMEs and individuals were also pushed to focus more on the use of digital tools, including websites, various kinds of software, apps and social media, etc. On basis of the results from ten interviews (seven travel agencies and three tour guides) and knowledge shared during the APEC virtual workshop¹, the constructive role of digital tools was explored. Challenges were examined in the use of digital tools by tourism MSMEs and individuals. Recommendations were then made for their better use of digital tools and the success of digital transformation.

In addition to the efforts of tourism MSMEs and individuals, governments also contribute to the use of digital tools, and then their digital transformation by implementing specific projects or programs, or by facilitating tourism digitalization in general. Given the expectations on the government for better use of digital tools and digital transformation of tourism MSMEs and individuals, recommendations for the public sector were proposed.

Findings in this project support some of those identified in Australia's 2021 APEC TWG Project: Exploring Innovative Digitalisation for Tourism MSMEs in Developing APEC Economies: What Can We Learn from Tourism's Response to COVID-19?²

1.1 Response to the COVID-19

In order to survive under the impacts of COVID-19 which resulted in no or greatly reduced income and no employment for a period of time, tourism MSMEs (travel agencies) and individuals (tour guides) had to fix and rebuild their income generation model while reducing unnecessary costs. The following strategies were employed to ensure survival and recovery:

¹ It was titled Usage of Digital Tools by Tourism MSMEs and Individuals in APEC Region: Attempts, Practice and Experience and held from 19th to 22nd July, 2022.

² <https://www.apec.org/publications/2021/10/exploring-innovative-digitalisation-for-tourism-msmes-in-developing-apec-economies>

(1) Target market shift

International tourism recovered way slower than domestic market, which was generally back in business within six months after the pandemic outbreak. This pushed tourism MSMEs and individuals to provide services to locals. Those that successfully had shifted their target market from the international to the domestic survived in most case.

(2) Innovations in services and products

To attract local customers, travel agencies had to develop new type of travel or change their original product offering. In this sense, the COVID-19 has impelled tourism MSMEs and individuals to develop ground-breaking services and products. Besides the modifications of original tours, they have developed new systems of services and products, such as game tours, cycling cultural tours, etc.

(3) Cost cutting

In addition to laying off workers to save labor costs, tourism MSMEs also tried to cut the operational expenditures. For example, work from home without an office or moving office to other cities with lower cost of living to reduce the rent and labor cost.

(4) Digital tools usage

After the outbreak of COVID-19, tourism MSMEs and individuals began the trial of online experiences, such as virtual tours and live streaming tours. The use of digital tools facilitated them to get through the most difficult period with restricted or no travel. The use of digital tools keeps playing a vital role in their business operations.

1.2 The roles of digital tools

Digital tools played numerous roles in the survival and recovery of tourism MSMEs and individuals under the impacts of COVID-19.

(1) Survival support

Tourism MSMEs and individuals switched to online communications and activities during the early months after the COVID-19 outbreak when physical contact was limited or forbidden. Many tourism MSMEs began to engage in virtual travel-related activities or even e-commerce, which generated some income and, more importantly, allowed the organization to stay in operation. Individuals in the tourism sector also hunted job opportunities online. With regular updates on social media, some of them managed to gain followers and built a pool of potential customers.

(2) Facilitating operation

The use of digital tools, especially various types of management software, contributed to greater work productivity, efficiency and effectiveness. With the proper digital tools, tourism MSMEs can save time and labor through work automation and virtual work platforms. Comprehensive insights into operations and team performance can be easily gained through data analytics results. Great customer satisfaction, and therefore high customer retention rates and positive words of mouth can be achieved through timely customer service.

(3) Customer connection

Digital tools, particularly social media, are really useful for tourism MSMEs and individuals to extent and engage potential customers. When travel was suspended, social media was the most widespread channel to connect with potential customers. For tourism MSMEs, social media are used to maximize website traffic for travel reservations. For tour guides, social media are the most useful platform to erect personal prestige and fascinate potential audiences or customers for destination marketing and e-commerce.

1.3 Recommendations for tourism MSMEs and individuals

Among the impacts of COVID-19, tourism MSMEs and individuals encountered many barriers of using digital tools. For tourism MSMEs, the biggest challenges are financial costs and a lack of technology support and digital experience. Individuals need to find a balance between online virtual activities and physical service work.

Suggestions are proposed for tourism MSMEs and individuals for their future digital transformation with an understanding of the roles of digital tools, the challenges, and lessons learned in using digital tools. These recommendations are as follows:

(1) Needs analysis for digital tools

In general, the size of an enterprise is proportional to its use of digital tools. The larger a company is, the more digital tools it is likely to use. In view of the enterprise size and source constraints, tourism MSMEs are highly recommended to conduct a need analysis before taking the first move on the road to digital transformation. They should determine what types of digital tools are already in use and whether there are any gaps or redundancies in the use of digital tools, eliminating the redundant ones and introducing the missing ones.

(2) Partnerships with technology-incentive enterprises

For many tourism MSMEs, establishing an independent IT department is inefficient. A viable strategy is to partner with technology-incentive enterprises, which are usually platforms that provide travel services. The deeper partnership may involve the establishment of a joint venture. Another method is to participate in digital supply chain financing platforms, thereby accelerating digital transformation by digitizing financing and transaction processes.

(3) Developing a culture of self-directed learning

For a lot of tourism MSMEs, it is not easy to establish a close partnership with technology-incentive enterprises without an attractive business scheme or to participate in digital supply chain financing platforms. In this case, heads of tourism MSMEs should decisively promote digitalization internally

and encourage digital tools and skills acquisition, especially those that are easy to capture and use, like social media (websites, apps), video clipping, search engine optimization (SEO) software/apps, and etc.

(4) Focus on digitalization of key business processes

For most tourism MSMEs, digitalization is still in its infancy. Customer service as well as marketing and sales are the prioritized processes to be digitalized. The digital tools involved cover social media, emails, instant messaging apps, third-party reservation platforms, customized CRM systems, etc.

(5) Picking one side

For the individuals, the first move also starts with a self-assessment to determine whether they are qualified to address online postings. Those with good storytelling, literary, filming, presentation, and video clipping skills, as well as a charming personality, are likely to be successful as online influencers. Most tourism individuals are recommended to be open to the use of social media and take it as a marketing or even reservation channel for their tour services.

1.4 Policies supporting tourism digitalization

Many APEC economies have offered specific support for the digital transformation of (tourism) SMEs or MSMEs. The supporting measures can be divided into five categories:

(1) Financial support

All APEC economies have addressed the financial complications of (tourism) SMEs or MSMEs and endeavored to bail them out through special subsidies and grants, low-interest loans, tax and fee exemptions or reductions. The financial assistance is seen as a kind of jump-start for the digital transformation.

(2) Staff training

APEC economies have launched numerous human resources training and experience-sharing programs by holding seminars and MOOCs, organizing expert teams, and launching youth entrepreneurship programs to help (tourism) SMEs or MSMEs master the theoretical and practical knowledge of e-commerce, online marketing, and managing technical tools, so as to embark on the path of digitalization.

(3) Building digital infrastructure and platform

Numerous APEC economies encouraged (tourism) SMEs or MSMEs to function, trade and communicate online, and actively build various physical infrastructures for digital technologies such as 5G networks, artificial intelligence (AI), and Big Data, etc. They also cooperated with the private sector to offer digital platforms, services, products, and software for digital transformation.

(4) Demonstration effect

Several APEC economies encouraged (tourism) SMEs or MSMEs to implement and widen digitalization by certifying, establishing competitions, compiling case collections, giving award, and awarding prizes to those who have made significant improvement in digital transformation.

(5) Stimulating consumption

To encourage economic growth, including tourism recovery, many APEC economies have encouraged their population to purchase goods and services, especially those connected to travel and tourism, through digital channels, making (tourism) SMEs or MSMEs more adapted to digital advertising and marketing.

1.5 Recommendations for the public sector

The following suggestions are established with the interview results from ten tourism MSMEs (travel agencies) and individuals (tour guides), as well as governments actions (achievements).

(1) To launch specific and practical programs

Governments could launch programs for a specific group of tourism MSMEs by providing comprehensive support, covering funding, skills training and coaching, etc. for their digital transformation.

(2) To deepen cooperation with the private sector

Tourism digital platform enterprises play an important role in tourism digitalization, as they usually themselves are marketing and sales channels for tourism MSMEs and individuals. With their involvement, the public sector can seek to construct an online tourism platform that provides marketing and sales support to MSMEs and individuals in the tourism sector with high data security.

(3) Digital funding/inclusive financing

Those that have adopted an integrated digital operations process, have been facing major capital burdens due to limited and volatile revenues. Governments could provide specific funding or inclusive financing for the maintenance and purchase of digital tools and technologies.

(4) Ensuring data security

Most tourism MSMEs usually use digital tools from large technology companies and the data generated are stored by them. Governments have an important role to play in strengthening the cyber security environment of both the public and private sectors in their respective economies.

(5) Digital education together with educational or research institutions

Governments may establish training programs or consultation offices together with technology companies, research institutions, colleges and universities. These programs could provide customized one-on-one consultations for tourism MSMEs and individuals in the use of digital tools and technologies for their digital transformation.

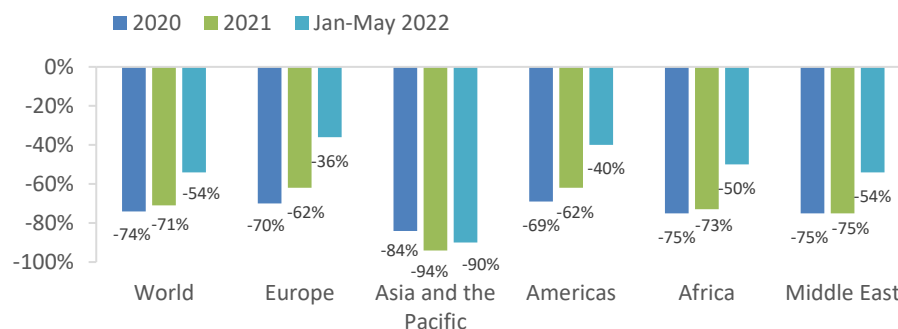
2 The impacts and response to COVID-19

2.1 The collapse of global international tourism

The last two years have seen the tourism sector confront arguably the greatest crisis it has ever faced due to the impacts of the COVID-19 pandemic. According to the UNWTO, international tourist arrivals in 2020 and 2021 were respectively 74% and 71% lower than those of before the outbreak of the pandemic. 2020 was the worst year among those with records. Compared to the same period in 2019, global tourism still recorded a sharp drop in the first five months of 2022, with a decline of 54%.

The impacts of COVID-19 varied across regions. According to data published by UNWTO, the discrepancy between regions widened. Tourism in Europe and the Americas recovered somewhat faster than in the other regions, especially Asia and the Pacific. In 2021, the decline in international tourist arrivals in Europe and the Americas narrowed to 62%, while Africa and the Middle East recorded a decline of over 70%, and with Asia and the Pacific of over 90%. In the first five months of 2022, Europe and the Americas recovered much better, with international tourist arrivals down by 36% and 40% respectively. Africa and the Middle East also saw improved situation, with a decline rate of around 50%. In Asia and the Pacific however, the recovery was slower than in other regions for some borders remained closed to non-essential travel, and the international tourist arrivals decreased by 90%.

Figure 2-1 The variation in international tourist arrivals (2020-2022) compared to 2019



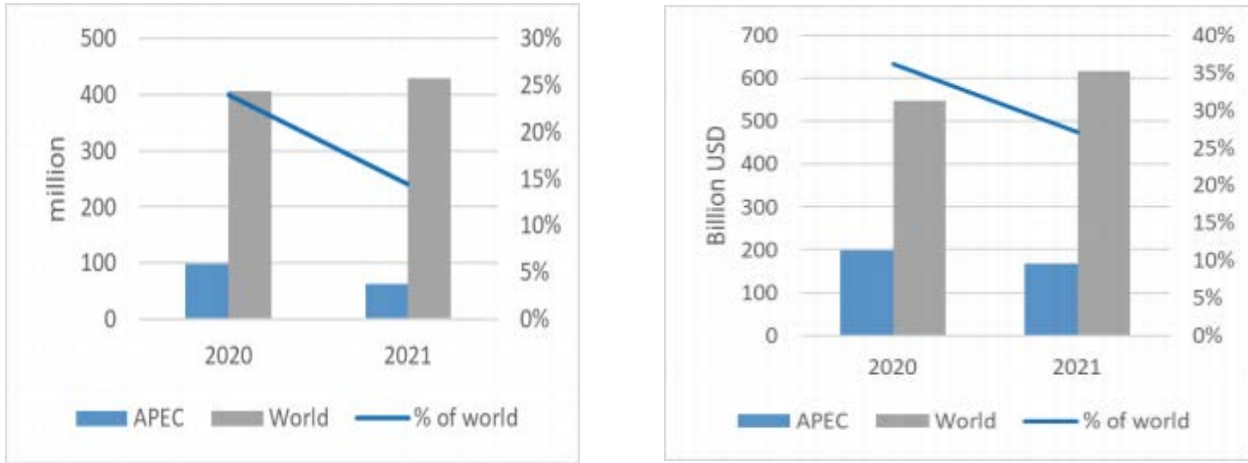
Source: UNWTO

2.2 Relatively slow recovery of international tourism in APEC economies

The recovery of international tourism in APEC economies is also relatively slow. The number of international tourist arrivals and receipts in the twenty-one APEC member economies directly displays that international tourism continued to fall in 2021, after the massive decline in 2020. In 2021, the international tourist arrivals and receipts in APEC economies respectively diminished by 36% and 16% compared to the previous year. Over the same period, international tourist arrivals and receipts in the world increased by 6% and 13% respectively. It is noticeable that

the contribution of APEC economies to the world international tourist arrivals and receipts declined from 24% (year 2020) to 16% (year 2021), and from 36% (year 2020) to 27% (year 2021), respectively.

Figure 2-2 The international tourist arrivals and receipts in APEC economies (2020-2021)



Source: UNWTO Tourism Data Dashboard

After strong vaccination programs and ongoing adjustments, the situation appears more positive in most APEC economies in 2022. More and more economies starts to lift travel restrictions. By the end of August 2022, an estimated of 85 economies have removed all entry restrictions, with no testing, no quarantines and even no mandatory vaccination, only the requirement of covid-included travel insurance¹. Four APEC economies, including Australia, Malaysia, Mexico and Viet Nam, have taken the same measurements: lifting all travel restrictions.

With more destinations reopening, and even lifting all travel restrictions, the latest UNWTO Barometer (July 2022) displayed that more UNWTO tourism experts see 2022 with better or much better prospects. Almost half of them expected international arrivals to regain the pre-pandemic levels in 2023. However, more than two-thirds thought that Asia and the Pacific region could reach this level in 2024 or later. This also suggests that APEC economies' prospects for international tourism recovery in the near future are not very encouraging.

¹ <https://www.traveloffpath.com/countries-without-any-travel-restrictions-or-entry-requirements>

2.3 The impacts of COVID-19 on tourism MSMEs and individuals

Although more APEC economies are likely to lift all travel restrictions, it will take time for international tourists to rebuild confidence in cross-border travels. Against this backdrop, tourism business, especially those that rely on international tourism market, will be under great pressure in a certain period of time. Among them, MSMEs and individuals in the tourism sector are the most vulnerable group, as they face financing difficulties after the slump in revenues or even the absence of revenues. Tourism is a large sector that includes attractions, hospitality (hotels and restaurants), transportation, travel facilitation (travel agencies) and entertainment business. MSMEs that provide products and service in attractions, hospitality, transportation and entertainment business, which are originally intended for both domestic and international markets, are recovering accordingly along with the rebound of domestic tourism market. However, micro, small, and medium-sized (MSM) tour agencies and tour guides targeting the international tourism market were affected the hardest. Many of these companies have gone bankrupt and the individual tour guides have no work in travel business.

Thus the MSM travel agencies and individual tour guides targeting international tourism market were chosen as a representative group of MSMEs and individuals in the tourism sector to understand the profound impacts of the pandemic on tourism MSMEs and individuals. They were defined as our target group.

In order to thoroughly understand the impacts of COVID-19 on the target group and their responses, especially what opportunities digital tools may provide them with, a case study was conducted. The study includes ten cases, five of which are from China and the rest from the other APEC economies. The case gathering was conducted through the publication of the Case Collection Note both inside and outside Chinese mainland, with the assistance of the research contractor, the China Tourism Academy and the APEC Tourism Working Group (TWG). In the end, seven MSM travel agencies and four individuals were selected as the study cases. In-depth interviews were conducted with them in April, 2022.

For the collection of five Chinese cases, a notice² was posted on the WeChat official account of China Tourism Academy³ in February 2022. Twelve cases were collected two weeks after the publication. Four of them were selected⁴. Considering that many tour guides started to turn to be internet influencers or key opinion leaders after the COVID-19 in China, the contractor contacted several candidates and finally chose Ms. Zhang as a single case.

² The Note can be checked by <https://mp.weixin.qq.com/s/lwjNic1y9qRDV9x4WO9tew>

³ It has over 97,000 subscribers who are mostly from enterprises, administrative agencies, universities or colleges concerning travel and tourism industry in China.

⁴ The criteria of this selection are i) whether they belong to the target group serving international travel market; and ii) whether they have used digital tools more than the other, which is the focus of this case study.

A similar procedure was used to gather the 5 cases from the other APEC economies, but without very satisfying results. With the help of APEC TWG, information sheets⁵ were emailed to APEC economy members in March 2022. A total of 4 cases were collected, three from Viet Nam and one from Singapore. Two of them became the selected cases and were interviewed online. On the reference of CTA's partners, such as the Travel Industry Council of Hong Kong, China, Google and Beijing Best tour Ltd, the other three cases were selected. The concluding ten cases are listed in Table 2-1 (in alphabetic order of economy).

Table 2-1 The 10 cases of tourism MSMEs and individuals

#	Name	Economy	Websites
Tourism MSMEs (travel agencies)			
1	Beijing Hermes Technology Co., Ltd.	China	https://www.LETSLOCALS.com
2	Beijing Shenzhou Journey Network Technology Co., Ltd.	China	https://www.hichinatravel.com
3	Lost Plate Food Tours	China	www.lostplate.com
4	Taiwan Good Travel Company Ltd.	Hong Kong, China	https://www.springholiday.com.hk
5	Pt. Duta Pesona Wisata	Indonesia	https://pesonatour.com https://linktr.ee/dutapesona
6	Tribe Pte. Ltd.	Singapore	https://tribe-tours.com
7	Hanoi Tourism Investment Joint Stock Company	Viet Nam	https://dulichhanoi.vn
Individuals (tour guides)			
8	Ms. Juan Zhang	China	
9	Mr. Junjie (David) Dou	China	
10	Ms. Qiaoling (Gloria) Wu	Hong Kong, China	

During the case collection process, it was found that it was not easy to contract individuals (tour guides). One possible reason is that individuals are more concerned about privacy and then they are reluctant to participate in this project. Another reason is that few tour guides in APEC economies have commonly used digital tools for travel business. Therefore, it is not stress-free to collect proper cases.

⁵ Information sheets for MSMEs and tour guides can be checked by https://qfreeaccountssjc1.az1.qualtrics.com/jfe/form/SV_3Q5MkDfcrK1USgu, and https://qfreeaccountssjc1.az1.qualtrics.com/jfe/form/SV_engOoFkhdXKYdw

In general, micro and small-sized tourism enterprises are more vulnerable than the medium-sized ones for they have less resources to be deployed when facing unexpected emergencies, like the COVID-19. However, they, with fewer mouths to feed, can recover more quickly once they find a new model of revenue generation. The results of the interviews also support this assumption. Medium-sized travel agencies, such as Hanoi Tourism Investment Joint Stock Company (Hanoi Tourism) and Beijing Hermes Technology Co., Ltd. (LETS) had to lay off more staff to reduce labor costs and the journey of recovery was paved with more challenges. As most staff were laid off, morale was usually quite low. This may not happen to those survived micro and small-sized ones with few staff leaving.

The direct impacts of COVID-19 include the following:

(1) No or much less income

As a result of the shutdown of the international tourism market and the domestic market in the first period after the outbreak of COVID-19, travel agencies were forced to close their doors, and tour guides were left jobless. This period with no or little income usually lasts 3 to 6 months. With the loosening of travel restrictions on domestic travel in each economy, revenue may regenerate depending on whether travel agencies can adapt to the new scenarios. For some travel agencies, the revenue in 2021 was still about 90% lower than that in 2019, but those good adaptors have recovered or even topped the revenue in 2019.

(2) Staff reduction/unemployment

Typically, travel business had to lay off staff to minimize labor costs and preserve the company's viability. Our interviews revealed that some medium-sized travel agencies have had to lay off employees up to 70% or even more, while this proportion came down to 30% for micro and small-sized enterprises. As tour guides are usually freelancers, many of them were unemployed and forced to seek employment in other areas, usually part-time jobs for language teaching, delivery, insurance sales, etc.

2.4 Responding to the impacts of COVID-19

To survive under the impacts of COVID-19, MSMEs (travel agents) and individuals (tour guides) had to revise their income model and cut unnecessary costs.

2.4.1 Shifting the target market

With the closure of borders, MSMEs and individuals serving the international travel market lost all or the vast majority of their customers. Many went bankrupt. International tourism rebounded far more slowly than the domestic market, which usually restarted within 6 months after the outbreak of the pandemic. This fact prompted tourism MSMEs and individuals to attract the locals. The surviving tourism MSMEs and individuals are usually those who were able to shift their target market from the international to the domestic.

Travel agencies such as Hanoi Tourism and Pt. Duta Pesona Wisata which offered both domestic and international tours to domestic customers, were under less pressure than those that only offered tours for foreign tourists, such as LETS, Taiwan Good Travel Company Ltd. (Good Travel), Tribe Pte. Ltd. (Tribe), Beijing Shenzhou Journey Network Technology Co., Ltd. (HiChina Travel) and Lost Plate Food Tours (Lost Plate). The former was able to continue serving domestic customers once domestic travel was allowed. They were also able to retain some outbound tourists by offering them differentiated domestic travel products. Given the very different requirements of foreign and local tourists, it is much more difficult for travel agencies or tour guides serving inbound tourists to change their target market. For this reason, some travel agencies, such as LETS, continued to serve foreign tourists online. Others, like HiChina Travel and Lost Plate, started to focus on expats. Travel agencies, such as the Good Travel and Tribe turned their attention to the domestic market. Nevertheless, the successful market shift required innovation in travel products and services. Individuals also faced parallel challenges. They need to offer customized travel services and products for domestic tourists, which usually requires training and self-learning.

2.4.2 Innovative services or products

To magnetize locals or expats, travel agencies need to cultivate new types of travel or adapt their original travel formats. Since the local people have no interest in the attractions favored by foreigners, Tribe used live stream to present the scenes and stories behind a coffee room, or bread factory which the local Singaporeans usually have no access to visit. Furthermore, they developed game tours, a kind of mystery tour. Participants are placed in a scenario to crack puzzles. In the Chinatown Murders Game Tour, for example, the tourist plays the role of a detective who has to find the killer with the help of guidelines from the tour guides. Along their way, they are taken to many stops in Chinatown. Each stop has its own puzzles, games and interactive activities. Through this half-day murder hunt, tourists are immersed in the history, art and literature of Chinatown. This new style of travel product also helped Tribe to attract much younger customers. Prior to the pandemic, their international guests were generally between 40 and 60 years old. With the introduction of these game tours, the age structure of their customers will definitely change in the future.

Another good practice comes from Mr. Junjie (David) Dou. After the temporary closure of the inbound market due to the containment of COVID-19, he began to investigate the fresh and overlooked opportunities in the domestic market. He endeavored to find a travel product that could attract both local and international tourists. In this perspective, the city cycling tour was developed. The first cycling tour is along the central axis in Beijing. So far, three other cycling tours in Beijing have been developed with different cultural themes, covering the Beijing Opera, life in Hutong and Winter Olympics Games. By mid August, the bike tours had attracted about 1200 guests, including about 20 expats.

In addition to new kinds of tours, travel agencies, like Lost Plate turned to adapting their travel modalities. Prior to the pandemic, Lost Plate offered culinary tours that were not easy for non-local tourists to find by taking international tourists to eat at local, family-run restaurants in cities like Beijing, Shanghai, Xi'an and Chengdu. At the very initiation after the outbreak of COVID-19, they tried to attract local tourists by taking them to an Instagram-style photo tour and teaching them to take Instagram-style pictures around the city so that they could post those pictures on social media platforms. However, the outcome fell short of expectations. They had to try other products.

Since 15% of their clients were expats living in China before the pandemic, they opted to meet their long-distance travel needs. They initiated multi-day group tours to popular destinations throughout China such as Yunnan Province, and the cities of Xi'an, Chengdu, and Guilin. It turned out that these trips were very liked by the expats. These tours then became the main source of income for Lost Plate, allowing them to survive and wait for international tourists to return.

Last but not least, some travel agencies like HiChina Travel and Good Travel entered into new service fields to compensate their decline in travel business and retain their original workforce. HiChina Travel began to provide concierge services for expats. Those services included working visa application, the PCT test, etc. They also sold specialty products from the rural areas. Good Travel started business in a new area. With a mask factory opened for the containment of the pandemic, they launched the one-day mask factory tour combining the visit to Victoria Harbor. The employees also sold masks to make through the hardest time.

The use of digital tools:

2.4.3 Cost cutting

In addition to layoffs, travel agencies have also sought to reduce operational cost. HiChina Travel, for example, moved its office from Beijing to Nanjing to reduce rent and labor costs. Lost Plate took similar measures, closing the Beijing office and moving to Kunming, Yunnan Province. Many small business owners gave up the fixed office space and rented a co-working apartment on an as-needed basis instead.

2.4.4 Use of Digital tools

After the outbreak of the pandemic, tourism MSMEs and individuals took many tempting experiments. Globally, when everyone was stuck at home, online communication grew widespread. The use of digital technologies such as Zoom and social media was on the rise. Similarly to companies in other sectors, tourism MSMEs and individuals started trying out online experiences, such as live streaming tours or virtual tours. In these trials, digital tools were more repeatedly used and attached with greater importance in business operation. In the next part, the use of digital tools by tourism MSMEs and individuals will be explained in detail based on interview results.

3 Roles, challenges and recommendations

Although the outbreak of the COVID -19 pandemic is considered a disaster by almost all tourism MSMEs and individuals, it has also forced them to place a greater emphasis on the use of digital tools, such as websites, different types of apps, social media and software tools, urging them to operate in a digital manner.

It is undeniable that COVID-19 has accelerated digital transformation to some extent. This acceleration is driven by two forces. One is the change in consumer behavior. This is a pushing force. Almost all aspects of people's lives are changed by digital tools. People log on to the Internet to learn, entertain, and shop. According to the sharing by the trainer from Google in the virtual workshop, 70% of consumers purchase more online now than pre-COVID, and for some purchases, customers have 500+ digital touchpoints before a purchase. Similarly, travelers tend to search information for travels, book and make comments of their tours online. The other is the pull effect. Prior to the COVID-19, many tourism MSMEs and individuals had begun employing digital tools. Their own and others' practice showed that digitalization helped to gain a competitive advantage. In fact, the earlier use of digital tools improved their chances of survival under the impacts of the pandemic. Our survey results also confirm that digital tools have played a more important role in the distribution of travel services. Duta Pesona Wisata stated that the percentage of customers coming through the website reached to 70%, an increase of about 20% from pre-pandemic levels.

An intriguing occurrence is that the reliance on digital tools decreased as travel recovered. In the first few months after the outbreak of COVID-19, tourism MSMEs and individuals relied heavily on digital tools. People were confined at home. Physical travel activities were halted for a period of time; thus they were forced to investigate whatever opportunities they may have online. As the recovery of domestic travel market started and their target market shifted, digital tools were mainly used to connect domestic travelers.

3.1 The roles of digital tools

To help tourism MSMEs and individuals survive and recover from the impacts of COVID-19, digital tools played various roles.

3.1.1 Survival support

In the first few months after the outbreak of COVID-19, few or no physical contact was allowed. Tourism MSMEs and individuals turned to online communication and activities to find opportunities. In order to survive, tourism MSMEs and individuals were eager to seize any opportunity that came their way. Many MSMEs in the tourism sector started to engage in virtual travel activities or even e-commerce. Individuals also attempted to find employment opportunities online. All of these endeavors occurred during a period of transition preceding the easing of travel restrictions and the target market shift.

When individuals were prohibited from traveling, travel agencies attempted to provide them with a variety of services and goods, depending on the needs or interests of potential customers. Lost Plate provided online cooking workshops teaching Chinese cuisine. They also tried to sell food boxes that contained all the ingredients customers might need for the cooking class. LETS dabbled in cross-border e-commerce, selling Chinese products (silk, ceramics, tea etc.) on Etsy.com. Duta Pesona Wisata also dabbled in online sales. The goods they sold were mainly daily necessities, such as traditional food (Naan bread), masks and traditional handicrafts.

Similarly, individuals in the tourism sector were forced to engage in online activities due to the lack of physical travel possibilities. Mr. Junjie (David) Dou started publishing online training courses for tour guides on a knowledge-sharing platform before the outbreak of COVID-19. He then started producing training courses in Chinese instead of English after the pandemic. To promote these courses, he also posted short video clips of his courses on WeChat channels. In addition, like many other tour guides, Mr. Dou started live-streaming on Taobao, one of the largest e-commerce platforms in China. Similarly, Ms. Juan Zhang started live streaming on Douyin, one of the most popular platforms for short videos. Ms. Qiaoling (Gloria) Wu also posted her short videos on WeChat channels.

The online activities of most tourism MSMEs were expedient and generally unprofitable. Nevertheless, it still played a positive role during that particular period by keeping employees busy and explored for new possibilities. Knowledge was also acquired through online practice. Some individuals, such as Ms. Juan Zhang, were able to become online influencers through the digital practice, particularly social media engagement.

3.1.2 Facilitating operation

Digital tools are crucial for providing travel services. Without the use of digital tools, many travel products could not be offered smoothly. In the game tours launched by Tribe, such as the St John's Island Escape Tour, participants move freely with tablets that have an internet connection. Mysterious clues or instructions are sent to these tablets. In this sense, the use of digital tools ensures interactive communication between tour guides and tourists throughout the whole game tour process and facilitate participants' free movement.

Mr. Dou and his colleagues used Tencent Meeting and eventually their own APP as wireless communication tools for tour guides and visitors in cycling tours. An interactive digital application called the Smart Course were also used to provide a more immersive experience for the cycling

tourists. When tour guides stop in front of some historical buildings, they use Smart Course in mobiles or tablets to demonstrate the former condition, structural features, and other details using 3D pictures, gif photos or other multimedia forms. These digital tools help guides to use other digital sources apart from their oral explanations and commentaries to provide visitors with a more vivid experience.

Digital tools are also helpful in simplifying the work process. Many tourism MSMEs have claimed that the use of digital tools, especially different types of management software, improves business efficiency.

(1) The data collected by integrated systems (email ticketing system, online booking system, CRM, analytics system, etc.), provides a comprehensive insight into operations;

(2) The high level of automation saves time and ensures a high degree of precision. Those who sign up for a tour or the mailing list, for instance, are automatically included to the newsletter database. Details of each reservation from the booking system are automatically transmitted to the CRM and analytics system;

(3) Remote team members are able to collaborate via a virtual space, where they may share documents and information. This also makes working from home more practical.

(4) Employee performance can be objectively evaluated and appropriately rewarded. For example, if sales results are recorded by digital tools, the performance of each salesperson can be regularly evaluated and appropriately rewarded.

(5) Immediate messaging platforms such as WhatsApp, WeChat, provide timely customer service, which lead to better customer relationships.

3.1.3 Customer connection

Social media plays an important role for tourism MSMEs and individuals to reach and engage potential customers, especially the younger generation who spend more time on various social media platforms. When travel was suspended, social media was the most popular avenue for communicating with prospective clients. Typically, social media can also be utilized to generate trip bookings.

For some tourism MSMEs such as HiChina Travel and LETS, social media is a direct channel for customer acquisition. Since HiChina Travel itself is an online platform and its business model is based on information sharing, digital tools (website) have been used from the beginning. HiChina Travel opened accounts on many platforms, not only in mainstream ones like Facebook, Instagram, but also in specialized ones such as Naver for Korean markets and Vkontakt in Russia. The social media contribute a lot to customer acquisition and positive branding. HiChina Travel has over 2.6 million followers on Facebook and the number continues to grow. After the pandemic and with the shift of target market, HiChina Travel has given more importance to domestic social media, WeChat and its official account, WeChat channels and Mini Program. HiChina Travel has seen an 80% of increase in sales via WeChat over the past two years. LETS also relies on key social media

platforms to attract and retain customers. So far, the company has about 3.4 million followers on Facebook. Even if there are no more offline tours after the pandemic, they have never stopped online contact with potential customers through regular posts on social media. Duta Pesona Wisata has also paid more attention to social media platforms, especially Instagram which is considered as a more effective channel to target young generation.

For individual tour guides, social media are the most suitable platforms to build personal prestige and attract potential clients or audiences for destination marketing. Mr. Junjie (David) Dou has over 80,000 followers on Taobao. These fans are also potential customers for his cycling tours. Ms. Juan Zhang has gained about 1.5 million followers on Douyin. The followers are her potential customers for local specialties and her audience for destination marketing. Ms. Qiaoling (Gloria) Wu has more than 10,000 followers on WeChat channels, which are her audience for destination promotion.

3.2 Challenges in the use of digital tools

Under the impacts of COVID-19, tourism MSMEs and individuals face many trials in using digital tools. The initial obstacle is financial pressure, followed by absence of expert guidance and digital experience. For the individuals, during their use of social media, the biggest challenge is the balance between online virtual activities and tour guides practices.

3.2.1 Financial burden

It is expensive to maintain and acquire digital tools (apps, software, etc.). For most tourism MSMEs, funds for digital tools are not always in adequate amount, especially under the impacts of COVID-19. Most tourism MSMEs reported the financial burden of using digital tools, usually the operating software. In general, it costs a large amount of investment to purchase and uphold digital tools. Tourism MSMEs usually decide to buy digital packages step by step or purchase the whole package and update it regularly. According to Hanoi Tourism, before COVID-19, about 15%-20% of their profits went into IT department.

In a constant business atmosphere, a strong and automated network of digital tools has smoothed the operational process and significantly increased productivity. Indeed, the integrated digital system can be one of the strongest advantages of tourism MSMEs. However, when unexpected emergencies such as COVID-19 occurs and revenue fails, it becomes exceedingly challenging from a financial perspective to sustain these digital systems, let alone making new investments in digital tools.

Once these digital tools are integrated into a system and the entire operation is based on them, it will be hard to exclude one or some of them as they are linked with each other. For tourism MSMEs, it is neither easy nor quick to abandon some of the digital tools after determining which ones are absolutely necessary. In case of sudden emergencies, such as COVID-19, the use of digital tools makes the business quite vulnerable in this respect as well.

3.2.2 Lack of expertise

Most tourism MSMEs have few or no staff specialized in IT. They have to rely heavily on IT service providers. This lack of expertise makes almost impossible for tourism MSMEs to develop new digital tools or update the original ones by themselves. The integration of various digital tools is also hard for them to achieve and maintain. Moreover, it is not easy to discern the right as well as cost-effective digital tool(s) from the numerous options provided by IT suppliers.

3.2.3 Balancing online engagement with offline activities

As to tourism individuals (tour guides), gaining followers on social media to increase their online prestige is time-consuming. Tour guides need to find a balance between the time and energy they spend on social media and other offline activities such as tour product design and guide work. At the very beginning of the COVID-19 outbreak, tourism individuals had more time for virtual activities, such as creating short videos, live streaming, as there were few demands for travel guide at that time. With the resurgence of offline tours, they had to choose one side between the online and offline activities.

In fact, not everyone can or wants to shift to virtual side of the world. Many are not enthusiastic about using social media for the concern of personal privacy. For those who decide to embrace the virtual world, they need to understand how to use operational tools, like clipping software/apps for short videos. Even with enough skills in using digital tools, one still needs start-up capital in the beginning to cover the costs of photos/videos or live streaming. In addition, the accumulation of a substantial number of followers is a time-consuming and highly variable process. Many have to give up due to insufficient savings and patience.

3.2.4 Other possible risks

Social media are a double-edged sword. They help tourism MSMEs and individuals to escalate themselves and reach potential customers. At the same time, presenting a tourism MSMEs' information online may lead to fierce competition, as competitors can easily access their services and products information. Duta Pesona Wisata reported that the online presentations brought fiercer competition than the traditional situation and it is not always easy for them to keep a competitive advantage, especially when other enterprises offer similar travel products at lower prices.

3.3 Recommendations for better use of digital tools

On the basis of benefits, challenges and experiences in the use of digital tools by tourism MSMEs and individuals, recommendations are proposed for better use of digital tools and digital transformation.

3.3.1 Needs analysis for digital tools

In general, the application of digital tools is directly related to the size of an organization. The larger the size it is, the more digital tools it tends to use. Medium-sized businesses tend to use more digital tools than micro and small ones and individuals. Small enterprises, especially micro ones and individuals, do not need to use many hi-tech digital tools. The common software/apps such as Google Calendar, Zoom, WeChat (Work), and WhatsApp are suitable for daily connection.

Taking into account the size of the business and limitation in resources, tourism MSMEs are strongly advised to carry out demand assessment before taking the first step towards further digitalization. They should check what types of digital tools are already in use and whether there are gaps or redundancies in the use of digital tools. Depending on their own specific conditions, tourism MSMEs also need to update their use of digital tools, dropping those overlapped ones and introducing those needed. In this way, with various but necessary digital tools, a seamless operational process will be established, offering smooth and convenient travel experience.

3.3.2 Partnerships with technology-intensive companies

The lack of IT professionals is one of the main obstacles for tourism MSMEs in their digital transformation. For most tourism MSMEs, it is not cost-effective to set up an IT department. A practical way to get support from IT experts is to partner with technology companies. The technology-oriented companies selected for further cooperation are usually those who own platforms that provide travel services. The deeper partnership may involve the establishment of a joint venture. The technology-incentive companies share their IT teams and offer all the IT support tourism MSMEs may need, such as setting up and maintaining websites or apps, managing software interface, etc.

Another option is to participate in digital supply chain financing platforms. This will help tourism MSMEs to redesign their financing and transaction processes with the help of digital platforms. With blockchain technology, the authenticity of the transaction data is validated and retrieved by the lending banks. Joining such a platform also means a high level of digitalization and easier financing with minimum costs. In this way, the difficulties of tourism MSMEs in obtaining financing are also alleviated and their risk-taking capacity will be enhanced.

3.3.3 Developing a culture of self-directed learning

For many tourism MSMEs, it is not easy to establish a close partnership with technology-incentive enterprises without an attractive business program. In this case, the solution to the problem of lack of IT talent is to equip the existing staff with basic knowledge of digital tools. In this process, the head of tourism MSMEs should be a determined shepherd who champions digitalization and encourages learning of digital tools, especially those that are easy to grasp, such as social media platforms (website, apps), video clipping, search engine optimization (SEO) software/apps, etc.

To encourage employees to use different digital tools, persons in charge should be leaders to learn the use of digital tools that facilitate business. Learning can be done through manuals or online courses. Managers are also advised to create policies or implement activities that promote self-directed learning, such as regular group meetings to share knowledge about digital tools, allocating time and funds to the use of digital tools, etc. Gradually, the culture of self-directed learning that advocated digital tools will be established and strengthened.

3.3.4 Focus on digitalization of key business processes

For most MSMEs in tourism, digitalization is still in its beginning stage. Many of them continue to retain vague notions about digitalization. In the early phase of their digital transformation, devotion should be paid to the core business processes. Given the scarcity of funds and skilled labor, as well as the expense of digital tools, it makes sense to initiate and drive digital transformation in key business processes, marketing & sales and customer service. These digital gears contain customer acquisition tools (booking platforms, social media, etc.), a customized CRM system and customer communication tools (emails, instant messaging apps, chat box, etc.). Using these digital tools can facilitate a stronger connection with customers, a rapid response to their demands, bringing a high percentage of client retention. To attain this, tourism MSMEs should also place a great emphasis on data analysis.

3.3.5 Picking one side

For individuals, the initial step also begins with self-assessment. Individuals, like tour guides, are not always keen on utilizing social media or be tolerant with the uncertainty of online achievement, that is attracting a significant number of followers. The transformation into an Internet influencer or online celebrity requires good skills in literature, storytelling, presentation, film making, video clipping, etc., as well as the acquiring of personal charm. In addition, online presence will take a considerable investment of time and energy in offline activities. Individuals have to pick one side, the possible and highly variable success with online fame or the certain income and sense of sureness from offline travel business. For most individuals, the practical solution is to position offline travel facility as the priority and social media as marketing tools for offline travel services.

4 Policies supporting tourism digitalization: Practice and recommendations

There is no doubt that digitalization is the trend, and COVID-19 has accelerated this process. Prior to COVID-19, the governments in APEC economies have taken measures to stimulate digital transformation. With the outbreak of the pandemic, digital transformation has been accelerated to increase economic and social resilience which can help the economies to better cope with such emergencies. In addition to the efforts of tourism MSMEs and individuals, the governments also contribute to the digital transformation by carrying out specific projects/programs. Those official policies or measures to facilitate tourism digital transformation in general could also create enabling environment for them.

A desk study was conducted to find out what governments had done or been doing to accelerate the digitalization, especially for tourism MSMEs and individuals in the 21 APEC member economies. By the end of July 2022, authoritative websites were signed into and digitalization-promoting measures, activities and programs were queried in detail. Some of these data sources (websites) are official government websites, such as the official page of the government of the Republic of the Philippines¹, Chile². Some are official websites of tourism, economic, business, or technology departments, such as the U.S. Small Business Administration website³, and the New Zealand Ministry of Business, Innovation & Employment website⁴.

The information collected was systematically compiled and sorted. It was found that in response to the negative impacts of COVID-19 on the tourism sector, the 21 APEC economies have taken supportive measures in various aspects. These policy research findings were taken as basis for recommendations towards the public sector in APEC economies to facilitate the digitalization of tourism MSMEs and individuals.

4.1 Supportive policies for digitalization of (tourism) SMEs or MSMEs

After the outbreak of COVID-19, business, especially small ones, faced enormous living pressure. In many economies, governments have taken various supportive measures for them, including those that facilitate the digital transformation. These measures fall into five categories, depending on their contents.

¹ <https://www.pna.gov.ph> ² <https://www.gob.cl> ³ <https://www.sba.gov> ⁴ <https://www.mbie.govt.nz>

4.1.1 Financial support

Owing to COVID-19, most travel activities were partially or even completely stopped for a long time. SMEs or MSMEs, especially in the travel and tourism sector, faced tremendous survival pressure. They had to cope with the tight cash flow or even capital chain rupture because of less revenue, coupled with fixed costs such as rent, loan interest, taxes, and employee salaries. All APEC economies noticed their financial difficulties and tried to bail them out by providing special grants and subsidies, low-interest loans, tax and fee exemptions or reductions (see table 4- 1). Financial support can be regarded as a kind of preliminary for the digital transformation of (tourism) SMEs or MSMEs.

Table 4-1 Measures enacted by APEC economies in relation to financial assistance

#	Economy	Measures
1	Australia	SME Recovery Loan Scheme, The Scheme enhances lenders' ability to provide cheaper credit to otherwise viable SMEs for additional funding to get through the Coronavirus crisis, recover and invest for the future.
2	Brunei Darussalam	Subsidizations for workers of MSMEs, and at least a 30% discount on the government rental buildings
3	Canada	Canada United Small Business Relief Fund
4	Chile	Income tax payments for SMEs deferred
5	People's Republic of China	Credit loans to SMEs, depending on transaction flow and other data; Discounts/exemptions on the rent of government buildings
6	Hong Kong, China	Distance Business Program (D-BIZ) to offer 100% funding support to qualified enterprises including SMEs for IT solutions and related training expenses
7	Indonesia	Direct social assistance to SMEs, and each beneficiary received 2.4 million rupiah
8	Japan	Tax breaks for SMEs' purchasing digitalization equipment under the Small and Medium Enterprise Management Enhancement Act
9	Republic of Korea	Special employment support for tourism business
10	Mexico	25,000 pesos offered in loans to SMEs who do not lay off or reduce workers' wages
11	Malaysia	"i-TEKAD" microfinance program with low interest rates 4%

#	Economy	Measures
12	New Zealand	\$400 million Tourism Recovery Package in 2020; \$200 million Tourism Communities: Support, Recovery and Re-set Plan in 2021
13	Papua New Guinea	Goods and Services Tax refunds for the hospitality and tourism industries
14	Peru	Subsidizations of 70 million soles for cultural and artistic personnel
15	The Philippines	The reduction in income tax from 30% to 20% for SMEs
16	Russia	A six-month loan deferral program and an interest-free salary loan program for SMEs
17	Singapore	Individuals who are eligible can be rewarded up to \$700 per month for a three-month period
18	Chinese Taipei	Providing financial support (up to TWD 20,000 or TWD 60,000) for SMEs to purchase digital trade counseling services
19	Thailand	An SME development budget providing more than 1.2 billion baht in fiscal year 2022 to support SMEs
20	The United States	Paycheck Protection Program, established by the Coronavirus Aid, Relief, and Economic Security Act, to support small business with funds to cover payroll costs
21	Viet Nam	30% corporate income tax relief for SMEs with up to 100 employees

4.1.2 Staff training

The fundamental element of business development is talent. The digital transformation of (tourism) SMEs or MSMEs will place more technical and experience demands on employees and employers, so it is necessary to deliver them with specialized training. APEC economies have propelled many human resources coaching and experience contribution programs by holding meetings and MOOCs, organizing expert teams, and launching programs for young entrepreneurs to aid SMEs or MSMEs to master the practical and theoretical knowledge of e-commerce, online marketing, and management of technical tools, so that they can embark on the path of digitalization.

Table4-2 Measures of APEC economies to provide digital training

#	Economy	Measures
1	Australia	Small Business Advisory Services program
2	Chile	7,500 free apprenticeships for SMEs, with training on e-commerce, social media management and digital marketing
3	Japan	SME Digital Support Team enterprise project with proposals for remote office and electronic commerce
4	Republic of Korea	Online talks and conferences on SMEs' digital transformation
5	Mexico	Friday training program on WhatsApp
6	Papua New Guinea	Education for SME financial, entrepreneurs and digital literacy
7	Peru	Modules that suggest new developments in the industry that are free for tourism SMEs and "Inspira" event to promote creativity and innovation
8	The Philippines	The 'Ctrl+Biz' program to give a series of open webinars
9	Singapore	Digital marketing coaching program that covers social media marketing, digital marketing, and many more
10	The United States	Free coaching and digital resources offered by the newly founded Small Business Digital Alliance (SBDA)
11	Viet Nam	Digital skills training for individuals and enterprises under a digital transformation support plan for SMEs

4.1.3 Digital infrastructure and platform building

Digital transformation requires organization to shift maintenance and operations from offline to online, integrating both online and offline activities. All of those requires software and hardware support. We see APEC economies encouraging (tourism) SMEs or MSMEs to work, trade and communicate online. They actively build various hardware infrastructures for digital technologies like 5G networks, artificial intelligence, Big Data, and cloud computing. They have also cooperated with third-party companies to offer (tourism) SMEs or MSMEs with numerous products, software, services, and platforms for their digital transformation.

Table4-3 Technical support measures of APEC economies

#	Economy	Measures
1	Canada	Digital Adoption Program for SMEs to adopt digital transformation
2	Chile	Digital Check Platform
3	Hong Kong, China	Assisting merchants to handle virtual tours on Google Maps
4	Indonesia	The Palapa ring network project
5	Mexico	Fair for Digital tourism held on online platform
6	Malaysia	MyDIGITAL initiative to advance digital infrastructure
7	Papua New Guinea	New Financial Finder tool launched for SMEs to find funding options and enterprise growth opportunities
8	Peru	The National Digital Signature Platform
9	Russia	A unified e-Visa for the entire Russian territories
10	Singapore	Start Digital Initiative for SMEs
11	Chinese Taipei	The Innovative Service Plan for Digital Transformation of SMEs
12	Thailand	The TAGTHAi application; The "Magic Thai Meta verse launched with the Magical Durian" project, where tourists can virtually visit farms and buy fruits
13	Viet Nam	The ICT infrastructure construction stepped up

4.1.4 Demonstration effect

The power of role models is enormous. People are always eager to trail the footsteps of role models, and this also applies to (tourism) SMEs or MSMEs. Some APEC economies have realized that setting suitable examples is a successful method to encourage digital transformation, like

issuing certifications, compiling case collections, organizing competitions, setting up prizes, and presenting awards.

Table 4-4 Measures of APEC economies to encourage digital transformation via demonstration

#	Economy	Measures
1	People's Republic of China	Typical examples of the digital transformation of MSMEs were collected and broadcasted by media
2	Indonesia	Indonesia Tourism Village Award was initiated, in which digital creativeness is an significant assessment indicator
3	Republic of Korea	The Tourism Enterprise Innovation Voucher Support Project Beneficiary Competition was held to encourage tourism MSMEs' digital transformation
4	Russia	At the National Awards Digitalization Summit, a new "Support for Digitalization" award was initiated

4.1.5 Stimulating consumption

(Tourism) SMEs and MSMEs rely on the consumption to generate income to survive. To promote economic development, including tourism recovery, APEC economies have carried out policies and campaigns to stimulate citizens' spending on goods and services, including those for travel and tourism, through digital means. These campaigns have drawn many (tourism) SMEs or MSMEs to participate more into digital platforms, making them better adapted to digital advertising and marketing.

Table 4-5 Policy Measures of APEC economies to stimulate (travel) consumption

#	Economy	Measures
1	Australia	In the state of New South Wales (NSW), the <i>Stay in NSW</i> vouchers helped support accommodation providers in NSW impacted by COVID-19.
2	Canada	Week to support local small businesses
3	People's Republic of China	Distribution of tourism consumption coupons in more than 20 provinces
4	Hong Kong, China	Hot Summer Deals to distribute discount coupons for travel related goods and services
5	Japan	Go To Travel Campaign for citizens
6	Republic of Korea	Vouchers for travel, catering and accommodation

#	Economy	Measures
7	Malaysia	Shop Malaysia Initiative launched with private sector
8	Singapore	SingapoRediscoverers Vouchers
9	Thailand	Consumption discounts provided to local tourists and distribution of "electronic travel vouchers" to Chinese living in Thailand

4.2 Specific supportive policies for the digitalization of tourism MSMEs

Tourism MSMEs are the most affected by Covid-19, especially those interviewed ones⁵ mentioned in the previous parts. A large proportion of tourism business are MSMEs. Their coping of the pandemic is critical to the sustainability of the tourism industry. From the above tables of supporting measures, some APEC economies, such as the New Zealand and Republic of Korea, paid separate attention to tourism MSMEs and provided specific support. In addition, many economies such as China, Hong Kong, China, Singapore, Peru, Russia and Thailand are committed to the digitalization of tourism sector.

4.2.1 Digital capacity building projects

The Republic of Korea established special digital capacity building programs for small and medium-sized travel agencies. The Ministry of Culture, Sports and Tourism and the Korea Tourism Organization designed a coaching project called “Digital Transformation Support Project for Travel Sector” to improve their digital capacity. It was launched as a pilot project in 2021 and continued in 2022. 140 small and medium-sized travel agencies were selected and enrolled in this project in 2022 in accordance to their digital application level. The selected travel agencies were provided with funds (20-50 million won) to carry out digital transformation tasks within about 5 months. During this period, they received coaching and consultancy from experts. Those that classified as “excellent” in the next year’s performance evaluation would receive incentives such as automatic selection of beneficiaries in 2023, as well as financial support.

Another specific program originated from New Zealand. As part of the 2020 Tourism Recovery Package, an amount of \$10 million fund was allocated to improve the digitalization of tourism businesses, and half of this fund was spent on the Small Business Digital Boost initiative to encourage digital transformation experience sharing among small tourism businesses. Digital skills training and integrated digital tools, technologies, products and services were provided for them.

⁵ Travel agencies and tour guides who provided services for international tourists.

4.2.2 Promoting digital transformation in tourism sector

Some economies, such as Hong Kong, China, Thailand and Singapore, have established supportive policies or programs to help the tourism industry cope with the impacts of COVID-19. Apart from the funding to assist tourism recovery, digital tools have been used by governments to create or update travel promotion or transaction platforms. Tourism MSMEs and individuals were encouraged to sign into these platforms, which improved their digital marketing and sales capabilities to some extent. Many economies such as China, Peru and Russia, promoted tourism digitalization, which created an enabling environment for the digitalization of tourism MSMEs and individuals and raised their awareness of digital transformation.

(1) Supporting platforms/programs for tourism digitalization

The Tourism Authority of Thailand (TAT) has launched the TAGTHAi application together with private sectors. This is a single-stop service application for tourists. With this, tourists can access guide information, products purchase (booking) and discounts with TAGTHAi Pass. It also provides tourists with free SIM cards, favorable exchange rate, and round-the-clock security service from the Thai police. This app also serves as a distribution channel for tourism MSMEs to reach additional potential local and international tourists.

Economies such as Hong Kong, China and Singapore, have launched programs to boost travel consumption by voucher distribution. The Hong Kong Tourism Board and Singapore Tourism Board have respectively offered Hot Summer Deals on the official page and SingapoRediscovered vouchers on 5 authorized private booking platforms. In this way, tourism MSMEs were encouraged to participate in the digital promotion.

(2) Supportive framework for tourism digitalization

Many economies promoted the digitization of tourism through policies or programs. China released the “14th Five-Year Plan” for tourism development at end of 2021. Great importance was attached to the construction of smart tourism destinations, “Internet + Tourism” and the use of technology in the tourism industry. The official document, titled Opinions on Deepening “Internet + Tourism” to Foster High-Quality Improvement of Tourism Sector, lists the main tasks for the digitalization of tourism, including construction of smart destinations, building digital infrastructure, innovative governance, online marketing, data security, etc. Likewise, Peru has leased the National Strategy for the Reactivation of the Tourism Sector 2022-2025, which also highlights building smart tourism destinations. Russia initiated a unified e-Visa for the entire Russian territory in January 2021. The e-Visa will make the entry into Russia more convenient by saving processing time.

Of course, there are parallel activities in other economies to support digital transformation in the tourism sector. To some extent, this will create an environment that enables tourism MSMEs and individuals to use digital tools, and become more engaged in the digital economy. The promotion of digitalization in tourism by governments can encourage and convince tourism MSMEs and individuals to take actions for their own digital transformation.

4.3 Recommendations for the public sector

Referring to the interviews with ten tourism MSMEs (travel agencies) and individuals (tour guides), as well as the measures (achievements) taken by governments, the following suggestions are proposed. In general, tourism MSMEs anticipated the government to address their specific needs rather than taking a macro approach to promoting digitalization. In the meantime, basic supportive policies and programs are still needed, such as data security, digital education and tutoring, etc.

(1) To establish specific and practical programs

The digital coaching programs could be designed for a particular group of tourism MSMEs. Since travel agencies are the most affected groups, their digital transformation needs more resources, including financial resources and technical knowledge training. The “Digital Transformation Support Project for Travel Sector” in the Republic of Korea sets a good example in this regard. Persons in charge of this program can be invited to share their experiences with other APEC economies at TWG seminars or other appropriate opportunities.

(2) To deepen cooperation with the private sector

Enterprises operating digital tourism platforms play a significant role in the digitization of tourism industry, as they usually are sales and marketing platforms for tourism MSMEs and individuals. With their involvement, the public sector could try to build an online platform for tourism, similar to the TAGTHAi application in Thailand, attracting more and more tourism MSMEs and individuals to participate. In this way, tourism MSMEs and individuals can enjoy digital marketing and sales, while ensuring data security.

(3) Digital funding/inclusive financing

The use of digital tools and digital transformation are costly for tourism MSMEs and individuals. Those who have adopted a combined digital operation process are under high financial pressure due to inadequate and unbalanced revenues. Governments can provide funds for them. Another option for the public sector is to partner with companies that manage digital supply chain financing platforms. Encouraging tourism MSMEs to join in such digital platforms may also trigger their digital transformation in other operational processes.

(4) Ensuring data security

With the increasing use of digital tools, the data of tourism MSMEs and individuals also face the difficulty of data security. Most tourism MSMEs and all individuals generally use digital tools from large technology companies that have stored their data. There is a potential risk of data abuse. In this sense, the government needs to put data security under strict observation.

(5) Digital education together with educational or research institutions

The economy can encourage colleges and universities to offer additional courses interrelated to the tourism digitalization as the students may become employees or entrepreneurs in tourism sector in the near future. Governments can also establish education programs or consulting offices collaborating with universities and colleges, technology companies, and research institutions. These programs/offices are to one-on-one guidance and advice to tourism MSMEs and individuals on their use of digital tools and digital transformation.

5 The way forward

In the near future, the tourism industry will continue to change and evolve with the increasing use of digital technologies and tools. Against this backdrop, tourism MSMEs and individuals will continue to move forward on their path of digital transformation.

5.1 Tourism innovation driven by digitalization

The COVID-19 pandemic has accelerated the digital transformation worldwide. This was reflected in the expansion of digital infrastructure, the shift to digital services in sectors like education and retail, and the amplified use of digital tools in manufacturing¹. In the initial period following the outbreak of COVID-19, shutdowns and limitations on physical contact forced businesses and individuals to focus on online opportunities and activities. This particular experience has reinforced the will of businesses, including those in the tourism sector, to leverage digitalization during and after the pandemic.

In the future, the hi-tech application of cutting-edge digital technologies such as artificial intelligence, extended reality and blockchain will provide new breakthrough for innovation in the tourism sector. Of course, digital tools are essentially to serve human's needs. Design thinking and human-centered design will help discover real needs from all actors connected to the tourism sector. The co-creation between academic, private and public sector, together with citizens from different backgrounds will encourage the development of prototypes and pilots with the use of various digital tools.

5.1.1 Higher efficiency in customerization

Hotels, especially hotel chains, are highly capable of offering personalized services based on data about customer behavior. Through the use of new digital means and tools, such as smart room systems, specific scenarios and services are created for specific guests according to their preferences. This will be enabled by analytics, data collection, and machine learning. Further digitalization will greatly increase the effectiveness of travel customization with tools to automate those time-consuming, tedious and error-prone work. Similar to financial service providers, travel companies will be able to offer highly customized services with the help of AI algorithms. For example, they can quickly create a customized itinerary based on tourists' needs, including trip

¹ <https://www.unido.org/stories/covid-19-crisis-and-digital-transformation-what-impacts-gender-equality>

duration, budget, destination choice, etc. Currently, there are already similar platforms that can automatically recommend sightseeing itineraries with different attractions. In the future, this type of automatic recommendation will also take accommodations, transportation, restaurants, and other components into consideration.

5.1.2 Individuals to participate more in the value chain

The use of digital tools will empower tourists to participate more in the travel value chain. Many individuals who are also travel lovers and visitors have become key opinion leaders (KOLs) by providing their travel recommendations, sharing their experience, insights, and comments online, especially on social media platforms. User-generated content (UGC) is becoming more specialized and qualified. Due to their significant influence on potential tourists, KOLs have become a significant sales and marketing channel for tourism service providers and destination management organizations (DMOs). In this sense, travel consumers are becoming part of the value chain. With the proliferation of the sharing economy, such as the sharing of accommodations, transportation, and even shared catering, tourists who were once only consumers are now actively involved in the value chain production process.

5.1.3 More focus on digital marketing

Digital marketing is at the heart of digital transformation for many travel companies, especially for small tourism businesses. Social media platforms with more active KOLs and online influencers will have a greater influence on consumer buying decisions. Visual media, particularly short video platforms with more extraordinary and dynamical means of communication, will play an increasingly important role in digital marketing. It has been witnessed the increased use of digital marketing promotion and online sales among enterprises and tourism destinations.

5.1.4 More involvement of design and creative industries

Digital transformation should also be connected to design in terms of the use of new methodologies to empathize with users, ideate, create prototypes and pilots and test to discover the opportunities of improvement. The inclusion of creative industries will help to get an added value in the tourism sector, considering the intervention of careers such as industrial/product design, UX/UI design, service design, architecture and all fields that help visualize the sector in new and different perspectives. Exploration and experimentation with new concepts, methodologies, tools and backgrounds will be key factors to design new experiences for and with tourism MSMEs and individuals.

5.2 Digital transformation of tourism MSMEs and individuals

The travel enterprises, especially small businesses, are the hardest hit, but the pandemic also offers new opportunities for entrepreneurship. After the COVID-19 outbreak, tourism MSMEs and individuals suffered the lack of business and work in the first months. In order to survival, MSM travel agencies used digital tools to conduct many experiments during this period of hard time, like virtual tours, online cooking classes, live streaming tours, etc. In addition, tour guides also leveraged social media to attract followers and develop new revenue streams from destination marketing or selling local specialties. It is encouraging to see that startups based on digital technologies have come into being. In 2021, the Cloud Travel (Beijing) Technology Co, Ltd. was established. They developed an entrepreneurial project called "Shared Tour Guides". With their application, tour guides and tourists can "meet" each other, and the tour guide service can be

provided virtually, saving cost and time for both sides. Similarly, digital tools have provided new chances for individuals (tour guides) in live commerce and e-commerce.

By assisting tourist MSMEs in adapting to the new conditions brought on by COVID-19, digital technologies have improved their prospects of survival and played a positive role in their recovery. Today, the use of digital tools is a necessity for tourism MSMEs and individuals to recover and thrive after COVID-19. In the future, even if COVID-19 is completely eradicated, MSMEs and individuals in the tourism sector will continue their digital transformation, considering the changing consumer behavior preferring online activities, plus the benefits of digitalization brought to themselves.

5.2.1 Key points of digital transformation for tourism MSMEs

Utilizing digital tools and means, digitalization is a process of generating data from operational processes. Strategic planning and operational decision-making both use the generated data. In the long term, the data system can aid businesses in developing new growth opportunities or even new business models. Basically, digital transformation is about using digital technologies and tools to improve business with higher productivity, efficiency and effectiveness.

To accelerate digital transformation, tourism MSMEs should assess their situation first: What has already been accomplished in digitalization? What are their problems that could be resolved with digital tools or means? What resources can be put into digital transformation? Which part of the business processes should be prioritized for digital transformation? A digital strategy and subsequent implementation plan can only be created after a comprehensive assessment. Here is how, the digital transformation journey differs from one tourism MSME to another. Complicated OA software is pointless for those micro sized enterprises, while customer relationship management systems, accounting and financial software are essential for larger companies to achieve greater efficiency. For some tourism MSMEs, social media is considered as an important channel for customer acquisition, while others place more emphasis on search engine optimization tools because their customers come mainly from websites.

Staff are the end users of numerous technologies and digital tools, and their enthusiasm to embrace digitalization directly affect the success of digital implementation. Digital transformation means problem-solving and conducting work in different ways. This requires creating a digital-friendly culture where employees are willing to experiment with new methods or solve problems using digital tools or means. Typically, a corporate culture of trust, teamwork and integrity will facilitate the digital transformation process. In addition, it is crucial to inform employees about the benefits of digitalization and the modes in which digital tools and technologies will make their work simpler or easier before let them use certain digital tools.

Last but not the least, digital transformation is a constant and dynamic process that goes hand in hand with the shifting needs of business improvement and the introduction of new technologies and digital tools. Various digital tools should be integrated to automate data analysis and tracking for greater efficiency. With the data collected, data management, will be able to accelerate the process

of decision making and help to discover new opportunities. All of these are considered the ultimate purpose of digitalization.

5.2.2 Digital transformation of individuals in the tourism sector

Individuals (mainly freelancers) in the tourism division, like tour guides, can initiate digital transformation by using popular digital tools, especially social media platforms. Using social media does not essentially mean that every individual can become an online influencer. Nevertheless, social media provide a suitable and almost free way to get in touch with potential customers. They can be useful marketing channels for the freelancers in travel business.

As more and more free travel information is available online, filtered information will generate values for travelers. Individuals in the tourism sector could focus on this filtering potential and post their findings on social media. This value-creating work will greatly help to attract followers who will form the potential customer pool. It has been shown that, information and opinions shared in a witty or humorous way can also be helpful to attract followers.

