

## Understanding Tourists' Motivation in Virtual Tour

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**Abstract:** In recent years, the rapid growth of virtual technology has penetrated the tourism industry, and the pandemic has boosted its tremendous growth worldwide, including in Indonesia. Travel restrictions due to prevention strategies during the COVID-19 pandemic have been responsible for increasing the demand for virtual tours and creating a niche market in tourism, rather than only being a tool for promotional marketing. It is deemed important to understand the market in order to develop a sustainable market in this sector successfully. Therefore, this study examined the motivations of virtual tourists and determined whether virtual tour experiences can influence their motivation to visit the destination. First, a quantitative research method using factor analysis with a total of 111 (n) completed questionnaires was performed. Then, with content analysis, the descriptive representation of the content was established to support the factor dimension. This study found that there were five factors of the main motivations for tourists to do virtual tour activities. They are "Relaxing & well-being", "Novelty", "Education & Learning", "Tendency to visit the destination", and "Digital experience". Furthermore, this study found that the real physical travel experience is irreplaceable, but virtual tour brings new & unique experience to tourists. The results of this research can be implemented by the tourism business to enhance the understanding and development of the future of virtual tours experience in the tourism industry. It can also contribute to the current knowledge of digital tourism applications, particularly in Indonesia's context.

**Keywords:** Virtual tour, tourists' motivation, factor analysis, digital tourism

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### Introduction

Tourism has always been important to the global economy. In 2019, the sector contributed 10.4% to global GDP before plunging to 5.5% in 2020 due to the pandemic (WTTC, 2021). The Covid-19 pandemic has impacted several aspects of human life, forcing changes in our daily life. When it comes to travel, 96% of the world's destinations issued a restriction from the first month of the outbreak, rising to 100% at the peak of the pandemic (UNWTO, 2020b). Damage to the tourism sector is inevitable since domestic and international flights and tourist destinations stopped operating, and some destinations' borders are still closed until today. The 2021 data shows that in one year, global international tourism reception fell to 87%, and the world lost US\$4.5 trillion from this sector (UNWTO, 2021; WTTC, 2021). In Indonesia, the sudden freeze of all tourism activity impacted an economic loss of US\$5.87 billion of tourism revenue erased (Akhlis, 2020). Around 10,946 tourism-related businesses were affected, and the number of staff layoffs surged to at least 30,421 (BKPN RI, 2020).

During such a hard time, tourism businesses are struggling to survive. From the consumers' side, tourists are shown to have made changes to their travel behaviour, such as shifting trends in choosing the destinations, such as the locations and characteristics due to the health risk (Zenker & Kock, 2020). This tourist behaviour change also impacts the industry. A study by Martínez-Román et al. (2015) indicates that innovation plays a key role for tourism businesses to emerge from a crisis. Tourism businesses begin innovating to meet demand as a survival strategy. With every challenge and change come opportunities. In response to Covid-19 re-

strictions, tourism businesses have adapted to several new technological innovations in order to mitigate the negative impacts of the pandemic on their income, including a virtual tours and live-streaming promotion of the destinations using a tour guide (Lau, 2020)

Virtual tours have been acknowledged as destination marketing tools in previous tourism experiences studies (Cho et al., 2002; Guttentag, 2010). It gives people the ambience of the environment and adds real-life experiences that are important for tourists' assessment of the destination in the information-seeking process (Cho et al., 2002; Ruddle et al., 1997). However, now the virtual tour is booming due to the pandemic, as travellers have no choice but to stay at home due to health & safety reason or to be financially wise (Wira, 2020). During the pandemic, UNWTO has been promoting the campaign "we stay home today so we can travel tomorrow" and encouraging people to travel virtually with several website recommendations (UNWTO, 2020a). The rise of arranged virtual tours of a destination in Indonesia during the pandemic comes out of a need for businesses to take the initiative adapting to the changes. It gets a positive response from travellers who are craving travel experiences.

As stated above, the pandemic has changed tourists' behaviour; previous research about virtual tours always focused on virtual tours as marketing tools rather than seeing them as products to sell to the market. Therefore, this research aims to give an understanding of the demographics and the motivations behind tourists' participation in virtual tours and how virtual tour experiences influence their motivations to visit the destination. It could assist tourism businesses and professionals in successfully market their destinations through virtual tours. Furthermore, the result could help tourism businesses determine whether or not virtual tour experiences can influence tourists' motivation to visit the destination. Thus, it can assist the tourism businesses in their current marketing strategy, especially in the near future when all travel restrictions are lifted and the number of Indonesian domestic and international tourists return to normal.

### **Tourist motivations**

In tourism literature, motivation refers to psychological needs and arousal that pushes people to seek a way to fulfil themselves with the purpose of gaining satisfaction. The tourism motivation theories answer why tourists travel and how the underlying psychological processes happen (Heitmann, 2011). Moreover, a popular study about tourist motivations by Fodness (1994) also showed that understanding these motivations is needed prior to building an effective marketing strategy. He stated that "while motivation is only one of many variables (e.g., perceptions, cultural conditioning, and learning) that may contribute to explaining tourist behaviour, it is nevertheless a critical variable because it is the driving force behind all behaviour." (p. 555). In other words, tourist motivation is a study of tourists' behaviour. Since many decades ago, motivations have been believed to play an essential role in creating tourists' experiences in leisure activities, especially in the personal dimension (Iso-Ahola, 1983). It is perhaps one of the reasons why so much attention has been drawn to motivation study in tourism research.

Many factors influencing tourists' motivation have been acknowledged in tourism studies. For example, Horner & Swarbrooke (2016) proposed that tourists' motivations are divided into two categories. Firstly, motivations that push a person to do the travelling activity, and motivations that lead a person to spend their holiday at specific destinations and times. The second category consists of a more complex concept consisting of the motivations derived from emotive and cognitive aspects such as psychological, emotional, personal, personal development, status, and culture.

The significance of tourism experiences and tourists' behaviour is also emphasised by the motivations associated with travel choices based on people's desire to find novelty, authenticity, and uniqueness (Hall & Weiler, 1992). Furthermore, prior research generally confirms an association between tourists' motivation and their choice of destinations (Albayrak & Caber, 2018; Çelik & Dedeoğlu, 2019; Yoo et al., 2018). Thus, it can be argued that it is essential to understand tourists' motivations in order to influence tourists' behaviour in choosing the destination and measure their satisfaction.

## Digital Tourism

The fourth industrial revolution marked social, political, cultural and economic upheaval that has influenced innovation in every industry sector, including tourism. Now we are in Tourism 4.0, where everything is becoming digital. The impacts of emerging cross-technology sectors are more important than the capabilities they represent. The development of technology towards being completely digital is currently increasing rapidly. Human lifestyles tend not easily to be separated from electronic devices in this digital era. Technology is a tool that humans can use to make it easier to do any task and job.

Digital, as a term, derives from the Latin word "digitus", which literally means finger. Metaphorically, the digital network access is utilised as an extended finger to create a hold, contact point, and chance for a better future. The new technologies open up possibilities, but they do not automatically provide the potential for democratisation or become tools to fight poverty. They have to be turned into such tools or potential first, which requires the cooperation of the state, economy, civil society and development organisations (Herdin & Egger, 2018). The digitalisation of the economy has revolutionised the tourism market, radically changing existing business models. Digital Tourism is defined as the digital support of tourism experiences before, during and after tourism activities. Therefore, digital tourism can be interpreted as digital support from the tourism experience before, during and after tourism activities.

The form of support may become a recommendation system to help a person find suitable accommodation during vacation planning, a mobile tour guide application on their smartphone while they are there or the ability to browse vacation photos with ease around the kitchen table once at home (Benyon et al., 2014). Another definition from Caraivan (2017) is that digital tourism can be defined in two ways: travelling from here to there without leaving your seat and virtual tourism interaction that can be examined in a more complex interdisciplinary field of studies. Therefore, it can be argued that the enhancement of technology in the tourism industry aims to increase the quality or level of the tourist experience.

## Virtual tour motivation

There are many descriptions of virtual tours without a generally accepted idea of the interpretation. However, based on several pieces of literature, it is described as a type of virtual experience using a communication medium / computer-mediated environment that brings the virtual environment to the users, which makes them lose awareness of their physical environment (Cho et al., 2002; Cho & Fesenmaier, 2001; Sheridan, 1992; Steuer, 1992). It is believed that a virtual tour can help tourists develop an expectation of a destination and that the tour operator can use it as a tool to provide more information about the destination's uniqueness. Furthermore, it is considered as being an effective medium amongst destination managers because it allows them to display and communicate their products (both tangible and intangible) with relatively little financial investment.

Besides using the virtual tour as a marketing tool, several studies, for example, Chiao, Chen, & Huang (2018), Adukaite, Van Zyl, & Cantoni (2016), and Hsu (2012), evaluated virtual tours as educational tools in the tourism industry. Consequently, many destinations that offer educational experiences, such as museums and cultural heritage sites, use virtual tours as a tool to reach a global audience. For example, the British Museum (n.d.) allows internet users to discover hundreds of artefacts from their websites; and the Indonesian government-funded Borobudur Conservation Centre has built a dedicated website for the Borobudur temple virtual tour. Both are self-guided tours that allow internet users to access information, video, audio, and 3D pictures through their mouse. On a larger scale, Google Art & Culture (n.d.) provides self-guided virtual tours for many museums that can be accessed from their website.

El-Said & Aziz (2021) stated that virtual tours have brought a more significant contribution to tourism during the Covid-19 pandemic. They bring opportunities into various tourism entities, from preventing total suspension of tourism activities to securing job opportunities for tour guides for virtual guided tours. The kind of virtual tour which flourished during the Covid-19 era usually has a different characteristic than ones established before the pandemic, especially the financial benefit. Current virtual tours established by travel companies offer more en-

gagement from the guide, provide more human interaction, and in return, most virtual tours are not offered for free. Usually, virtual tours with real-time human interaction and exclusive for small groups of people are held by the tour agent. People would sign up for the tour and pay the price advertised by the tour agent in advance, and then they would receive a link to access the virtual tour according to the set date & time. With this scheme in Indonesia, tour agents can gain a profit, and the tour guide can still make a living during the worst period in the tourism industry (Kompas.com, 2020). Thus, it becomes another tour product rather than just a tool for marketing purposes. It is how virtual tours differ from tour travel pre and during the pandemic.

**Table 1.** Summary of research on virtual tour travel motivations

<b>Researchers</b>	<b>Main findings</b>
El-Said & Aziz (2021)	Enjoyment, Visit intention after the pandemic, Novelty: of the site, of the technology.
Tussyadiah, Wang, Jung & Dieck (2018)	Enjoyment, visit intention – pre-visit interaction with the destination.
Kim & Hall (2019)	Enjoyment, well-being.
Chiao, Chen, & Huang (2018)	Education & learning

## Methodology

This research used a self-administered questionnaire to harness data from the respondents. The questionnaire was separated into three sections which consisted of structured, close-ended, and open-ended questions. The first section consisted of factual questions which would establish demographic variables of the population studied, including age, gender, and other facts related to participants' socio-economic status. The second section aimed to identify their motivation for joining the virtual tour.

A Likert rating is used to record participants' attitudes and motivations. Participants were asked to circle the importance of particular activities and aspects based on their judgement. The scales refer to 1 = Very unimportant, 2 = Unimportant, 3 = Neither unimportant or important, 4 = Important, 5 = Very important. The third section contained open-ended questions on their virtual tour experiences to identify factors that can physically influence their motivation to visit the destination in the future. The distribution method used for this instrument was by sending the surveys through email and social networks.

The research applied two-stage sampling. Firstly, the researchers searched for traveller community groups on social media, tour & travel companies which offer virtual tour packages of Indonesian destinations, and social media platforms to invite participants. At this level, a non-probability method was conducted (convenience). Thus, tourists (both domestic and international) who had experience joining virtual tours at Indonesian destinations were eligible to participate in the study.

The questionnaire was tested prior to the main survey, involving five respondents, in order to test its viability. Necessary changes were made based on the pilot respondents' input before being distributed to the participants. The first section of the questionnaire was adapted from the work of El-Said & Aziz (2021). It consisted of demographic data, delineated with descriptive analysis. Furthermore, in section two, factor analysis was performed to identify the key motivational factors of tourists' participation in the virtual tour. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was used to determine whether the covariance matrix was suitable for factor analysis. For the third part of the questionnaire, which consisted of open-ended questions, content analysis was used to analyse the answers and find the keywords based on the verbatim reports of the respondents. Then, the descriptive representation of the content

was established to support the factor dimension. The online survey was distributed via Social Media (Facebook groups, Telegram groups, Instagram posts, and Twitter) and through personal networks (WhatsApp private chats). Two hundred fifty-one people agreed to participate in this study; 147 responses were valid. It showed that 37 out of 147 (25%) had participated in a virtual tour but never at an Indonesian destination. Therefore, a sample size of 110 (75%) was used in this study.

## Results and Discussions

### Results

The first set of questions aimed to look at the overview of the demographic profile of virtual tourists. In terms of the sexual identity of the respondents, they are almost equal, with 52 (47.3%) male respondents and 58 (52.7%) female respondents. Additionally, the majority of the respondents are 26-33 years old (42.7%), and almost two-fifths of the respondents had a minimum of a bachelor's degree (39.1%) (See **Table 2**).

**Table 2.** Profile of Respondents (Total N= 110 )

	n	%
<b>Gender</b>		
Male	52	47.3%
Female	58	52.7%
<b>Age</b>		
<18	10	9,1%
18-25	29	26,4%
26-33 years old	47	42,7%
34-41	18	16,4%
42-49	3	2,7%
>= 50	3	2,7%
<b>Education</b>		
Secondary education	28	25,5%
Diploma	10	9,1%
Bachelor's Degree	43	39,1%
Postgraduate Degree	29	26,4%
<b>How many times have you joined or accessed a virtual tour?</b>		
1	60	54,5%
2	30	27,3%
≥ 3	20	18,2%
<b>When you joined a virtual tour, what device did you use?</b>		
Desktop computer	3	2,7%
iPad or Tablet	4	3,6%
Laptop	45	40,9%
Smart tv	1	9%
Smartphone	57	51,8%

As noted, more than half of the respondents were new to the virtual tour experience. Most of them had only joined once so far (54.5%), and 18.25% had experienced more than three virtual tours. In addition, more than half (51.8%) of respondents reported that they accessed the virtual tour through a smartphone; two-fifths (40.9%) of respondents accessed it via laptop, while the rest used an iPad/ tablet (3.6%), desktop computer (2.7%), or TV (0.9%).

Sixteen additional motivational survey items were given to the respondents. These questions were used to identify the motivation of these people to become virtual tourists. Table 3 shows that the KMO Measure of Sampling Adequacy (MSA) statistic is sufficiently large at .863. It indicates that the collection of these factors' variables is feasible to explain underlying factors to explain common variance in the data. Communalities ranged between 0.405 to 0.849. Furthermore, Bartlett's Test of Sphericity number (shown by the Chi-Square number) is 1222.5 with a significance of 0.000, which means there is a correlation between variables.

**Table 3.** KMO & Bartlett Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.863
Bartlett's Test of Sphericity	Approx. Chi-Square	1222.53
	df	120
	Sig.	.000

To these questions, the respondents needed to indicate the importance of their decision to do the virtual tours on a five-point scale. The mean/distribution of replies and standard deviations are presented in Table 4.

**Table 4.** Motivational factors to join virtual tours of Indonesian destinations

Factor/Item (%)	Mean	SD	Loading
Factor 1: Relaxing & well-being (49.704%)			
To relax	3.78	0.92	0.737
To improve my well-being	3.74	0.93	0.653
To get away from routine	4.01	0.94	0.487
To have fun	3.95	0.93	0.772
Factor 2: Novelty (11.059%)			
To explore a new destination	4.36	0.88	0.793
To get new information about a destination	4.45	0.74	0.792
To explore virtual tour technology	4.29	0.94	0.695
Factor 3: Education & Learning (6.807%)			
To learn about the culture in the destination	4.29	0.82	0.648
To learn about the environment/nature in the destination	4.28	0.83	0.732
To see the destination's unique features	4.31	0.86	0.699



Factor 4: Tendency to visit the destination (5.871%)			
To see the destination before an in-person visit	4.21	0.92	0.887
To gain information before the actual visit	4.18	0.9	0.878
To make sure the destination matches their perception	4.22	0.88	0.773
Factor 5: Digital experience (5.046%)			
To know about the advanced technology used	3.98	1.02	0.75
To know how the virtual tour technology gives destination image	4.23	0.89	0.58
To know if the technology could create a personal visiting experience	3.98	1.04	0.704

## Discussions

During the result examination, the authors were guided by the general SPSS factor requirement for eigenvalues greater than 1. This is due to the nature of examining the result of the exploratory factor analysis. All 16 survey items were retained in a five-factor solution that accounted for 78.487% of the total cumulative variance. In the last part of the survey, respondents were asked to give an opinion on whether the virtual tour experience could be a substitute for the actual travel experience. Then, it was applied for further analysis of the qualitative section. Even though the majority answer was "No" (60.4%), 39.4% of respondents answered that virtual tours could become a substitute for actual travel experiences. Furthermore, from the survey, the top five motivation items are "to gain information about the destination ( $\bar{x}$  = 4.45); to explore new destinations ( $\bar{x}$  = 4.36); to know the uniqueness/characteristic of the destination ( $\bar{x}$  = 4.31); to explore new things using virtual technology. ( $\bar{x}$  = 4.29); to know the cultural diversity of the destination ( $\bar{x}$  = 4.29)

For the examination of the factors from the questionnaire, factor 1, labelled as "relaxing and well-being", was indicated as the most important factor by the respondents. This factor consisted of four items that reflect their need for relaxation while joining a virtual tour, improving their well-being, getting away from everyday life, and having fun. Items on this factor had loadings ranging from .772 to .487 and explain 49.704% of the total variance. From the results obtained in this factor, tourists who took virtual tours were more motivated to have fun, become more relaxed, and improve their well-being from activities due to the COVID-19 pandemic, which makes them unable to travel.

The second dimension, Factor 2, "novelty", explained 11.059% of the variance. The factor included items associated with exploring a new destination, getting new information about a destination, and exploring virtual tour technology in tourism activity. This dimension has a loading factor between .792 and .695. The result found that tourists were more motivated to take part in virtual tour activities to explore new destinations, followed by the motivation to get information from these destinations and explore virtual tours activity as a new experience travelling without physical activity and instead via a gadget.

These were followed by "education & learning" (Factor 3), which explained 6.807% of the variance and consisted of three items: to learn about the culture in the destination, to learn about the environment/nature in the destination, to see the destination's unique features. Factor 3 loaded between .648 and .732. The result showed that tourists were eager to take part in virtual tour activities to learn about the environment and nature at the destination, followed by motivation to see the uniqueness of each destination. In addition to seeing the uniqueness, tourists were also inspired to learn about the indigenous cultures of the destination.

The fourth factor is labelled as "Tendency to visit the destination", and it consists of three items related to seeing the destination before an in-person visit, gaining information before the actual visit, and making sure the destination matches their perception. These three items explained 5.871% of the total variance, with loading factors ranging from .887 to .773. From the

results, tourists were aroused to participate in virtual tour activities to see the destination they want to visit first, followed by motivation to get information about the destination prior to visiting the destination and ensuring that the real destination is in accordance with the image and their perception.

The fifth and final dimension, "digital experience", contained two items which reflected their experience with digital tourism. These are related to tourists' experience in knowing about the advanced technology used, seeing how the virtual tour technology gives a destination image and revealing if the technology could create a personal visiting experience. These items had loading factors ranging from 0.75 to .58 and explained 5.046% of the total variance. From the results generated from this factor, tourists were excited and curious to experience a digital visiting experience whilst using the latest technology of video conferencing, especially when its popularity is rising during the era of pandemic COVID-19.

Furthermore, the qualitative comments of the survey support the findings that by joining a virtual tour, travellers can have many references on their travel itinerary. Another note mentioned that they had visited the destinations which were on their "Wishlist". In one case, one of the respondents' notes stated, *"I joined the virtual tour to have more recommendations in the list of destinations that I can visit after the pandemic"*. Another respondent echoed this view and noted, *"Virtual tours help me arrange itineraries when I am planning to visit the destination"*. These could be related to the "tendency to visit the destination" factor.

Talking about the "education and learning" factor, an example of the respondent's statement was, *"Even though I cannot travel in person, I love that I am able to learn more about the culture"*. In another comment, a respondent talked about the "novelty" being their motivation to join virtual tours, which can be shown in the respondents' notes. Some examples mentioned, *"I want to know how the original surrounding feels like..."* and *"Try new experiences"*. One of the qualitative comments about the new experience related to digital experience stated that *"There is a different feeling when you join a virtual tour and visit the destination in person. Both are unique."* Some feedbacks from the respondent sometimes represent more than one factors in one statement, one of the examples on the qualitative note was:

*In my opinion, travelling with a virtual tour during the pandemic is very useful to add insight and experience, because the tourists can indirectly enjoy the tour even through an online platform. Moreover, with affordable costs, tourists can access the virtual tour without leaving their homes and having to come to the destination directly. It can certainly fulfil our curiosity about tourist attractions that we have never visited before.*

The comment stated supports the "relaxing and well-being" factor because it shows how the respondent took the virtual tour for enjoyment, while at the same time it had "novelty" value and gave the chance to create personal visiting experiences through a "digital experience".

Regarding the intention to visit the destinations, the majority (95.5%) of those who filled out the survey indicated that they were still interested in visiting the destination physically after attending the virtual tour, and only a small number suggested they were not interested (4.5%). This result has a correlation with the study by El Said & Aziz (2021), which found that virtual tours cannot replace the real physical travel experience. However, based on the evidence from respondents' comments, virtual tours can give new and authentic (unique) experiences related to the technology used. Lastly, regarding the question of whether virtual tours could be a substitute for an actual experience for tourists, the majority of the respondents (60,6%) believe that virtual tours cannot be a substitute for an actual travel experience. However, interestingly, 39,4% of the respondents believed that it could. This is a relatively high number compared to the result of a similar question by El Said & Aziz (2021).

## Conclusions

Virtual tours are not new to the tourism industry, but it is still young and growing rapidly due to the leverage of digital transformation. It has become an emerging topic and popular as an alternative for many people during the pandemic, especially in countries with strict travel restrictions. People rely so much on technology, and now it also has an impact on the tourism



industry. Therefore, it is deemed important to understand the needs of virtual tourists in order to provide information that will influence their decision making and motives to join virtual tours.

The result of the demographic profile showed that the virtual tour attendees were almost equal between female and male, relatively young, and well educated. All are relatively new to the virtual tour experience if we look at how often they have joined tours. Furthermore, they tended to access the tours through portable devices. This information can be used by tour operators who provide guided virtual tours as products to make adjustments in the marketing materials, as well as in the business operation; for example, adjusting the resolution of the camera and providing the virtual tour on a platform that is compatible with the portable devices. Other tourism stakeholders could also use it as guidance for promotional material for the destination.

Another implication suggested that more improvements can be made to localise the appeal to various generations. Since millennials are already proven to show high demand for virtual tours, operators could cater for the Generation Z market. This generation is categorised as the digital native generation, those who are looking for opportunities to improve themselves using the latest technology (Gentina & Parry, 2021). Generation Z is also known as a generation that seeks meaningful experiences but is mindful of their impact on the environment (Wee, 2019). Therefore, virtual tours can become a component of sustainable travel.

This study also found that the respondents indicated that their main motivation for attending virtual tours was for the purpose of relaxation. This finding resonates with the finding of Tussyadiah, Wang, Jung & Dieck (2018) and Kim & Hall (2019). This purpose was followed by novelty, education & learning, a tendency to visit the destinations, and digital experience. However, these were less influential than the need for relaxation and well-being. The digital experience was regarded as the least important factor. This might be the result of the belief that virtual tours are less satisfying than the real in-visit experience. However, looking at some positive comments on the survey regarding how they enjoyed it, with the advancement of technology in the future, it is not impossible to make virtual tours a substitute for the real travel experience.

## References

- Adukaite, A., Van Zyl, I., & Cantoni, L. (2016). The role of digital technology in tourism education: A case study of South African secondary schools. *Journal of Hospitality, Leisure, Sport & Tourism Education*, *19*, 54–65.
- Akhlas, A. W. (2020, July 14). Pandemic erases \$5.9b of Indonesia's tourism revenue as businesses seek help. *The Jakarta Post*. <https://www.thejakartapost.com/news/2020/07/14/pandemic-erases-5-9b-of-indonesias-tourism-revenue-as-businesses-seek-help.html>
- Albayrak, T., & Caber, M. (2018). Examining the relationship between tourist motivation and satisfaction by two competing methods. *Tourism Management*, *69*, 201–213.
- Benyon, D., Quigley, A., O'keefe, B., & Riva, G. (2014). Presence and digital tourism. *AI & Society*, *29*(4), 521–529.
- BKPN RI. (2020). *Pariwisata Nasional Dalam Masa Pandemi*. <https://bpkn.go.id/uploads/document/316aad2184fddd226cd1a7bd3f7b74dff0e503d5.pdf>
- Caraivan, L. (2017). Digital tourism: A review of trends in promoting tourism activities. *Quaestus*, *11*, 159.
- Çelik, S., & Dedeoğlu, B. B. (2019). Psychological factors affecting the behavioral intention of the tourist visiting Southeastern Anatolia. *Journal of Hospitality and Tourism Insights*.
- Chiao, H.-M., Chen, Y.-L., & Huang, W.-H. (2018). Examining the usability of an online virtual tour-guiding platform for cultural tourism education. *Journal of Hospitality, Leisure, Sport & Tourism Education*, *23*, 29–38.

- Cho, Y.-H., & Fesenmaier, D. R. (2001). A new paradigm for tourism and electronic commerce: experience marketing using the virtual tour. *Tourism Distribution Channels: Practices, Issues and Transformations*, 351–370.
- Cho, Y.-H., Wang, Y., & Fesenmaier, D. R. (2002). Searching for experiences: The web-based virtual tour in tourism marketing. *Journal of Travel & Tourism Marketing*, 12(4), 1–17.
- El-Said, O., & Aziz, H. (2021). Virtual Tours a Means to an End: An Analysis of Virtual Tours' Role in Tourism Recovery Post COVID-19. *Journal of Travel Research*, 0047287521997567. <https://doi.org/10.1177/0047287521997567>
- Fodness, D. (1994). Measuring tourist motivation. *Annals of Tourism Research*, 21(3), 555–581.
- Gentina, E., & Parry, E. (2021). *Generation Z: when it comes to behaviour, not all digital natives look alike*. <https://theconversation.com/generation-z-when-it-comes-to-behaviour-not-all-digital-natives-look-alike-155694>
- Guttentag, D. A. (2010). Virtual reality: Applications and implications for tourism. *Tourism Management*, 31(5), 637–651.
- Hall, C. M., & Weiler, B. (1992). What's special about special interest tourism? In B. Weiler & C. M. Hall (Eds.), *Special Interest Tourism*. Belhaven Press.
- Heitmann, S. (2011). Tourist behaviour and tourism motivation. *Research Themes for Tourism*, 31–44.
- Herdin, T., & Egger, R. (2018). Beyond the Digital Divide: Tourism, ICTs and culture—a highly promising alliance. *International Journal of Digital Culture and Electronic Tourism*, 2(4), 322–336.
- Horner, S., & Swarbrooke, J. (2016). *Consumer behaviour in tourism*. Routledge.
- Hsu, L. (2012). Web 3D simulation-based application in tourism education: A case study with Second Life. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 11(2), 113–124.
- Iso-Ahola, S. E. (1983). Towards a social psychology of recreational travel. *Leisure Studies*, 2(1), 45–56.
- Kim, M. J., & Hall, C. M. (2019). A hedonic motivation model in virtual reality tourism: Comparing visitors and non-visitors. *International Journal of Information Management*, 46, 236–249.
- Kompas.com. (2020). *Tour Guide Tidak Punya Pemasukan karena Pandemi Virus Corona*. <https://travel.kompas.com/read/2020/04/14/220300927/tour-guide-tidak-punya-pemasukan-karena-pandemi-virus-corona>
- Lau, A. (2020). New technologies used in COVID-19 for business survival: Insights from the Hotel Sector in China. *Information Technology & Tourism*, 22(4), 497–504. <https://doi.org/10.1007/s40558-020-00193-z>
- Martínez-Román, J. A., Tamayo, J. A., Gamero, J., & Romero, J. E. (2015). Innovativeness and business performances in tourism SMEs. *Annals of Tourism Research*, 54, 118–135. <https://doi.org/10.1016/j.annals.2015.07.004>
- Ruddle, R. A., Payne, S. J., & Jones, D. M. (1997). Navigating buildings in "desk-top" virtual environments: Experimental investigations using extended navigational experience. *Journal of Experimental Psychology: Applied*, 3(2), 143.
- Sheridan, T. B. (1992). Musings on telepresence and virtual presence. *Presence: Teleoperators & Virtual Environments*, 1(1), 120–126.
- Steuer, J. (1992). Defining virtual reality: Dimensions determining telepresence. *Journal of Communication*, 42(4), 73–93.

- Tussyadiah, I. P., Wang, D., Jung, T. H., & tom Dieck, M. C. (2018). Virtual reality, presence, and attitude change: Empirical evidence from tourism. *Tourism Management*, 66, 140–154.
- UNWTO. (2020a). *2020: A year in review. COVID-19 and Tourism*. <https://www.unwto.org/covid-19-and-tourism-2020>
- UNWTO. (2020b). *Covid - 19 related travel restriction A global review for tourism*. [https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2020-04/TravelRestrictions\\_0.pdf](https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2020-04/TravelRestrictions_0.pdf)
- UNWTO. (2021). *Tourist Arrivals Down 87% in January 2021 as UNWTO calls for Stronger Coordination to Restart Tourism*. <https://www.unwto.org/news/tourist-arrivals-down-87-in-january-2021-as-unwto-calls-for-stronger-coordination-to-restart-tourism#:~:text=article on linkedin-,Tourist Arrivals Down 87%25 in January 2021 as UNWTO calls,Stronger Coordination to Restart Touris>
- Wee, D. (2019). Generation Z talking: transformative experience in educational travel. *Journal of Tourism Futures*.
- Wira, N. N. (2020). *Indonesian travel organisers tap into virtual-tours amid pandemic*. <https://www.thejakartapost.com/travel/2020/05/23/indonesian-travel-organizers-tap-into-virtual-tours-amid-pandemic.html>
- WTTC. (2021). *WTTC research reveals global Travel & Tourism sector suffered a loss of almost US\$4.5 trillion in 2020 due to the impact of COVID-19*. <https://wtcc.org/News-Article/Global-TandT-sector-suffered-a-loss-of-almost-US4-trillion-in-2020>
- Yoo, C.-K., Yoon, D., & Park, E. (2018). Tourist motivation: An integral approach to destination choices. *Tourism Review*.
- Zenker, S., & Kock, F. (2020). The coronavirus pandemic – A critical discussion of a tourism research agenda. *Tourism Management*, 81, 104164. <https://doi.org/10.1016/j.tourman.2020.104164>