Immersive Experience for Thailand Wellness Tourism

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Abstract

Immersive tourism experience provides travelers with the unique experience of the destination enhancing onsite experience and anchoring both travelers and destinations in particular travel activities. While wellness tourism has gained its popularity, thus, the previous research on a theoretically integrated immersive effect regarding experience economy's theory in tourism literature concerning four dimensions; educational, esthetic and entertainment, and escapist has not previously validated within the context of Thailand Wellness Tourism. To address this gap, this study develops a conceptually comprehensive model on the expected wellness tourism experience of travelers with the moderating role of immersion within the context of Thailand. The descriptive statistic of the entire data set from 446 survey respondents was tested along with the Confirmatory Factor Analysis (CFA). In previous tourism studies, Escapist Experience dimension has been considered as the most tourism engaging factor. Thus, the finding of this research validates that regarding immersive experience in Thailand wellness tourism context, Esthetic and Entertainment Experience dimensions accounted for the most variance with and indicator value of 0.99 respectively. Recommendations for planning of effective immersive wellness tourism experience concerning four experience economy' theory will be investigated in future studies.

Keywords: Immersive Tourism Experience, Wellness Tourism, Experience Economy Theory, Confirmation Factor Analysis

I. **Introduction**

The emerging **immersive tourism technology** has contributed to development of the tourism field as interactive computer-generated medium creating simulated experiences of both real and unreal situations for participants (Williams & Hobson, 1995). Immersive tourism technology provides travelers with the unique experience of the destination and can play an important role in encouraging actual visitation and engaging both travelers and destinations in particular travel activities. Thailand being synonymous with healthcare, organic food, good living, and environmentally friendly has made the country one of the most significant wellness supplies and tourist movement area as reported by Tourism Authority of Thailand (2003) and Global Wellness Tourism (2021). The positive aspects of immersive technology implementation regarding Wellness Tourism Experience within Thailand Context has been validated in this study.

Buhalis and Leung (2018) proposed that technological advancements, mainly in ICTs with immersive effect were influential for tourism. As subjective experience, immersion is a multifaceted construct, meaning "in" a real or virtual experience. Physical and mental participation are integrated as a tool of "gateway" from everyday experience in which participants can play a different role or taking on a new identity. In previous studies, immersion is also related to the concept of "flow", in which an extreme version of immersion such as losing self-consciousness and experiencing a modified sense of time are integrated. The negative empirical results tend to contradict the general idea in the literature of immersion as being a positive contributor to a valuable experience, but the relatively small number of empirical investigations in this area does not provide much robust evidence for the immersion effects (Hudson, Maston-Barkat, Pallamin, & Jegou, 2019).

Also understanding the nature of tourism experiences holds the key to effectively managing tourism destinations (Pike, 2005). This study conducted based on Pine & Gilmore's Experience economy concept that the experience dimensions and a traveler are both active agents engaging in the experience creation process (Pine & Gilmore, 1999). The four experience dimensions include Education, Entertainment, Esthetic and Escapist. Thus, Escapism has proven to be one of the tourism primary motives in engaging in diverse tourism activities and destination (Jaworski & Thurlow, 2009; Prentice, 2004].

The implementation of tourism experience concepts varies within different culture contexts and disciplines. Individualization, demographic transformations, changes in gender roles, spiritualization, and the appreciation of healthy lifestyles have contributed to the social background of different demand for perceived experiences (Hofstede, 2011). Immersive technological mechanisms considered as a a holistic support of overall wellness tourism experience in a different culture context is still unclear. Exploring this gap in Thailand context, the understanding of technological mechanisms through the different types of wellness experience achieved while using the immersive technology will be defined.

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II. Methodology

This study adopted an interdisciplinary approach of quantitative method focused on the extensive review of the literature for building the conceptual framework of this study as in figure 1. In terms of immersive effect and hypothesized positive relationship resulting in the four dimensions of Tourism Experiences were tested. The validated comprehensive model of wellness attributes was prepared in the preliminary study to build initial items.
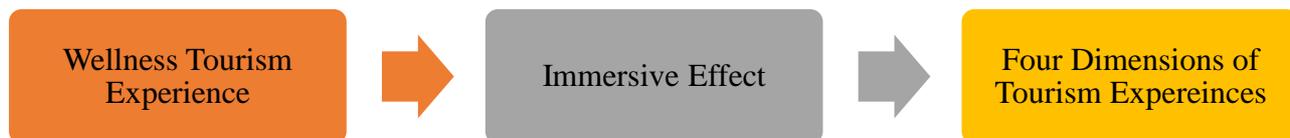
Wellness Tourism Experience	→	Immersive Effect	→	Four Dimensions of Tourism Expereinces

Figure 1. Research Conceptual Framework

1) Study setting & Item Generation: This research took place in Thailand, the country where the potential growth of wellness tourism has been acknowledged as one of the countries among the world potential wellness tourism destinations by tourism scholars, industry experts, and appeared in several nations' development policies. Multi-source approaches were utilized to generate the initial pool of items as comprehensive assortment and highly representative (Echtner & Ritchie, 1993).

2) Study Design and Approach: This study aims to develop a valid and reliable model for the immersive experience of Thailand wellness tourism with the quantitative approach. After developing an initial questionnaire for exploring socio-cultural impacts regarding immersive wellness tourism experience, a panel of expert assessed the structure and content validity of the preliminary questionnaire. The validity evaluation was tested by the Index of Item-Objective Congruence. The introduction VDO of immersive wellness tourism experience based on the studies of wellness attributes framework validation was shown as the first part of the online questionnaire (Kongtaveesawas, Pransarnphanich, Sinthupinyo & Ashton, 2022).

A pilot study was employed during 25 January 2022 – 3 February 2022 with 17 completed questionnaires to further test the reliability of the developed scales using the convenience samples. Finally, the initial purification of the questionnaire and the retained items through testing on the sample of the main study to develop the standardized measurement and articulation of the immersive experience of Thailand wellness tourism were verified.

3) Data Sources and Collections Methods: The questionnaire was designed to include four parts of questions on the following: Part 1 Four Experience Dimensions and satisfaction; part 2 Suggestions; Part 3 Socio Demographic; and Part 4 Tourist Behaviors. An online questionnaire was chosen to be the major tool due to the large sample size, their fast response rates, and cost effectiveness (Mann, 2003; Wright, 2005). Additional procedures to translate the questionnaires by a professional translator to Thai were adopted including the following: (a) synthesis, (b) back-translation to verify accuracy, and (c) forward translation.

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4) Sample Sizes & Sampling Methods: The respondents were Thai who were 18 years old up regarding the ethical consideration of research on human that agreed to participate in the research.

The VDO clip representing the prototype platform of immersive wellness tourism experience was shown at the beginning of the questionnaire and called "Recharge" in the questionnaire. The objectives of the research and the security of personal information were provided, and a consent question was designed. The google online survey platform was administered from 4 February 2022 – 28 February 2022 after the pilot test. Yamane's formula was used for sample size calculation of this study (Yamanne, 1967), thus, 446 survey respondents completed the questionnaire as usable samples. To conduct estimation testing, goodness-of-fit statistics, and the modification of the model, the LISREL program was utilized. The sample sizes for this study (n= 446) were also considered acceptable, as a sample size of 150 or more is recommended for CFA (Anderson & Gerbinng,1988).

6. Methods of Data Analysis: Factor analysis is adopted to examine the expected immersive wellness tourism experience regarding experience economy framework. CFA was chosen for dimension reduction (factor) and scale (reliability analysis). The data set was utilized for conducting CFA to explore expected immersive wellness tourism experience under the four experience dimensions regarding education, esthetic, entertainment, and escapism. To assess the proposed casual model and allow the authors to use multiple indicators to measure constructs and account for measurement errors, the SEM approach was used for the observed covariance.

7. Model specification and Variable Description: Likert scales measure attitudes, opinions, or beliefs (Likert, 1932), which is in line with travelers' evaluation of wellness tourism experience expectation. This research applied the seven scale, and the respondents were required to choose itemized rating scales from a minimum score of 1 to a maximum of 7. Following the methods discussed by Elliott and Timulak (2005), the suggestions of the participants from the open-ended responses were subsequently open coded identifying prominent themes and developed into categories and will be applied in future studies.

III. Results

A total of 446 responses were collected using an online survey platform during 4 February 2022 – 28 February 2022 based on a non-purposive sampling technique. After collecting the data, the entire data set was tested for descriptive statistic by IBM SPSS version 22 and CFA by LISREL 9.30 to confirm the factor structure of the scale of expected immersive wellness tourism experience. The results of descriptive statistic display a consensus within the data acquired that all the four dimensions of experience economy framework, namely, Education, Entertainment, Esthetic, and Escapist, holistically served as a mechanism towards immersive wellness tourism experience. The Kaiser-Meyer-Olkin (KMO) value is 0.952 also affirming the sampling adequacy.

A. Sample Description

The descriptive statistic of the demographic of the sample group as shown in Table 1 consists of gender, age, marital status, education, occupation, monthly income, health condition and comfort with technology.

Table 1. Number and Percentage of Preliminary Data of Sample Group

Preliminary Data	Number	Percentage
Gender		
Male	163	36.55
Female	279	62.56
N/A	4	0.90
Age		
>18 - 25 years	81	18.16
26 - 35 years	116	26.01
36 - 45 years	133	29.82
46 - 55 years	61	13.68
56 - 65 years	46	10.31
<65 years	9	2.02
Marital Status		
Single	247	55.38
Married	169	37.89
Divorced or separated	22	4.93
Others	8	1.79
Education		
High School or Equivalent	4	0.90
Diploma Degree	79	17.71
Bachelor's Degree or Equivalent	250	56.05
Master's Degree	87	19.51
Doctoral Degree	26	5.83
Occupation		
Government Officer / State Enterprise	53	11.88

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Preliminary Data	Number	Percentage
Employee	151	33.86
Student	27	6.05
Self-employed	106	23.77
Retired	29	6.50
Management / Entrepreneur	45	10.09
Professional (Lawyer, Doctor, etc.)	15	3.36
Others	20	4.48
Monthly Income		
>15,000 THB	50	11.21
15,000 – 30,000 THB	166	37.22
30,001 – 50,000 THB	119	26.68
50,001 – 100,000 THB	75	16.82
<100,001 THB	36	8.07
Health Condition		
Very Good	102	22.87
Average	327	73.32
Bad	15	3.36
Others	2	0.45
Comfort with Technology		
I am a very high-tech person	67	15.02
I am comfortable with technology	236	52.91
I am at average level	141	31.61
I am not comfortable with technology	2	0.45

From Table 1, it is found that most survey respondents are female at 62.56. As for age, the majority is between 36 - 45 years old at 29.82, followed by between 26 - 35 years old at 26.0. Regarding marital status, the majority is single at 55.38. As for education, the majority has bachelor's degree or equivalent at 56.05. With respect to occupation, the majority is employee at 33.86, followed by self-employed at 23.77. Concerning monthly income, the majority has between 15,000 - 30,000 THB at 37.22, followed by between 30,001 - 50,000 THB at 26.68 and more than 100,001 at only 8.07. On health condition, the majority is average at 73.32. Finally, on comfort with technology, the majority says, "I am comfortable with technology" at 52.91.

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For the tourist behavior analysis of the sample group of 446 survey respondents consists of number of times of immersive travel experience, wellness tourism trip organization, wellness tourism trip format, wellness tourism activity preference and wellness tourism trip spending. The analysis result is shown in Table 2.

Table 2. Number and Percentage of Tourist Behavior Data of Sample Group

Tourist Behavior	Number	Percentage
Number of Times of Immersive Travel Experience		
Never	291	65.25
First Time	100	22.42
2 - 3 Times	39	8.74
More Than 3 Times	16	3.59
Wellness Tourism Trip Organization		
Self-organized	334	74.89
Organized by Others	112	25.11
Wellness Tourism Trip Format		
Group Tour	19	4.26
With Family and Friends	321	71.97
Free Independent Traveler (FIT)	69	15.47
Bleisure (Business with Leisure)	37	8.30
Wellness Tourism Activity Preference		
Leisure	175	39.24
Sports	25	5.61
Wellness & Spa	69	15.47
Health & Medical	11	2.47
Cultural & Historical Sightseeing	38	8.52
Adventure	27	6.05
Religious Retreat	7	1.57
Spiritual Retreat	6	1.35
Natural Sightseeing	85	19.06
Others	3	0.67
Wellness Tourism Trip Spending		

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Tourist Behavior	Number	Percentage
>10,000 THB	213	47.76
10,001 – 30,000 THB	182	40.81
30,001 – 50,000 THB	35	7.85
50,001 – 100,000 THB	14	3.14
<100,000 THB	2	0.45

From Table 2, it is found that the majority of survey respondents have never had any immersive travel experience at 65.25. As for their wellness tourism trip organization, the majority is self-organized at 74.89. Concerning their wellness tourism trip format, the majority is with family and friends at 71.97, followed by free independent traveler (FIT) at 15.47. As for their wellness tourism activity preference, the majority enjoys leisure at 39.24. Finally, regarding wellness tourism trip spending, the majority spends less than 10,000 THB at 47.76.

B. Basic Statistical Analysis

In terms of the four dimensions of the experience economy theory, 5 sub-attributes are related to educational dimension, 6 and 6 are related to entertainment dimension and esthetic dimensions respectively, and 4 sub-attributes are related to escapist dimension. Descriptive statistics for variable factors implied in this research include mean, standard deviation, coefficient of variation, skewness, and kurtosis (Table 3).

Table 3. Mean, Standard Deviation, Skewness, Kurtosis and C.V.for CFA

Indicators	Mean	S.D.	SK	KU	C.V.(%)
Educational Experience Dimension (ED)					
1.Usefulness to collect information	6.05	1.08	-1.05	0.68	17.89
2. Benefit from using	5.25	1.17	-0.07	-0.65	22.29
3. Diverse information from using	5.96	1.16	-0.90	0.16	19.50
4. Knowledge	5.52	1.11	-0.44	-0.45	20.12
5. Stimulation of curiosity to learn new things	5.97	1.13	-1.07	1.06	18.97
Esthetic Experience Dimension (BE)					
6. Forget about times	5.69	1.34	-0.80	-0.15	23.64
7. Feel carried away by the different events	5.21	1.25	-0.37	0.11	23.94
8. Feel like living in a different time or place	5.46	1.52	-0.75	-0.22	27.92
9. Imagine being someone else.	5.22	1.37	-0.84	0.61	26.17

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10. Completely escape from reality	5.19	1.65	-0.74	-0.08	31.86
11. A real sense of harmony	5.42	1.29	-0.70	0.23	23.82
Entertainment Experience Dimension (EN)					
12. Pleasant feeling	5.81	1.23	-0.87	0.24	21.20
13. The setting is very attractive.	5.29	1.14	-0.38	0.45	21.58
14. Authentic experiences.	5.58	1.53	-0.97	0.30	27.35
15. Enjoyable feeling	5.42	1.18	-0.87	1.09	21.82
16. Pleasurable feeling	5.72	1.28	-1.01	1.09	22.41
17. Happiness	5.50	1.23	-0.81	0.97	22.35
Escapist Experience Dimension (EP)					
18. Watching others perform should be captivating	5.73	1.33	-0.99	0.60	23.28
19. Part of my ideal life	4.91	1.48	-0.53	0.19	30.02
20. My life should be excellent when I use RECHARGE	5.35	1.62	-0.76	-0.16	30.21
21. Satisfied feeling with life	5.10	1.44	-0.74	0.35	28.23

Regarding Educational Experience Dimension, Usefulness to collect information has the highest mean at 6.05, followed by Stimulation of curiosity to learn new things (5.97), and benefit has the lowest mean at 5.25. Thus, the sample's opinion on Educational Experience Dimension lies in the range of Slightly Agree to Agree. For Esthetic Experience Dimension, Forget about times and Feeling like living in a different time or place have the highest mean at 5.69 and 5.46 respectively, Completely escaping from reality has the lowest mean at 5.19, indicating the range of Slightly Agree to Agree. The sample group also has the slightly Agree to Agree attitudes towards Entertainment Experience Dimension with the highest mean of 5.81 for Pleasant, while The setting is very attractive has the lowest mean at 5.29. For Escapist Experience Dimension, Watching others perform should be captivating has the highest mean at 5.73, My life should be excellent has the second highest mean at 5.35 and Ideal life has the lowest mean at 4.91 indicating the attitudes of Slightly Agree to Agree.

C. Confirmation Factor Analysis

CFA presented that after adjusting the model, the 4-experience dimensions with the 21-item model provided a good fit to the data with an index of x^2/df = 1.26 with p value = 0.06; RMR= 0.048; RMSEA = 0.028; Comparative fit index (CFI) = 1.00; goodness-of-fit index (GFI) = 0.98; and AGFI = 0.94. Thus, the results confirm that the BE and EN dimensions accounted for the most variance with an indicator value of 0.99 in the experience framework predicting the effective wellness tourism experience than other dimensions. ES and share the lower indicator value of 0.97 and 0.86.

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respectively. Accordingly, the experience economy framework is a valid model for an immersive wellness tourism experience design within the Thailand context.

The resulting scales are presented in Table 4 along with goodness-of-fit indices. A four-experience economy model with 21 items provided a model fit to the data consequently. The Cronbach's alpha values for each dimensional scale also shown evidence of scale reliability. The reliability test in this research demonstrated that a coefficient of internal consistency is 0.954 with 27 items, which refers to excellence consistency (Segars & Grover, 1998; Schumacker & Lomax, 1996). According to model fit evaluation recommendations, scales for all constructs were deemed acceptable in quality. The Bartlett's Test of Sphericity show the value of 6635.549 with the p-Values of all factors are in general above 0.1 and the subgroup analysis are required in this study, thus, it is found that the data set is correlated and can be used in a factor analysis. The Cronbach's alpha values of all dimensional scales exceed a recommended value of 0.60, the scales used in the study are reliable.
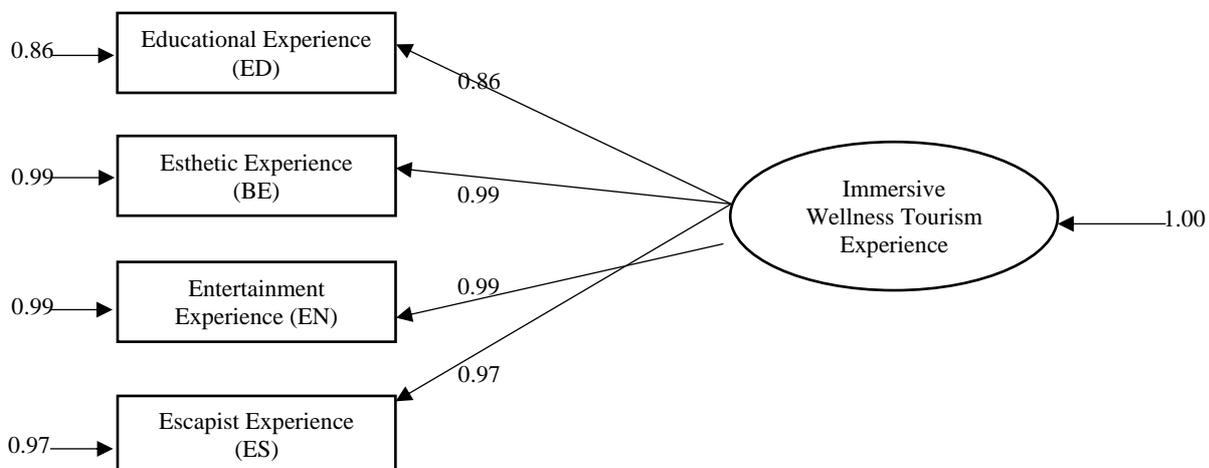
Table 4. Confirmation factor analysis of Four Experience Dimensions

Confirmation factor analysis of Each Variable		Beta	SE	t	R2	p-Value	
ED	Educational Experience Dimension	0.86	0.05	15.69**	0.74	0.35	-
BE	Esthetic Experience Dimension	0.99	0.05	19.16**	0.99	0.51	-
EN	Entertainment Experience Dimension	0.99	0.05	21.69**	0.97	0.30	-
ES	Escapist Experience Dimension	0.97	0.05	20.89**	0.94	0.68	-

$x^2 = 95.59$, df = 76, p = 0.06388, CFI = 1.00, GFI = 0.98, AGFI = 0.94, RMSEA = 0.028, RMR = 0.048

Note: ** p < 0.01; No report of SE and t according to constrained parameters

When these scales were evaluated together in the overall measurement model discussed below, a satisfactory measurement model was also exhibited (Figure 2).

Chi-Square = 95.59, df = 76, P-value= 0.06388, RMSEA=0.024

Figure 2. Confirmation factor analysis model result.

Several goodness-of-fits measures were used to assess as in table 3, items for each dimensional scale were subjected to scale refinement based on an evaluation of model fits. Due to the sensitivity of the chi-square test to the sample size, the relative quire square was employed (it should be there or less for an acceptable model). Standardized RMSR should not be greater than 0.10, and GFI, AGFI, NFI, and CFI should exceed 0.90 to be acceptable. The relative chi-square (chi-square/ degrees of freedom); x^2/ df ratio, standardized root means square residual (standardized RMSR), GFI, adjusted goodness-of-fit index (normed fit index (NFI), and CFI were also utilized as goodness-of-fit measures.

Table 5. Model fit index of four experience dimensions regarding Thailand WellnessTourism

Model	x^2/df	p-Value	RMR	RMSEA	CFI	GFI	AFGI
	1.26	0.06	0.048	0.028	1.00	0.98	0.94

From Figure 2 and Tables 4 and 5, where the validity of the four experience dimensions were tested, the model shows a goodness-of-fit with empirical data accordingly. Statistically different from zero at the 0.05 level of significance, the chi-square value of 95.59 is acceptable, also the probability (p) value of 0.06 is at the degree of freedom of 0.94 and the relative chi-square (x^2/df) value of 1.26 is less than 2. For the adjusted goodness-of-fit index, the RMR value of 0.048 and the RMSEA value of 0.028 are both acceptable since they are less than 0.05. On account of the absolute fit index, the CFI value of 1.00, and the GFI value of 0.98 and the AFGI value of 0.94 are all acceptable since they are greater than 0.90. The model is a good fit with empirical data, since all fit indices are in conformity with the criteria, the model is a good fit with empirical data.

Considering the accuracy of each variable of each experience dimension from the expectation of immersive wellness tourism experience within the context of Thailand, the model fits with the empirical data.

IV. Discussion

Although a rigorous process was employed for research instrument construct, some of the terms may have been understood differently among Thai travelers resulting in contextual difference. The scales used within the survey instrument were adapted from previous research conducted in English to Thai using a process of work between initial translation followed by dialog between the two to assure the proper contextual translation. Thereafter, the instrument was tested with the academic and industry also using Cronbach's alpha reliability testing. The analysis did reveal that four experience dimensions are greatly expected on Thailand wellness tourism experience; thus, the qualitative methods, such as a focus group setting from a real prototype can be applied to confirm an understanding. Further implementation of the proposed model across different consumption situations and staged experiences is still required.

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Unsubstantiated relationship of immersive experience framework and a wellness tourism experience design remains in either the relevant tourism literature or this study is still challenging. Further research of the immersive experience for Thailand wellness tourism and other consequences will enhance valuable contributions to the tourism literature. The implementation of the immersive experience model will contribute to the effective management of wellness tourism allowing related stakeholders to understand the immersion effect towards Thailand wellness tourism.

V. Conclusion

As efforts continue to validate the experience model of the immersive wellness tourism experience within Thailand context for a better design with technological mechanism, this research provides the fundamental model for the next phase. Such an understanding can inform the development of Thailand wellness tourism in terms of experience design and management. Logical inferences and strong theoretical reasoning have been contributed to a model specifications and data analyses. The extended efforts lead to the theoretical development of Thailand wellness tourism experience design concept, which is necessary for the implementation of immersive effect to evolve into strong tourism research tradition.

Each dimension of immersive experience may be further elaborated into meaningful subdimensions for strategic implementation. The first two dimensions to be tested withing Thailand context will be the BE and EN dimensions because they have been the key expected experience. Also, the immersive technology can be considered as mechanism as the linkage of wellness attributes and wellness tourism experience.

Finally, this research has been conducted only to define the immersive experience model for Thailand wellness tourism and the relationship of experience economy concepts. Thus, additional conceptual clarification must be conducted regarding innovation diffusion concepts in which technology plays a critical role according to the current tourism trend and the new travel norm. The challenge questions still call for additional research.

Acknowledgment

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