Journal of Hospitality & Tourism Studies

The effect of participation benefits on online travel community members' behavioral change: the moderating effect of extraversion

온라인 여행 커뮤니티 참여혜택이 커뮤니티 멤버의 행동변화에 미치는 효과: 외향성의 조절효과

정창윤* · 최수영** · 김인신***

Jeong, Chang-Yoon · Choi, Soo-Young · Kim, In-Sin

* 부산대학교 대학원 관광컨벤션학과 석사, ckam6585@gmail.com, 관심분야: 관광마케팅, 소비자 행동
** 부산대학교 관광컨벤션학과 연수연구원, sychoi@pusan.ac.kr, 관심분야: 관광마케팅, 관광경영
*** 부산대학교 관광컨벤션학과 교수, insin.kim@pusan.ac.kr, 관심분야: 온라인 관광, 관광자 행동, 컨벤션 경영(교신저자)

요약

본 연구의 목적은 온라인 여행 커뮤니티 멤버의 행동 변화의 원인을 파악하기 위한 이론적 모델을 통해, 온라인 여행 커뮤니티 멤버가 지각하는 참여 혜택이 온라인 여행 커뮤니티에 대한 멤버의 태도를 향상시키는 지 파악하고, 그러한 멤버의 태도가 지식 공유 및 오프라인 관계 형성 의지에 미치는 영향 관계를 알아보기 위함이다. 더불어, 온라인 여행 커뮤니티에 대한 태도와 지식공유의 관계에 대한 멤버의 외향성의 조절 효과 를 살펴보고자 함이다. 연구를 위한 표본은 국내 온라인여행커뮤니티 두 곳에 가입하여 활동하는 회원들이 며, 온라인설문조사기관을 통하여 표본으로부터 자료를 수집하였다. 총 391개의 응답자료를 이용하여 구조 방정식을 통해 분석한 결과, 온라인 여행 커뮤니티를 이용함으로써 지각된 혜택은 커뮤니티에 대한 태도에 긍정적인 영향을 미쳤고, 이러한 태도는 결과적으로 멤버의 지식공유와 오프라인 관계 형성 의지에 긍정적으 로 영향을 미치는 것으로 나타났다. 또한, 회원들의 외향성은 온라인여행커뮤니티에 대한 그들의 태도와 지 식공유의 관계에서만 긍정적인 조절효과를 보였으며, 태도와 오프라인 관계 형성 의지 사이의 관계에는 조절 효과를 나타내지 못하였다. 결과적으로, 커뮤니티가 제공하는 회원들의 혜택의 보장은 커뮤니티와 회원들 간 의 신뢰의 상승을 불러오며, 온라인과 오프라인에서의 회원들 간의 커뮤니케이션과 상호교류를 상승시키는 것으로 나타났다. 특히, 외향성이 높은 회원일수록 온라인 커뮤니티 내에서의 지식 공유 활동의 의도가 높은 것으로 나타났다. 이러한 연구결과는 온라인 여행 커뮤니티 운영자들이 성공적으로 커뮤니티를 운영하여 커 뮤니티의 지속성을 높이는데 기여한다.

ABSTRACT

The purpose of this study is to propose an integrated model in which theoretical relationships among constructs are derived, and the moderating effects of the personality trait of extraversion on the relationships are assumed. Specifically, this study empirically tested whether participation benefits as perceived by online travel community members influence attitude towards the online travel community and whether such attitude formed affects the members' subsequent behaviors such as knowledge sharing behaviors and willingness for an offline relationship. Furthermore, this study investigated the moderating roles of extroversion as a personality trait in the relationships of attitude with both knowledge sharing and willingness for an offline relationship. Data were collected from members of two online travel communities based on South Korea. Total 391 responses were used for further analysis. Through structural equation modeling, this study found that participation benefits significantly contribute to member attitude toward the online travel community which also are positively related to knowledge sharing and willingness for an offline relationship. Moreover, the results of multi-group analysis showed that extraversion positively moderates the relationship between attitude and knowledge sharing. The result of this study provides a better understanding of online community users' perspectives and behaviors for the travel industry.

I. Introduction

Over the decades, the Internet has brought substantial changes in the travel industry (Kunz & Seshadri, 2015). People are enabled to interact with others more about the commonality of their interests through online platforms (Wang & Fesenmaier, 2004). By providing the venue for online social interactions along with group participation experiences, online communities have dominated the travel industry as a travel information storage since Internet establishment (Choi et al., 2019; Hur, 2016; Park et al., 2013). Potential travelers who often roam around search engines or web portals for travel information or other travel tips may find online travel communities useful and valuable because of a relatively large volume of travel information provided by experienced travelers and then may eventually join one of the online communities they consider beneficial to them (Hur et al., 2017). In particular, online interpersonal interactions help online community members with not only their travel planning, but their decision-making processes related with tourism product consumption (Xiang & Gretzel, 2010). Marketing and Internet studies show that an online community plays a vital role as a place for consumers to interact and exchange information with other consumers, resulting in satisfying their needs on their own (Kim et al., 2013; Shang et al., 2006; Yoo & Kim, 2020). In business research, such consumer gratification resulting from fulfilling their needs and wants determine consumer attitudes towards online brand communities (Zhou, 2011). Moreover, in a global travel community, online relationships developed among its members are often led to offline ones (Kunz & Seshadri, 2015).

The success of online community management depends on how community operators or managers focus on providing the specific tangible/intangible factors that their members recognize as benefits (Wang & Fesenmaier, 2004; Nambisan & Baron, 2009). Thus, it is vital for online community managers or operators to know how benefits members perceive participating in an online travel community affect members' behavior which ultimately influences the reputation and sustainability of the online community (Agag & El-Masry, 2016). Moreover, by participating online community, members become not only information receivers but also information providers, reciprocally influencing their travel decision-making behaviors. It would be appropriate to investigate how community members benefit other members in the online community through their behavioral changes.

With the goal of better understanding online members' perceptions and behaviors in an online travel community setting, this study empirically tested whether participation benefits as perceived by online travel community members influence attitude towards the online travel community and whether such attitude formed affects the members' subsequent behaviors such as knowledge sharing behaviors and willingness for an offline relationship. Furthermore, this study investigated the moderating role of extroversion as a personality trait in the relationships of attitude with both knowledge sharing and willingness for an offline relationship. Despite many research on members' perceptions of online travel communities, little attention has been paid to their behavioral changes such as knowledge sharing and willingness for an offline relationship. Prior studies on online travel communities have focused how quality of information shared in online travel communities, usefulness of online travel communities, and community participation influence travel satisfaction (Choi & Lee, 2017a; Choi & Lee, 2017b), and the effect of participation benefits on wellbeing perception and word-of-mouth intentions (Karimova & Kim, 2020). Therefore, the results of this study contribute to the literature by providing a better understanding of online community members' perspectives. In addition, empirical evidence of the theoretical relationships suggested in the proposed model can help online travel communities achieve their goals such as the constant influx of new members and the increase of member retention for the successful operation of the online travel community.

II. Literature review

1. Online travel community

Rheingold (2001) defined virtual or online communities as "social aggregations that emerge from the Net when enough people carry on public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace (p. 6)." Raban and Rafaeli (2007) considered online travel communities as self-organizing systems that members could informally learn things through interactions with others by joining activities and discussions. Such online travel communities as Couchsurfing, Trip Advisor, and WAYN are platforms where travelers get information for their upcoming trips, find travel partners, seek or provide trip advice and share fun experiences. Since online travel communities began to get the spotlight as a key model of online marketing and e-commerce in the tourism industry, many scholars in the travel and tourism fields have raised issue of whether the online travel communities would be continuously operated successfully in a long-term. Wang and Fesenmaier (2004) argued that the successful operation of online travel communities relies on the extent to which members are involved in the online travel community. Indeed, the study conducted by Thorsonand Rodgers (2006) support the notion that interactivity of a website can affect website users' attitudes and behavioral intentions. In the same vein, Qu and Lee (2011) posited that the more community members participate in an online travel community observing and watching community activities and discussions, the more they perceive a sense of bonding with other members and, therefore, engage in community activities such as sharing information and knowledge, change their behavioral patterns, and promote community to others. Now that Internet access becomes ubiquitous and high-speed as mobile devices are widely used and commonplace, the future travelers may often find themselves going online for travel information, form online bonds with others, and, in some cases, even build face-to-face relationships with them (Kunz & Seshadri, 2015).

2. Perceived participation benefits

Perceived participation benefits of online travel communities are perceived needs that members seek by joining online communities (Kim & Lee, 2014; Wang & Fesenmaier, 2002; 2004). The online community members will try to fulfill their needs and perceive to feel benefited when their needs are met (Sicilia & Palazón, 2008; Wang & Fesenmaier, 2004). Wang and Fesenmaier (2002; 2004) focused on the online virtual community market in the tourism industry and proposed the concept of the online travel communities based on the key aspects of the community and a theoretical basis of community members' basic needs from members' viewpoint. The authors proposed a framework of participation benefits as perceived by community members which consists of four primary participation benefits: 'functional benefits,' 'social benefits,' 'psychological benefits,' and 'hedonic benefits' (Wang & Fesenmaier, 2002). These four types of the benefits contribute to define members' participation in the community and found be drivers of increasing the number of members participate in the online travel community (Wang & Fesenmaier, 2002). Other perceived benefits from the online brand community have also been studied (e.g., Dholakia et al., 2004; Yen et al., 2011). Sicilia and Palazón (2008) conducted research on consumer engagement by applying usage and satisfaction methods in the context of online brand communities and found that user involvement in virtual communities is facilitated by functional, social and entertainment values of the online community as perceived by members. Nambisan and Baron (2009) employed the uses and gratifications framework to study customer benefits from participating in the online community. They proved that customer participation is positively affected by four types of customer benefits: learning benefits (e.g., enhancing knowledge and obtaining information on products), social integrative benefits (e.g., expanding social network and enhancing a sense of belonging

and affiliation with the community), personal integrative benefits (e.g., reinforcing members' status and reputation in the community and enhancing the level of satisfaction by affecting others' product usage), and hedonic benefits (e.g., deriving fun, pleasure, and enjoyment in the community). Kuo and Feng (2013) investigated how the perceived member benefits drive members' community participation. The authors found that the main factors in forming members' community commitment include hedonic, social, and learning benefits. More recently, Karimova and Kim (2020) introduced three participation benefits of online travel communities (information quality, entertainment, and building social relationship) and asserted that such benefits are positively related to well-being perception and, in turn, word-of-mouth intentions.

3. Attitude toward the online travel community

Since the Internet has influenced life realms of a human being over the past decades, the concept of attitude also has become a representative in researches dealing with web-based issues in the information technology studies. McMillan et al. (2003) conducted an experimental study employing the Attitude toward the Site Scale (AST) by Chen and Wells (1999) to find predictors of attitude toward websites in a hotel and motel brand website setting. The authors found that perceived interactivity of websites and user involvement are stronger predictors of positive attitude toward the websites than website structural factors such as features and messages. Elliott and Speck (2005) found that all website factors (i.e., ease of use, entertainment, currency, product information, and trust) predict a favorable attitude toward a website. Researchers have studied several factors of social and consumer psychological issues as predictors of attitude to the online brand community. For instance, the amount of information needed (Shang et al., 2006), consumer experiences and decisions by search (Bronner & de Hoog, 2010), and needs and benefits (Zhou, 2011) were found to determine consumer attitude and engagement in the online brand community. This study proposed that, the more members obtain information efficiently and conveniently, develop social relationships with other members through communications, derive a sense of belonging and group affiliation in the communities, and deriving fun and pleasure while using the community, the more likely they perceive value of using the online travel community and hold favorable attitudes towards the communities.

Hypothesis 1: Participation benefits are positively related to attitude toward the online travel community.

4. Knowledge sharing

Knowledge sharing refers to "the combination of one or both parties seeking knowledge in response to the request, such that one or both parties are affected by the experience" (Ghosh & Scott, 2007: p. 4). The concept consists of donating and collecting knowledge (Lee, 2018; de Vries et al., 2006). In the context of online communities, knowledge sharing suggests members' willingness to share their know-how or experience with others (Qu & Lee, 2011), and happens when a member transfers knowledge to or obtains it from another member (Bilgihan et al., 2016). Based on the theory of serial reciprocity, in many circumstances where reciprocating is impossible, people tend to find a third party to return what they receive (Boulding, 1981). In an online travel community where members' actual identities may not be revealed to others, serial reciprocity in knowledge sharing often happens when one who has been helped by another are willing to share or donate his/her knowledge to a third-party member with in the community. This is true that for online travel community members sharing experiences and information are essential to help others by protecting them from purchasing wrong products and services (Munar & Jacobsen, 2014; Sarkar et al., 2013). Overall, this study hypothesizes that members who hold positive attitudes toward online travel communities after benefiting from the communities are more likely to share knowledge with other members of the communities, as follows.

Hypothesis 2: Attitude toward the online travel community is positively related to knowledge sharing.

5. Willingness for an offline relationship

Unlike virtual relationships which is formed based prior offline relations in social media such as Facebook (Boyd & Ellison, 2007; Ellison et al., 2007), social relationships in the online travel community have a unique characteristic that its members use a specific process before starting an offline relationship. Since online travel members mostly tend to perceive risk from meeting someone who have never met before in person (Ridings et al., 2002), they try to reduce uncertainty through checking up other members' profiles first (Kunz et al., 2011: Weiss et al., 2008). Interestingly, online travel community members tend to share high-level personal information without knowing each other offline (Sanchez-Franco & Rondan-Cataluña, 2010). This may allow the online travel community to provide its members with a great deal of opportunities to build, retain, and expand relationships between individuals and businesses (Kunz & Seshadri, 2015). When considering starting a potential offline relationship, the members first tend to closely examine other members' reputation within the community, communication history, and perceived similarities (Kunz & Seshadri, 2015). In other words, the members need to be assured of trustworthiness of the other members before attempting to meet them offline. Therefore, establishing offline relationships between community members requires preexisting online relations which convey trust and confidence between two parties derived within the community's value system (Kunz et al., 2011; Weiss et al., 2008). If a member is uncertain and distrust the community system, and do not feel positive attitudes toward the online community, meeting other members of the online community offline would not happen. In summary, this study assumes that positive attitudes based on favorable feelings toward an online travel community may induce certainty and reduce the risk of meeting strangers in person, which may increase the members' willingness to build an offline relationship.

Hypothesis 3: Attitude toward the online travel community is positively related to willingness for an offline relationship.

6. Moderating effects of extraversion

Extraversion is one of five personality factors identified by McDougall (1931). It emerged from the discipline of psychology. The five-factor model of personality also called the big-five personality traits comprised of five personality dimensions: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience (McDougall, 1931). Mainly, extroverted individuals have "a tendency of active, lively, sociable, assertive, dominant, surgent, venturesome, carefree, and sensation-seeking" (Eysenck et al., 1985: p. 15). Extroverts' high sociability and external oriented characteristics allow them to use the Internet as an extensive tool for broadening their networks (Flaherty et al., 1998). According to Hamburger and Ben-Artzi (2000), female extroverts are more likely to engage in social behaviors on the Internet such as chatting, having a discussion in groups, and solution-seeking from other Internet users while male extroverts tend to be more related to leisure services. Lucas et al. (2000) asserted a link between extroverted behavior, excitement behavior, and willingness to share information. The authors suggested that extroverted individuals tend to have interpersonal relationships and freely share information or ideas with others and, thus, actively take part in the brand community as consumers (Lucas et al., 2000). Amiel and Sargent (2004) also found that extroverted individuals are motivated to take part in the community because they (vs. non-extroverted ones) have a higher desire to voice up their opinions and have greater willingness to share information on the Internet. Moreover, it is argued that extroverts (vs. introverts) tend not only to develop relationships more effectively, but also to create broader social networks and gain more social support (Tamir et al., 2002). With this regard, it is posited that members of an online travel community member who show higher level of extraversion (vs. lower level of extraversion) are more likely to actively engage in community activities such as information sharing and communication with and less likely to be afraid to establish offline

relationships with other members of the community. Therefore, this study hypothesizes as follow.

Hypothesis 4a: Extraversion has a positive moderating effect on the relationship between attitude toward the online travel community and knowledge sharing.

Hypothesis 4b: Extraversion has a positive moderating effect on the relationship between attitude toward the online travel community and willingness for an offline relationship.
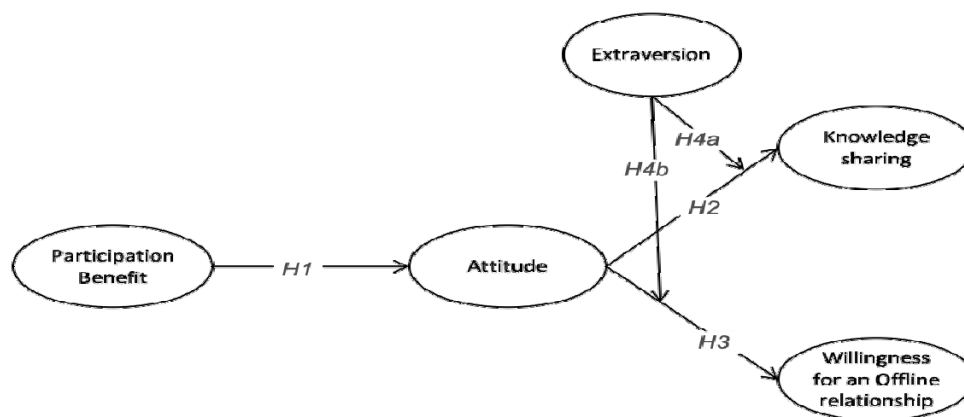
<Figure 1> Proposed model

III. Methodology

1. Measures

The items of each construct are derived from previous researches. Fourteen items of perceived participation benefits of the community members were adopted from Wang and Fesenmaier (2004), Hagel and Armstrong (1997), and Jeong (2008). Five items measuring attitude toward the online travel community were chosen from Thorson and Rodgers (2006) and revised for this study. Further, three items to measure knowledge sharing were brought from Qu and Lee (2011) and Koh and Kim (2004), and five items for willingness for an offline relationship were adopted from Kunz and Seshadri (2015). Lastly, four items for extraversion were adopted from the measurement of Tsai et al.'s (2012) study. Five-point Likert-type scales were used for all constructs. The scales for perceived participation benefits rage from 1 = "not at all important" to 5 = "extremely important," and those for the rest of the constructs from 1 = "strongly disagree," to 5 = "strongly agree."

2. Sampling and data collection

In the research, online travel community members are defined as Internet users who sign up for an online travel community and hold their own user accounts and handles/nicknames in the online community, and who have full read/write access on the community bulletin boards. To empirically test the proposed model, data was collected from members of online travel communities based in South Korea. The online survey was conducted during August 14 – 20, 2019 via dataSpring, an online research company. For online data collection, the researchers approached members of online travel communities such as Eurang.net and Taesarang and sent them survey invitation messages that provide survey purposes and a screening question (i.e., "Have you ever searched travel information and communicated with other members in any travel community of which you are a member before and during your trip?"). The researchers sent survey invitation

emails embedded a link to the web-based questionnaire only to the members who answered "yes" to the screening question. After excluding ineligible responses, 391 responses were utilized for deeper analysis.

IV. Results

1. Sample Characteristics

The demographic profile of the study sample is shown in Table 1.

<Table 1> Demographic profile of respondents (N=391)

Variables	n	%
Age		
20-29	184	47.1
30-39	162	41.4
40-49	24	6.1
50-59	15	3.9
60 and older	6	1.5
Gender		
Female	204	47.8
Male	187	52.2
Income (KRW)		
Less than 2,000,000	89	22.8
2,000,000 - 2,999,999	134	34.3
3,000,000 - 3,999,999	74	18.9
4,000,000 -4,999,999	57	14.6
More than 5,000,000	37	9.5
Occupation		
Office worker	226	57.8
Professional	69	17.6
Self-employed	16	4.1
Student	51	13.0
Housemaker	11	2.8
Other	18	4.6
The number of domestic trips for the past 3 years		
None	4	1.0
Once	43	11.0
2-3 times	202	51.7
More than 4 times	142	36.3
The number of overseas trips for the past 3 years		
None	12	3.1
Once	208	53.2
2-3 times	147	37.6
More than 4 times	24	6.1

Note: USD1=KRW1.166.

2. Measurement model

Following a two-step procedure recommended by Anderson and Gerbing (1988), the confirmation factor analysis (CFA) was conducted with 26 questions. The results showed that the measurement model fits the data well: χ^2=453.164,

$p<.001$; df = 183; comparative fit index (CFI) = .938; incremental fit index (IFI) = .939; Tucker-Lewis index (TLI) = .929; root mean square error of approximation (RMSEA) = .062 (Hair, Jr. et al., 2010).

As presented in Table 2, evidences of convergent validity were obtained. After dropping measurement items with factor loadings of less than .60 (5 from participation benefits and one from attitude toward the online travel community), factor loadings of 25 items ranged from .603 to .855 ($p<.001$) and the average variance extracted (AVE) for each of the constructs higher than the threshold of .50 (Bagozzi & Yi, 1988) indicate that convergent validity for the measurement scale items was achieved (Fornell & Larcker, 1981). Further, discriminant validity was assessed via CFA by comparing the square of the correlation coefficient for each pairwise of constructs with corresponding AVE values (Fornell & Larcker, 1981). As shown in Table 3, all of the AVEs were greater than the squared correlation coefficients, indicating that all constructs differed from one another. Hence, discriminant validity of this study was confirmed. Composite reliability of each of the constructs was ranged from .839 to .935, exceeding the threshold of .70. Such evidences of internal reliability prove that all of the constructs were consistent internally.

⟨Table 2⟩ Factor loadings of the measurement items

Construct and item	Factor loading	Cronbach's alpha
Participation benefits		.899
Seeking a sense of belonging	.736	
To be amused by other members	.706	
Efficient to communicate online	.651	
Establishing and keeping relationship with other members	.702	
Having fun	.753	
Convenient to communicate with others online	.603	
Seeking a sense of affiliation in the community	.737	
Seeking enjoyment	.759	
To be entertained	.717	
Attitude toward the online travel community		.812
I like this online travel community	.780	
Using this online travel community is good for me	.729	
Using this online travel community is valuable to me	.693	
I react favorably toward this online travel community	.677	
Knowledge sharing		.756
Provide useful information/knowledge for other travel community members	.729	
Eagerly reply to postings by the help-seeker of this community	.742	
Share my knowledge with other travel community members	.663	
Willingness for an offline relationship		.902
Be interesting to meet other members of the community in real life	.827	
Be fun to meet other members of the community at an offline event	.855	
Consider other members of the community as potential travel companions	.756	
Consider other members as potential dining companions on a trip	.776	
Can imagine touring some places with other members on a trip	.816	
Extraversion		.812
I see myself as someone who is talkative	.844	
I see myself as someone who generates a lot of enthusiasm	.834	
I see myself as someone who has an assertive personality	.804	
I see myself as someone who is outgoing	.723	

Note: All factor loadings were significant at $p<.01$.

<Table 3> Descriptive statistics and correlation mix

Construct	Mean (SD)	AVE	CR	1	2	3	4
1. Participation benefits	3.55 (.624)	.502	.935	1.000	.619[a]	.643	.339
2. Attitude	3.78 (.574)	.520	.857	.787[b]	1.000	.616	.213
3. Knowledge sharing	3.54 (.681)	.507	.839	.802	.785	1.000	.266
4. Willingness for an offline relationship	3.19 (.871)	.651	.895	.583	.462	.516	1.000

Notes: SD=standard deviation; AVE=average variance extracted; CR=composite reliability; [a] the squared correlation coefficients are above the diagonal; [b] the correlations are below the diagonal.

3. Structural model

Structural equation modeling (SEM) analysis was conducted to verify the research hypotheses of the proposed model. The model's fit indices show the goodness of fit to the data: $\chi^2=502.895$, $p<.001$; df=186; CFI=.927; IFI=.928; TLI=.928; RMSEA=.066.

The path coefficients of the causal relationships among constructs are shown in Table 4. The results indicate that participation is positively associated with attitude, which also increases knowledge sharing and willingness for an offline relationship. Specifically, perceived participation benefits had significant effects on attitude toward an online travel community ($\beta=.871$, $p<.01$), supporting *Hypothesis 1*; attitude toward an online travel community significantly predicted knowledge sharing ($\beta=.859$, $p<.01$) and willingness for an offline relationship ($\beta=.554$, $p<.01$), indicating *Hypotheses 2* and *3* were supported.

<Table 4> Standardized parameter estimates for the structural model.

Path	Standardized estimate	t-value	Result
Hypothesis 1: Participation benefits → Attitude	.871	9.141[**]	Supported
Hypothesis 2: Attitude → Knowledge sharing	.859	12.211[**]	Supported
Hypothesis 3: Attitude → Willingness for an offline relationship	.554	9.561[**]	Supported

[**]Sgnificant at $p<.01$.

4. Moderating effects

To test *Hypotheses 4a* and *4b*, multi-group analysis was conducted with high-extraversion group (n=183) and low-extraversion group (n=208) (Byrne, 2001). The two groups were divided according to the median of sum scores of the four items for 'extraversion' (Chandrashekaran & Grewal, 2003). To assess the differential effects of extraversion between the high-extraversion group and the low-extraversion group, a chi-square difference test was used to verify the difference between the chi-square statistics for a constrained model and an unconstrained model (Anderson & Gerbing, 1988). The results of multi-group analysis are shown in Table 5. Extroversion did not significantly moderate the relationship between attitude and knowledge sharing [$\Delta\chi^2(1)=.398$, $p>.05$]. Therefore, *Hypothesis 4a* was not supported. Meanwhile, Extroversion did have a moderating effect on the relationship between attitude and willingness for an offline relationship [$\Delta\chi^2(1)=4.067$, $p<.05$]. Therefore, *Hypothesis 4b* was also supported.

<Table 5> Test of moderating effects of extraversion

Path from attitude to	High-Extraversion group (n=183)		Low-Extraversion group (n=208)		Baseline model	Combined model
	Std. Est.	t-value	Std. Est.	t-value		
Knowledge sharing	.913	7.838[*]	.742	7.547[**]	$\chi^2(372)=691.253$	$\chi^2(373)=691.651$
Willingness for an offline relationship	.625	6.799[*]	.345	4.347[**]	$\chi^2(372)=691.253$	$\chi^2(373)=695.320$

Results of χ^2 difference test:

Hypothesis 4a: $\Delta\chi^2(1)=.398$, $p>.05$; rejected.

Hypothesis 4b: $\Delta\chi^2(1)=4.067$, $p<.05$; supported.

Note: Std. Est.: standard estimate; [**]Significant at $p<.01$.

V. Discussion

The purpose of this study was to propose an integrated model in which theoretical relationships among constructs were derived, and the moderating effects of the personality trait of extraversion on the relationships were assumed. The results of study may offer implications for community marketing and management in general.

First, participation benefits drive positive member attitude toward the online travel community. These findings support the results of Wang and Fesnmaier's (2004) study that community members' participation in the online travel community is motivated mainly by social and hedonic benefits, while the authors asserted that psychological benefits were not influential to member participation. Over the past decades, researchers have found that participating in online communities is affecting members by help them form and express member identification and affiliation (Walther, 1996), and community members access an online community in order to obtain information they are interested with (Oh, 2000). This study expanded the existing literature by empirically testing online member benefits in an online travel community setting. Based on the results, practical implications can be suggested to online travel community managers who hope for the long-term sustainability of online communities. The online travel community managers may hold periodic events such as giveaway or sweepstakes contests for the best travel story or photos to boost community participation and effectively communicate with community members in ways group affiliation and belongingness to the community members are best inspired and promoted.

Second, members' favorable attitude leads to members' behavioral change such as greater involvement in knowledge sharing in the community and greater willingness of an offline relationship. Specifically, members' attitude towards the online travel community bears a positive impact on knowledge sharing, supporting the notion that members who develop higher level of favorable attitudes are more likely to share their knowledge/information with other members and to put up postings to help other members. These findings are consistent with the results of Yang and Lai (2011)'s study that revealed that the positive significant coefficient was observed between an individual's attitude towards a web-platform and his/her knowledge-sharing intention. This study further expands behavioral and tourism literature by applying and testing the theory of serial reciprocity in an online travel community setting (Boulding, 1981). Serial reciprocity requires members' goodwill for other members. Even though members participating in the online travel community for fulfilling their own needs, they may end up showing reciprocal behavior to other members. This is how online communities successfully operate in the long-term. This study also showed that attitude toward the online travel community is positively associated with willingness for an offline relationship. That is, the more online community members are satisfied with and hold favorable attitudes toward the online travel community, the more they are likely to attend offline events to meet other members in person if they are given the chance and to travel together with other community members.

A willingness to share high-quality information with others online does not mean members are also willing to develop offline relationships unless trust between members is preceded. In this regard, online travel community managers need to focus on embedding more precise member profiling system services in the community so that community operations become more trustworthy and dependable supporting member interactions.

Third, the study results showed a significant moderating role of extraversion in the causal relationship between attitude toward the online travel community and willingness for an offline relationship, but not in the relationship between attitude toward the online travel community and knowledge sharing behavior. Indeed, among higher extroverted members (vs. lower extroverted members), favorable attitude toward the online travel community was found to be more effective in the formation of willingness for an offline relationship, indicating that extroverted members are willing to meet other online travel offline due to higher sociability. One plausible explanation for the nonsignificant moderating role of extraversion between attitude and knowledge sharing would be that online relationships do not require face-to-face contacts so that less extroverts or even introverts may be more actively involved in online community activities, compared to offline ones. Accordingly, the online travel community may need to execute different strategies to encourage offline relationships to promote member interactions. For example, they may host offline social events and occasions supported and promoted by the community to boost members' offline interactions as well as online counterparts to further online relationships between members.

This study has certain limitation. Online travel community members are mostly in their twenties and thirties, are more familiar with web contents and technologies, and get used to use social media, compared to older people. Future research may carefully apply the proposed model in order to present specific implications directing to different target segments of online community members. Additionally, the results of this study may show the generalizability issue, suggesting that future research may replicate the research model of this study in different cultural settings. This study provides an empirical analysis of community members' behavioral change intentions in the context of an online travel community in the travel and tourism industry, and, therefore, future research should consider the distinct characteristics of the particular theme of a given online community and consider the appropriate target population for that online community.

REFERENCES

Agag, G., & El-Masry, A. A.(2016). Understanding consumer intention to participate in online travel community and effects on consumer intention to purchase travel online and WOM: an integration of innovation diffusion theory and TAM with trust. *Computers in Human Behavior*, 60(July), 97-111.

Amiel, T., & Sargent, S. L.(2004). Individual differences in Internet usage motives. *Computers in Human Behavior*, 20(6), 711-726.

Anderson, J. C., & Gerbing, D. W.(1988). Structural equation modeling in practice: a review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.

Bagozzi, R. P., & Yi, Y.(1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74-94.

Bilgihan, A., Barreda, A., Okumus, F., & Nusair, K.(2016). Consumer perception of knowledge-sharing in travel-related online social networks. *Tourism Management*, 52(February), 287-296.

Boulding, K. E.(1981). *A Preface to Grants Economics: The Economy of Love and Fear*, New York, NY: Praeger.

Boyd, D. M., & Ellison, N. B.(2007). Social network sites: definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 12(1), 210-230.

Bronner, F., & De Hoog, R.(2010). Consumer-generated versus marketer-generated websites in consumer decision making. *International Journal of Market Research*, 52(2), 231-248.

Byrne, B. M.(2001). *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming*, Hillsdale, NJ: Erlbaum.

Chandrashekaran, R., & Grewal, D. (2003). Assimilation of advertised reference prices: the moderating role of involvement. *Journal of Retailing*, 79(1), 53-62.

Chen, Q., & Wells, W. D. (1999). Attitude toward the site. *Journal of Advertising Research*, 39(5), 27-37.

Choi, S., Kim, I., Cha, K., Suh, Y. K., & Kim, K. H. (2019). Travelers' parasocial interactions in online travel communities. *Journal of Travel & Tourism Marketing*, 36(8), 888-904.

Choi, S., & Lee., S. (2017a). Roles of online travel communities in travel experience: effects of community usefulness, parasocial interaction, and community participation. *International Journal of Tourism Management and Sciences*, 32(6), 211-232.

Choi, S., & Lee., S. (2017b). Understanding knowledge sharing in online travel community during the trip: effects of community participation and quality of shared knowledge on travel satisfaction. *Korean Journal of Hospitality & Tourism*, 26(2), 153-169.

de Vries, R. E., van den Hooff, B., & de Ridder, J. A. (2006). Explaining knowledge sharing: the role of team communication styles, job satisfaction, and performance beliefs. *Communication Research*, 33(2), 115-135.

Dholakia, U. M., Bagozzi, R. P., & Pearo, L. K. (2004). A social influence model of consumer participation in network-and small-group-based virtual communities. *International Journal of Research in Marketing*, 21(3), 241-263.

Elliott, M. T., & Speck, P. S. (2005). Factors that affect attitude toward a retail web site. *Journal of Marketing Theory and Practice*, 13(1), 40-51.

Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends": social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4), 1143-1168.

Eysenck, S. B., Eysenck, H. J., & Barrett, P. (1985). A revised version of the psychoticism scale. *Personality and Individual Differences*, 6(1), 21-29.

Flaherty, L. M., Pearce, K. J., & Rubin, R. B. (1998). Internet and face-to-face communication: not functional alternatives. *Communication Quarterly*, 46(3), 250-268.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.

Ghosh, B. & Scott, J. E. (2007), Effective knowledge management systems for a clinical nursing setting. *Management Information Systems*, 24(1), 73-84.

Hair, Jr., J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis: A Global Perspective,* (7th ed.), Upper Saddle River, NJ: Pearson Prentice Hall.

Hamburger, Y. A., & Ben-Artzi, E. (2000). The relationship between extraversion and neuroticism and the different uses of the Internet. *Computers in Human Behavior*, 16(4), 441-449.

Hagel, J., & Armstrong, A. (1997). *Net Gain*. Boston, MA: Harvard Business School Press.

Hur, K. (2016). Influence of network characteristics and information quality of social media on the travel information sharing of social media users: focusing on source credibility. *Journal of Hospitality and Tourism Studies*, 18(3), 22-39.

Hur, K., Kim, T. T., Karatepe, O. M., & Lee, G. (2017). An exploration of the factors influencing social media continuance usage and information sharing intentions among Korean travellers. *Tourism Management*, 63(December), 170-178.

Jeong, S. (2008). Collective production of public goods in online travel communities. *Information Technology & Tourism*, 10(4), 355-373.

Karimova, M., & Kim, I. (2020). The effect of online travel community members' well-being perception via their benefits on word of mouth. *Northeast Asia Tourism Research*, 16(3), 65-84.

Kim, T. K., Jung, S. K., & Jo, K. (2013). The effect of social network service tourism information quality on information trust, information satisfaction and knowledge sharing. *Journal of Hospitality and Tourism Studies*, 15(4), 1-13.

Kim, H. S., & Lee, C. K. (2014). The effect of social media benefits as tourism information source on perceived value, satisfaction, and adoption: the case of Rail-ro travelers of university students. *Journal of Hospitality and Tourism Studies*, 16(3), 23-40.

Koh, J., & Kim, Y.-G. (2004). Knowledge sharing in virtual communities: an e-business perspective. *Expert Systems with Applications*, 26(2), 155-166.

Kunz, W., & Seshadri, S. (2015). From virtual travelers to real friends: relationship-building insights from an online travel

community. *Journal of Business Research*, 68(9), 1822-1828.

Kunz, W., Schmitt, B., & Meyer, A.(2011). How does perceived firm innovativeness affect the consumer? *Journal of Business Research*, 64(8), 816-822.

Kuo, Y. F., & Feng, L. H.(2013). Relationships among community interaction characteristics, perceived benefits, community commitment, and oppositional brand loyalty in online brand communities. *International Journal of Information Management*, 33(6), 948-962.

Lee, S.-W.(2018). The effects of creating shared value on psychological ownership and knowledge sharing behavior by hotel. *Journal of Hospitality and Tourism Studies*, 20(2), 46-56.

Lucas, R. E., Diener, E., Grob, A., Suh, E. M., & Shao, L.(2000). Cross-cultural evidence for the fundamental features of extraversion. *Journal of Personality and Social Psychology*, 79(3), 452-468.

McDougall, W.(1932). Of the words character and personality: character & personality. *A Quarterly for Psychodiagnostic & Allied Studies*, 1, 3-16.

McMillan, S. J., Hwang, J. S., & Lee, G.(2003). Effects of structural and perceptual factors on attitudes toward the website. *Journal of Advertising Research*, 43(4), 400-409.

Munar, A. M., & Jacobsen, J. K. S.(2014). Motivations for sharing tourism experiences through social media. *Tourism Management*, 43(August), 46-54.

Nambisan, S., & Baron, R. A.(2009). Virtual customer environments: testing a model of voluntary participation in value co-creation activities. *Journal of Product Innovation Management*, 26(4), 388-406.

Oh, H.(2000). Diners' perceptions of quality, value and satisfaction. *Cornell Hotel and Restaurant Administration Quarterly*, 41(3), 58-66.

Park, J. S., Yun, J. Y., & Lee, J. Y.(2013). A study on the effect of SNS characteristics on the purchase intentions of tour program. *Journal of Hospitality and Tourism Studies*, 15(2), 438-449.

Qu, H., & Lee, H.(2011). Travelers' social identification and membership behaviors in online travel community. *Tourism Management*, 32(6), 1262-1270.

Raban, D. R., & Rafaeli, S.(2007). Investigating ownership and the willingness to share information online. *Computers in Human Behavior*, 23(5), 2367-2382.

Rheingold, H.(2001). The virtual community. In D. Trend (Eds.), *Reading Digital Culture* (pp. 272-280), Malden, MA: Blackwell.

Ridings, C. M., Gefen, D., & Arinze, B.(2002). Some antecedents and effects of trust in virtual communities. *The Journal of Strategic Information Systems*, 11(3-4), 271-295.

Sanchez-Franco, M. J., & Rondan-Cataluña, F. J.(2010). Virtual travel communities and customer loyalty: customer purchase involvement and web site design. *Electronic Commerce Research and Applications*, 9(2), 171-182.

Sarkar, S. K., Au, N., & Law, R.(2013). Analysing ecotourists' satisfaction in socialisation and knowledge sharing intentions via social media. In Z. Xiang & I. Tussyadiah (Eds.), *Information and Communication Technologies in Tourism* 2014 (pp. 313-326), Switzerland: Springer.

Shang, R. A., Chen, Y. C., & Liao, H. J.(2006). The value of participation in virtual consumer communities on brand loyalty. *Internet Research*, 16(4), 398-418.

Sicilia, M., & Palazón, M.(2008). Brand communities on the Internet: a case study of Coca-Cola's Spanish virtual community. *Corporate Communications: An International Journal*, 13(3), 255-270.

Tamir, M., Robinson, M. D., & Clore, G. L.(2002). The epistemic benefits of trait-consistent mood states: an analysis of extraversion and mood. *Journal of Personality and Social Psychology*, 83(3), 663-677.

Thorson, K. S., & Rodgers, S.(2006). Relationships between blogs as eWOM and interactivity, perceived interactivity, and parasocial interaction. *Journal of Interactive Advertising*, 6(2), 5-44.

Tsai, H. T., Huang, H. C., & Chiu, Y. L.(2012). Brand community participation in Taiwan: examining the roles of individual-, group-, and relationship-level antecedents. *Journal of Business Research*, 65(5), 676-684.

Walther, J. B.(1996). Computer-mediated communication: impersonal, interpersonal, and hyperpersonal interaction. *Communication Research*, 23(1), 3-43.

Wang, Y., & Fesenmaier, D. R.(2002). Measuring members' needs and their effects on involvement in a virtual community:

an empirical study of an online travel community. In K. Wöer, A. J. Frew, & M. Hitz (Eds.), *Information and Communication Technologies in Tourism 2002* (pp. 105–114). Wien, Austria: Springer-Verlag.

Wang, Y., & Fesenmaier, D. R.(2004). Towards understanding members' general participation in and active contribution to an online travel community. *Tourism Management*, 25(6), 709–722.

Wang, Y., Yu, Q., & Fesenmaier, D. R.(2002). Defining the virtual tourist community: implications for tourism marketing. *Tourism Management*, 23(4), 407–417.

Weiss, A. M., Lurie, N. H., & MacInnis, D. J.(2008). Listening to strangers: whose responses are valuable, how valuable are they, and why? *Journal of Marketing Research*, 45(4), 425–436.

Xiang, Z., & Gretzel, U.(2010). Role of social media in online travel information search. *Tourism Management*, 31(2), 179–188.

Yang, H. L., & Lai, C. Y.(2011). Understanding knowledge-sharing behaviour in Wikipedia. *Behaviour & Information Technology*, 30(1), 131–142.

Yen, H. R., Hsu, S. H. Y., & Huang, C. Y.(2011). Good soldiers on the Web: understanding the drivers of participation in online communities of consumption. *International Journal of Electronic Commerce*, 15(4), 89–120.

Yoo, Y., & Kim, I.(2020). Influence of motivation for travelers' online community usage on satisfaction and its impact on intention to follow the advice: the moderating role of travel frequency. *International Journal of Tourism Management and Sciences*, 35(6), 1–18.

Zhou, T.(2011). Understanding online community user participation: a social influence perspective. *Internet Research*, 21(1), 67–81.