The Moderating Effect of Social Media Use on Sustainable Rural Tourism: A Theory of Planned Behavior Model

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Abstract: Using the theory of planned behavior (TPB) model, this research aimed to investigate which important factors affect the potential behavior of rural tourism tourists. It also sought to identify the effects of social networking service (SNS) use on the rural tourism using TPB model. For analysis, a partial least squares-structural equation model (PLS-SEM) was used. The results revealed that tourists were influenced by subjective norm and perceived behavior control, of which the effect of subjective norm was greater. Consumers' use of SNS played a notable role in contributing to the strength of the relationship between intention to visit and subjective norm. Promoters and marketers of sustainable tourism can use the results to make more effective decisions in their businesses.

Keywords: sustainable tourism; rural tourism; social networking service; theory of planned behavior; social media use

1. Introduction

Since the 1990s, as industries have become more service-oriented, companies have made it a priority to understand and relate to their consumers more than ever before [1,2]. The tourism industry is no exception [3,4].

Some research [5,6] has revealed the decision-making process for sustainable tourism. However, papers about the decision-making process of rural tourism tourists are rare. To fill this gap, this study uses the theory of planned behavior (TPB) model to understand the decision-making process with rural tourism data. The TPB model has traditionally been used to analyze the decision-making process in many different fields, including tourism [7].

There has been another big paradigm shift, evoked by the information and communication technology (ICT) development. Social media has changed the entire tourism business [8,9]. Using social networking services (SNS) is not just personal: through social networking services (SNS), people can collect information, share tour experiences, and influence others to make decisions. Tourism is an informative-intensive industry, and information distribution and advertising on social media play a key role [10].

Many studies (e.g., [8,11–13]) have stated that SNS has a large effect on tourist behavior. but there are not enough papers on the effect of SNS on sustainable tourism. Hence, this study seeks to investigate how tourists' use of social media can affect their behavior, especially in sustainable tourism.

Even though there are some studies (e.g., [6,14]) that used the TPB model to examine the decision-making process of sustainable tourism tourists, those studies did so without focusing on the role of social media in rural tourism. In conclusion, the objective of this paper is to examine the role of social media use on rural tourism using the TPB model. First, the study analyzes the TPB model

of rural tourism in order to understand what the important factors are for tourists. The study then analyzes the effect of social media use on the rural tourism TPB model. Thus, the results will provide useful insights for sustainable tourism destination marketers as well as for the industry at large.

2. Literature Review

2.1. Sustainable Tourism and Rural Tourism

Sustainability has been an increasing concern for the tourism industry since the late 1980s [15]. The main issues of sustainable tourism are ecological problems and the capacity of the destination [16]. In the 1990s, sustainable tourism meant the preservation of a site by preventing overdevelopment of the industry at the risk of harming its ecology [17]. To make this possible, the volume of visitors and the tour-related businesses that directly contributed to a site were regulated [18]. Muller [19] mentioned that, for qualitative growth to take place, sustainable tourism should be approached from five different perspectives: economic health; subjective wellbeing of the locals; unspoiled nature/protection of resources; healthy culture; and optimization of guest satisfaction.

From the late 1990s, the definition has been expanded to accommodate concerns beyond solely protecting the environment, such as those covered under the sustainability triple bottom line [20]. Therefore, sustainable tourism has three sustainability aspects based on the triple bottom line. First is the environmental aspect, which is related to essential ecological processes, conservations of natural heritage and biodiversity [21]. Second is the social-cultural aspects, which are related to crime, local culture, and crowding. The third is the economic aspect, which is related to foreign investors and the local labor market [22]. According to the World Tourism Organization (UNWTO) [23], the definition of sustainable tourism is: "Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities."

A typical example of sustainable tourism is rural tourism [11]. Lane [24] defined rural tourism as having five conditions. Understandably, the destination should be located in a rural area. Second, the community of the destination should have traditional societies and practices. Third, the area should be rural in scale (that is to say, a small-scale based society). Fourth, rural tourism development should make progress slowly and organically and should be controlled locally. Finally, rural tourism should contain a variety of aspects, including rural environment, economy, history, and location.

Researchers have been interested in studying the development of rural tourism for some time. Embacher [25] studied the marketing of agritourism. As tourism grew into a larger source of profit for the average farm, the term "farm holiday" was coined. Nationwide efforts started to be made to brand this emerging market. Clarke [26] sought to research the marketing structure of the Farm Holiday Bureau. There are three levels to the marketing structure: national office, local area group, and the individual provider. The head office engages in a more formal style of marketing while, on a smaller scale, individual providers utilize instinctive styles to promote themselves. Rural tourism contains many layers for which marketing purposes may vary, but these roles, when brought together as a system, should be fully symbiotic and sustainable [25,26].

Many approaches have been used in an effort to develop rural tourism. Byrd, Bosley, and Dronberger [27] identified the stakeholder categories as residents, entrepreneurs, tourists, and government officials. Their study tried to distinguish differences in stakeholders' attitudes. Iorio and Corsale [28] thought of ways in which a rural community could make rural tourism a stable income. Fons, Fierro, and Patino [11] made projections of possible paths that the industry could take using SWOT strategy analysis. Boley, McGehee, and Hammett [29] used the importance-performance analysis(IPA) to examine sustainable tourism through the eyes of a resident. After, researchers proposed initiatives for sustainable tourism development. Puska, Sadic, and Stojanovic [30] suggested a model that can evaluate rural touristic destinations in order to improve attractiveness. The evaluation

was conducted in three parts (economic and social factors, cultural and historical factors, and the natural-ecological environment).

There are also studies that have focused on tourists' behavior and the attributes of rural tourism. Pina and Delfa [31] made distinctions between accommodation in specific rural tourist destinations. Their research then made a cluster analysis based on tourists' features. Maestro, Gallego, and Requejo [32] conducted a study to see what kind of effect the attitude towards rural tourism had on the perceived quality and satisfaction of rural tourism accommodation. They found that the perceived quality of rural tourism accommodation was multidimensional. Attitude toward rural tourism affected tourists' impressions of the accommodation's quality, and the experience affected the relationship between the attitude and perception of quality. Loureiro [33] studied tourists of rural lodging sites to see how the rural tourism experience economy was affecting place attachment and behavior intentions. The behavior intentions variable consisted of the sharing of tourism experiences, passive recommendation of tourism, active recommendation of tourism (an unsolicited recommendation of tourism), and thoughts regarding revisitation. It was found that the rural experience economy affected pleasant arousal and memory factors. The two factors influenced place attachment and behavior intention. Although there have been steady efforts to research rural tourism in terms of its development and tourists' behavior so far, still few studies regarding the effect of social media on the rural tourism have been conducted. Thus, this study attempts to identify the effects of tourists' SNS use on the rural tourism for the sustainability.

2.2. Theory of Planned Behavior

Ajzen [34] developed the model known as the theory of planned behavior (TPB) not to predict, but to understand human behavior. People make decisions through a very complicated process. However, when there is intent to engage in behavior, there are three major variables at play that can be identified. The first is the attitude toward engaging in a behavior. The second is how others are likely to view the behavior, known as the subjective norm. The third is how much control a subject believes they have in engaging in a behavior, otherwise known as perceived behavior control.

Ajzen's TPB model has since been validated through much research (e.g., [14,35]) as well as through extensive application within the tourism area. Quintal, Lee, and Soutar [35] conducted a study regarding Asian tourism (Korea, China, and Japan) to Australia using the TPB model with "intent of visit" as the dependent variable. They also tested to see the effects of perceived risk and perceived uncertainty on the three variables (attitude, subjective norm, and perceived behavior control) described in the TPB model. For Japanese tourists, all three were affected, while for Korean and Chinese tourists, attitude was the only unaffected variable. Ajzen [34] also suggested that the travel decision-making process can be known through the use of the TPB model. Since then, tourism researchers have applied the TPB model behavior. Sparks [36] studied wine tourism. The TPB model was used to see if visitors would consider another wine trip within a year of their last visit. The researchers divided attitude into emotional attitude and attitude toward past wine holidays. The results showed that, with the exception of emotional attitude, other TPB factors had a direct effect. Jalivand and Samiei [14] examined the impact of electronic word of mouth (eWOM) on a tourism destination choice using the TPB model. According to the researchers, as WOM became more digitized, its effects were amplified, making it much more significant. To prove this point, a study was conducted on tourists visiting the Iranian city of Isfahan. The results showed that all TPB model paths were significant. Electronic WOM had an effect on attitude, subjective norm, and perceived behavior control.

As the TPB model was increasingly used for general tourism, there was also an increase in researchers who adopted the model to study sustainable tourism. Kuo and Dai [5] investigated low-carbon tourism behavior through the use of the TPB model. In the model, behavior intention meant intention to visit low-carbon tourism sites in the future. Then, the final dependent variable was decided as the preference for low-carbon tourism and transportation. Instead of working with tourists, Hamid and Isa [7] worked with entrepreneurs as their main subject. Using the TPB model,

the researchers asked tourism-related stakeholders about whether or not they had thoughts about participating in sustainable tourism, and showed what affected stakeholders' thoughts.

Meng and Choi [6] used the TPB model to study slow tourism. They created an extended TPB model by adding two more factors to the original: authentic perception and environmental concerns. It was found that the three factors of TPB (attitude, subjective norm, and perceived behavior control) had significant influences on behavior intention. Of the two additional factors, authentic perception was also found to have a notable impact. Lee and Jan [37] created a theoretical framework to investigate ecotourism behavior. The framework was composed of four theories, with TPB as one of them. As a result, all hypotheses related to the TPB model were supported. Eom and Han [38] applied the TPB to community-based tourism, which had social-cultural sustainability. The study aimed to examine the formation of tourists' participating intentions of a tour program and the moderating effects of gender and age. Ashraf, Hou, Kim, and Ashraf [39] developed a TPB model with resultant self-transcendence and conservation variables. The final dependent variable of the model was visiting intention toward ecofriendly tour destinations. From the literature review, this study suggests that the TPB model has been employed as a useful tool for investigating tourists' behavior. Thus, this study attempts to analyze the how attitude, perceived behavior control and subjective norm from TPB model have influenced on tourists' behavior for rural tourism.

2.3. Social Media and Tourism

People who promote tour destinations have determined the importance of social media. Most rural tourism businesses are too small to afford massive marketing [40]. However, even small tour destinations can use social media for promotion. So, social media promotion is especially important for rural tourism. It is easy to find promotions done via social media. Tourists get information from social media and upload information about trips.

Zeng and Gerritsen [41] conducted a bibliometric analysis of social media in tourism. They found that the amount of social media-related research in tourism quickly increased after 2010. They categorized research using six themes, including social media and tourists' behavior. Leung, Law, Van, and Buhalis [12] analyzed social media research in the tourism field conducted from 2007 to 2011. Their results showed that social media research was conducted regarding both supply and demand. On the demand side, lots of research investigated how social media affected people looking to make travel plans. On the supply side, there were many studies about social media being used as a strategy. Though, after 2010s, the social media studies for tourism have mainly focused on customer satisfaction and behavior, recently some new topics, such as eWOM, big data, online review, and digital marketing, have been adopted for the tourism research [42,43].

The following research was conducted to see the effect of social media on tourism. Xiang and Gretzel [13] found that social media plays a large role in the online tourism domain when people are making travel plans. Moreover, this research looked into the relationship between social media and key search queries used by tourists. Milano, Baggio, and Piattelli [8] measured to see the effect of Facebook and Twitter on the popularity of tourist websites. Their results showed that Facebook had a significant role in increasing the number of visitors to tourist websites. Fotis, Buhalis, and Rossides [44] tried to see the effect of social media on the process of planning a holiday trip. It was seen that the use of social media had an effect on tourists revising their initial plans. People used social media the most once their holidays were over, when they would share their travel experiences with others. Social media users believed travel information found on social media and created by other users to be more trustworthy than information from other sources. Narangajavana, Fiol, Tena, Artola, and Garcia [45] researched the relationship between social media use and tourist expectation. Tourists with a higher intensity of social media use viewed user-generated content as more frequently. Also, motivation for receiving user-generated content influenced the general reputation of user-generated content, and the heightened reputation in turn influenced tourists' expectations.

At times, researchers have studied social media marketing to provide useful insights for tourism marketers. Pesonen [9] compared small companies and big companies in their use of social media for marketing. The results showed that smaller companies generally either had a large amount of useless content or were far less developed. After examining the social marketing strategies of 10 of the most popular countries for international visits, Hays, Page, and Buhalis [10] spoke about what the right way to do social marketing. Kavoura and Stavrianea [46] saw social media's role as creating an online tourist community within the tourism industry, and spoke of the importance of marketing from this point of view.

Generally, people use social media for socializing and creating relationships, updating news, and searching for information [47]. The most common use of social media by tourists is posting tour pictures and experiences [44]. As the importance of social media use in tourism grows, researchers want to understand the motivation behind social media use [48,49]. Munar and Jacobsen [48] suggested that motivations for sharing online content included individual action and personal cognition, self-centered motivation, and community-related motivation. Kim and Fesenmaier [50] focused on the sharing of tourists' experiences. Through the social media of tourists, researchers were able to examine the relationship between the sharing of experiences and the rating of the experiences. Hausmann, Toivonen, Slotow, Tenkanen, Moilanen, Heikinheimo, and Di [51] used social media data to see if it was possible to check the preference of environment-friendly tourist sites. The social media data showed specific features. It was concluded that tourism-related content shared on social media is significant enough to be used in place of traditional surveys to provide research data.

3. Research Model and Hypothesis

The validity of the TPB model was affirmed through the literature review. Social media use influences travelers' decision-making processes [12]. Also, people who wanted to improve their image in the eyes of their neighbors had a high possibility of visiting a sustainable tourism destination [52]. Hence, this study proposed hypotheses to understand the rural tourism tourist with the TPB model and the role of social media use. Drawn from the literature review above, a research framework was formulated, as shown in Figure 1.
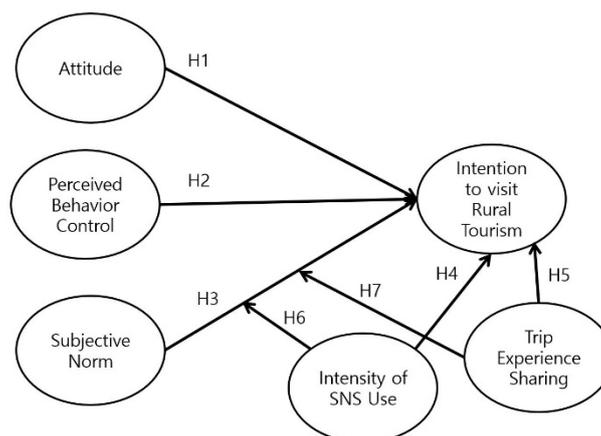

Figure 1. Theoretical model.

The following shows the research questions and hypotheses of this study.

Research Question 1. *Can the TPB model be applied to rural tourism?*

Hypothesis 1. *Attitude toward rural tourism will have a direct effect on tourists' intention to visit a rural tourism site.*

Hypothesis 2. *Perceived behavior will have a direct effect on tourists' intention to visit a rural tourism site.*

Hypothesis 3. *Subjective norm will have a direct effect on tourists' intention to visit a rural tourism site.*

Research Question 2. *How does social media use affect rural tourism in relation to the TPB model?*

Hypothesis 4. *Intensity of social media use will have a direct effect on the intention of tourists to visit a rural tourism site.*

Hypothesis 5. *Intensity of tourist trip experience sharing will have a direct effect on the intention of tourists to visit a rural tourism site.*

Hypothesis 6. *Intensity of social media use will have moderate effects on the subjective norm and intention relationship.*

Hypothesis 7. *Intensity of tourist trip experience sharing will have moderate effects on the subjective norm and intention relationship.*

4. Method

4.1. Sampling and Procedure

A partial least squares-structural equation model (PLS-SEM) was employed to test the theoretical model because the study model contained moderating path hypotheses. A PLS-SEM was employed for the following reasons. First, although the TPB model is a powerful model, the theoretical model includes new paths: H4, H5, H6, and H7. PLS is an appropriate method of analysis for exploratory and theory development [53]. Second, a PLS-SEM is suited for analyzing moderating effects. Chin, Marcolin, and Newsted [54] employed a PLS-SEM to test the moderating effect based on the product indicator method developed by Kenny and Judd [55]. Estimating the measurement model, structural model, and the moderating effect all at once is possible through the use of a PLS-SEM [56].

A sample of people living in South Korea participated in order to test the proposed hypotheses. The sample data were collected using an online survey. The study collected data through a top-ranking Korean internet survey firm which has a nationwide panel of over one million online. This study collected 323 responses from the participants over a one-week period in Nov 2019. Insincere respondents who completed the questionnaire too quickly and only checked answers in the same pattern for the purpose of reward were removed. Table 2 summarizes the characteristics of respondents. The data were analyzed with SPSS (Version 23.0, IBM Corp., Armonk, NY) and SmartPLS (Version 3, SmartPLS GmbH, Boenningstedt, Germany). As the model has only reflective factors, a consistent PLS analysis was conducted [57].

4.2. Measurement

Table 1 shows the study organized into number of questions used to measure the variables, as well as the papers that were referenced in the process of creating these questions. All questions were made up of a seven-point Likert scale.

Table 1. The measurement references.

Variable	Number	Reference
Attitude	5	[5,6,59,60]
Subjective norm	4	[5,6,59,60]
Perceived behavior control	4	[5,6]
Intention	4	[6,35]
Intensity of social media use	2	[45]
Trip experience sharing	2	[58]

Narangajavana, Fiol, Tena, Artola, and Garcia [45] set the intensity of social media use as an independent variable, which was comprised of how often people connect to social media and how many hours they spend on it. Boley, Magnini, and Tuten [58] explained that there is a relationship between trip picture posting behavior and buying souvenirs. To measure the trip picture posting variable, participants were asked whether or not they had used social networking sites to post and share travel photographs online.

Measurement of the TPB factors was devised with reference to the results of preexisting studies. In Quintal, Lee, and Soutar [35], tourists were asked if they had any intention of visiting a given tourism location within two years.

5. Results

5.1. Sample Profile

Table 2 summarizes the sample characteristics. The mean age of the sample was 39.3 years, and 48.9% of the sample were men, whereas 51.1% were women. More than half of the sample was not married (55.7%). Of the respondents, 24.8% had two children. In addition, 57.9% lived in the capital city (Seoul) or big cities. Income was low to medium, as 29.4% of the sample earned a monthly income of more than $3400. Most of the respondents had graduated from university and above (74.9%).

Table 2. Demographics of respondents (*n* = 323).

Demographics	Frequency	Percentage (%)
Sex		
Male	158	48.9
Female	165	51.1
Age		
20–29	78	24.1
30–39	80	24.8
40–49	84	26
50 and above	81	25.1
Marriage		
Married	143	44.3
Single	180	55.7
Child		
0	165	51.1
1	66	20.4
2	80	24.8
3	10	3.1
4	2	0.6

Table 2. *Cont.*

Demographics	Frequency	Percentage (%)
Education		
High school	34	10.5
College	47	14.6
University	199	61.6
Graduate school and above	43	13.3
Residential district		
Capital city (Seoul)	110	34.1
Political capital city (Sejong)	2	0.6
City	75	23.2
Rural	136	42.1
Monthly income		
$849 and below	36	11.1
$850–$1699	42	13.0
$1700–$2549	92	28.5
$2550–$3399	58	18.0
$3400–$4249	39	12.1
$4250–$5099	25	7.7
$5100 and above	31	9.6
Total	323	100.0

5.2. Measurement Model

This study ran confirmatory factor analysis using SmartPLS (Version 3, SmartPLS GmbH, Boenningstedt, Germany). Convergent validity and discriminant validity were used to evaluate the measurement model. Table 3 shows the results of the measurement model convergent validity statistics. For secure convergent validity, the statistics should meet the three permissible levels. First, all factor loadings should be bigger than 0.7. Second, composite reliability (CR) should be bigger than 0.7. Average variance extracted (AVE) of each latent variable should be bigger than 0.5 [61]. Both the factor loadings and composite reliability of all factors exceeded 0.7. The lowest value of AVE was 0.668. Cronbach's alpha should be larger than 0.7 [62]. Also, rho_A needs to be larger than 0.7. The results of the measurement model statistics denote that the model can be analyzed.

Table 3. The measurement model statistics.

Items	Cronbach's Alpha	Rho_A	Composite Reliability	AVE	Factor Loading
Attitude	0.940	0.943	0.940	0.798	
Going to rural tourism sites is good					0.869
Going to rural tourism sites is valuable					0.830
Going to rural tourism sites is beneficial					0.919
Going to rural tourism sites is enjoyable					0.950
Subjective norm	0.935	0.935	0.934	0.781	
Most people who are important to me think I should go to rural tourism sites					0.898
Most people who are important to me approve of me going to rural tourism sites					0.862
Most people who are important to me support that I go to rural tourism sites					0.876
Most people who are important to me agree with me about going to rural tourism sites					0.898
Perceived behavior control	0.854	0.860	0.857	0.668	
I am capable of going to rural tourism sites					0.823
I am confident that, if I want to, I can go to rural tourism sites					0.859
I have enough resources, time, and opportunities to go to rural tourism sites					0.766

Table 3. *Cont.*

Items	Cronbach's Alpha	Rho_A	Composite Reliability	AVE	Factor Loading
Intention	0.976	0.977	0.976	0.912	
I intend to travel to rural tourism sites in the next two years					0.982
I am planning to travel to rural tourism sites in the next two years					0.911
I will make an effort to travel to rural tourism sites in the next two years					0.955
I will certainly invest time and money to travel to rural tourism sites in the next two years					0.970
Intensity of SNS use	1	1	1	1	
How many hours do you spend per week on social media?					1
Trip experience sharing	0.914	0.930	0.919	0.851	
How often do you upload photos of your trip on SNS?					0.849
Do you write about your trip experience on SNS?					0.991
Subjective norm * Intensity of SNS use	1	0.869	1	1	
Subjective norm * Trip experience sharing	1	0.935	1	1	

Table 4 shows the result of the discriminant validity test. To get a discriminant validity, the square root of the AVE for each variable should exceed the inter-construct correlations [53,61]. It is easy to see that all factors have discriminant validity because all correlations are lower than the square roof of the AVE, the values for which are shown in bold. Also, the results of the model heterotrait-monotrait ratio (HTMT) indicate that all variables did not contain 1 between a 2.5–97.5% confidence interval. In conclusion, the study model gained acceptable discriminant validity for analysis.

Table 4. Discriminant validity.

Variables	1. Attitude	2. Intention	3. Perceived Behavior Control	4. Subjective Norm	5. Trip Experience Sharing	6. Subjective Norm * Trip Experience Sharing	7. Subjective Norm * Intensity of SNS Use	8. Intensity of SNS Use
1	**0.893**							
2	0.663	**0.955**						
3	0.670	0.640	**0.817**					
4	0.794	0.744	0.677	**0.884**				
5	0.312	0.337	0.333	0.383	**0.923**			
6	−0.049	0.040	−0.031	−0.115	0.013	**1.000**		
7	−0.048	−0.082	−0.133	−0.125	−0.069	0.401	**1.000**	
8	0.123	0.127	0.170	0.138	0.325	−0.067	−0.099	**1.000**

Note: Values on the diagonal (in bold) represent the square root of AVE; lower diagonal values indicate factor correlations.

Generally, a PLS-SEM does not use model fit indices, contrary to CB-SEM. To clarify, the model of goodness-of-fit (GOF) is an assessment tool that measures how well a model reproduces the covariance matrix among the indicators [63,64]. GOF values of 0.1, 0.25, and 0.36 indicate small, moderate, and large model fits, respectively [65,66]. The GOF of this study model came out to be 0.729, which suggests that it is highly applicable.

5.3. Structural Model

Multicollinearity between each of the endogenous variables should be confirmed absent prior to SEM analysis [67]. This can be shown by checking VIF(variance inflation factors) statistics. All VIF values of the model should be lower than 5 [68]. Inner VIF of the model was as follows: attitude 3.004; subjective norm 3.209; perceived behavior control 2.09; intensity of SNS-use 1.134; trip experience sharing 1.303; moderating variable of intensity of SNS-use 1.224; and moderating variable of trip experience sharing 1.240. All VIF values were not greater than 5.

Before looking in detail at the structural model result, we can check the predictive power of the study model. In this study model there was one endogenous variable: intention to visit a rural tourism

site. The R squared of the intention variable was 0.606 (R squared adjusted: 0.598). An R squared of 0.75 means relevant, 0.5 means moderate, and 0.25 means weak [69]. So, the R squared of this study model was moderate. The cross-validated redundancy can be confirmed by test Q2, where > 0 shows predictive relevance [33]. The test Q2 result of the study was 0.0501.

The results from Table 5 suggest that H2, H3, and H7 were supported. The findings demonstrate that the perceived behavior control and subjective norm variables have positive and significant effects on intention to visit rural tourism sites. The β values of perceived behavior control and subjective norm were 0.206 and 0.515. The T values were 2.454 and 5.526. The subjective norm variable was than twice the β value of perceived behavior control. The moderating effect of intensity of SNS-use was non-significant for subjective norm on visit intention, but the moderating effect of trip experience sharing was significant (β = 0.118, t = 2.886).

Table 5. Result of the structural model.

H	Path Estimate	Path Coeff(β)	T Statistics	*p*-Values	F Square
H1	Attitude > Intention	0.110	1.064	0.288	0.010
H2	Perceived behavior control > Intention	0.206	2.454 *	0.014	**0.052**
H3	Subjective norm > Intention	0.515	5.526 ***	0.000	**0.210**
H4	Intensity of SNS use > Intention	0.003	0.058	0.954	0.000
H5	Trip experience sharing > Intention	0.032	0.678	0.498	0.002
H6	Subjective norm * Intensity of SNS use > Intention	−0.031	0.656	0.512	0.002
H7	Subjective norm * Trip experience sharing > Intention	0.118	2.886 **	0.004	**0.032**

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ / F square (in bold) > 0.02.

The F square indices of 0.02, 0.15, and 0.35 indicate a small, medium, and large effect size, respectively [70]. It was observed that the values obtained for the perceived behavior control variables, and the moderating variable of trip experience sharing had a small effect size. The subjective norm variable had a medium effect on intention.

6. Discussion

Through the TPB model analysis of rural tourism, the role of social media use in the rural tourism decision-making process has been found. The TPB model has been used in numerous other studies regarding tourism, but this study is significant because of its application in studying sustainable tourism—more specifically, rural tourism. According to the TPB model results, Hypothesis 2 and 3 were supported, but not Hypothesis 1.

Attitude did not have any influence on tourists' intentions regarding rural tourism. Although, from their education, people have a positive image of rural tourism as a type of sustainable tourism, this image does not become a major motivating factor that leads to an actual tour. It might be that there is a considerable gap between tourists' certainty of the importance of sustainable tourism and their willingness to make personal sacrifices for the cause. Moreover, the image of overall tourism destinations has a significant effect on tourists' behavior intentions [71]. Unlike travel to popular locations represented by breathtaking monuments and sights to behold, rural tourism is a relatively modest experience without special images. Although it may have a positive social image, the attitude towards it may not be enough to sway tourists' intent.

The results showed that perceived behavior control has an influence on the intent of the consumer. Tourism is something that people can live without. Also, taking a trip requires time and money to spare. Sustainable tourism especially may be not a first choice for people who have not had a trip before. Therefore, if sustainable tourism is marketed, targeting the upper-middle class would be effective.

Intention to travel to rural sites was much more heavily affected by subjective norms. The same result was shown in research papers applying the TPB model to other sustainable tourism locations [6,14,39]. This indicates that creating a good public image of going to sustainable tourism sites is important in order to increase popularity.

This study investigated Hypotheses 4 to 7, because the study wanted to know how social media use affects rural tourism using the TPB model. Hypotheses 4 and 5 were not supported, which related to the social media use variables' direct effect on visit intention. The moderating effects of social media use were partly supported. Hypothesis 6 did not have a significant result. Hypothesis 7 was verified. As mentioned above, the factor that had the most influence within the TPB model was subjective norm. Therefore, it is important to understand the relationship between subjective norm and tourists' intent, as well as the moderating effect of social media. According to the results, frequency of use did not have a significant moderating effect between subjective norm and tourists' intent, but it was found that the sharing of trip experience did. What matters is how social media is used, not how often it is used. Long duration of social media use does not necessarily indicate the users' level of caring about other people, since the SNS platform can be used in such a large variety of ways.

7. Conclusions

This study revealed the decision-making process of rural tourism and role of social media in the process. When potential tourists consider rural tourism, what actually helps push visit intention is society atmosphere and circumstances of individuals. Thus, it can be said that, in order to assist the development of sustainable tourism, marketers should emphasize content related to subjective norms. Marketing strategies should cultivate a social mood and showcase functional benefits of rural/sustainable tourism itself instead of merely describing the appeals of specific tourist locations.

If marketers were to focus more on encouraging the sharing of tourism experiences, this could aid sustainable tourism growth. Developments could be made to help facilitate and encourage the act of sharing via social media. More physical evidence, such as enticing photo zones and monuments, are some examples. Also, marketers can host some events, including social media sharing activities, such as giving prizes when people upload posts. In particular, events that can lead to sustainable public benefits beyond personal experience may encourage more powerful subjective norm effects.

8. Limitations and Future Studies

This research used the TPB model to examine the influence of social media on rural tourism, but it had a couple limitations. First is a sample problem. Despite the using a large company which conducted the survey with nationwide sample in Korea, the survey method used in the study relied on self-reports. Since rural tourism in Korea has not yet been popular enough to be known to many tourists, we were not able to assess tourists who had experienced the rural tourism enough. Thus, that is, only relatively highly interested people who were willing to experience rural tourism participated in the survey, which makes it difficult to say that the subjects of this study represent a truly random sample and can be generalized. Every participant was a potential tourist mentally simulating the scenario of engaging in rural tourism, and not an actual tourist. Second, for the moderating effect, only two variables were considered: the duration of social media use and the sharing of experience. These are only two pieces of the bigger picture. Perhaps, in a future study, a more extensive study model could be developed consisting of a larger variety of representative variables that can be examined.

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