



Research Office
Legislative Council Secretariat



Information Note

Promoting smart tourism in South Korea and Singapore

IN08/2025

1. Introduction

1.1 Notwithstanding a strong 30.9% rebound over the previous year, the number of visitor arrivals in Hong Kong in 2024 represented just four-fifths (80%) of the pre-epidemic level in 2019. This figure lags behind many neighboring economies including Singapore (86%), South Korea (94%), Malaysia (96%) and Japan (116%). The slow pace of recovery of local inbound tourism could be attributable to many factors, such as **(a)** a strong Hong Kong dollar as it appreciated by 11%-37% against Renminbi, Korean Won and Japanese yen over the past three years; **(b)** changing consumption pattern of tourists from shopping to photo hotspots and cultural experiences, especially so for Mainland tourists; and **(c)** allegedly a lack of major events or new tourist attractions in Hong Kong. Moreover, there are criticisms that local tourism sector has not harnessed modern technology to deepen visitors' impression of the sightseeing spots and tourist services. For instance, South Korea and Singapore are applying augmented reality ("AR"), virtual reality ("VR") and artificial intelligence ("AI") to create innovative tourism products and services, buoyed by their achievements in smart city development.¹

1.2 There are thus emerging calls in Hong Kong to leverage on modern technology to promote smart tourism for enriched travel experience. More recently in November 2023 and June 2024, the Legislative Council passed two motions respectively on "revitalizing inbound tourism", urging the Government to "make good use of innovation and technology ("I&T") to facilitate the integration of culture, sports and tourism" and "make use of technology to achieve the breadth and depth of the concept of Tourism is everywhere" amongst other measures.²

¹ Such development aligns well with current travel behaviour, as visitors increasingly prefer independent travels for personalized experience. They rely on the Internet and mobile devices to access information, make travel arrangements, and share their experience on social media. See UN Tourism (2025a) and Organisation for Economic Co-operation and Development (2020).






² Legislative Council (2023, 2024).

1.3 At the request of Hon MA Fung-kwok, the Research Office has studied the measures adopted by South Korea and Singapore to promote smart tourism, focusing on those initiatives enhancing travel experience. In **South Korea**, real-time and personalized travel information and recommendations are fed to visitors through innovative tourism solutions like mobile travel apps and interactive information kiosks. In **Singapore**, the “Singapore in AR” project was launched in May 2024 which blended real environments with virtual elements, providing immersive navigation experience for tourists. This **Information Note** begins with an overview of smart tourism development in Asia, followed by an analysis of current situation and key issues of concerns in Hong Kong. It then reviews the smart tourism initiatives of South Korea and Singapore, along with a summary table for easy reference (**Appendix**).

2. Recent developments in Asia

2.1 Smart tourism is defined as the application of information and communication technology (“ICT”) to enhance tourism experiences, optimise destination management, and promote sustainable tourism practices.³ It is based on the idea that technology can be used to offer more personalized, seamless and efficient services to visitors, while also enhancing operational efficiency and resource allocation of the service providers (**Figure 1**).

Figure 1 – Examples of technology application at different stages of the travel journey

Smart Tools	Travel organization and booking	Transportation	Accommodation	Foods, beverages, and other shops	Tourism assets	Leisure, excursions, and tours
 Smart Identity	Automated check in, smart visas, health certificates	Tourist passes, facial verification	Automated check-in and check-out	Thermal screening	Thermal screening, tourist passes	Thermal screening, tourist passes
 Smart Platforms	Aggregators ⁽¹⁾ , marketing, chatbots, payment system	Sharing economy, aggregators, payment system	Sharing economy, aggregators, payment system	Online ordering, reservations, reviews and ratings, payment system	Information dissemination, ticket booking, payment system	Information dissemination, ticket booking, payment system
 Smart Logistics	Smart baggage management	Integrated traffic management, autonomous vehicles	Smart baggage management	Food delivery systems	Crowd management	Crowd management
 Smart Experience	Virtual tours	Interactive menus	Virtual tours, metaverse ⁽²⁾	Virtual tours, metaverse
 Smart Devices	...	Baggage tracking, fleet management	Smart rooms	Inventory management	Smart sensors for tracking	Personalized experience

Notes: (1) Aggregators are often used to describe a service or platform that brings together information or content from multiple sources and makes it available to users.

(2) Metaverse refers to a virtualization of the real world.

Source: Asian Development Bank (2023).

(1)

³ Matyusupov et al. (2024).

2.2 In Asia, smart tourism initially emerged as a direct offspring of smart city initiatives, particularly in Singapore and South Korea.⁴ Since late 2000s, these countries had utilized their advanced technology and network infrastructure, originally developed for smart city construction, to transform the tourism experience. By the mid-2010s, smart tourism had evolved into a distinct government policy agenda in Asia, reflecting its growing importance and potential to drive technological and economic growth.⁵ For instance, the Mainland took the lead when the China National Tourism Administration published the “Guidance to Promote Smart Tourism Development” in January 2015, including initiatives on (a) enhancing network infrastructure; (b) building information-sharing platforms; and (c) adopting digital technologies for development of smart tourist destinations.⁶

2.3 After COVID-19 epidemic, many governments in Asia recognized that digital innovations could accelerate the recovery of inbound tourism through enhanced visitor experiences. Hence, countries across ASEAN have implemented policy measures to integrate digital technology into tourism development. For instance, Indonesia has been leveraging big data and AI to analyse travel patterns since late 2020. Thailand implemented its “Third National Tourism Development Plan for 2023-2027” in January 2023, targeting to increase value in tourism products and services, and promote efficient visitor management through digital transformation and solutions.⁷

2.4 Here are some notable application of smart technologies for enhancing travel experiences in Asia. ***First in the realm of travel facilitation***, all-in-one mobile travel apps are developed to facilitate visitors’ access to information and services. These apps provide comprehensive tourism information and services, such as traveller essentials, navigation services, information on nearby precincts and accessible facilities, real-time traffic updates, personalized itinerary planning and online reservation/ticketing services. Taking the app “A Mobile Phone to Travel” (一部手機遊) in the Mainland as an example, it has been introduced in more than 20 provinces and cities since its pilot launch in Yunnan province in October 2018. Powered by big data analytics, the Go-Yunnan version of this app is an integrated service platform for a complete travel journey.⁸ It provides travellers with

⁴ European Commission (2022).

⁵ The World Economic Forum estimated that digitalization will create up to US\$305 billion (HK\$2,373 billion) of additional value for the world’s aviation, travel and tourism industry through increased profitability between 2016 and 2025. See World Economic Forum (2017).

⁶ For other Asian countries, Malaysia launched the Malaysia Smart Tourism 4.0 in April 2018, aiming to boost tourism receipts by implementing digital technologies to enhance tourism offerings and improve tourist experiences. Japan also announced measures in March 2023, aiming to boost inbound tourism through digitalization and regional tourism. See Tourism Malaysia (2018) and Japan External Trade Organization (2025).

⁷ Petruang (2024).

⁸ The “Go-Yunnan” app had served over 210 million tourists as at July 2022. See Zheng et al. (2022).

conveniences by **(a)** offering intelligent itinerary planning tools; **(b)** real-time tourist flows, weather updates, and live broadcast of the destinations; **(c)** emergency services (e.g. police and ambulance call services); and **(d)** face recognition authentication for entry into attractions after purchasing tickets online.⁹

2.5 *Secondly on enriching tourist experience*, AR/VR technology is integrated with culture, heritage, and natural environment to provide visitors with interactive and immersive experiences. Japan is a pioneer in applying immersive technology in its cultural and history museums to offer experiences that traditional exhibits cannot. Through AR/VR technology, visitors can visualise relics and artwork in 3D, and interact with the displays and the virtualized/aminated historic scenes.¹⁰

2.6 *Thirdly on enhancing travel satisfaction*, big data platforms are developed for analyzing tourist preferences and behaviour. Taking Macao as an example, the Macao Government Tourism Office (“MGTO”) launched a “Smart Application for Visitor Flows” in March 2019 to forecast visitor flows at 20 major tourist attractions for periods as short as four hours and as long as seven days. The forecast crowd levels are then categorized into “comfortable”, “moderate”, “lightly congested”, “congested” or “heavily congested” and shown in both the official website of MGTO and the “Experience Macao” app. This enables visitors to plan their visits during less crowded times, significantly enhancing travel comfortability.

3. Recent developments in Hong Kong

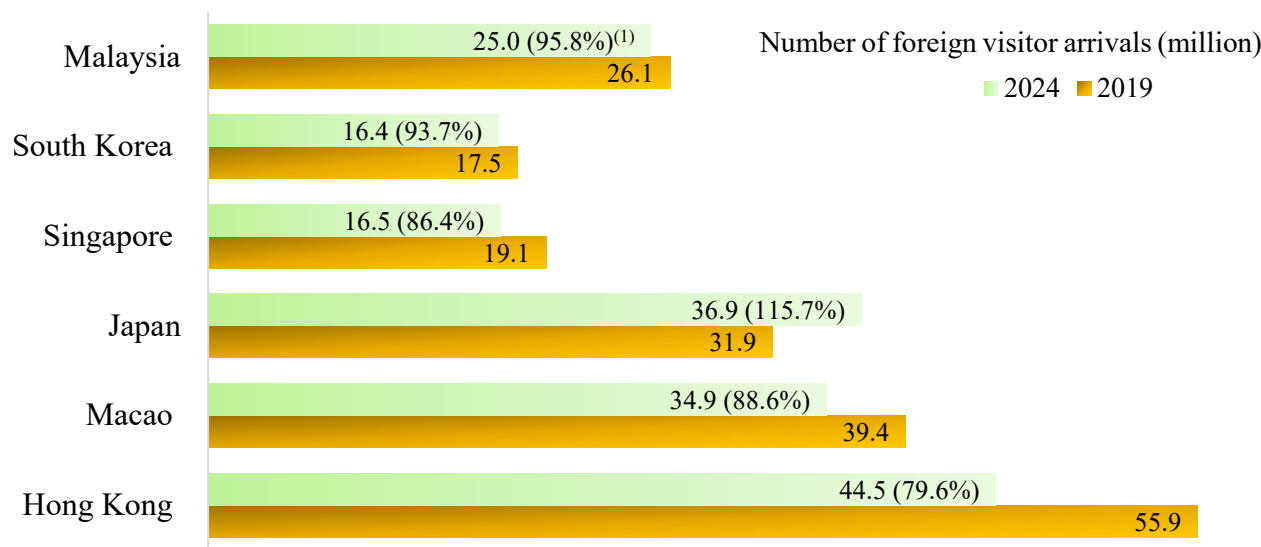
3.1 In 2024, visitor arrivals in Hong Kong continued to revive from the epidemic, rising by 30.9% over a year earlier to 44.5 million and reaching 79.6% of the level seen in 2019. Yet this pace of recovery trailed major tourist destinations in Asia, as their recovery ratios hit 86%-116% in 2024 (**Figure 2**). Moreover, in spite of the 5.8% year-on-year growth in tourist expenditure to HK\$151.3 billion in 2024, it was still 26.8% below the pre-epidemic level in 2019. More specifically, overnight tourists spent only 39% of their total expenditure on shopping in 2024, visibly down from 48% in 2019. As travel and consumption habits of visitors have changed, fewer visitors come to Hong Kong primarily for shopping. Instead, more visitors opt for independent visits to seek alternative travel experiences, including in-depth local cultural tours.¹¹

⁹ Law et al. (2020).

¹⁰ Examples include the AR/VR tour in Tokyo National Museum, Osaka Museum of History and the Museum of Kyoto.

¹¹ Culture, Sports and Tourism Bureau (2024b).

Figure 2 – Visitor arrivals in selected tourist destinations in Asia



Note: (1) Figures in brackets represent the recovery ratio of visitor arrivals in 2024 to the level in 2019.
Sources: Japan National Tourism Organization (2025), Korea Tourism Organization (2025a), Hong Kong Tourism Board (2025), Singapore Tourism Analytics Network (2024), Statistics and Census Services (2025) and Tourism Malaysia (2025).

3.2 To revitalize local tourism, key stakeholders are urging the Government to enhance its information dissemination and online services platforms to create a more convenient, efficient and personalized travel experience.¹² In July 2016, the Government launched the Information Technology Development Matching Fund for Travel Agents (“the Fund”), offering funding support to travel agents for adoption of relevant technology to upgrade their productivity and service quality.¹³ In the Development Blueprint for Hong Kong’s Tourism Industry (“Blueprint 1.0”) promulgated in October 2017, smart tourism was taken as one of the four tourism development strategies. As such, the Government launched the “City in Time” mobile app in March 2021¹⁴, the “InnerGlow” 3D projection mapping on the facades of Tai Kwun’s historic buildings in September 2022, and AR check-in spots at some locations frequented by visitors since 2024¹⁵.

¹² Legislative Council (2023, 2024) and Travel and Tour World (2025).
¹³ In 2016-2017, the Government allocated HK\$10 million to the Travel Industry Council for setting up the Fund. It subsequently topped up the Fund with an additional HK\$30 million in 2018-2019 and 2023-2024 respectively. See Travel Industry Council of Hong Kong (2025).
¹⁴ The app uses cutting-edge multimedia and AR technologies to contrast Hong Kong’s 39 historical landmarks in their past and present forms.
¹⁵ Site examples include the Hong Kong Palace Museum, the Avenue of Comics Stars in Kowloon Park and along the “City Walk” (城蹤遊) in Central and Sheung Wan District.

3.3 Most recently in December 2024, the Government promulgated the Blueprint 2.0. Smart tourism is one the four development strategies, with as many as 10 action plans and 19 measures. Key initiatives on enhancing visitors' experiences include **(a)** upgrading the "Discover Hong Kong" website¹⁶ hosted by the Hong Kong Tourism Board ("HKTb"); **(b)** promoting usage of QR codes, AR/VR and interactive technologies at tourist attractions; **(c)** making effective use of innovative technology to improve immigration clearance services; **(d)** developing a smart airport; and **(e)** promoting e-payments in the community.¹⁷

3.4 Notwithstanding these initiatives, there are public concerns that Hong Kong is lagging behind the pioneers in Asia in smart tourism development.¹⁸ **Firstly**, Hong Kong does not have an all-in-one travel app yet, creating troubles to visitors to download separate apps to access basic information (e.g. traffic, bookings, attractions, activities, weather conditions).¹⁹ Disconnected apps fail to provide integrated support to tourists throughout the travel journey, from travel planning to post-travel experience sharing.²⁰ **Secondly**, there are calls to broaden its technological innovation in tourism offerings.²¹ The "City in Time" AR experience currently provides panoramic views of 39 designated landmarks mainly in the city center. There is advocacy to expand AR applications to more neighbourhoods, encouraging exploration of diversity in the city and putting the concept of "Tourism is everywhere in Hong Kong" in practice. **Thirdly**, local tourism industry is predominantly composed of small to medium-sized enterprises ("SMEs") without technological expertise for effective digital transformation.²² Some academics pointed out that the shortage of interdisciplinary talents (i.e. those have both technical proficiency and tourism management knowledge) has presented a significant challenge in local development of smart tourism.²³ **Fourthly**, existing tourism statistics on the PartnetNet website are primarily based on immigration data and HKTb's surveys.²⁴ Some observers opine that the Government should enhance its tourism-related data collection efforts through deployment of big data (e.g. tracking the regions of origin of Mainland tourists, waiting times at border checkpoints, and real-time visitor numbers at popular check-in spots). Reportedly,

¹⁶ New features include the Live Travel Map, which provides real-time travel information, and the Smart Itinerary Planner, which offers personalized travel recommendations.

¹⁷ Culture, Sports and Tourism Bureau (2024b).

¹⁸ Travel and Tour World (2025).

¹⁹ According to the Hong Kong Tourism Association, "[c]urrently, the apps available for tourists in Hong Kong are very fragmented. Some provide information on traffic and weather, but there is no one-stop service." See Jiang (2025).

²⁰ Law et al. (2020).

²¹ Legislative Council (2024).

²² 姚柏良 (2024).

²³ Law et al. (2020), Ye et al. (2021) and Travel Industry Council of Hong Kong (2025).

²⁴ HKTb introduced the PartnerNet website in 2011 to serve as an integrated online database for stakeholders of the tourism trade to access to tourism-related research materials and statistics.

the enhanced database would assist the industry in planning tourist itineraries and improving the visitor experience.²⁵

4. Recent developments in South Korea

4.1 In South Korea, the Korea Tourism Organization (“KTO”)²⁶ pioneered the application of technology in tourism by launching the official tourism website since the early 2000s as a centralized platform for dissemination of latest travel information. In 2007, the digital map functions were added to the website on the back of the comprehensive accommodation, transport, and location data collected by the national Geographic Information System.²⁷ KTO, in collaboration with the Ministry of Culture, Sports, and Tourism (“MCST”), has since then spearheaded various smart tourism initiatives. The launch of the VISITKOREA app in 2011 had made travel experience more convenient and personalized. More recently, the enhanced 5G technology, network connectivity and data speeds have enabled the smoothness of technology-empowered interactive and immersive experiences for visitors at various tourist attractions.

4.2 Key smart tourism innovations implemented at both national and local levels in South Korea are briefly summarized as follows:

- (a) **“VISITKOREA”** app: KTO launched this app in February 2011 to serve as a comprehensive travel guide for visitors to South Korea. As an all-in-one tool, the app provides comprehensive information on tourist attractions, local cuisine, accommodation options, events and shopping destinations across the country. It also features the “Plan Your Trip” function offering customized travel plans and public transportation guide, along with practical tools such as real-time currency exchange rates and emergency contact information (e.g. the 1330 Korea Travel Helpline)²⁸;

²⁵ 香港智經研究中心(2021), 陳麗娜(2023) and 姚柏良(2024).

²⁶ KTO is a publicly funded national tourism organization established under the Tourism Business Promotion Act in 1961, tasked to advance tourism as a key driver for national economic growth and enhancement of national welfare.

²⁷ The government has pursued building the national Geographic Information System as a comprehensive information data base since 1995. See Jo (2006) and Divanshu et al. (2021).

²⁸ Operated by KTO, the hotline provides travel information and interpretation services for foreign tourists.

- (b) **Smart tourist information system:** MCST has installed interactive multilingual digital information kiosks at 60 major tourist and transportation points across the country, helping foreign visitors overcome inconveniences like complicated maps and language barriers when travelling in South Korea (**Figure 3**). The kiosks feature a “**voice search**” function, currently available in Korean, English, Chinese and Japanese, allowing visitors to navigate to their desired destinations simply by speaking to the kiosk;²⁹

Figure 3 – Smart tourist information system



Source: Dynasty Korea (2023).

- (c) **Smart tourism cities:** MCST has been promoting the “Smart Tourism City” project since 2020, offering subsidies to local governments for public-private partnerships that integrate advanced technologies with tourism services in popular destinations. To date, nine smart tourism cities (e.g. Gyeongju, Cheongju, Yeosu and Daegu) have been established nationwide, with Incheon being selected as the pioneer in September 2020. The Incheon project received a budget of 7 billion won (HK\$39.9 million) jointly funded by the national and metropolitan governments. It was implemented through a partnership between the Incheon city government and nine private consortiums, focusing on five smart tourism components: experience, convenience, service, mobility, and platform.

²⁹ These interactive kiosks also provide comprehensive services including information on tourist attractions, personalized travel recommendations, location-based maps, real-time traffic information, translation services, direct connection to 1330 Korea Travel Helpline, transportation card balance viewing, and mobile phone charging.

A significant part of the Incheon project was the launch of the “Incheoneasy” app in June 2021. Designed to enhance both visitors’ experience and convenience, the app serves as an all-in-one tool supporting visitors at every stage of their journey, from planning through to post-trip. Salient functions of “Incheoneasy” include:

- (i) **“AR/VR Time Travel”** enables visitors to experience a smart 19th century Incheon recreated by AR and VR technologies, and enjoy immersive storytelling while visiting the historic sites and scenic spots in Incheon’s open port (**Figure 4**);³⁰

Figure 4 – AR/VR Tour function of Incheoneasy app

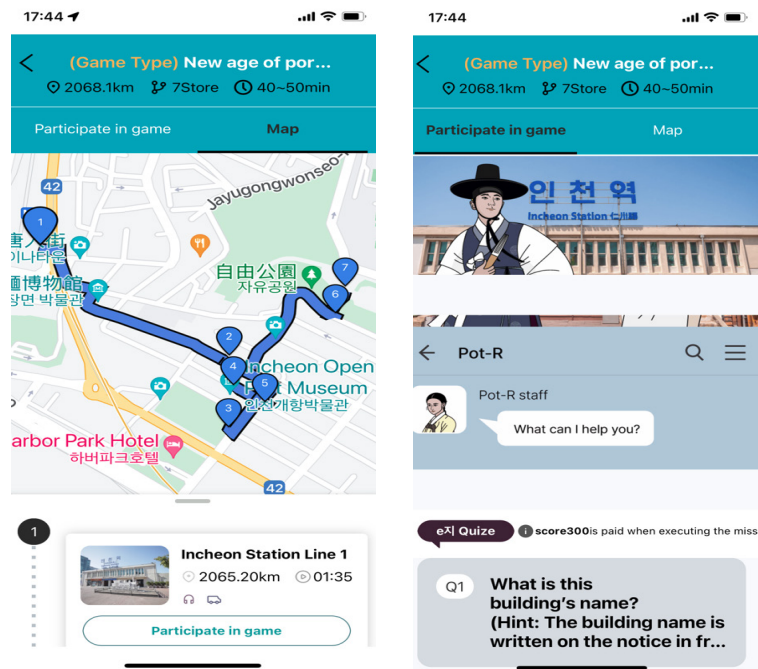


Source: Pacific Asia Travel Association (2023).

- (ii) **“Audio guide”** integrates storytelling, interactive games and quizzes into audio tour service. This innovative feature allows users to engage interactively with the destination by completing missions mapped out across their journey, earning points redeemable for rewards at local restaurants and cafes (**Figure 5**);

³⁰ Incheon was the first city of the former Joseon dynasty (1392-1897) to open its port to foreigners in the late 19th century. The port area showcases unique buildings and structures that harmoniously blend Korean and foreign architectural elements, bridging traditional and modern design styles.

Figure 5 – Audio Guide function of Incheoneasy app



Source: Incheoneasy app.

- (iii) **“Smart Mobility”** allows users to conveniently book and pay for various mobility options ranging from Incheon sightseeing tour bus to private limousines; and
- (iv) **“My Pass”** generates tailored travel suggestions based on user preferences. Through answering an AI-driven questionnaire, users will receive tailored recommendations for tourist attractions and itineraries in Incheon.
- (d) **AI-based interpretation services:** Seoul Metro has introduced AI-based real-time translation services in its stations to enhance foreign travellers’ mobility experience since December 2023.³¹ The services, currently available at 12 stations frequented by foreign visitors, features transparent OLED screens that enable face-to-face communication between visitors and station staff, with each party speaking their native language while seeing instant AI-powered translations displayed on the screen between them (**Figure 6**);³²

³¹ Seoul Metro is owned by the municipal government and is one of the two major operators of Seoul Subway with Korail, the national railway operator.

³² The service supports 13 languages including Korean, English, Japanese, Chinese, Vietnamese, Thai, Malay, Indonesian, Spanish, French, German, Arabic, and Russian.

Figure 6 – AI-based interpretation services in Seoul subway stations



Source: Korea.net (2024).

Link to video: <https://www.youtube.com/watch?v=y6cYD7uxg6s&t=7s>

- (e) **Seoul Tourism Startups contest:** The Seoul metropolitan government has hosted this annual competition since 2016 to identify innovative smart tourism projects. Selected startups receive financial support and marketing incubation services. Many winning projects focused on digital innovations that enhance travel experiences and conveniences, such as the 2022 winner “AllTheStreet”, a location-based platform that integrates wayfinding with YouTube video content;³³ and
- (f) **Korea Tourism Big Data Lab:** MCST and KTO administer this tourism-specific big data platform since 2021 to provide the industry with easily accessible integrated databases and data analysis services.³⁴ This platform aggregates government tourism statistics and big data collected from mobile network operators, credit card companies, online navigation service providers and social media platforms. Through integrating these diverse data sets, the platform provides users with comprehensive analyses on visitors from three dimensions: (i) demographics (gender, age, place of residence and nationality); (ii) travel behaviours (length of stay and spending patterns); and (iii) mobility patterns (destination searches/revisits and travel routes).

³³ Visitors can locate their intended routes and visualize the surrounding attractions and amenities in videos.

³⁴ Shin (2024a) and Korea Tourism Organization (updated).

4.3 On **policy effectiveness**, the ranking of South Korea in the World Economic Forum’s Travel and Tourism Development Index (“TTDI”) improved visibly from 31st position in 2009 to 16th in 2019.³⁵ Buoyed in part by continued investment in smart tourism initiatives, South Korea advanced further to the 14th position in TTDI in 2024, with the score in the ICT readiness sub-index the highest among Asia-Pacific countries.³⁶

4.4 Additionally, the Incheon Smart Tourism City project was awarded the PATA Gold Award in Digital Marketing Campaign category in 2023.³⁷ Its **Incheoneasy app** also won the Korea Smart App Award³⁸ in public service sector in 2022, with over 235 000 downloads by December 2024.³⁹ This success corresponded with the expansion of the smart tourism city project, leading to the designation of eight additional cities/counties as smart tourism cities.⁴⁰ The effectiveness of these smart tourism initiatives was further evidenced by the annual survey conducted by MCST in 2023, with 97.2% of visitors indicating that they were either “satisfied” or “very satisfied” with their travel experience in South Korea. The survey also highlighted high satisfaction rates for specific smart tourism services: mobile/Internet convenience (92.0%), digital tourism information (87.7%), and wayfinding (80.5%).⁴¹

³⁵ The World Economic Forum introduced the annual TTDI in 2021 to replace the Travel and Tourism Competitiveness Index. For simplicity, this index is referred to as TTDI in this information note.

³⁶ ICT Readiness measures the availability and use of ICT infrastructure and digital services in tourism-related industries. See World Economic Forum (2024).

³⁷ The Pacific Asia Travel Association (“PATA”) is a not-for-profit membership association that acts as a catalyst for the responsible development of travel and tourism to, from and within the Asia Pacific region. It conducted the PATA Gold Awards annually since 1984.

³⁸ Hosted by the Korea Internet Professionals Association, the Smart App Award is South Korea’s top contest for commercial apps developed by local companies and government agencies.

³⁹ Shin (2024b).

⁴⁰ They are Gyeongju, Namwon, Ulsan, Cheongju, Yangyang, Suwon, Yeosu and Daegu. See Korea Tourism Organization (2025b).

⁴¹ There are five rankings for overall satisfaction: “very satisfied”, “satisfied”, “normal”, “dissatisfied” and “very dissatisfied”. See Ministry of Culture, Sports and Tourism (undated).

5. Recent developments in Singapore

5.1 Similar to Hong Kong, Singapore has faced challenges in developing new tourist attractions in recent years. Coupled with growing trend of “discerning travellers”⁴² since 2010s, Singapore Tourism Board (“STB”) has pursued smart tourism initiatives to drive I&T integration into tourism in order to compete with neighbouring countries (e.g. Malaysia and Thailand) which have far more tourist attractions. Starting from March 2010, it launched the “YourSingapore” website and mobile app subsequently to serve as the interactive digital platforms that enabled travellers to create personalized itineraries. This was followed by the launch of the Tourism Technology Fund to accelerate I&T adoption in the tourism sector, and the establishment of the Singapore Tourism Analytics Network in April 2018, a data analytics platform which allows tourism stakeholders to view visualisations and perform analyses on aggregated tourism-related data.⁴³ In April 2021, it further introduced the Tourism Technology Transformation Cube, a platform featuring initiatives and programmes aimed at supporting tourism stakeholders in their digital transformation journey to adapt and flourish in the post-COVID environment.

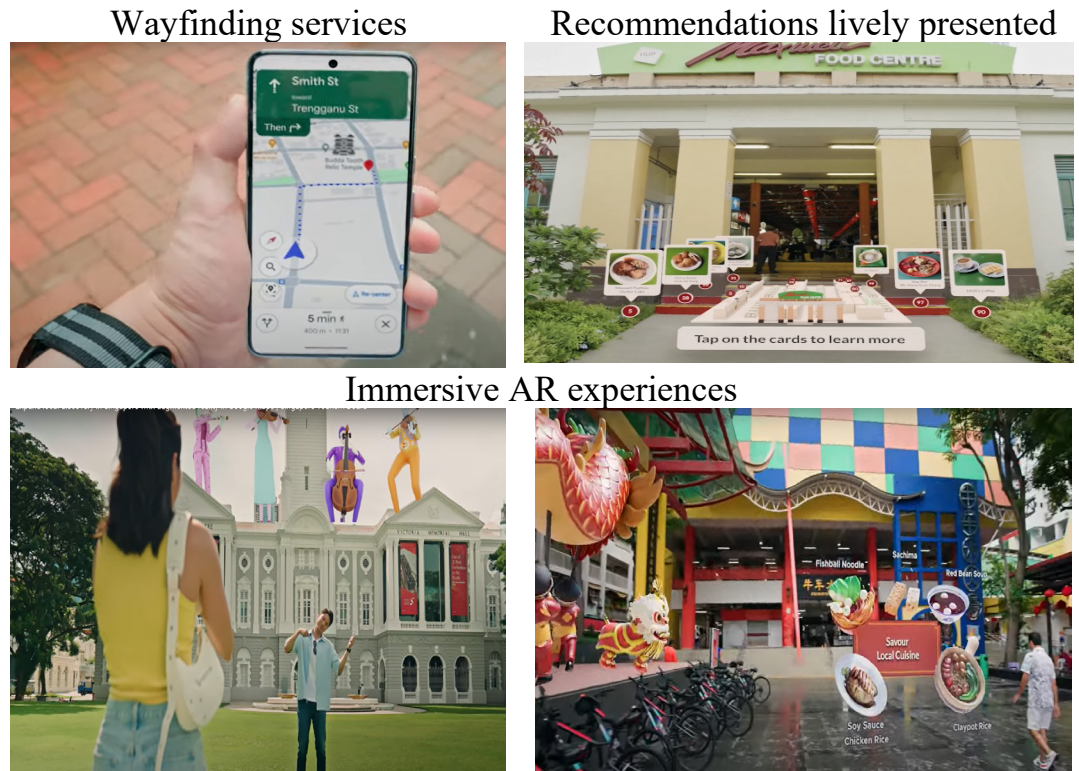
5.2 Key smart tourism initiatives and innovations implemented in Singapore to enhance travel experience are summarized as follows:

- (a) **Singapore in Augmented Reality:** To facilitate visitors to explore Singapore’s local cultures in a funny and rewarding way, STB has partnered with Google to integrate AR experiences directly into the Google Maps. Since May 2024, visitors can embark on an interactive journey guided by Merli (Singapore’s tourism mascot) through their Google Maps app and enjoy a variety of immersive experiences at over 30 iconic attractions, precincts and food and beverage establishments across Singapore. Through this innovation, visitors can easily **navigate to their destinations, discover the interesting tourism recommendations** in the surroundings, and **enjoy immersive AR experience** such as viewing a virtual dragon dance in Chinatown or photo shooting with the musicians at the Victoria Concert Hall (**Figure 7**);

⁴² Discerning travellers seek personalized experiences and interactions with destinations they visit. They value quality tourism and cultural engagement.

⁴³ The Singapore government launched the Smart Nation initiative in November 2014 which enhanced its digital infrastructure and big data analytics capabilities. This technology advancement enabled STB to better support various tourism applications, ranging from real-time data processing to seamless mobile connectivity, for enhanced visitor experiences.

Figure 7 – Singapore with AR in the Google Maps



Source: Google AR & VR (2024).

Link to video: https://www.youtube.com/watch?v=3NPlc3rjI_o

- (b) **Rejuvenating tradition attractions:** In September 2019, Sentosa Development Corporation⁴⁴ (“SDC”) started redeveloping the iconic Sentosa resort into a technology-enhanced leisure and tourism attraction. The first milestone, the Sensoryscape, was launched in March 2024. This 350-meter verdant connector features six sensory gardens which blended the island’s rich biodiversity and architecture with digital light arts and AR technology. Visitors can also download the “**ImagiNite**” app for a night-time AR experience at two sensory gardens, “Scented Sphere”⁴⁵ and “Symphony Streams”⁴⁶;

⁴⁴ SDC is a statutory board under the Ministry of Trade and Industry established in September 1972 to oversee the development, management, marketing, and promotion of Sentosa island as a resort destination.

⁴⁵ At “Scented Sphere”, where floral fragrances define the space, interactive light projections and AR elements showcase dancing butterflies, floating flower petals, and luminous pollen particles.

⁴⁶ At “Symphony Streams”, which draws inspiration from its seafront location, the soundscape of flowing water complements AR visualizations of marine life, including spotted eagle rays, bioluminescent jellyfish, sea turtles, and vibrant coral formations.

- (c) **Outdoor 5G-enabled extended reality experience⁴⁷**: In June 2023, STB partnered with SDC, Singtel and the Government Technology Agency to launch the pilot “Battle of Fort Siloso” project in Sensota. This project leverages 5G-enabled extended reality technology to draw visitors into a simulated World War Two battle scene at the historical fort. Through AR glasses, participants engage with immersive audiovisual elements and respond to the wartime missions, ranging from navigating military checkpoints to shooting down military planes of the enemies; and
- (d) **Technical and financial support for digital transformation**: STB and the Infocomm Media Development Authority⁴⁸ jointly launched the **Tourism (Attractions) Industry Digital Plan** (“IDP”) in November 2023. IDP provides technical and financial supports for attraction companies to enhance their digital capacities. Specifically, they receive step-by-step guidance on implementing digital solutions across three key business functions: customer service and engagement, sales and marketing, and sustainability. Eligible companies can receive funding support from the Productivity Solutions Grant⁴⁹ or other relevant grants to implement the digital solutions.

5.3 On **policy effectiveness**, Singapore secured a notable 13th ranking globally in the World Economic Forum’s TTDI 2024, the top performer in Southeast Asia. Its ICT readiness ranked the second highest after South Korea amongst 19 Asia-Pacific economies surveyed.⁵⁰

⁴⁷ Extended reality technology refers to a spectrum of immersive technologies that blends the physical and virtual worlds, allowing users to interact with real and virtual objects around them.

⁴⁸ IMDA is a statutory board seeking to deepen regulatory capabilities for a converged information communication media sector to safeguard the interests of consumers and foster pro-enterprise regulations in Singapore.

⁴⁹ Eligible SMEs can apply for the Productivity Solutions Grants to co-fund up to 70% of the qualifying costs of adopting pre-approved IT solutions, equipment and consultancy service.

⁵⁰ There is no publicly available information on visitors’ satisfaction level towards the smart tourism experiences in Singapore.

6. Observations

6.1 In **Hong Kong**, notwithstanding recent initiatives, stakeholders feel that there are still hurdles in smart tourism development. They include (a) absence of an all-in-one mobile app for accessing tourism information; (b) limited scope of technology application in tourism offerings; (c) resource constraints among SMEs to undergo digital transformation; and (d) limited use of the big data technology to facilitate tourism development.

6.2 In **South Korea**, the government has promoted technology application in tourism through initiatives such as: (a) the “VISITKOREA” app to provide all-in-one travel information and services; (b) interactive multilingual kiosks at major tourist spots to help visitors overcome travel inconveniences and language barriers; (c) the Smart Tourism City project to facilitate smart tourism development at local level; (d) AI-based interpretation services at Seoul subway stations to provide real-time translation services for foreign visitors; (e) the Seoul Tourism Startups contest to encourage tourism innovations and projects from local startups; and (f) the Korea Tourism Big Data Lab to analyse visitor patterns.

6.3 In **Singapore**, the government has implemented several innovative smart tourism solutions including: (a) transforming Singapore into an AR city with the integration of AR experiences directly into the Google Maps; (b) rejuvenating Sentosa resort into a technology-blended leisure and tourism attraction with AR-enhanced sceneries; (c) launching the pilot 5G-powered “Battle of Fort Siloso” to offer interactive World War Two experiences for visitors to the historical fort; and (d) introducing the Tourism (Attractions) Industry Digital Plan to provide technical and financial assistance for digital transformation of the attraction sector.

Prepared by LAU Ka-ping
Research Office
Research and Information Division
Legislative Council Secretariat
14 April 2025
Tel: 3919 3703

Information Notes are compiled for Members and Committees of the Legislative Council. They are not legal or other professional advice and shall not be relied on as such. Information Notes are subject to copyright owned by The Legislative Council Commission (The Commission). The Commission permits accurate reproduction of Information Notes for non-commercial use in a manner not adversely affecting the Legislative Council. Please refer to the Disclaimer and Copyright Notice on the Legislative Council website at www.legco.gov.hk for details. The paper number of this issue of Information Note is IN08/2025.

Smart tourism in selected places

	Hong Kong	South Korea	Singapore
A. Basic information (2024)			
1. Visitor arrivals (as a ratio to the figure in 2019)	44.5 million (79.6%)	16.4 million (93.7%)	16.5 million (86.4%)
2. Ranking in the World Economic Forum's Travel & Tourism Development Index	Not available	14th	13th
B. Initiatives to promote smart tourism			
1. One-stop information platform			
(a) Official website	✓	✓	✓
(b) Mobile travel guide (app)	×	✓	×
(c) Features of the website/app			
i. Personalized itinerary planner / suggested itineraries	✓	✓	✓
ii. Real-time information on traffic conditions and comfortability levels	× ⁽¹⁾	✓	×
iii. Deals offers and discounts	✓	✓	✓
iv. Reservation and payment services for transports and venues	×	✓	×
v. AR/VR tour experience	×	✓	×
2. Interactive tourist information kiosks	×	✓	×
3. AI-based interpretation services	×	✓	×
4. Smart elements in tourist attractions/spots (e.g. AR/VR experience)	✓	✓	✓
5. Support for digital transformation of local tourism businesses	Financial support	Financial support	Financial and technical support

Note: (1) Not until the launch of the new “Live Travel Map” function scheduled later this year.

Sources: Hong Kong Tourism Board, Korea Tourism Organization, Singapore Tourism Board and World Economic Forum.

References[^]

Hong Kong

1. Brand Hong Kong. (2024) *Top Tourist Destination*. Available from: https://www.brandhk.gov.hk/docs/default-source/factsheets-library/hong-kong-themes/2024-04-22/top-tourist-destination_apr-2024_en.pdf
2. Census and Statistics Department. (2025a) *Table 655-82101: Value added and employment in respect of the Four Key Industries*. Available from: https://www.censtatd.gov.hk/en/web_table.html?id=655-82101#
3. Census and Statistics Department. (2025b) *Tourism*. Available from: <https://www.censtatd.gov.hk/en/scode130.html>
4. Culture, Sports and Tourism Bureau. (2023) *2023 Policy Address Tourism-related Policy Initiatives of Culture, Sports and Tourism Bureau*, 30 October, LC Paper No. CB(4)926/2023(03). Available from: <https://www.legco.gov.hk/yr2023/english/panels/edev/papers/edev20231031cb4-926-3-e.pdf>
5. Culture, Sports and Tourism Bureau. (2024a) *2024 Policy Address Tourism-related Policy Initiatives of Culture, Sports and Tourism Bureau*, LC Paper No. CB(3)780/2024(04) Available from: <https://www.legco.gov.hk/yr2024/english/panels/edev/papers/edev20241105cb3-780-4-e.pdf>
6. Culture, Sports and Tourism Bureau. (2024b) *Development Blueprint for Hong Kong's Tourism Industry 2.0*. Available from: https://www.cstb.gov.hk/file_manager/en/documents/consultation%2Dand%2Dpublications/Tourism_Blueprint_2.0_English.pdf
7. Culture, Sports and Tourism Bureau. (2024c) *Hong Kong Tourism Board Work Plan for 2024-25*, LC Paper No. CB(4)373/2024(02). Available from: <https://www.legco.gov.hk/yr2024/english/panels/edev/papers/edev20240402cb4-373-2-e.pdf>
8. Culture, Sports and Tourism Bureau. (2024d) *Motion Debate on "Promoting the in-depth integration of culture, sports and tourism to revitalize the tourism industry": Progress Report*, LC Paper No. CB(3)265/2024(01). Available from: <https://www.legco.gov.hk/yr2023/english/counmtg/motion/cm20231115-ypl-prpt-e.pdf>
9. GovHK. (2024) *LCQ10: Smart Village Pilots*, 27 November. Available from: <https://www.info.gov.hk/gia/general/202411/27/P2024112700262.htm>

10. Hong Kong Tourism Board. (2024) *Visitors Profile Report 2023*. Available from: <https://partnernet.hktb.com/filemanager/researchpub/4109/146339/Visitor%20Profile%202023%20-%20Full%20Version.pdf>
11. Hong Kong Tourism Board. (2025) *Tourism Performance: Tourism Statistics Database*. Available from: https://partnernet.hktb.com/en/research_statistics/index.html
12. Hong Kong Tourism Board. (undated) *Discover Hong Kong*. Available from: <https://www.discoverhongkong.com/eng/index.html>
13. Jiang, C. (2025) *Hong Kong urged to launch all-in-one app to improve tourist experience*, South China Morning Post, 21 January. Available from: <https://www.scmp.com/news/hong-kong/hong-kong-economy/article/3295545/hong-kong-urged-launch-all-one-app-improve-tourist-experience>
14. Law, C.H. et al. (2020) *Developing Hong Kong's Smart Tourism*. Available from: [https://www.cepu.gov.hk/doc/en/research_report\(PDF\)/2019.A6.136.19C_Final%20Report_Prof%20Law.pdf](https://www.cepu.gov.hk/doc/en/research_report(PDF)/2019.A6.136.19C_Final%20Report_Prof%20Law.pdf)
15. Legislative Council. (2023) *Hon YIU Pak-leung's motion on "Promoting the in-depth integration of culture, sports and tourism to revitalize the tourism industry"*, 15 November. Available from: <https://www.legco.gov.hk/yr2023/english/counmtg/motion/cm20231115m-yp1.htm>
16. Legislative Council. (2024) *Official record of proceedings*, 12 June. Available from: https://www.legco.gov.hk/en/legco-business/council/hansard_rundown.html?e20240612
17. New.gov.hk. (2024) *City in Time tourism project enhanced*, 5 June. Available from: https://www.news.gov.hk/eng/2024/06/20240605/20240605_130123_982.html
18. Our Hong Kong Foundation. (2024) *Redefine Hong Kong's Tourism Edge to Recreate Hong Kong's Retail Flair*. Available from: <https://www.ourhkfoundation.org.hk/en/media/reports/重塑旅遊港魅力-創造零售新機遇>
19. South China Morning Post. (2021) *New augmented reality tourism app gives users a panoramic view of Hong Kong's past*, 27 March. Available from: <https://www.scmp.com/news/hong-kong/society/article/3127265/new-augmented-reality-tourism-app-gives-users-panoramic-view>

20. Tourism Commission and Commerce and Economic Development Bureau. (2017) *Development Blueprint for Hong Kong's Tourism Industry*. Available from: https://www.tourism.gov.hk/popup/files/Development_Blueprint_for_Hong_Kongs_Tourism_Industry_Eng.pdf
21. *Tourism Commission*. (2025) Available from: <https://www.tourism.gov.hk/en/index.php>
22. Travel and Tour World. (2025) *Hong Kong Embraces New Smart Tourism: Plans All-In-One App and AR Features to Boost Visitor Experience Across Asia's World City*, 21 January. Available from: <https://www.travelandtourworld.com/news/article/hong-kong-embraces-new-smart-tourism-plans-all-in-one-app-and-ar-features-to-boost-visitor-experience-across-asias-world-city/>
23. Travel Industry Authority. (2025) *Chairperson's Message*. Available from: <https://www.tia.org.hk/en/about-us/chairperson-message.html>
24. Travel Industry Council of Hong Kong. (2025) *Information Technology Development Matching Fund Scheme for Travel Agents*. Available from: <https://www.tichk.org/en/subsidy-schemes/it-matching-fund>
25. Ye, H. et al. (2021) *A Framework of Implications for Smart Tourism Development in Hong Kong*, Journal of Smart Tourism, vol. 1, no. 1, pp. 31-39. Available from: <https://doi.org/10.52255/smarttourism.2021.1.1>
26. 市區重建局(2025):《“城蹤遊”:藝術科技穿梭時空 探索中上環歷史與今昔景象》,1月17日,網址:https://www.ura.org.hk/tc/news-centre/feature-stories/feature_20250120
27. 信報(2025):《從〈藍圖2.0〉看智慧旅遊走向》,1月28日,網址:<https://www.ourhkfoundation.org.hk/tc/media/commentaries/從藍圖2.0看智慧旅遊走向>
28. 姚柏良(2024):《政府需助業界加快數字化轉型》,星島頭條,9月13日,網址:<https://www.stheadline.com/article/3382264/姚柏良-政府需助業界加快數字化轉型-旅有良言>
29. 香港智經研究中心(2021):《發展智慧旅遊 先除四大障礙》,星島日報,10月10日,網址:<https://www.singtaousa.com/2021-10-10/發展智慧旅遊-先除四大障礙/3687027>

30. 陳麗娜(2023):《智慧城市 - 旅遊業夥科技界徵應用開放數據方案 推動智慧旅遊》，香港經濟日報，10月31日，網址：<https://topick.hket.com/article/3643182>
31. 劉昉晴、馮藹怡(2024)：《內地客旅遊模式轉變：從“爆買”到“深度遊”體驗》，新報人，3月29日，網址：<https://spyan-jour.hkbu.edu.hk/2024/03/29/內地客旅遊模式轉變：從「爆買」到「深度遊」體/>

Global

32. Airport Technology. (2016) *Tokyo Airport installs humanoid robots to assist passengers*, 5 September. Available from: <https://www.airport-technology.com/news/newstokyo-airport-installs-humanoid-robots-to-assist-passengers-4997230/?cf-view>
33. Arai, C. (2022) *A virtual experience in the era of a global pandemic*. 4 March. Available from: <https://blog.economie-numerique.net/2022/03/04/japans-smart-tourism/>
34. Asian Development Bank. (2023) *Promoting Smart Tourism in Asia and the Pacific through Digital Cooperation*. Available from: <https://www.adb.org/publications/smart-tourism-asia-pacific-digital-cooperation>
35. Bangprapa, M. (2023) *Post-Covid tourism plan gets green light*, Bangkok Post, 4 January. Available from: <https://www.bangkokpost.com/thailand/general/2474585/post-covid-tourism-plan-gets-green-light>
36. BBC News. (2015) *Five things about Japan's robot hotel*, 17 July. Available from: <https://www.bbc.com/news/world-asia-33562368>
37. Bliss, S. (2025) *The Role of Technology in Japan Tourism*, 4 February. Available from: <https://www.globaltraveltime.com/technology-in-japan-tourism/>
38. Destino Turistico Inteligente. (2022) *Good Practices: Kyoto Tourism Navi, Big Data and Artificial Intelligence to detect and predict tourist overcrowding and offer alternative routes*. Available from: <https://www.destinosinteligentes.es/en/bbpb/kioto-tourism-navi-big-data-e-inteligencia-artificial-para-la-deteccion-y-prediccion-de-masificacion-turistica-y-oferta-de-rutas-alternativa/>

39. Euromonitor International. (2024) *Euromonitor International reveals world's Top 100 City Destinations for 2024*, 4 December. Available from: <https://www.euromonitor.com/press/press-releases/december-2024/euromonitor-international-reveals-worlds-top-100-city-destinations-for-2024>
40. European Commission. (2022) *Study on Mastering data for tourism by EU destinations*. Available from: <https://smarttourismdestinations.eu/wp-content/uploads/2022/07/Smart-Tourism-Destinations-Final-Study-Main-Text-v4.1-under-public.pdf>
41. Inés S. et. al. (2023) *The role of technology in enhancing the tourism experience in smart destinations: A meta-analysis*, Journal of Destination Marketing & Management, vol. 30. Available from: <https://doi.org/10.1016/j.jdmm.2023.100817>
42. Japan External Trade Organization. (2025) *Government Initiatives: Promotion of Digitalization, Sustainable Tourism, and Regional Tourism to Boost Inbound Tourism and Further Develop the Tourism Industry*. Available from: https://www.jetro.go.jp/en/invest/attractive_sectors/tourism/government_initiatives.html
43. Japan National Tourism Organization. (2025) *Japan Tourism Statistics*. Available from: <https://statistics.jnto.go.jp/en/>
44. Ji, X. et al. (2024) *Smart city construction empowers tourism: mechanism analysis and spatial spillover effects*, Humanities and Social Sciences Communications, vol. 11. Available from: <https://www.nature.com/articles/s41599-024-03626-w>
45. Li, B. & Wang, G.Y. (2020) *Japan's Successful Experience in the Development of Smart Tourism Post-COVID-19 Era and the Dilemma of Japan's Choice*. Japanese Research, vol. 34, issue 6, pp. 15-23. Available from: <https://rbwtj.hbu.edu.cn/CN/10.14156/j.cnki.rbwtj.2020.06.003>
46. Liu, Y. et al. (2023) *Research on the Upgrading of Shenzhen Smart Tourism Network Service System from the Tourist-oriented Perspective*, Proceedings of the 2023 4th International Conference on Big Data and Social Sciences (ICBDSS 2023), Atlantis Highlights in Social Sciences, Education and Humanities, Education and Humanities. Available from: <https://www.atlantispress.com/proceedings/icbdss-23/125993087>

47. Mang, C. et al. (2016) *The Incidence of Smartphone Usage among Tourists*, International Journal of Tourism Research, vol. 18, issue 6, pp. 591-601. Available from: https://www.researchgate.net/publication/301828494_The_Incidence_of_Smartphone_Usage_among_Tourists_Smartphone_Usage_among_Tourists
48. Matyusupov, B. et al. (2024) *The concepts of Smart cities, Smart Tourism Destination and Smart Tourism Cities and their interrelationship*, BIO Web of Conferences, vol. 82. Available from: https://www.bio-conferences.org/articles/bioconf/pdf/2024/01/bioconf_msnbas2024_06015.pdf
49. Nanyang Technological University. (2025) *A Survey on Trends and Digital Adoption in China's Outbound Tourism 2023*. Available from: <https://www.ntu.edu.sg/business/research/nbs-knowledge-lab/nbs-research-blog/a-survey-on-trends-and-digital-adoption-in-china-s-outbound-tourism-2023>
50. Organisation for Economic Co-operation and Development. (2020) *OECD Tourism Trends and Policies 2020*, Paris, OECD Publishing. Available from: https://www.oecd.org/en/publications/oecd-tourism-trends-and-policies-2020_6b47b985-en.html
51. Organisation for Economic Co-operation and Development. (2021) *Preparing the Tourism Workforce for the Digital Future*, OECD Tourism Papers, No. 2021/02, Paris, OECD Publishing. Available from: https://www.oecd.org/content/dam/oecd/en/publications/reports/2021/06/preparing-the-tourism-workforce-for-the-digital-future_06211c0f/9258d999-en.pdf
52. Organisation for Economic Co-operation and Development. (2024) *OECD Tourism Trends and Policies 2024*, Paris, OECD Publishing. Available from: https://www.oecd.org/en/publications/oecd-tourism-trends-and-policies-2024_80885d8b-en.html
53. Petruang, N. (2024) *Development of "Smart Tourism in ASEAN"*. Available from: https://www.itd.or.th/en/itd-data-center/67_33en/
54. Pinke-Sziva, I., et al. (2023) *Smart positioning: how smart technologies can increase the attractiveness of heritage tourism destinations? The case of a small-scale Hungarian heritage city*, Journal of Heritage Tourism, vol. 19, no. 5, pp. 762-780. Available from: <https://doi.org/10.1080/1743873X.2023.2276271>

55. Qi, S. (2021) *Smart Tourism Development in Small and Medium Cities: The Case of Macao*, Journal of Smart Tourism, vol. 1, no. 2, pp. 27-36. Available from: <https://doi.org/10.52255/smarttourism.2021.1.2.5>
56. State Council of the People's Republic of China. (2024) *Tourism getting a high-tech boost*, 3 July. Available from: https://english.www.gov.cn/policies/policywatch/202407/03/content_WS6684ae2ec6d0868f4e8e8cd5.html
57. Statistics and Census Services. (2025) *Visitor Arrivals*. Available from: <https://www.dsec.gov.mo/en-US/Statistic?id=402>
58. Tourism Malaysia. (2018) *Smart Tourism 4.0 to be tourism game-changer for Malaysia*, 5 April. Available from: <https://www.tourism.gov.my/media/view/smart-tourism-4-0-to-be-tourism-game-changer-for-malaysia>
59. Tourism Malaysia. (2025) *Malaysia Tourism Statistics*. Available from: <https://data.tourism.gov.my/>
60. UN Tourism. (2025a) *Digital Transformation*. Available from: <https://www.unwto.org/digital-transformation>
61. UN Tourism. (2025b) *Global and regional tourism performance*. Available from: <https://www.unwto.org/tourism-data/global-and-regional-tourism-performance>
62. World Competitiveness Centre. (2024) *Smart City Index 2024*. Available from: https://imd.widen.net/s/q7flvgtvbs/20240412-smartcityindex-2024-full-report_4
63. World Economic Forum. (2017) *White Paper: Digital Transformation Initiative Aviation, Travel and Tourism Industry*. Available from: https://www3.weforum.org/docs/IP/2017/MO/WEF_ATT_DigitalTransformation_WhitePaper.pdf
64. World Economic Forum. (2024) *Travel & Tourism Development Index*. Available from: <https://www.weforum.org/publications/travel-tourism-development-index-2024/>
65. Wortley, K. (2024) *Social media, mobile app usage on the rise as the go-to for travellers in Japan*, TTG Asia, 5 June. Available from: <https://www.ttgasia.com/2024/06/05/social-media-mobile-app-usage-on-the-rise-as-the-go-to-for-travellers-in-japan/>

66. Zhang, Y. et al. (2022) *Investigating the Impact of Smart Tourism Technologies on Tourists' Experiences*, Sustainability, vol. 14, issue 5. Available from: https://www.researchgate.net/publication/359068712_Investigating_the_Impact_of_Smart_Tourism_Technologies_on_Tourists'_Experiences
67. Zheng, B. et al. (2022) *Tourism sector eyes steady recovery amid epidemic*, The Macau Post Daily, 26 July. Available from: <https://www.macaupostdaily.com/news/14925>
68. 中央網絡安全和信息化委員會辦公室(2015):《關於促進智慧旅遊發展的指導意見》, 1月13日, 網址: https://www.cac.gov.cn/2015-01/13/c_1113972251.htm
69. 中華人民共和國文化和旅遊部(2022):國務院印發《“十四五”旅遊業發展規劃》, 1月21日, 網址: https://zwgk.mct.gov.cn/zfxgkml/zcfg/zcjd/202201/t20220121_930620.html
70. 中華人民共和國文化和旅遊部(2023):《文化和旅遊部關於公布第一批全國智慧旅遊沉浸式體驗新空間培育試點名單的通知》, 8月3日, 網址: https://zwgk.mct.gov.cn/zfxgkml/zykf/202308/t20230803_946380.html
71. 全球智慧城市網(2023):《IMD發布2023年全球智慧城市指數報告》, 網址: <https://g-city.sass.org.cn/2023/0822/c4951a552858/page.htm>
72. 余渭恆(2019):《善用大數據:推動澳門智慧旅遊發展》, 網址: <https://macaueconomy.org/downloads/research/20190915/122.pdf>
73. 每日頭條(2018):《旅遊服務融合線上線下 “游雲南”APP讓遊客更“慧”玩》, 10月15日, 網址: <https://kknews.cc/travel/z88bgop.html>
74. 香港商報(2022):《“科技創未來”深圳推出2條科技旅遊線路》, 10月26日, 網址: https://www.hkcd.com/content_app/2022-10/26/content_1368989.html
75. 深圳市文化廣電旅遊體育局(2022):《關於印發〈深圳市旅遊業發展“十四五”規劃〉的通知》, 2月21日, 網址: https://www.sz.gov.cn/zfgb/2022/gb1230/content/post_9583059.html

76. 深圳新聞網(2024):《“文旅深圳”上線,邀你解鎖深圳的100種可能》,7月1日,網址:https://www.sznews.com/news/content/2024-07/01/content_31053432.htm
77. 新旅界(2022):《高舉高打的“一機游”項目如何走好下半場?》,12月11日,網址:https://view.inews.qq.com/qd/20221211A05QLQ00?refer=wx_hot

Singapore

78. Baharudin, H. (2018) *More than 20,000 Wireless@SG hot spots currently in Singapore: IMDA*, The Straits Times, 9 October. Available from: <https://www.straitstimes.com/singapore/more-than-20000-wireless-hot-spots-now-in-singapore-imda>
79. Dai, B. (2024) *Forward thinking and High Quality Development of China Singapore Tourism Exchange - Speech at the 7th Singapore Tourism Board Greater China Awards Industry Conference*, 3 August. Available from: <https://www.ctaweb.org.cn/?m=home&c=View&a=index&aid=9461&lang=en>
80. Doshi, E. & Lim, S. (2024) *Ready, Jet-Set, Go!: Making Singapore More Vibrant With The Tourism Development Fund*, 8 May. Available from: <https://www.maju.sg/post/ready-jet-set-go-making-singapore-more-vibrant-with-the-tourism-development-fund>
81. Google AR & VR. (2024) *Expand local discovery in Singapore with augmented reality in Google Maps*. Available from: https://www.youtube.com/watch?v=3NPlc3rjI_o
82. Ho, S. (2015) *Singapore Tourism Board*. Available from: <https://www.nlb.gov.sg/main/article-detail?cmsuuiid=05360b8a-1de6-4f50-9732-700ebbc9663>
83. Infocomm Media Development Authority. (2023) *Tourism (Attractions) Industry Digital Plan (IDP)*. Available from: <https://www.imda.gov.sg/-/media/imda/files/programme/smes-go-digital/industry-digital-plans/tourism-idp/tourism-idp.pdf>

84. Leong, W.Y. (2024) *Smart Tourism in ASEAN: Leveraging Technology for Sustainable Development and Enhanced Visitor Experiences*, International Journal of Social Sciences and Artistic Innovations, vol. 4, issue 3, pp. 18-31. Available from: https://www.researchgate.net/publication/383133029_Smart_Tourism_in_ASEAN_Leveraging_Technology_for_Sustainable_Development_and_Enhanced_Visitor_Experiences
85. OpenGov Asia. (2019) *Innovation and technology contributes to growth in Singapore tourism sector*, 14 February. Available from: <https://opengovasia.com/2019/02/14/innovation-and-technology-contributes-to-growth-in-singapore-tourism-sector/>
86. Putri, S.O. et al. (2023) *Digital economy growth in Singapore and Thailand following the post-COVID-19 pandemic*, Journal of Eastern European and Central Asian Research, vol. 10, no. 4, pp. 557-568. Available from: <https://doi.org/10.15549/jeecar.v10i4.1366>
87. Sentosa Development Corporation. (2019) *Sentosa and Brani to transform Singapore's leisure and tourism industry through landmark Master Plan*, 20 September. Available from: https://www.sentosa.gov.sg/files/resources/news/20190920_media_release_sentosa%2Dbrani%20master_plan_sentosa%20sensoryscape.pdf
88. Sentosa Development Corporation. (2023) *First outdoor 5G extended reality tourism experience to be tested at fort siloso*, 23 May. Available from: <https://www.sentosa.gov.sg/files/resources/news/media%20release%20%2D%20first%20outdoor%205g%20extended%20reality%20tourism%20experience%20to%20be%20tested%20at%20fort%20siloso.pdf>
89. Sentosa Development Corporation. (2024) *Embark on an immersive sensorial journey with Sentosa Sensoryscape*, 11 March. Available from: https://www.sentosa.gov.sg/files/resources/news/20240311_Media_release_Sentosa_Sensoryscape.pdf
90. Singapore Tourism Analytics Network. (2024) *Tourism Statistics*. Available from: <https://stan.stb.gov.sg/content/stan/en/tourism-statistics.html>
91. Singapore Tourism Board. (2013) *Navigating the next phase of tourism growth*, Tourism Industry Conference 2013 Discussion Paper. Available from: https://isomer-user-content.by.gov.sg/1/3267b84c-9eaf-4789-a45c-2ea6125996d8/TIC_Discussion_Paper.pdf

92. Singapore Tourism Board. (2019) *Travelling to Singapore?* Available from: <https://www.visitsingapore.com/content/dam/desktop/global/sgac%2Dinfo-graphic%20600x970.pdf>
93. Singapore Tourism Board. (2023) *Attractions Technology Roadmap*. Available from: https://isomer%2Duser%2Dcontent.by.gov.sg/1/f3271439%2D315b%2D41fa%2D9d3f%2D3132c77f9ab7/Tech%20Roadmap_aligned%20with%20IDP_12102023.pdf
94. Singapore Tourism Board. (2024a) *2024's most important travel tech trends*. Available from: <https://www.stb.gov.sg/learning-resources/tcube/2024-s-most-important-travel-tech-trends>
95. Singapore Tourism Board. (2024b) *Google and Singapore Tourism Board to bring location-based AR experiences to Google Maps for the first time*, 16 May. Available from: <https://www.stb.gov.sg/about-stb/media-publications/media-centre/google-and-singapore-tourism-board-to-bring-location-based-ar-experiences-to-google-maps-for-the-first-time>
96. Singapore Tourism Board. (2025a) *Singapore Achieves Historical High in Tourism Receipts in 2024*, 4 February. Available from: <https://www.stb.gov.sg/about-stb/media-publications/media-centre/singapore-achieves-historical-high-in-tourism-receipts-in-2024>
97. Singapore Tourism Board. (2025b) *Visit Singapore Official Site - Discover Singapore's Best Attractions*. Available from: <https://www.visitsingapore.com/>
98. Singapore Tourism Board. (various years) *Annual Reports*. Available from: <https://www.stb.gov.sg/content/stb/en/media-centre/corporate-publications/annual-reports.html>
99. Smart Nation Singapore. (2025) *Our Smart Nation Vision*. Available from: <https://www.smartnation.gov.sg/vision/>
100. Thales Group. (2023) *Singapore: the world's smartest city*. Available from: <https://www.thalesgroup.com/en/worldwide-digital-identity-and-security/iot/magazine/singapore-worlds-smartest-city>
101. The Business Times. (2015) *STB launches S\$10m fund to boost visitor experience*, 18 August. Available from: <https://www.businesstimes.com.sg/international/stb-launches-s10m-fund-boost-visitor-experience>

102. Tu, T. et al. (undated) *How is Singapore going to revive its tourism sector in the competitive era?* SP Jain School of Global Management. Available from: https://www.academia.edu/35886924/How_is_Singapore_going_to_revive_its_tourism_sector_in_the_competitive_era
103. Woo, J.J. (2017) *Singapore's Smart Nation Initiative – A Policy and Organisational Perspective*, Discussion Paper, Lee Kuan Yew School of Public Policy (LKY School), National University of Singapore. Available from: https://lkyspp.nus.edu.sg/docs/default-source/case-studies/singapores-smart-nation-initiative-final_112018.pdf?sfvrsn=354e720a_2
104. World Travel Tech Awards. (2025) *Best Tourism Authority Website*. Available from: <https://worldtraveltechawards.com/categories/best-tourism-authority-website>

South Korea

105. Best Mobile App Awards. (2025) *Visit Korea: Official Guide*. Available from: <https://bestmobileappawards.com/app-submission/visit-korea-official-guide-2>
106. Cardoso, I.B.F. & Ruiz, T.C.D. (2021) *Smart tourism destinations - a case study of Seoul, South Korea Local*, Applied Tourism, vol. 6, no. 1, 36. Available from: https://www.researchgate.net/publication/352804551_SMART_TOURISM_DESTINATIONS_%2D_A_case_study_of_Seoul_South_Korea
107. Divanshu et al. (2021) *GIS in Tourism: A Review of Tourists' Movement Behaviour*, Proceedings of the International Conference on Innovative Computing & Communication (ICICC) 2021. Available from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3833777
108. Dynasty Korea. (2023) *Smart Tourist Guide: Your Ultimate Travel Companion in Korea*. Available from: <https://www.dynastykorea.com/smart-tourism-information-system-guide/>
109. Incheon Tourism Organization. (2023) *Korea's 1st Smart Tourism City – Incheon Smart Tourism City Project*. Available from: https://static1.square-space.com/static/5f24290fd0d0910ecab2b02e/t/65785370a015537eebe432f4/1702384524311/7.+Gold_DM_Incheon+Tourism+Organization_Incheon+smart+tourism+project.pdf

110. Jang, S.C. & Choi, K. (2024) *Key Conditions for South Korea's Leap to a Leading Tourism Nation*, Yanolja Research, Insights vol. 22. Available from: <https://www.yanolja-research.com/insight/view/144?lang=en>
111. Jo, M.H. (2006) *GIS in Korea; Present and Future*. Available from: <https://gisa-japan.org/content/files/conferences/proceedings/2006cd/papers/1/1-S01.pdf>
112. Koo, C. et al. (2013) *Smart Tourism of the Korea: A Case Study*, Pacific Asia Conference on Information Systems (PACIS) 2013 Proceedings. Available from: <https://core.ac.uk/download/pdf/301359582.pdf>
113. Korea Tourism Organization. (2024) *Seoul Tourism Startups*. Available from: <https://english.visitseoul.net/partners-en/startup>
114. Korea Tourism Organization. (2025a) *Foreign Tourists Visiting Korea*. Available from: <https://datalab.visitkorea.or.kr/site/portal/ex/bbs/List.do?cblIdx=1127&cateCont=&tabFlag=N&subFlag=N>
115. Korea Tourism Organization. (2025b) *Smart Tourism City*. Available from: <https://english.visitkorea.or.kr/svc/sp/SmartTourismCity>
116. Korea Tourism Organization. (updated) *Korea Tourism Data Lab*. Available from: <https://datalab.visitkorea.or.kr/datalab/portal/bdp/getHowPlatformForm.do>
117. Korea.net. (2024) *11 more Seoul stations to get AI-based interpretation service*, 14 March. Available from: <https://www.korea.net/NewsFocus/Society/view?articleId=248277>
118. Lee, J. (2020) *Korea to strengthen tourism resilience with improved crisis policies and tech push*, TTG Asia, 31 August. Available from: <https://www.ttgasia.com/2020/08/31/korea-to-strengthen-tourism-resilience-with-improved-crisis-policies-and-tech-push/>
119. Ministry of Culture, Sports and Tourism. (2022) *2022 Six Smart Tourism Attractions Selected: Ulsan, Cheongju, Gyeongju, Namwon, Yangyang, and Hadong*, 11 March. Available from: <https://mcst.go.kr/english/policy/pressView.jsp?pSeq=93>
120. Ministry of Culture, Sports and Tourism. (undated) *Foreign Tourists Survey*. Available from: <https://stat.mcst.go.kr/portal/subject/subject04/STBL-1014285>

121. Ministry of Economy and Finance. (2024) *Strategies to Boost Inbound Tourism' Announced*, 17 June. Available from: <https://english.moef.go.kr/ec/selectTbEconomicDtl.do?boardCd=E0001&seq=5893>
122. Pacific Asia Travel Association. (2023) *Winners of the 2023 PATA Gold Awards Announced*, 24 August. Available from: <https://www.pata.org/press-release/winners-of-the-2023-pata-gold-awards-announced>
123. Shin, I. (2024a) *Incheon Metropolitan City and Incheon Tourism Organization Sharing the results of attracting domestic tourists Attracting 4.1 million tourists this year alone*, Maeil Business Newspaper, 12 December. Available from: <https://www.mk.co.kr/en/society/11192881>
124. Shin, I. (2024b) *You can also be an expert in tourism big data*, Maeil Business Newspaper, 10 March. Available from: <https://www.mk.co.kr/en/culture/10960644>
125. The UN agency for Digital Technologies. (2020) *How the Republic of Korea became a world ICT leader?* 29 May. Available from: <https://www.itu.int/hub/2020/05/how-the-republic-of-korea-became-a-world-ict-leader/>
126. Visit Korea Committee. (undated) *Smart Tourist Information System*. Available from: <https://vkc.or.kr/en/main-project/smart-tourist-information-system/>
127. Yanolja Research. (2024) *Inbound & Outbound Tourism S. Korea in the 2024 H1*, Brief vol. 2. Available from: <https://www.yanolja-research.com/brief/view/132?lang=en>
128. YONHAP INFOMAX. (2019) *Samsung Electronics Installs 4,218 Smart Signages in 90 Subway Stations in Seoul*, 11 December. Available from: <https://news.einfomax.co.kr/news/articleView.html?idxno=4060832>

Note: ^ Internet resources listed in this section were accessed in April 2025.