Chapter

Discussion of Purchasing Virtual Digital Nature and Tourism

Hiroko Oe and Yasuyuki Yamaoka

Abstract

This chapter discusses the potential and prospects of consumers purchasing virtual digital nature and smart tourism. During the lockdown period, people experienced a trend toward increased subjective well-being as a result of their familiarity with the digital nature. In order to academically validate these experiences, this study examines how interaction with nature in the digital environment stimulates new consumer behavior in post-pandemic life. The study will apply structural equation modeling (SEM) to 300 data collected through a questionnaire to develop the discussion, with a particular focus on the mediating effects of digital forest bathing. The results show that digital forest bath ing has a mediating effect in stimulating people's environmentally oriented behavior, and that the more active they are in digital space and interact with others, the more consumers enjoy interacting with nature in cyberspace and, in turn, the more willing they are to commune with digital nature through smart tourism. This can be expected to provide an effective reference for marketing strategies that contribute to the promotion of smart tourism in the age of symbiosis with COVID.

Keywords: nature, digital well-being, smart tourism, purchase intention, a quantitative approach, consumer behavior, post-COVID era

1. Introduction

1.1 Background of the study

During the lockdown, those of us who felt trapped seemed to be more willing than ever before to share our experiences of interaction in digital space and to engage with nature in virtual space. This seems to suggest, once again, that it is worth discussing the impact of our engagement with nature in digital space on our physical and mental health. Moreover, furthermore, the interest and fascination with virtual contact with nature in cyberspace suggest the possibility of smart tourism with interaction with digital nature at its core.

It is said that there is a program hidden in our DNA. This is known as "biophilia" and became more widely known when the renowned biologist E.O. Wilson described it as an innate fascination with life and vital activity [1]. The possibilities and prospects for virtual engagement with nature and smart tourism, which this chapter

focuses on, are easier to understand if the discussion is based on this concept of biophilia. No matter how urban our lives are, an encounter with nature can stop us in an instant. According to Wilson, biophilia is defined as the accumulation of genes as a result of early humans struggle to survive in the wild, interwoven with the wisdom and experience to interpret sounds and smells, to know what to do when the weather changes and to survive [2].

1.2 Research gap and aim of the study

Today, our daily life consists of a combination of the physical and cyber environment. It is well known that contact with nature has a positive impact on our well-being, and the restrictions on behavior caused by blockades brought about by COVID have had a significant impact on various industrial and economic sectors.

And the "New Normal" transition is also creating new business opportunities for socio-economic activities. The field of digital tourism, which this chapter discusses, is one genre that is expected to flourish. Originally, contact with nature was suggested to support emotional well-being, reduce stress, improve concentration, and ease heart rate and hypertension [3]. This is where the theme of interaction with nature, not only in real contexts but also virtually, contributes to the creation of new business opportunities.

Already, online fitness packages, health promotion programs, cooking, and language learning are examples of online businesses that companies are entering and users are beginning to enjoy the benefits of these services. We are beginning to see the products of virtual experiences in cyberspace.

Under this circumstance, digital tourism is attracting the interest of researchers and practitioners as a potential field, but there are still not many examples of in-depth examinations based on the attitudes and expectations of actual consumers.

This chapter explores how digital forest bathing and other digital behaviors and interactions affect people's affinity for virtual nature and how they influence their purchasing intentions for smart tourism.

2. Literature review

2.1 Digital nature: digital activities and connectedness in cyberspace

Digital nature is a promising and stimulating alternative to real nature for people with limited access to green spaces or who are housebound, such as during the global lockdown of COVID-19 [4]. A digital nature video and overall leisure activities of adults in the USA and their relationship to mental health were investigated based on a mixed analytical approach and revealed a positive impact of physical nature engagement on the subjective well-being of the participants [5]. On the other hand, when it comes to physical contact with nature, living far from nature is a significant predictor of loneliness scores, and short-term contact with nature does not significantly improve loneliness [6].

It has been suggested that contact with nature is important for mental and social well-being [7, 8] but that a certain "quantity" of interaction with nature is necessary, and that interaction with nature in digital space has a positive impact on people's well-being. This suggests that digital nature has great potential as a complementary strategy for people who are less mobile and have less frequent

contact with nature or interactions with others, or for older people with mobility difficulties [9–11].

2.2 Forest bathing in cyberspace: visual stimuli only vs. combined visual and auditory stimuli

There is some debate about how interaction with digital nature materials contributes to well-being and mental health, including the differing effects of visual information (videos and photographs) and auditory information (sounds) [12]. Following the format of Song et al.'s [12] experiment, in the present study, a video of a forest stream was used as visual stimuli (**Figure 1**). Subjects participated in the experiment by viewing the experimental photographs in a free and relaxed atmosphere through a PC they were familiar with and were using regularly.

Next, they were given combined auditory stimuli, such as the rustling of trees in the wind and the murmur of a babbling brook. The stream sounds were made from high-resolution sound recordings. As with the visual stimuli, each subject received the composite stimuli through the screen and speakers of a familiar PC. Prior to the experiment, 10 participants were randomly selected as volunteers to listen to the participants' sensory evaluation of the intensity of the sound, which confirmed that they found this sound "easy to listen to."

The composite stimulus here, that is, the combined visual and auditory stimulus, was provided as a control stimulus with the option of quietly viewing a gray image without forest-derived stimuli. The study sought to ascertain subjective ratings of visual stimuli only vs. composite stimuli via (1) the evaluation of visual stimuli only vs. combined stimuli, and (2) the impact of the combined stimuli on the subject's transformation to environmentally oriented behavior. These were studied in a comparative manner.

2.3 Potential of digital nature for smart tourism

There is some debate about how interaction with digital natural materials contributes to well-being and mental health, including the different effects of visual information (videos and photos) and auditory information (sounds) [13]. This study states that when people's behavior was constrained in the COVID-19 era, online communities and gaming activities became more active and the impact of COVID-19

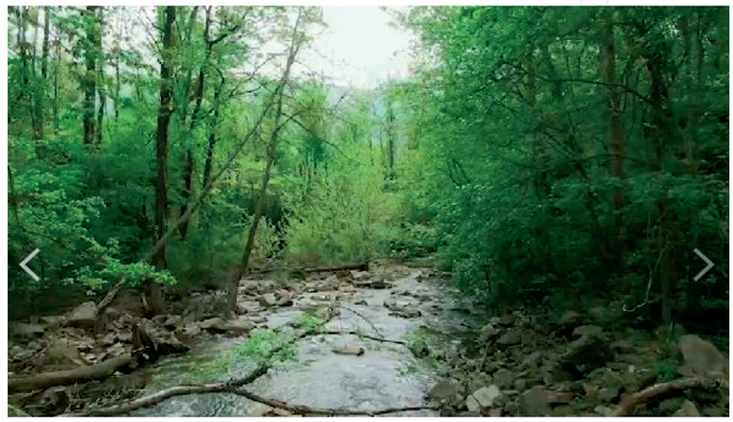

Figure 1.
Visual stimulation image.

significantly changed people's lifestyle and behavior in the digital space. Oe [9] found that this feeling of connectedness with others led to positive impacts of cyberspace activities, and in the light of the behavior of digital natives, they valued the positive impacts of online gaming and other activities. In addition, digital natives are more likely to be more active if they can play online games in digital space, which has a positive impact on their efforts in light of digital native behavior, such as the healing of loneliness and emotional support from the new interactions created in the gaming community.

It is also known that in the COVID-19 era, there was an increased tendency to interact with nature and share videos and photos of transposed natural landscapes on social networking sites [14]. Furthermore, it has been found that people are more likely to engage in physical gardening and enjoy interacting with nature in neighborhood green spaces than before the pandemic [15].

So, can virtual tourism or digital nature smart tourism, with interaction with nature in digital space at its core, gain consumer support? And what segments of the population have affinity and purchasing intentions?

Pai et al. [16] and Ye et al. [17] discussed the role of smart tourism technology as one of the triggers to enhance the values of smart tourism experiences from a sustainable context. On the other hand, Dabeedooal et al. [18] highlighted that smart tourism can be a pillar of sustainable urban development; as Kontogianni & Alepis [19] stated, smart tourism is one of the popular topics in the tourism and hospitality sector. However, not many studies have examined the antecedents and behavioral patterns of smart tourism purchasing behavior of citizens and consumers based on empirical data.

2.4 Analytical framework with scale

Two factors, (i) respondents' environment-related activities in digital space, and (ii) virtual connections with others, were positioned as hypothetical antecedents, and the degree to which these two factors evoked respondents' "environment-oriented behavior" (direct effect) was examined (**Figure 2**). Next, as a mediating effect, respondents were asked to experience digital forest bathing indirectly, and the extent to which the degree of appreciation of digital forest bathing determined respondents' purchase intention was examined quantitatively (**Figure 3**).

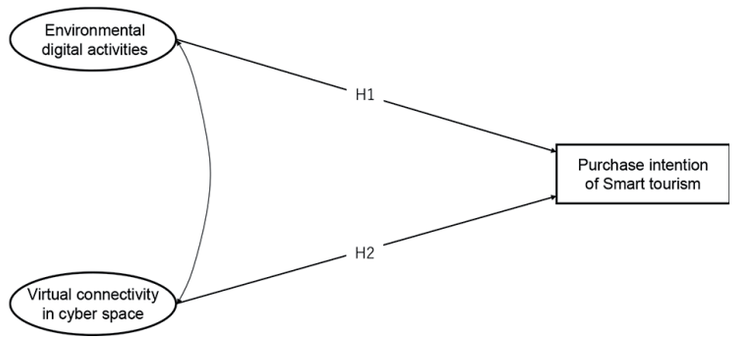

Figure 2.
Conceptual framework of the direct model.

DOI: http://dx.doi.org/10.5772/intechopen.105869

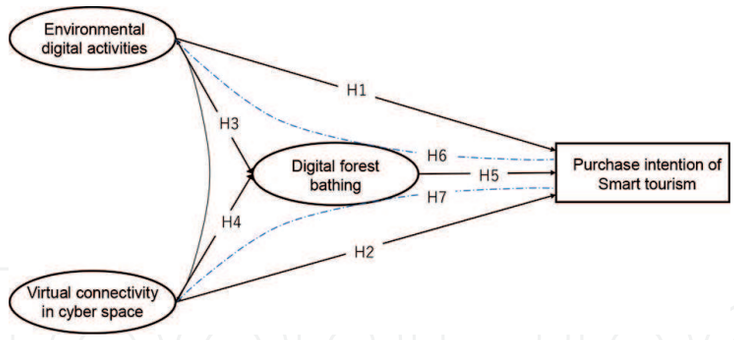

Figure 3.
Conceptual framework of digital forest bathing model.

3. Methodology

3.1 Survey design and data collection

This study will use quantitative methods to test whether digital space activities and digital forest bathing influence citizens' purchase intention of smart tourism through a hypothetical route. As shown in **Figure 3**, the impact is examined using the relaxing effect of digital forest bathing as a mediating variable. A total of 300 valid responses were obtained to be used in the analysis, taking into account a balance of gender, age group, etc. The observed variables used in the model for hypothesis testing were shared from questionnaires obtained from previous studies and collected through a five-point Likert scale choice [20].

A questionnaire survey of individuals in Japan was conducted and validated. While there is an accumulation of studies focusing on digital forest bathing and human interaction with nature in cyberspace (mainly based on data sets from areas of developed economies), the latest data sets are in Japan, the birthplace of forest bathing (i.e., with restrictions on physical behavior due to COVID-19).

In the metropolitan area around Tokyo, the geographical distance to the deep forest is far, and it takes about two and a half hours one way to reach places, such as Okutama Forest, a well-known forest bathing area in the suburbs, which poses access issues. The questionnaire was translated into Japanese and subsequently finalized by two bilingual experts, following the process recommended by Brislin [21]. Three university professors and four volunteer Japanese citizens participated in the pilot test and the wording of the survey items was refined to improve the overall quality. The content was refined by improving the order of questions and wording. In the end, the survey reached 300 reciprocal respondents, with a balanced collection of gender, place of residence, work history, and annual income. The survey itself was conducted online, in view of the COVID-19 situation.

3.2 Measures

3.2.1 Independent variables and dependent variables

Measurements were made on the scale developed by Shen et al. [5] and Kryshtanovskaya and Lavrov [6], which is based on five items, including virtual activities and connectedness with others (two latent factors). Each factor consisted of

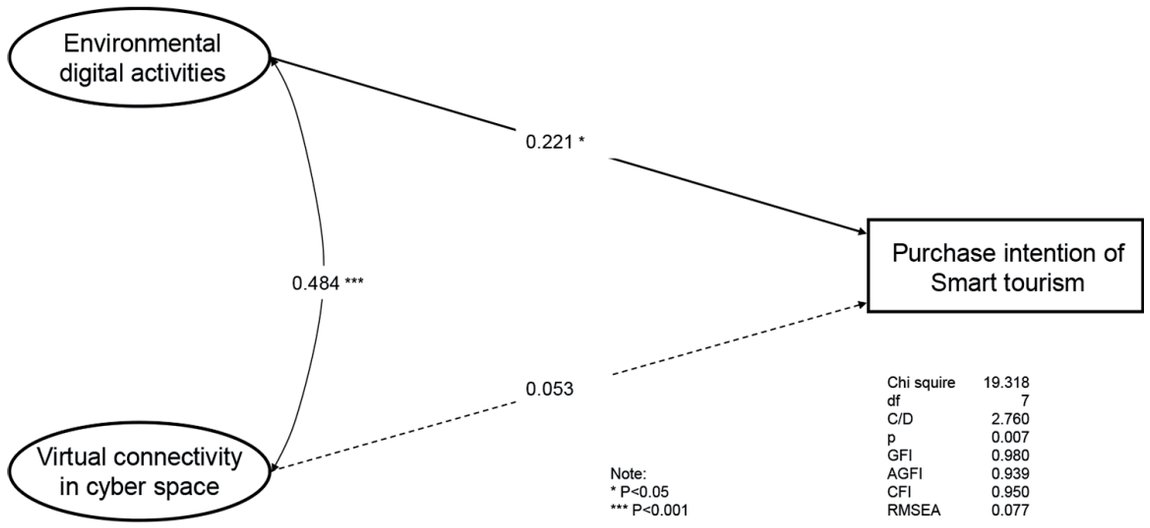

Figure 4.
SEM result of the direct model.

five observed variables. The mediating variable (digital forest bathing) was considered two observed variables, based on the work of Song et al. [12]. Cronbach's alpha was employed as an indicator to test reliability, with each variable showing a desirable value of 0.8 or higher, indicating strong internal consistency.

The explained variables of the model consist of measures of the purchase intention of smart tourism of the subjects ([22]). All items were measured on a five-point Likert scale. The scale ranged from "strongly disagree = 1" to "strongly agree = 5."

3.2.2 Data analysis

After cleaning the obtained data, the model was validated by semi-structural equation modeling using AMOS ver26. The model measured the impact of each factor on purchase intention of smart tourism through two patterns—a model measuring only the direct effect (**Figures 3** and **4**), which measures the impact of the antecedents on purchase intention of smart tourism using citizens' satisfaction with digital forest bathing as a mediating effect.

4. Findings and analysis

4.1 Data profile

Prior to detailed analysis, it is necessary to examine the profile of the data set obtained. It was shown that a balanced data set was recovered by attribute (**Table 1**).

4.2 Hypothesis testing

4.2.1 Validation of variables

Once the indicators for the classification of respondents by personality have been completed and the procedures have been confirmed, it is time to test the hypotheses.

	Frequency	Percent	Cumulative percent
Male	150	50.0	50.0
Female	150	50.0	100.0
Total	300	100.0	
20s	60	20.0	20.0
30s	60	20.0	40.0
40s	60	20.0	60.0
50s	60	20.0	80.0
60s	60	20.0	100.0
Total	300	100.0	
Unmarried	147	49.0	49.0
Married	153	51.0	100.0
Total	300	100.0	
Grad School	11	3.7	3.7
University	149	49.7	53.3
College	66	22.0	75.3
Highschool or under	74	24.7	100.0
Total	300	100.0	
Under $20,000	138	46.0	46.0
$20001–50,000	115	38.3	84.3
$50001–90,000	34	11.3	95.7
Upper $90,001	13	4.3	100.0
Total	300	100.0	

Table 1.
Demographic profile.

First, the consistency and rationality of the latent factors included in the model for analysis will be checked. For this purpose, factor analysis is conducted on the observed variables for purchase intention of smart tourism and antecedents. **Table 2** shows a descriptive analysis result of the data set.

A factor analysis was conducted and four factors were generated (**Table 3**). EDA means environmental digital activities, DFB means digital forest bathing, and VCC means virtual connectivity in cyberspace.

Once the process of ascertaining how each item can explain its own construct was completed, the next examination was conducted to identify whether the constructs were valid and reliable. The composite reliabilities (CRs) and average variance extracted (AVE) from the constructs were computed by statistical procedure [23]. These were estimated and are presented in **Table 4**.

As **Table 4** shows, the minimum CR and AVE values are lower than 0.7 [24] and 0.5 [25]. The square root of the AVE of each element, that is, the average variance (AV) is greater than the Pearson correlation coefficient between that construct and the other constructs. This means that the discriminant validity of the variables used here was confirmed. The value of Cronbach's alpha (CA) for each configuration is greater than 0.6,

	N	Min	Max	Mean	Std. deviation
EDA1:I spend more time surfing the internet, YouTube, and social networking sites than I used to	300	1	5	2.98	1.251
EDA2:I spend more time playing online games than I used to	300	1	5	2.14	1.219
EDA3: During the lockdown, I watch more environment-related videos	300	1	5	2.05	1.129
VCC1: I have become more active in virtual socializing, for example, ZOOM, online events	300	1	5	1.96	1.103
VCC2: I enjoy more virtual connectedness and communication in cyberspace than before COVID	300	1	5	2.92	1.123
DFB1: Watching the video helped me to relax	300	1	5	3.43	1.034
DFB2: Seeing beautiful nature photos or listening to the forest sounds make me feel better	300	1	5	3.54	0.941
PIS: Purchase intention of smart tourism	300	1	5	3.33	1.115

Table 2.
Descriptive analysis.

	Component		
	1	2	3
EDA1	0.835	0.107	0.029
EDA2	0.760	0.079	0.221
EDA3	0.710	0.134	0.087
DFB1	0.007	0.939	0.055
DFB2	0.044	0.935	0.070
VCC1	0.012	0.046	0.910
VCC2	0.397	0.087	0.616

Extraction method: Principal component analysis. Rotation method: Varimax with Kaiser normalization. Rotation converged in four iterations.

Table 3.
Factor analysis.

which is the lowest acceptable value, meaning that, from here, the configuration of each variable is consistent [23, 26]. Correlation analysis was performed to check for the presence of multicovariances between the relevant factors comprising structural equation modeling (SEM). In other words, high correlations are not suitable for feeding into SEM, as they indicate multicollinearity between variables. The correlation coefficient should ideally not be higher than 0.7 [27]. Thus, the results of the convergent and discriminant validity test show that all values meet the relevant requirements and the constructs are reliable and consistent, so we can move to the next step of SEM analysis [23].

4.2.2 Model of no-mediation

Three contrasting models, no-mediation, partial mediation, and full mediation, were constructed to test the mediating effect. The control variables were also included

	N	Mean	SD	CA	CR	AVE	EDA	DFB	VCC
EDA	300	2.389	0.884	0.799	0.813	0.593	**0.770**		
DFB	300	2.442	0.833	0.813	0.746	0.604	0.100	**0.777**	
VCC	300	3.385	0.908	0.711	0.935	0.878	0.563**	0.177**	**0.937**

Values bold on the main diagonal are the square rooted of AVEs.
SD: deviation; CA: Cronbach alpha; CR: Composite reliability; and AVE: average variance standard.
**p < 0.05.*
***p < 0.01.*

Table 4.
Convergent and discriminant validity test.

To		From	Std. regression weights	p
PIS	←	EDA	0.221	*
PIS	←	VCC	0.053	0.479
EDA	←	VCC	0.484	**

**p < 0.05.*
***p < 0.001.*

Table 5.
Path coefficient of the direct model.

in the estimation with paths to the mediator and dependent variables [28, 29]. **Figure 4** shows the SEM results of the unmediated model, which includes three dependent variables—environmental digital activity, virtual connectivity in cyberspace, and purchase intention of smart tourism, hereafter referred to as EDA, VCC, and PIS. The results showed that the standard regression coefficient for the path of EDA and PIS was 0.221 ($p < 0.05$), while the path of VCC and PIS was 0.053 ($p > 0.05$). The covariance between VCC and EDA was 0.484 ($p < 0.001$). This implies that the latter path is not significant. The fitting index for this SEM model was GFI = 0.980 (>0.9), indicating a good model fit [26]. Also, **Table 5** shows the path coefficient of the direct model. In this direct model, hypothesis H1 was supported but not H2.

4.2.3 Model of partial mediation

As a mediating effect, digital forest bathing was placed in the center of the figure, hereafter referred to as DFB. The results show that the path from EDA to DFB was 0.649 ($p < 0.001$) and the path from VCC to DFB is highly significant at 0.476 ($p < 0.001$). Next, the path from DFB to PIS was 0.875 ($p < 0.001$). In other words, hypotheses H3, H4, and H5 are adopted. However, both paths of EDA to DFB and VCC to DFB were 0.085 ($p > 0.05$) and 0.017 ($p > 0.05$), respectively (**Figure 4**). This implies that both paths were not significant. Thus, H1 and H2 were rejected.

4.2.4 Model of full mediation

We followed the procedures outlined in Yu et al.'s [30] recent work, examining direct effects using SEM. The direct effects of EDA and VCC on BC were examined through DFB. **Figure 5** shows our research SEM model. **Table 6** shows the standardized regression weight, p-value, and percentile confidence level (PC) of 95% for all the direct

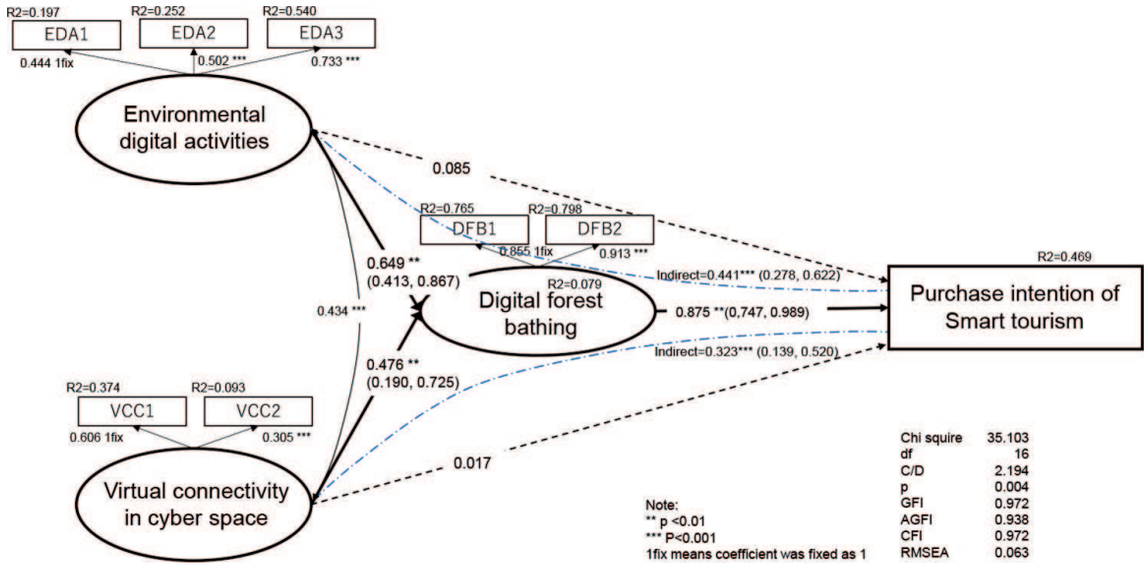

Figure 5.
SEM digital environment model of mediating effect (all samples).

and indirect paths, which were based on 5000 bootstrap samples, for the direct effects perceived. The indirect effect of the path EDA to DFB to PIS shows 0.441 ($p < 0.001$, PC = 0.278 to 0.622) and VCC to DFB to PIS shows 0.323 ($p < 0.001$, PC = 0.139, 0.520). This implies that both paths are significant. Thus, H6 and H7 were supported.

Observing the goodness of fit of the SEM research model presented in **Figure 5**, the goodness of fit index (GFI) is 0.972 (>0.9) and the adjusted goodness of fit index (AGFI) is 0.938 (>0.9). The root mean square error of approximation (RMSEA) is

			All samples		
To		**From**	**Std. regression weights**	**p**	**95% PC**
DFB	←	EDA	0.649	**	0.413, 0.867
DFB	←	VCC	0.476	**	0.190, 0.725
PIS	←	DFB	0.875	**	0.747, 0.989
PIS	←	EDA	0.085	0.582	
PIS	←	VCC	0.017	0.904	
EDA1	←	EDA	0.444	**	0.290, 0.570
EDA2	←	EDA	0.502	**	0.365, 0.644
EDA3	←	EDA	0.733	**	0.626, 0.844
VCC1	←	VCC	0.606	**	0.430, 0.774
VCC2	←	VCC	0.305	**	0.167, 0.409
DFB1	←	DFB	0.855	**	0.763, 0.920
DFB2	←	DFB	0.913	**	0.858, 0.955
VCC	←	EDA	0.434	**	0.270, 0.574
			Indirect effects		
PIS	←	EDA	0.441	**	0.278, 0.622
PIS	←	VCC	0.323	**	0.139, 0.520

		All samples		
To	**From**	**Std. regression weights**	**p**	**95% PC**
R2	EDA	0.000		
	VCC	0.000		
	DFB	0.079		
	PIS	0.469		
	EDA1	0.197		
	EDA2	0.252		
	EDA3	0.540		
	VCC1	0.374		
	VCC2	0.093		
	DFB1	0.765		
	DFB2	0.798		
Fit indexes	Chi squire	35.103		
	df	16		
	C/D	2.194		
	p	0.004		
	GFI	0.972		
	AGFI	0.938		
	CFI	0.972		
	RMSEA	0.063		

df: degree of freedom, C/D: Chi-square/df, p: provability, GFI: Goodness of fit index, AGFI: Adjusted goodness of fit index, CFI: Comparative fit index, and RMSEA: Root mean square error of approximation.
Squared multiple correlations (SMC) in SPSS AMOS were used as R2.
1 fix means coefficient was fixed as 1.
95% PC means percentile confidence level of 95%.
**p < 0.01.*
***p < 0.001.*

Table 6.
Path coefficient of the SEM research model.

0.063 (<0.10), which is better than the specified value [26, 28]. In summary, the fit of the model is excellent.

4.3 Discussion

The SEM model of the "Digital Environment-Mediated Effects Model" for the two groups of introverted and extroverted samples shows that the GFI of the model, including the chi-square/degree of freedom, is above the desired level, and it can be evaluated that a model consisting of reliable measures has been presented.

As analyzed and discussed above, the hypothesized SEM model of digital environment effects on purchase intention of smart tourism can be assessed as presenting a model and scale consisting of reliable measures, as the indicators of goodness of fit, including chi-square/degrees of freedom, are above the desired level. And interestingly, even though the direct effect linked from EDA and VCC to PIS is

nonsignificant, when looking at the indirect effect through DFB, which is set as the mediating effect, both paths to PIS are significant. In other words, the results show that simple engagement with the environment and connection with others in the digital space does not foster interest in smart tourism, but familiarity with digital forest bathing stimulates people's interest and interest in smart tourism and stimulates their willingness to buy.

5. Conclusion

5.1 Theoretical contribution

Focusing on the mediating effects of digital forest bathing, this study quantifies the impact of people's behavior and interactions in digital spaces on enhancing their purchase intention of smart tourism. As a rule of thumb, people tend to become more familiar with the digital nature and experience subjective well-being during the lockdown period of COVID-19 behavioral restrictions. This study quantitatively reveals the pathways through which people's behavior in digital spaces and digital forest bathing stimulates their interest in the digital environment and their willingness to purchase smart tourism.

The greatest contribution of this study is that it quantified the pathways through which people's behavior in digital spaces, through the mediating effect of digital forest bathing, leads to people's willingness to purchase digital tourism, and proposed practical measures and models.

5.2 Practical contributions

The results of this study are unusual in that they show the potential of forest bathing to provide a sense of well-being and stimulate their intention to enjoy digital tours, even in places where there are no forests. For example, it suggested the possibility of increasing subjective well-being through contact with DIGITAL nature through digital forest bathing, through tourism in cyberspace and the purchase of smart tourism to improve the health of elderly people living alone and people with mobility difficulties in the aging society of the future.

This also suggests new business opportunities for tourism businesses that have suffered disruptive impacts due to COVID. In this sense, the practical contribution of this study is also to propose supporting information for the development of smart tourism strategies.

5.3 Future research tasks and limitations

Although the study obtained results with a high potential for theoretical and practical contribution as described above, the authors are aware of several limitations. First, the size of the data set used for the analysis was not large, and the demonstration discards psychological aspects, such as the definition of smart tourism, the implementation of the technology, and the readiness of citizens for the technology. In the future, we plan to collect larger data sets to confirm and further refine the feasibility of the implementation of the number-r models and measures proposed by this study.

DOI: http://dx.doi.org/10.5772/intechopen.105869

Author details

Hiroko Oe* and Yasuyuki Yamaoka
Business School, Bournemouth University, Bournemouth, UK

*Address all correspondence to: hoe@bournemouth.ac.uk

References

[1] Wilson EO. Biophilia. Cambridge, MA: Harvard University Press; 1984

[2] Schiebel T, Gallinat J, Kühn S. Testing the biophilia theory: Automatic approach tendencies towards nature. Journal of Environmental Psychology. 2022;**79**:101725

[3] Prati G, Mancini AD. The psychological impact of COVID-19 pandemic lockdowns: A review and meta-analysis of longitudinal studies and natural experiments. Psychological Medicine. 2021;**51**(2):201-211

[4] Gunasekeran DV, Tseng RMWW, Tham YC, Wong TY. Applications of digital health for public health responses to COVID-19: A systematic scoping review of artificial intelligence, telehealth and related technologies. NPJ Digital Medicine. 2021;**4**(1):1-6

[5] Shen X, MacDonald M, Logan SW, Parkinson C, Gorrell L, Hatfield BE. Leisure engagement during COVID-19 and its association with mental health and wellbeing in US adults. International Journal of Environmental Research and Public Health. 2022;**19**(3):1081

[6] Kryshtanovskaya OV, Chernavin YA, Lavrov IA. Digital generation: Mechanisms of socialization and social prospects. In: Proceedings of the International Scientific Conference "Smart Nations: Global Trends In The Digital Economy". Cham: Springer; 2022. pp. 346-354

[7] Sandifer PA, Sutton-Grier AE, Ward BP. Exploring connections among nature, biodiversity, ecosystem services, and human health and well-being: Opportunities to enhance health and biodiversity conservation. Ecosystem Services. 2015;**12**:1-15

[8] Zhang Y, Mavoa S, Zhao J, Raphael D, Smith M. The association between green space and adolescents' mental well-being: A systematic review. International Journal of Environmental Research and Public Health. 2020;**17**(18):6640

[9] Oe, H, Discussion of digital gaming's impact on players' well-being during the COVID-19 lockdown. arXiv preprint arXiv: 2020;**2005**:00594

[10] van Houwelingen-Snippe J, van Rompay TJ, de Jong MD, Ben Allouch S. Does digital nature enhance social aspirations? An experimental study. International Journal of Environmental Research and Public Health. 2020;**17**(4):1454

[11] van Houwelingen-Snippe J, Allouch SB, van Rompay TJ. 'That is a place where I would want to go': Investigating digital nature to enhance social wellbeing among older adults. Ageing & Society. 2022:1-24

[12] Song C, Ikei H, Miyazaki Y. Effects of forest-derived visual, auditory, and combined stimuli. Urban Forestry & Urban Greening. 2021;**64**:127253

[13] Zhao J, Xu W, Ye L. Effects of auditory-visual combinations on perceived restorative potential of urban green space. Applied Acoustics. 2018;**141**:169-177

[14] Quirk MA. Island time in lockdown: Animal crossing: New horizons' slow culture and its Shinto source. Journal of Religion, Media and Digital Culture. 2021;**10**(3):428-444

[15] Mostajeran F, Krzikawski J, Steinicke F, Kühn S. Effects of exposure to immersive videos and photo

slideshows of forest and urban environments. Scientific Reports. 2021;**11**(1):1-14

[16] Pai CK, Liu Y, Kang S, Dai A. The role of perceived smart tourism technology experience for tourist satisfaction, happiness and revisit intention. Sustainability. 2020;**12**(16):6592

[17] Ye BH, Ye H, Law R. Systematic review of smart tourism research. Sustainability. 2020;**12**(8):3401

[18] Dabeedooal YJ, Dindoyal V, Allam Z, Jones DS. Smart tourism as a pillar for sustainable urban development: An alternate smart city strategy from Mauritius. Smart Cities. 2019;**2**(2):153-162

[19] Kontogianni A, Alepis E. Smart tourism: State of the art and literature review for the last six years. Array. 2020;**6**:100020

[20] Nakano K. A measurement scale for the Type A behavior pattern in women. The Japanese Journal of Psychology. 1995;**66**(2):121-126

[21] Brislin RW. Back-translation for cross-cultural research. Journal of Cross-Cultural Psychology. 1970;**1**(3):185-216

[22] Oe H, Yamaoka Y. Discussion of citizen behavioural change using the nudge effect: A perspective based on social policy interventions. International Journal of Sociology and Social Policy. 2021. DOI: 10.1108/IJSSP-08-2021-0210

[23] Fornell C, Larcker DF. Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research. 1981;**18**:39-50

[24] Urbach N, Ahlemann F. Structural equation modeling in information system research using partial least squares. Journal of Information Technology Theory Application. 2010;**11**:5-40

[25] Leontitsis A, Pagge J. A simulation approach on Cronbach0s alpha statistical significance. Mathematics Computer. Simulation. 2007;**73**:336-340

[26] Hair JF, Black WC, Babin BJ, Anderson RE. Multivariate Data Analysis. Upper Saddle River, USA: Prentice Hall; 2010

[27] Ratner B. The correlation coefficient: Its values range between +1/−1, or do they? Journal of Target Measurement. 2009;**17**:139-142

[28] Hayes AF. An index and test of linear moderated mediation. Multivariate Behavioral Research. 2015;**50**:1-22

[29] Jyoti J, Rani A. Role of burnout and mentoring between high performance work system and intention to leave: Moderated mediation model. Journal of Business Research. 2019;**98**:166-176

[30] Yu C, Wang Y, Li T, Lin C. Do top management teams' expectations and support drive management innovation in small and medium-sized enterprises? Journal of Business Research. 2022;**142**:88-99