Does The Smart Tourism Experience in Malaysia Increase Local Tourists' Happiness and Revisit Intentions?

Noraini Ruslan[1, 2*], Khoo Pei Ying[2], Fasihah Abu Hassan[2], Abdul Muhaimin Abdul Halim[2], Anes Farhanna Arba'ain[2], Fatin Nur Izzati Muazam[2], Intan Farah Farina Rashidi[2], Ng Wei Inn Valerience[2], Nur Fatini Mohamed Zamri[2], Nurul Uzzaty Zol[2], Jannatulhawa Jasni[3]

[1]Environmental Management and Conservation Research Unit (eNCORe),
 Universiti Tun Hussein Onn Malaysia, Pagoh, 84600, MALAYSIA

[2]Faculty of Applied Sciences and Technology,
 Universiti Tun Hussein Onn Malaysia, Pagoh, 84600, MALAYSIA

[3]JJ Aqua Resources,
 Bandar Baru Bangi, Selangor, 43600, MALAYSIA

*Corresponding Author

Abstract: Nowadays, the term "smart" has become popular in reflecting technological advancements in social and economic improvement, as well as knowledge and information exchange. The advent of smart technology has empowered everything to be more connected, informed, and conveniently involved with clients, especially in the global tourism industry. Malaysia, on the other hand, has less research on the use of smart tourism since it is still in the early stages of development, and tourism locations are still seeking their own rhythm to thrive. In addition, there is a lack of a specific framework, numerous global-scale crises with negative impacts on tourist arrivals and the environment, and poor digitalization, which has resulted in a drop-off in tourist experiences. This study was carried out to investigate whether local tourists are satisfied with the smart tourism technology experience in Malaysia and to explore whether smart tourism technology has a positive effect on tourists' happiness. An online questionnaire was created using Google Form, distributed through WhatsApp, Telegram, Facebook, Instagram from May 1, 2021, to August 1, 2021, and completed by 529 participants. The results suggested the majority (more than 90%) of respondents found difficulty searching for information about the local attractions in each state of Malaysia during travel, which caused a greater decline in their excitement to do local traveling. With reliable centralized mobile apps that exist for all tourism sectors in Malaysia, research findings showed that they could increase tourists' revisit intentions and happiness, which consequently boosts the revenue of the economy. This study reveals another new aspect that can contribute to the existing literature and strategize on how smart tourism technology can be improved in Malaysia.

Keywords: Smart tourism, ICT, global tourism, Malaysia, digitalization, tourist happiness, mobile apps

1. Introduction

The digital and computer revolution's era of information and communication technologies (ICT) has altered entire market systems, propelling them toward a broader spectrum and dynamism. Given the ubiquity of smartphones and related technology convergence in every industry, ICT plays a critical role because of its anytime and anywhere accessibility [1][2]. In this modern world, the utilization of ICT is expanding through smartphone applications for

human's convenience [3]. The term "smart" has become popular in reflecting technological advancements in social and economic improvement, as well as knowledge and information exchange. [4]. The advent of smart gadgets is extremely beneficial since it links infrastructures to accessible networks. Smart technology has led and connected everything together, including activities and services, to be more connected, more informed, and engaged with customers conveniently especially in tourism industry. As a result, smart tourism has been developed making tourism more accessible and pleasant for everybody.

The idea of a "smart tourism destination" (STD) is derived from the concept of a "smart city," as technology has become one of the major components in addressing travelers' needs before, during, and after their trip to their destination, enhancing resource management and sustainability, as well as boosting the businesses' overall competitiveness [5]. It also functions as a smart city, which utilizes and helps spread information technology and innovations in order to satisfy and enable pleasure and experiences for the tourists [6]. The STD initiative was coined officially in 2009 by China's State Council of Chinese Central Government which referring to platform used to deliver any information related to tourism resources, consumption of tourism products and tourist's activity which can integrated instantly for the use of tourists, enterprises, and organizations through a variety of end-user devices [7][8][9]. The smart tourism industry is widely used in China, where tourists can use their smartphones to pay for taxis, order meals, check queue times, and read information about the destination or attraction by scanning a QR code. In addition, tourists can also use digital devices to explore more information and events of interest through websites or apps. For example, in Nanjing, China, there are mobile apps developed to efficiently facilitate tourists in accessing information about the attractions, as well as obtaining information about coupons from nearby restaurants and stores, and getting rapid feedback and suggestions after the photos and stories are posted by the tourists [7].

The concept of smart tourism is also being adapted in Malaysia, but it seems like the concept is not well-adapted enough as Malaysia is still overly relying on traditional marketing and promotion, which has left Malaysia behind when compared to other countries in Asia, like China. Malaysia, on the other hand, has less research on the use of smart tourism since it is still in the early stages of development and tourism locations are still seeking their own rhythm to thrive. In addition, there is a lack of a specific framework, numerous global-scale crises with negative impacts on tourist arrivals and the environment, and poor digitalization, which has resulted in a drop-off in tourist experiences and tourism development. Hence, one of the six transformation strategies in the latest Malaysia National Tourism Policy (NTP) 2020-2030 is "Embracing Smart Tourism" in order to help Malaysia strategize better in sustainable tourism development to be one of the top 10 global tourism destinations. Effective recovery of the tourism industry based on new norms, enhancing competitiveness, sustainable and equitable tourism development, and disaster risk management are all key methods to fulfilling the NTP's agenda. Besides, digital advancements have changed how people travel, forcing tourism-related enterprises to modify their business models. The advancement of digital technology influences the method, satisfaction, and intention of people traveling, which necessitates the transformation of tourism-related enterprises.

Therefore, knowing the smart tourism experience and satisfaction among local tourists in Malaysia could be a critical factor in supporting the development of smart tourism in Malaysia and helping NTP be successful not just at the national level but also at the global level. The purpose of this study was to investigate whether local tourists are satisfied with the smart tourism technology experience in Malaysia and to explore whether smart tourism technology has a positive effect on tourists' happiness.

2. Methodology

In this study, an online questionnaire was created using Google Form and distributed through random WhatsApp, Telegram, and Facebook pages and groups based in Malaysia from May 1, 2021, to August 1, 2021, to as many people as possible to get more respondents. A total of 529 participants, consisting of Malaysian citizens, completed the survey. The questionnaire developed for this study consisted of four sections: a) demographics; b) preference information; c) perception, experience, and happiness toward Malaysia's tourism; and d) understanding smart's tourism. In this survey, the respondents were asked to rate the items on an ordinal scale ranging from disagree (1) to neutral (2) to agree (3).

The first section focused on the respondent's demographic data. This section consists of four questions on gender, age, income, and current location.

The second section focused on the respondent's travel preferences. This section consists of seven questions intended to explore the respondents' average travel frequency within Malaysia per month, travelling partner, duration of travel, smartphone usage during travel, and social media sharing during travel.

The third section focused on perception, experience, and happiness toward Malaysia's tourism. This section consists of ten questions intended to explore local tourists' perceptions of Malaysia's tourist attractions, information, excitement, and existing tourism mobile apps.

The fourth section focused on understanding smart tourism. This section consists of four questions intended to explore local tourist knowledge of smart tourism and its application in Malaysia. Summary data are provided as counts and percentages (taking the frequency in the category divided by the total number of participants and multiplying by 100) from a questionnaire data set in Microsoft Excel.

3.   Results and Discussion
3.1 Demographic Profile

Demographic profiles, including gender, age, income, and current location of the respondents, are shown in Table 1. The majority of the respondents were female (60.9%), and 39.1% were male. The age group between 21 and 30 years old showed the highest participation (63.7%) in this study, followed by 31 to 40 years old (11.7%), less than 20 years old (10.8%), 41 to 50 years old (6.6%), 51 to 60 years old (4.2%), and more than 60 years old (3.9%). More than half of the participants (52.0%) have income between RM2,001 and RM3,000, whereas only 3% of the participants have income greater than RM7,001. Meanwhile, 6.2% of participants have less than RM1,000 in income per month. Participants were from all states and federal territories in Malaysia, with the top three highest concentrations in Johor (50.7%), Kuala Lumpur (10.8%), and Melaka (9.3%).

Table 1 - Demographic profile

Survey	Answer Option	Frequency	Percentage
Gender	Male	207	39.1%
	Female	322	60.9%
Age	Less than 20	57	10.8%
	21 - 30	337	63.7%
	31 - 40	62	11.7%
	41 - 50	35	6.6%
	51 - 60	22	4.2%
	More than 60	16	3.0%
Income	Less than RM1,000	33	6.2%
	RM1,001 - RM2,000	52	9.8%
	RM2,001 -RM3,000	275	52.0%
	RM3,001 - RM4,000	24	4.5%
	RM4,001 - RM5,000	30	5.7%
	RM5,001 - RM6,000	48	9.1%
	RM6,001 - RM7,000	28	5.3%
	More than RM7,001	39	7.4%
Current Location	Johor	268	50.7%
	Melaka	49	9.3%
	Negeri Sembilan	25	4.7%
	Selangor	43	8.1%
	Terengganu	24	4.5%
	Kedah	2	0.4%
	Kelantan	7	1.3%
	Perlis	3	0.6%
	Perak	3	0.6%
	Pahang	7	1.3%
	Pulau Pinang	12	2.3%
	Sabah	2	0.4%
	Sarawak	5	0.9%
	Labuan	1	0.2%
	Putrajaya	21	4.0%
	Kuala Lumpur	57	10.8%

A higher percentage of female respondents to the survey can be attributed to the interest of different genders in the topic of smart tourism. Most probably, females are more interested in "smart tourism" as compared to males. According to a study by [10], women nowadays travel more often than men as they become more independent socially and economically as they have access to higher education and professional employment equally with men.

The majority of the respondents who were interested in answering this survey were the younger generation, which consists of the age range from 21 to 30 years old (63.7%) as compared to less than 20 years old (10.8%) and more than

31 years old (25.5%). Different generations demonstrated distinct preferences for locating relevant information about their tourist destination. Younger generations are more likely to be involved in the use of mobile technology for planning trips instead of paper-based materials [11]. Hence, the topic of smart tourism would stimulate the interest of the younger generations as compared to the elder generation, whereas the elder generation would prefer to avoid the usage of smart technologies while travelling for the purposes of safety, privacy, and security. More than half of the respondents have income between RM2,001 and RM3,000 (52.0%) and come from Johor (50.7%), which might be due to the limitations of this survey, where most questionnaires were distributed within Johor. According to [12], the average monthly salary of employees in Malaysia in 2021 was RM2,330 for people between 25 and 29 years old, which could possibly be related to the higher number of people from 21 to 30 years old answering the survey.

3.2 Respondent's Travel Preference

Table 2 shows respondents' travel preferences, while Table 3 shows respondents' motivation for sharing travel experiences. Three-quarters of the respondents (75.2%) showed a monthly travel frequency of 1-2 times within Malaysia, with no people travelling more than 10 times per month or not travelling at all within Malaysia in a month. The majority of respondents stated that they preferred to travel with a friend or colleague (39.7%), compared to their partner or spouse (22.9%), family (19.5%), or alone (18%). Interestingly, the majority of respondents preferred to travel within 2 days (40.3%), followed by less than 24 hours (31.9%), and 1 day (18.5%). Meanwhile, only 9.3% of respondents would travel for 3 days or more. All respondents were in possession of smartphones, either while travelling or obtaining information related to their travel destinations. The use of smartphones among respondents can be seen in their decision to share travel experiences on social media, as only 0.4% of respondents never share any travel experiences on social media, whereas the remaining 99.6% have done so. In fact, 40.5% of respondents admitted it was mandatory for them to share any of their travel experiences through social media, while another 41.4% of respondents often shared their travel experiences on social media, but not all the time. More than half of respondents (58.6%) share their travel experiences in order to generate income. Meanwhile, more than 96% of respondents chose to share their experience on social media to help others choose their tourist products and services and prevent them from using bad tourism products and services.

The outbreak of the coronavirus disease (COVID-19) in 2019 had a huge impact on tourism industries worldwide, including Malaysia. The tourism industry is one of the segments that is highly sensitive to variations in the global economy [13]. As the movement control order (MCO) was first imposed in March 2020, it has restricted the entry of all tourists and foreign visitors into the country, hence putting major risk to the Visit Malaysia 2020 campaign as the majority of Malaysia's international tourists were from China and Singapore [14]. According to one study, after the COVID-19 ban was lifted, 75.2% of Malaysians planned to travel domestically in the near future [15]. According to [16], domestic tourism is expected to become one of the major travel trends since people tend to travel closer to home. Findings showed that at least some respondents in this study would travel once per month domestically and 12 times per year, which indicated an active participation in domestic travel in Malaysia. A higher number of respondents preferred travelling with friends, probably because the majority of them were not married or in a relationship. Spouses or partners continue to be the preferred travel companions, especially for those who are married or in a relationship [17].

According to [18], the majority of tourists spend one or two nights at their tourism destination, and the younger generation prefers to travel at least for one night. Hence, this can be explained by the fact that most of the respondents would prefer to stay for 1-2 days at their tourism destination, which is sufficient time for them to go around and enjoy the attractions at the destinations. Respondents who travelled for less than 24 hours could have been on business or searching for food tourism. Starting in 2012, food has been the main motivation for tourists to choose their tourism destination due to the mainstreaming of social media [19]. According to one study [20], sharing travel experiences on social media can help improve personal or perceived enjoyment as well as aspects of internalization and identification, which can lead to trip enrichment. As mentioned by [21], "*identification occurs when an individual adopts induced behaviors to establish or maintain a satisfying self-defining relationship with another person or group*". Internalization, according to [21], occurs "*when an individual accepts influence because the content of the induced behavior is intrinsically rewarding*". This can be further explained and supported by [22], where the respondents assumed that their contributions by sharing travel experiences online would positively impact other people in terms of their decision-making and also knowledge, where it can be seen that the respondents wanted to help others by preventing them from buying bad products, and this is the reason why the respondents are motivated to share their experiences online. In addition, by building engaging and useful content for customers, individuals or travel firms can have access to monetization features through partnership programs such as the YouTube Partner Program.

Table 2 - Respondent's travel preference

Survey	Answer Option	Frequency	Percentage
Average travel frequency within Malaysia per month	0 time	0	0.0%
	1-2 times	398	75.2%
	3-4 times	64	12.1%
	5-6 times	23	4.3%
	7-8 times	18	3.4%
	9-10 times	26	4.9%
	More than 10 times	0	0.0%
Traveling's partner preference	Alone	95	18.0%
	Partner/Spouse	121	22.9%
	Friend/Colleague	210	39.7%
	Family	103	19.5%
Traveling's duration	Less than 24 hours	169	31.9%
	1 day	98	18.5%
	2 days	213	40.3%
	3 days	31	5.9%
	4 days	12	2.3%
	More than 5 days	6	1.1%
Usage of smartphone during traveling	Yes	529	100.0%
	No	0	0.0%
Usage of smartphone to obtain information about your travelling destination	Yes	529	100.0%
	No	0	0.0%
Sharing of travel experience on social media	Never	2	0.4%
	Occasionally, but very rare	94	17.8%
	Often, but not all the time	219	41.4%
	Compulsory for every trip	214	40.5%

Table 3 - Motivation of sharing travel's experience

Survey	Answer Option	Frequency	Percentage
I want to help others by sharing my travel experience	Yes	508	96.0%
	Not Sure	18	3.4%
	No	3	0.6%
I want to prevent people from using bad tourism product/services	Yes	510	96.4%
	Not Sure	19	3.6%
	No	0	0.0%
I want to be more recognized in social media	Yes	149	28.2%
	Not Sure	70	13.2%
	No	310	58.6%
Leveraging social media using my travel experience for income generation/rewards	Yes	311	58.8%
	Not Sure	97	18.3%
	No	121	22.9%

3.3 Perception, Experience, and Happiness Toward Malaysia's Tourism

Respondents' perceptions, experiences, and happiness toward Malaysia's tourism are shown in Table 4.

Table 4 - Respondent's perception, experience and happiness toward Malaysia's tourism

Survey	Answer Option	Frequency	Percentage
Malaysia has lots of tourist attraction but lack of information	Yes	489	92.4%
	Not Sure	32	6.0%
	No	8	1.5%
Excitement to travel within Malaysia compared to abroad	Yes	2	0.4%
	Not Sure	17	3.2%
	No	510	96.4%
Difficulty in searching information about any tourism hot spot place in each state within Malaysia	Yes	463	87.5%
	Not Sure	54	10.2%
	No	12	2.3%
Longer time required to get information about your trip destination and any tourist attraction nearby in Malaysia	Yes	401	75.8%
	Not Sure	27	5.1%
	No	101	19.1%
Feeling clueless whenever my friend/other people ask me to find best places to visit in Malaysia	Yes	414	78.3%
	Not Sure	27	5.1%
	No	88	16.6%
I still do not know exactly the best place in each state of Malaysia to be visited according to their attraction	Yes	513	97.0%
	Not Sure	15	2.8%
	No	1	0.2%
I wish there is a reliable centralized mobile apps that exists for all tourism business in Malaysia to make it easier to search for local attraction in each state in Malaysia	Yes	525	99.2%
	Not Sure	4	0.8%
	No	0	0.0%
I wish there is a reliable centralized mobile apps that can help to plan my itinerary during my travel within Malaysia	Yes	395	74.7%
	Not Sure	91	17.2%
	No	43	8.1%
Do you know any reliable mobile apps that can be used at real time (E. g. food, history, culture) to find local attraction in each state within Malaysia during travel	Yes	21	4.0%
	Not Sure	85	16.0%
	No	423	80.0%
Presence of smart technology/apps that exists for all tourism business in Malaysia with all local attraction feature will be able to make me feel happy to travel within Malaysia and increase revisit intention.	Yes	442	83.6%
	Not Sure	11	2.0%
	No	76	14.4%

The majority of respondents believe Malaysia has many tourist attractions, but there is a lack of information about them (92.4%), which can be seen in the decline in excitement among respondents for travelling within Malaysia versus abroad (96.4%). Most of respondents found it is difficult to find information about any tourism hot spot location in each state within Malaysia (87.5%), feeling clueless whenever a friend inquiry about the best places to visit in Malaysia (78.3%), resulting in a longer time required to obtain information about their trip destination and any tourist attraction nearby in Malaysia (75.8%). Interestingly, more than 95% of respondents admit that they still do not know exactly the best place in each state of Malaysia to visit according to their attractions and wish there was a reliable, centrally-developed mobile app that existed for all tourism businesses in Malaysia to make it easier to search for local attractions in each state of Malaysia. Only a few of the respondents (4%) know of the existence of any reliable mobile apps that can be used in real time to find local attractions in each state within Malaysia during travel; 16% were not sure, and the rest (80%) had

no clue about it. Most of the respondents stated that they wished there were reliable, centrally managed mobile apps that could help plan itineraries during travel within Malaysia (74.7%). While 83.6% of respondents believe that the presence of smart technology and apps available for all tourism businesses in Malaysia with all local attraction features will make them happy to travel within Malaysia and increase revisit intention, 14.4% do not and 2% are unsure.

According to the results obtained from the survey, most of the respondents were still struggling to find information on local tourist attractions whenever they did domestic travel. Smart Tourism Technology increases visitor satisfaction and motivation to return to Malaysia. This can be seen from the respondent's answers, where the majority of them agree that one smart app should be developed for all tourism businesses in Malaysia with all local attraction features (e.g., culture, foods, accommodation) in each state. This would lessen their burden and make them happier when finding the best place to visit in Malaysia. Since more than half of the respondents did not know much about the best place in each state of Malaysia to be visited according to its attractions (e.g., food, history, and culture), the majority of the respondents find it hard to search for information about a tourism destination, and they have to take a long time to search for all the related information before they can do any booking. Smart tourism technologies are able to solve this problem by helping tourists choose the destinations, attractions, hotels, restaurants, or shops that are suitable according to their preferences. This has made the process of decision-making for tourists easier and more time-saving, especially for those who are only spending a few days at a tourist destination. This will make tourists less burdened and happier in their search for the best places to visit in Malaysia, increasing their likelihood of returning because they enjoyed the convenience of travelling in Malaysia. Tourists' high re-visit intention will then help improve and boost the Malaysian tourism industry's revenues, as well as sustain its businesses and operations.

3.4 Understanding On Smart Tourism

Respondents' understanding of smart tourism is shown in Table 5. The majority of respondents stated that they have heard about smart tourism (81.3%), but are not familiar with the term "smart tourism technology" (97.1%). In addition, most of them (99.0%) believe there is no reliable Smart Tourism technology or apps for making it easier for people from abroad to travel in Malaysia like locals, which led to a greater number of respondents voting (98.7%) for the implementation of more Smart Tourism technology or apps in Malaysia to make it easier for both local and international visitors.

Although a greater proportion of respondents have heard of smart tourism, few are familiar with the technology. In fact, most of the respondents did not know much about the existence of smart tourism apps in Malaysia. This could be because Smart Tourism 4.0 initiatives have only recently been launched; thus, the concept has not yet been thoroughly received by the entire Malaysian community, resulting in a lower awareness of Smart Tourism implementations in the community [23]. This is directly reflected in the familiarity of the respondents with the Smart Tourism technology, which is low, as most of the respondents said that they were not familiar with the technology.

Smart tourism technologies like QR code implementation are able to increase efficiency within the tourism industry, such as easing tourists through the process of ordering meals, paying for tickets, or even paying for taxis. This will help increase the efficiency of management in Malaysia's tourism industry, making it able to handle more tourists and customers. Hence, this will then increase the revenue of the tourism businesses and operators as well, along with increasing sustainability within the tourism industry. Other smart tourism technologies, such as VR, which collaborate with tourism businesses and operators in Malaysia (such as those that offer interesting attractions or activities, like hiking or diving, and much more), are able to help the community, which does not have the opportunity to go on a holiday trip, be able to travel virtually from home, and at the same time, it is able to help the tourism businesses and operations in Malaysia's tourism industry generate income and increase its revenue. As suggested by [24], virtual reality (VR) services would be one of the solutions for the current situation of the COVID-19 pandemic, where people are not allowed to travel and are encouraged to stay at home to prevent the virus from spreading more seriously. VR devices will replace reality and bring the user somewhere else, which makes travelling around the world possible at home. There are two technologies that can be used for tourism-from-home by using VR services. One would be the most commonly seen VR headset, such as the Oculus Quest 2, which enables users to wear it on their heads over their eyes and gives them the impression that they are going somewhere else, either travelling or relaxing. Another technology would be the Atmoph Window 2, which is currently famous throughout Japan. This technology allows users to set it up as a window at home, where there are 1,000 views around the world in original 4K videos that can be selected by the users to portray on the window. Users can see real people walking and chatting around the streets of another country, for example, and hear real-life sounds from the equipped vibration speaker.

In terms of implementing VR to contribute to Malaysia's tourism industry revenue, various Malaysian tourism destinations can collaborate on and incorporate the VR technologies mentioned above. Tourism activities such as hiking on Mount Kinabalu, swimming in the sea off Pulau Pangkor, flying fox and extreme outdoor activities in Escape Penang, and water sports such as water rafting on the Kuala Kubu Bharu River, for example, can be made available for subscription or purchase via VR services such as VR headsets. Besides, tourism activities such as watching the beautiful underwater creatures, relaxing at the beaches of Sipadan Island, and dining along the Melaka River can also be made available for subscription and purchase by users through VR services like the Atmoph Window 2. All (or a portion of)

the revenues from subscriptions and purchases by VR users will belong to the tourism destinations that are selected by the users for a specific activity, and thus are able to sustain and improve the tourism industry in Malaysia during or after the pandemic.

Table 5 - Respondent's understanding on smart tourism

Survey	Answer Option	Frequency	Percentage
Have you heard about smart tourism?	Yes	430	81.3%
	Not Sure	78	14.7%
	No	21	0.0%
Are you familiar with Smart Tourism technology?	Yes	11	2.1%
	Not Sure	4	0.8%
	No	514	97.1%
Do you think Tourism Industry in Malaysia have reliable Smart Tourism technology/apps for the easiness of people from abroad to travel in Malaysia like a local people	Yes	3	0.6%
	Not Sure	2	0.4%
	No	524	99.0%
Implementation of more smart tourism technology / apps in Malaysia will make it easier to both local and international visitor	Yes	522	98.7%
	Not Sure	7	1.3%
	No	0	0.0%

4. Conclusion

This study emphasized the importance of creating a better experience with smart tourism technology in Malaysia to allow for more efficient searching for vacation spots in Malaysia among travelers. Furthermore, the majority of respondents are positive about smart tourism technology, which can increase tourists' happiness and intent to return to Malaysia. The results of this study also reveal another new aspect that can contribute to the existing literature and strategize on how smart tourism technology can be improved in Malaysia. With reliable centralized mobile apps that exist for all tourism sectors in Malaysia, it could possibly increase tourists' revisit intentions and happiness, which consequently boosts the revenue of the economy.

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References

[1] Hut, M., Vishik, & Masucci, R. (2017). 8 - From Risk Management to Risk Engineering: Challenges in Future ICT Systems. In E. Griffor (Ed), Handbook of System Safety and Security (pp. 131-174). Syngres.

[2] Hashmi, Z.E., Dahar, M.A., & Sharif, A. (2020). Role of Information and Communication Technology in Motivating, University Undergraduate Students towards a Learning Task in Public, Sector Universities of Rawalpindi City. Social Criminol, 7: 196.

[3] Twenge, J.M. (2017). Have Smartphones Destroyed a Generation? The Atlantic: Boston.

[4] Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015). Smart tourism: foundations and developments. Electronic Markets, 25 (3).

[5] Buhalis, D., & Amaranggana, A. (2013). Smart Tourism Destinations: Springer Books In Xiang, Z., & Tussyadiah, T. (Eds), Information and Communication Technologies in Tourism 2014, edition 127, pages 553-564, Springer.

[6] Cavalheiro, M.B., Joia, L.A., Cavalheiro, G.M. (2019). Towards a Smart Tourism Destination Development Model: Promoting Environmental, Economic, Socio-cultural and Political Values. Tourism Planning and Development, 17(3).

[7] Wang, D., Li, X., & Li, Y. (2013). China's "smart tourism destination" initiative: A taste of the service-dominant logic. Journal of Destination Marketing & Management, 2(2), 59-61.

[8] Guo, Y., Liu, H., & Chai, Y., (2014). The Embedding Convergence of Smart Cities and Tourism Internet of Things in China: An Advance Perspective. Advances in Hospitality and Tourism Research, 2(1), 54-69.

[9]   Ling-Yun, Z., & Xueken, L. (2012). On the Basic Concept of Smarter Tourism and Its Theoretical System. Tourism Tribune, 27(5), 66-73.

[10]   Tilley, S., & Houston, D. (2016). The gender turnaround: young women now travelling more than young men. Journal of Transport Geography, 54, 349-358.

[11]   Kim, H., Xiang, Z., & Fesenmaier, D.R. (2013). Use of The Internet for Trip Planning: A Generational Analysis. Journal of Travel & Tourism Marketing, 32(3), 276-289.

[12]   Statista Research Department. (2022). Average monthly salary of employees in Malaysia 2021, by age group.

[13]   Zhou, Z. (2022). Critical shifts in the global tourism industry: perspectives from Africa. GeoJournal, 87, 1245-1264.

[14]   Foo, L., Chin, M., Tan, K., & Phuah, K. (2020). The impact of COVID-19 on tourism industry in Malaysia. Current Issues in Tourism, 24(19), 2735-2739.

[15]   Statista Research Department. (2022). Domestic travel intentions during COVID-19 pandemic Malaysia 2020.

[16]   UNWTO. (2022). Impact Assessment of The Covid-19 Outbreak on International Tourism. https://www.unwto.org

[17]   Gladych, P.A. (2012). Survey polled. https://www.benefitspro.com/

[18]   Chiu, L. K., Ramli, K. I., Yusof, N. S., & Ting, C. S. (2015). Examining Young Malaysians Travel Behaviour and Expenditure Patterns in Domestic Tourism. Asian Social Science, 11(9).

[19]   Ellis, A., Park, E., Kim, S., & Yeoman, I. (2018). What is food tourism? Progress in Tourism Management, 68, 250-263.

[20]   Munar, A.M., & Jacobsen, J.KS. (2014). Motivations for sharing tourism experiences through social media. Tourism Management, 43, 46-54.

[21]   Kelman, H.C. (1958). Compliance, identification, and internalization three process of attitude change. Journal of Conflict Resolution, 2(1), 51-60.

[22]   Lin, Z. & Rasoolimanesh, S.M. (2021). Sharing tourism experiences in social media: a systematic review. Anatolia.

[23]   Amir, S., Dura, N.H., Yusof, M.A., Nakamura, H., & Nong, R.A. (2020). Challenges of Smart Tourism in Malaysia Ecotourism Destinations. Journal of the Malaysian Institute of Planners, 18(4), 442-451.

[24]   Lee, P., Hunter, W.C., & Chung, N. (2020). Smart Tourism City: Developments and Transformations. Sustainability, 12(10), 3598.