Predicting Hot Spring Tourist Visit Intention in Post-COVID-19 Pandemic using the Theory of Planned Behavior

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***Abstract*-This study aims to examine tourist visit intention to hot spring destinations in the post-COVID-19 pandemic. The theory of planned behavior (TPB) was used as the main theoretical foundation to predict tourist visit intention. A quantitative research design was implemented in this study with a purposive sampling approach to collect the data. A total of 415 data were valid for further analysis using partial least square structural equation modeling (PLS-SEM). The result shows that all the TPB variables are significant. It implies that the TPB can predict tourist visit intention to hot spring destinations accurately. Thus, destination managers should take into consideration the TPB elements in decision-making.**

Keywords-Visit intention; hot springs; TPB; PLS-SEM.

I. INTRODUCTION

The tourism industry is one of the sectors that are most affected by the Covid-19 pandemic. Data from the Central Bureau of Statistics [1] show that foreign tourist visits decreased by 75% in 2020 and 89% in January 2021. Meanwhile, the local tourist visits decreased to approximately 30%. This condition greatly affected foreign exchange which fell by almost 80% and the economic growth which reached minus 2% in 2020. More than 2 million people have lost their livelihood out of a total of 34 million engaged in tourism and the creative economy [2].

Natural tourism is the mainstay of West Java tourism in addition to the creative, cultural, and heritage one. One of the natural attractions that have widely caught public attention is hot spring natural tourism. There are approximately ten hot springs scattered across the region of West Java. Chen, et al. [3] maintained that natural hot springs are both recreational and health tourism since the hot water contains certain beneficial minerals for fitness and health. The health benefits become an important motivator for tourists to visit hot springs attractions [4-6].

Numerous previous studies discussing tourist visit intentions before the pandemic period have been carried out, but those discussing the post-Covid-19 pandemic visiting intentions are still very scarce [7-9]. Tourists' understanding and experience regarding Covid-19 can strengthen or weaken their attitudes and intentions [9, 10]. Tourist destination managers need to be aware of this fact in order to design particular programs that increase the number of tourist visits and are relevant to the post-Covid-19 condition. This current research employed the theory of planned behavior (TPB) to predict tourist visiting intentions to natural hot springs. This study aims to measure the relationship between TPB variables and tourist intentions to visit natural hot springs after the Covid-19 pandemic. The correlation among variables of TPB and their effects on tourist visit intentions are imperative to observe in order to comprehend the strength of each variable in influencing tourist intentions to visit in the context of natural hot springs.

II. HYPOTHESIS DEVELOPMENT

A. The Theory of Planned Behavior

Previous research has widely used the Theory of Reasoned Action (TRA) and The Theory of Planned Behavior (TPB) to predict consumer behavioral intentions. This present research also used TPB as a base to predict tourist intention of visiting natural hot springs. TRA explains that a person's behavior can be predicted based on intention as a result of his conscious actions, using two interconnected variables; attitudes and subjective norms [11]. Meanwhile, TPB is one's intention for the effort given to try and perform certain behaviors [11]. TPB was developed from TRA, the distinctive feature is behavioral control.

The intention is an expression of motivation that influences action. It shows how strongly people are willing to try and how much effort they expect to make [12]. The intention to engage in a particular behavior leads to the actual behavior [13]. In fact, the stronger the intention to commit to action, the greater the possibility of performance [12].

B. Subjective norms

Subjective norms refer to social pressure to perform or not perform a behavior [12]. They are believed to be a person's

A. Azizah and E. D. Ariyani (Eds.): iCAST-SS 2022, ASSEHR 719, pp. 17–21, 2022.
https://doi.org/10.2991/978-2-494069-83-1_4

perception of how others refer to something, perceive a behavior, and motivate that perception to adhere to his beliefs and judgments [14]. It implies that other people's judgment has an influence on one's decision-making. In other words, subjective norms mean the social pressure that one feels when he wants to do something or behave [15]. Ajzen [12] explained that the perception of others influences a person's decision, especially if those other persons are considered important. When family members or close friends have a positive appraisal of a certain action, the tendency of a person to take that action will increase since he feels that he has fulfilled the expectations of his valuable people [8].

In tourism research, subjective norms are seen as an important determinant of a tourist's intention to visit tourist destinations [16]. A number of studies have proven this statement, that subjective norms do have a significant effect on tourist intention to visit. A study conducted by Chew and Jahari [17], for example, found that the intentions of Taiwanese tourists to visit Hong Kong are strongly influenced by subjective norms. Another study carried out by [18] discovered that the opinion of the closest people, either family or friends, greatly influences a person's visit intentions. Subjective norms also have a significant effect on attitudes, which then leads to visiting intentions. Research conducted by Kozak et al. [19] proved that subjective norms affect the attitude of Japanese, South Korean, and Chinese tourists to visiting tourist attractions in Australia. Other evidence is presented by the findings of Han et al. [9], in which subjective norms influence the attitudes of American tourists in the post-COVID-19 pandemic. Therefore, the hypotheses formulated are:

H1: Subjective norms have a positive effect on tourist attitude to visit natural hot springs in the post-COVID-19 pandemic.

H2: Subjective norms have a positive effect on tourist intention to visit natural hot springs in the post-COVID-19 pandemic.

C. Perceived Behavioral Control

Perceived behavioral control is the degree to which a person believes that he is capable of certain behaviors and controls his performance [11]. Perceived behavioral control is related to the factors that may facilitate or inhibit behavioral performance, including necessary skills and abilities, availability or lack of time, money, cooperation with others, and other resources [11]. Assuming that attitudes and perceptions of social pressure support behavioral performance, the greater the perceived behavioral control, the stronger the intention to perform the behavior, and vice versa [11]. This perceived behavioral control has a direct impact on actual behavior and an indirect impact through behavioral intentions. Positive attitudes and supportive subjective norms motivate a person to engage in behavior, but the perceived control must be strong enough to shape actual action [11]. Previous studies reveal that perceived behavioral control significantly influences purchase intentions for local cuisine [13] and repurchase intentions for certain cuisine choices [20]. Thus, the following hypotheses are developed:

H3: Perceived behavioral control has a positive effect on tourist attitude to visit natural hot springs in the post-COVID-19 pandemic.

H4: Perceived behavioral control has a positive effect on tourist intention to visit natural hot springs in the post-COVID-19 pandemic.

D. Attitude

Attitude plays an essential role in predicting and explaining human behaviors. It refers to the degree to which a person's assessment of a favorable or unfavorable behavior [12]. Attitude, according to Bruwer and Cohen [21], is described as the psychological state of a person with regard to his assessment of actions. Further, Quintal et al. [22] defined attitude as an evaluation of behavior when a person has a positive attitude or good judgment towards an action, which leads to the intention to be more involved in that action. Attitude is considered one of the most relevant predictors of visit intention towards any tourist destination in the context of tourism [23]. Studies have taken into note that it is an important antecedent of an individual's behavioral intention, including in relation to the intention to visit a tourist attraction [24]. Another evidence regarding this crucial role of attitude in generating tourist visiting intentions is given in a study by Joo et al. [25] which found that attitude has a significant effect on tourist future visit intentions. Thus, the hypothesis formulated is:

H5: Attitude has a positive effect on tourist intention to visit natural hot springs in the post-COVID-19 pandemic.

III. METHOD

To achieve the objectives of the study, the descriptive method with a quantitative approach was employed. The quantitative approach was used to observe the relationship between consumer behavior variables in the TPB and tourist visit intention. The research instrument was developed in the form of a questionnaire obtained based on previous related studies. All statements were measured using a Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The data were collected both online and directly from tourists visiting hot springs in Ciater (Subang) and Garut. The purposive sampling method was applied to anyone who has visited those natural hot springs during and after the Covid-19 pandemic.

The data were analyzed using the SEM-PLS approach to observe the relationship between variables in this research. It aimed to answer the research questions and test the hypotheses proposed. SEM was chosen because it can test the relationship between variables together so that measurements become more effective. PLS analysis was carried out in three stages; outer model analysis, inner model analysis, and hypothesis testing. The outer model analysis was conducted to ensure that the measurement used was feasible (valid and reliable). It could be determined using several indicators: convergent validity, discriminant validity, and unidimensionality [26]. Meanwhile, the inner model analysis or structural model analysis was conducted to ensure that the structural model built was robust and accurate. The evaluation was determined using several

indicators, including coefficient of determination (R^2), predictive relevance (Q^2), and Goodness of Fit Index (GoF) [26].

IV. Result and Discussion

This section is divided into two: result and discussion. The result is presented first and is followed by the discussion part.

A. Outer Model Evaluation

The measurement model represents whether the indicators or observational variables are perfectly suitable to be used as measuring instruments for each construct, or in other words, for assessing the validity and reliability of the construct [26]. The following Table 1 presents the results of the measurement.

TABLE I. Validity and Reliability

Variables and Items	LF	CA	CR	AVE
Attitude		0.815	0.885	0.668
att1	0.857			
att2	0.923			
att4	0.916			
Perceived Behavioral Control		0.775	0.854	0.596
pbc1	0.694			
pbc2	0.871			
pbc3	0.785			
pbc4	0.726			
Subjective Norms		0.863	0.916	0.785
sn1	0.872			
sn2	0.901			
sn3	0.885			
Visit Intention		0.825	0.869	0.624
int1	0.800			
int2	0.748			
int3	0.823			
int4	0.787			

The results of the loading factor (LF) range from 0.694 to 0.923, which means reliable because they are above 0.6 [26]. This study followed the threshold of Cronbach's Alpha (CA) reliability proposed by [26] by 0.7. The Cronbach's alpha values for each construct are above 0.7, with a range of 0.775 to 0.863. The second measure to evaluate reliability is Composite Reliability (CR). All composite reliability values in this study are higher than 0.854 and less than 0.918; CR values between 0.7 and 0.9 are considered satisfactory [26]. All constructs have convergent value variations, Average Variance Extracted (AVE), exceeding 0.5. This value also indicates satisfactory converging [26]. Therefore, the measurement model achieves convergent validity. The discriminant validity in this study used the Fornell-Larcker criteria. Fornell-Lacker criterion was measured using diagonal analysis that compares the relationship between the main variables and other variables. The relationship between the main variables must exceed the other variables, as presented in Table 2.

TABLE II. Discriminant Validity

	Variable	1	2	3	4
1	Attitude	0.817			
2	Perceived Behavioral Control	0.583	0.772		
3	Subjective Norms	0.635	0.435	0.886	
3	Visit Intention	0.702	0.548	0.560	0.790

B. Inner Model Evaluation

The inner model evaluation, or structural model assessment, was conducted to measure the accuracy of model prediction and the overall intensity of the effects. In this evaluation, several tests were carried out, including the coefficient of determination (R^2), predictive relevance model (Q^2), and Goodness-of-Fit (GOF) tests. It was followed by testing the structural model to measure the effect size (f^2) of the construct. The f^2 test results on the influence of exogenous constructs on endogenous constructs range from 0.023 to 0.506, categorized into weak, medium, and strong. This study used path coefficient analysis to observe the relationship between variables based on the hypotheses proposed.

C. Path Coefficient Analysis

This study used a value of $t>1.96$, with a significance level of 5%, to classify the significant relationship between constructs. As for the p-value, this study used $p<0.05$ (significance level = 5%) and $p < 0.01$ (significance level = 1%) to assess the significance level. The bootstrap procedure was performed using 5000 bootstrap subsamples (Hair et al., 2016). The results of path coefficients analysis to test the research hypotheses are presented in Table 3.

TABLE III. Hyphoteses Testing Results

	Variable	beta	t values	p values	Note*
H1	Subjective Norms - > Attitude	0.470	11.245	0.000	Sig
H2	Subjective Norms - > Visit Intention	0.170	3.357	0.001	Sig
H3	Perceived Behavioral Control - > Attitude	0.378	9.137	0.000	Sig
H4	Perceived Behavioral Control - > Visit Intention	0.194	3.707	0.000	Sig
H5	Attitude - > Visit Intention	0.481	8.155	0.000	Sig

* Sig=Significant

The hypotheses testing results in Table 3 show that the exogenous variables significantly affect all endogenous variables, indicated by t-values above 1.96 and p-values below 0.05. It implies that all hypotheses are accepted. Tourists' subjective norms have a positive and significant effect on their attitudes and visit intentions. It supports H1 and H2. H1: Subjective norms have a positive effect on tourist attitude to visit natural hot springs in the post-COVID-19 pandemic, indicated by (β =0.470, t = 11.245, p<0.000). H2: Subjective norms have a positive effect on tourist intention to visit natural

hot springs in the post-COVID-19 pandemic, indicated by (β =0.170, t = 3.357, p < 0.001).

Tourists' perceived behavioral control has a positive and significant effect on their attitudes and visiting intentions. It justifies H3 and H4. H3: Perceived behavioral control has a positive effect on tourist attitude to visit natural hot springs in the post-COVID-19 pandemic, indicated by (β =0.378, t = 9.137, p<0.000). H4: Perceived behavioral control has a positive effect on tourist intention to visit natural hot springs in the post-COVID-19 pandemic, indicated by (β =0.194, t = 3.707, p<0.000). The last result shows that tourist attitude has a positive and significant effect on visit intention. It justifies H5, in which the attitude of tourists has a positive effect on their intention to visit natural hot springs in the post-COVID-19 pandemic, indicated by (β =0.481, t = 8.155, p<0.000). The summary of these results is illustrated in Figure 1.

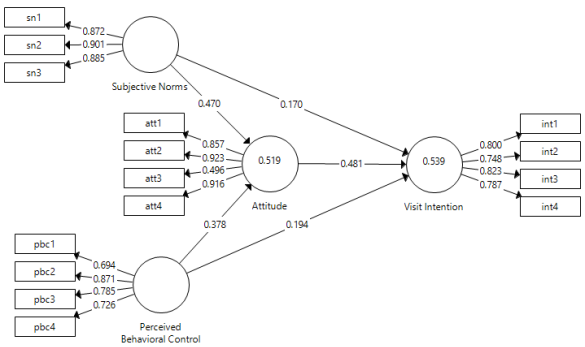

FIGURE I. SUMMARY OF THE RESEARCH MODEL RESULTS

The results of this study show that all hypotheses tested provide significant results, which means that hot spring tourists have a high intention to visit natural hot springs in the post-Covid-19 pandemic. It also proves that the variables in the Theory of Planned Behavior can positively and significantly predict the intention of tourists to visit natural hot spring attractions. These findings are in line with the previous research conducted by [9, 22, 25, 27].

This research provides practical implications and advice for tourist destination managers to consider the TPB components in making decisions to increase tourist visitations. Through promotional programs, tourist destination managers can shape and influence attitudes, subjective norms, and behavior of tourists for traveling to natural hot springs.

V. CONCLUSION

This study confirms that the variables in the Theory of Planned Behavior can predict tourist intention to visit in the context of hot spring tourism. The results of this research contribute practically and theoretically. Practically, they provide an insight to tourist destination managers to use the TPB variables in making decisions in order to increase tourist intention to visit. Meanwhile, theoretically, this study provides the justification for the importance of TPB in predicting tourist intention.

ACKNOWLEDGMENT

The authors wish to express gratitude to P3M of Bandung State Polytechnic for providing financial support for this research. Contract number: B/66.7/PL1.R7/PG.00.03/2022

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