# Predicting How Trust on eWOM Influences Consumer Purchase Intentions toward Group Package Tours in Tourism Social Networks

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**Abstract:** The applications of electronic word-of-mouth (eWOM) in the tourism social networks (TSNs) can not only enhance the corporate image of travel agencies and or tourism firms, but also promote the revisiting rate of sightseeing spots as well as facilitate the potential business opportunities in the tourism industry. However, there is rare literature investigating how trust on eWOM in TSNs influences consumers' purchase intentions toward group package tours (GPTs). By integrating the theoretical perspective of technology acceptance model (TAM) with the construct of trust on eWOM in TSNs, the study developed a nomological framework to examine the causal relationships among the critical influencing antecedents on online consumer attitudes and purchase intentions toward GPTs in the fast-growing TSNs. The analytical results indicate that: (1) trust on eWOM in TSNs has a positive impact on perceived usefulness, perceived ease of use and consumer attitudes toward GPTs; (2) perceived usefulness and perceived ease of use will positively affect consumers' attitudes and purchase intentions toward GPTs; (3) consumer attitudes will positively affect their purchase intentions toward GPTs in TSNs. The research findings are expected to provide practical implications for the marketers and managers of TSNs and travel agencies and help the tourism industry to gain new insights regarding the potential values of eWOM.

**Key words:** Tourism social network, eWOM, group package tour, perceived usefulness, perceived ease of use, purchase intention.

# 1. Introduction

In today's cloud computing era, the booming of e-commerce has driven rapid advances in emerging business applications and created noteworthy market opportunities that are characterized by the elimination of time and spatial limits [1]. As with the exponential growth of smart handheld devices and virtual communities, social networking sites (SNSs) such as Facebook, Friendster, CyWorld, and MySpace have not only brought people closer to each other, but also integrated the virtual and physical interpersonal communication, social interaction and information sharing together. The applications of SNSs have become a new hybrid component of integrated marketing communications that allow modern enterprises to establish strong relationships with their consumers [2]. This evolving trend is becoming an indispensable part of modern people's lives [3]. The tourism industry also need to follow this trend to survive in the competitive and global business environment. From the viewpoint of travel agencies and tourism firms, the

establishment of tourism social networks (TSNs) can provide consumers with a free cyberspace to exchange their multi-media information (e.g., words, images and virtual realities) about their travel experiences [4]. In such way, tourism practitioners can attract more purchases, facilitate the communication about group package tours (GPTs) information, provide customer services and promote marketing and sales via this kind of synergistic platforms of sightseeing, leisure and recreation [5].

As mobile devices become popular and SNSs are widespread and adopted by diverse populations throughout the world, a growing number of modern people actively engage in this kind of virtual social networks [6]. With the omnipresent location-based social network services, users release dynamic information by various positioning functions, make friends via the online attendance service, generate the imagery of and even the intentions to explore new attraction areas and visit particular places for recreation, leisure or tourism after browsing related tourism information [7,8]. This is why travel agencies and tourism firms have developed the new marketing technique—sign in for discounts—which imperceptibly exerts the free advertising effect and exposes the tourism merchants and scenic spots more extensively in the virtual world. Due to the rapid transmission of tourism information, TSNs can provide more creative and realistic information than traditional information transmission media. Specifically, in recent years, the TSN users increase quickly and a great many tourism practitioners improve their service quality and customer satisfaction through their exposure rates in such kind of SNSs [9]. When choosing tourism destinations, consumers do not just rely on traditional sources of tourism information any more, but also collect a large amount of information about tourism destinations through TSNs which are characterized by convenience, instantaneity, and freedom from temporal and spatial constraints. By the all-pervading feature of information communication, TSN operators can help online tourism consumers browse a lot of other people's personal travel experience, leave comments and opinions, and exchange with other social network members and thereby enhance the purchase intention for their own GPTs [10], [11].

As a matter of fact, the tourism information exchange and transmission in TSNs influences online consumers' impressions and attitudes toward tourism destinations. While the potential values of eWOM are critical for today's tourism industry, trust on eWOM in TSNs has received relatively little attention in the tourism literature, and there is a dearth of theoretical literature in this field. Also, unexpectedly little effort has been devoted to improving our understanding of the impacts of trust on eWOM on consumers' perceptions on usefulness and ease of use about TSNs that may further impact their consumption attitudes toward and purchase intentions toward GPTs in TSNs. As a result, by integrating consumers' trust on eWOM in TSNs as the potential antecedent variable, this study extended the theoretical perspective of technology acceptance model (TAM) to explore the casual relationships among trust on eWOM, perceived usefulness (PU) and perceived ease of use, consumer attitudes toward GPTs in TSNs? (2) How will perceived usefulness, perceived ease of use, consumer attitudes toward GPTs in TSNs? (3) How will trust on eWOM, perceived usefulness, perceived ease of use, and consumers' purchase intentions toward GPTs in TSNs? (3) How will trust on eWOM, perceived usefulness, perceived ease of use, and consumers' purchase intentions toward GPTs in TSNs?

### 2. Literature Review

### 2.1. Consumers' Purchasing Behaviors toward GPTs

Travel services belonging to GPTs are intangible, non-storable, homogeneous, unique and interdependent, consist of experience attributes, and are typically quite complicated [12]. As a sort of tourism services, group package tours (GPTs) are mostly enjoyed after payment. Whether GPTs are good or bad, the experience values can be perceived only after the tours are finished. The values of GPTs lie in that such tour

products meet the consumer or needs in tourist activities, including individual physical and mental needs like spiritual development and enjoyment. However, high-quality products do not necessarily mean a high price or exclusive honor is a synonym for being worth more than the money paid and customer satisfaction [13]. From the marketing perspectives of leisure tourism practitioners, the first step for successful marketing is to understand the consumer behaviors toward GPT products/services. In general, when consumers make decisions about GPT consumption or purchase, GPT information is transmitted by tourism practitioners to consumers who collect and sort out related GPT information, generate the purchase motivation, and finally perform the actual consumption behavior.

According to prior literature regarding consumer behavior model (e.g., [14]-[17]), buying products and making consumption decisions are an integral part of consumer behavior. Blackwell, *et al.* [14] pointed out consumer behavior is a continuous process. It emphasized centering on the consumer decision making process to solve problems related to purchase behavior. Through the interaction among related internal and external factors, consumer behavior consists of all human behavioral elements (i.e. information input, information processing, decision making process and variables influencing the decision-making process) that go in making before and post purchase decisions. Information input refers to the information stimuli that consumers received mainly from the marketing led by merchants or from consumers' external search for information to solve problems. Information processing was defined as follows: when consumers realized their own problems or needs, they began to access, notice, understand, accept and retain the information related to their problems, etc. The purchase behavior and consumption decision making process were the core of consumer behavior model, involving five stages: confirmation of needs, search for information, assessment of feasible plans, decision about purchase, post-purchase behavior [18].

Specifically, when choosing GPTs, consumers will gain some knowledge about the products in advance. Consumer purchase behavior is an act of adjustment which varies according to internal and external factors. Different purchase intentions may arise after comparison and assessment. Considering in the theoretical perspective of our research context and the core theme of this current study, when online consumers received a large amount of positive eWOM information in TSNs, they would have considerable trust on these websites, perceive greater usefulness and ease of use about these websites, feel more positive about consuming the GPT products, and thereby generate stronger purchase intention for the GPTs on these websites. Therefore, in the modern times of omnipresent and prosperous social networking commerce, consumers could exchange and transmit tourism information in TSNs. These critical influencing factors (i.e. trust on eWOM, perceived usefulness and perceived ease of use regarding TSNs) would shape their impression about and attitudes and purchase intentions toward tourism destinations and GPTs.

#### 2.2. Trust on eWOM in Tourism Social Networks

Nowadays, with the development and popularization of network communication technology, social networking sites (SNSs) provide a platform for interpersonal information communication. Information transmission behaviors can be performed on forums, BBS, social network discussion areas and other virtual platforms [19]. Therefore, many consumers communicate and share product information with other consumers by posts and written responses on the virtual social network platform. Social network service normally refers to a kind of website that is consisted of many personal profiles. These personal profiles are continuously and publicly commented by other users, and they are always interrelated and interlinked. SNSs allow users to create their personal or professional profiles and thereby connect with these users. And the users themselves wish to be connected or contacted by others. So, this is one way of social gathering on the Internet. When a sufficient number of users engage in public long-term full discussions and emotional exchanges in the cyberspace, an online social network is formed with computer as the unit [20].

In the era of social network marketing, eWOM in SNSs has become one of the most important commercial

marketing strategies. More and more consumers, when consuming products or making purchase decisions, would refer to eWOM in SNSs which then influenced their consuming attitudes and actual purchase behaviors [21]. Cheung and Thadani [22] defined eWOM as any positive or negative comments about products or companies made by prospective, existing or previous customers by Internet. Because of the anonymous yet extensively public comments and information on the Internet, the eWOM marketing is constantly gaining momentum. Before purchasing GPTs, consumers read the discussions and comments of other consumers on the TSNs and acquire more information about tour products, which influences consumers' choice and purchase of products. As network communication technology develops rapidly, eWOM becomes an important and powerful tool of information transmission for certain industries in the market [6].

While making consumption or purchase decisions in TSNs, consumers can collect more tourism materials or eWOM information in various ways to reduce their perceived risks. Numerous tourists tend to search for related tourism or scenic spots information in TSNs. The more strongly individuals believe the information sources of TSNs to be professional and credible, the more easily their decision about and attitude toward consuming GPTs will be influenced. In the meantime, the more trust individuals have in eWOM in TSNs, the more easily their consumption attitude toward and purchase intention for GPTs will be influenced [23]. But what actually influences their final decision, attitude, behavior and intention regarding GPT consumption is that eWOM arouses considerable trust on them. Therefore, trust on eWOM in TSNs plays a crucial role as a marketing tool when online consumers purchase GPTs. In this study, we define trust on eWOM in TSNs as the willingness of online consumers to accept certain risks based on their positive expectation of eWOM in TSNs. TSNs could collect eWOM information of the past and present. However, as time went by, consumers might wonder if the previously-described eWOM was still trustworthy [24]-[26]. The timeliness of eWOM content is thus a critical dimension to measure trust on eWOM. Moreover, given that the information of eWOM in TSNs are from different informants who are perhaps separated by many demographic groups with different viewpoints. Whether the information sources are professional, credible and reliable, evaluation scores of eWOM and reputation of eWOM providers might be two critical factors influencing the acceptance of online consumers [27]. In this study, we delved into previous tourism-related literature regarding trust on eWOM, used the construct as the core antecedent variable, and identified three dimensions about the construct of trust on eWOM including content timeliness, evaluation scores, and reputation of eWOM providers.

## 2.3. Integrated Trust on eWOM with Technology Acceptance Model (TAM)

eWOM in SNSs that conveys consumers' experience and views spreads in the online social networks and thus forms the public opinion. Its influence on the transformation from negative consumer attitudes to positive ones is nine times stronger than the advertising effect of traditional media. The main reason for this is that opinion leaders have rich knowledge about and higher-level engagement in products, evaluate product information impartially and objectively, and have market influence [28]. Chambliss and Schutt [29] indicated that SNSs were one kind of network-based interpersonal relationship with the functions of socialization, support, information, sense of belonging and social identification; while such newly-emerging cloud network services as SNSs were more able to equip consumers with a virtual space to communicate and share information rapidly. Inspired by this emerging phenomena, tourism practitioners began to ponder over how to utilize the information transmission feature of TSNs and adopt trust on eWOM as the new advertising marketing method with a small amount of money to actualize zero-distance consumer interactions in the tourism marketing and promotion processes [30]. Correspondingly, online consumers can browse eWOM information through the convenient platform and share their views about and discussed over specific topics on travels and scenic spots based on what other consumers shared regarding GPTs,

scenic spots and travel experiences on the TSNs. This was an important direction for the tourism practitioners in the omnipresent intelligent network era to adjust their current marketing strategies [6].

According to the social networking theory, trust could transfer from one individual to another in the network and individuals would be influenced by others due to the trust level of an entity. This theory even proposed that eWOM was one of the most important informal communication and dissemination channels to spread market, marketing and promotion information targeted at services or products [31]. The trust on social networks referred to an individual's expectation of and belief in others. In the social networking environment, an individual believed that others had good intention toward himself or herself and he or she could rely on or trust others' ideas and viewpoints. Trust existed in the interdependent relationships among people [32]. The process of interpersonal interaction and relationship development had to be based on trust. In case of incomplete information and risks, interpersonal communication could be complemented by various information transmissions so that individuals could perceive trust deep inside during interpersonal interaction [33]. The trust on social networks was regarded as an individual's ability and consent to act on the best trusted interests when he or she could choose freely in his or her interpersonal networks and connections. Kuan and Bock [34] pointed out that the trust on social networks referred to an individual's belief in others' good intention in the social networking environment; namely in the risky situation, an individual believed that others' expectations were trustworthy and predictable and had trusted and positive expectation of others' motivation. Therefore, the trust on social networks could pass the information to others by eWOM in informal information channels. In the cyber world, the transfer of trust occurred at the initial stage. Generally, consumers felt uncertain about the websites and their trust on the website information might be influenced by the eWOM they themselves collected [35]. In the all-pervading cloud network era, when consumers accept and trust the eWOM in TSNs, it indicates consumers are willing to undertake the risks therein and purchase the GPTs recommended or displayed on the TSNs.

In technology acceptance model (TAM), external variables mainly referred to the external factors that might influence users' perceived usefulness and perceived ease of use (such as users' personal variables, system attributes and environmental variables). Different external variables might be selected, depending on the features and usages of information technology [36]. Perceived usefulness was defined as the degree to which a person believes that using a particular information system would enhance his or her job performance. The greater usefulness users perceived of an information system, the more positive their attitude was toward adopting this system [37]. Perceived ease of use was defined as the degree to which a person believes that using a particular system would be free from effort. The easier an information system was to use and operate, the more positive attitude users would hold toward adopting this system [38]. Additionally, adoption attitude referred to users' overall evaluation of consistent preference for and aversion to a particular object based on their previous learning experience and results. Whereas adoption intention referred to users' behavioral tendency to use a particular technology system. Generally speaking, when users felt that using an information system could be easy and effortless and improve work efficiency, they would have a positive tendency to use this technology system and then strong intention to use this particular system.

According to Davis [39], when users subjectively considered a particular information system easy to use and helpful for their work with the same efforts, they would hold a positive attitude toward this system. While perceived ease of use was explained as the degree to which users subjectively believed using a particular information system could save time and effort. Regarding consumption attitude, Fishbein and Ajzen [40] pointed out in their theory of reasoned action (TRA) that behavioral attitude was influenced by the external variable, an individual's thoughts about a particular behavior, and attitude would influence users' behavioral intention. Following this theoretical basis, this study defined the consumption attitude toward GPTs as the attitude and tendency to consume GPTs when consumers used TSNs. Finally, by referring to the definition of Davis [39], this study defined the purchase intention for GPTs as the strength of intention to purchase the GPTs with good eWOM evaluation. According to the research field of this study, the perceived usefulness about TSNs was defined as the degree to which consumers perceived using TSNs would help them collect GPT information. Additionally, the perceived ease of use was defined as the degree to which consumers perceived using TSNs to collect GPT information was easy.

With the surging commercialized application of SNSs in the network era, consumers' online transactions, different from traditional commercial transactions, could not be inspected immediately, Thus, consumers had to consider their purchase intention only through the text information and pictures on the websites. If any risk factor confronted the buyers and sellers, trust on eWOM would gradually become an important strategic factor influencing consumers' online transactions. Reichheld and Schefter [41] once pointed out that the lack of trust on the online transaction environment was one of the main hindrances influencing consumers' willingness to make e-commercial transactions. Therefore, Gefen et al. [33] integrated trust with TAM and developed the online shopping model to investigate the consumer intention for online shopping. The reduction of online transaction risks could effectively enhance consumers' trust on online transactions, attitudes and intentions toward online shopping [42]. By integrating the theoretical perspective of technology acceptance model (TAM) with the construct of trust on eWOM, the study developed a nomological framework to examine the causal relationships among the critical influencing antecedents on online consumer attitudes and purchase intentions toward GPTs in the fast-growing TSNs. We theorize that online consumers' trust on eWOM in TSNs will upsurge their consumer attitudes and repurchase intentions toward GPTs through enhancing their perceptions on usefulness and ease of use of tourism SNSs.



Fig. 1. Research model.

After summarizing the TAM-related literature mentioned above, this study found that trust on eWOM played an important role in TSN operation, and customers' trust on TSNs was the essential basis, in the uncertain and risky social network transaction environment, to effectively stimulate the sales performance

on the social networking platform, improve consumer intimacy, maintain long-term customer relationships, and thereby boost online consumers' purchase intentions to GPT products. Hence, this study incorporated trust on eWOM as the antecedent variable to probe into how trust on eWOM in TSNs influenced the PU and PEOU about TSNs as well as the consumption attitude toward and purchase intention for GPTs. Based upon the above discussions, the following hypotheses are proposed:

H1. Trust on eWOM in TSNs will positively affect perceived usefulness of TSNs.

H2. Trust on eWOM in TSNs will positively affect perceived ease of use of TSNs.

H3. Trust on eWOM in TSNs will positively affect consumer attitudes to GPTs.

H4. Perceived usefulness of TSNs will positively affect consumer attitudes to GPTs.

H5. Perceived usefulness of TSNs will positively affect purchase intentions toward GPTs.

H6. Perceived ease of use of TSNs will positively affect consumer attitudes to GPTs.

H7. Perceived ease of use of TSNs will positively affect purchase intentions toward GPTs.

H8. Consumer attitudes to GPTs will positively affect purchase intentions toward GPTs.

### 3. Research Method

#### 3.1. Measurement Development

The first stage in this study is to construct a conceptual framework and develop the measures. We began the scale development process by surveying the extant literature for validated scales that could be used in our study. Although we did not find complete scales that were suitable for this study, we were able to identify several items and scale fragments. We included these in the initial pool of items. Since insufficient coverage of the construct domain was deemed an issue, some new items were self-developed based on the definitions provided by the prior literature. The majority of the scale items were adopted from prior works in tourism and hospitality literature but modified slightly for our research context. Those items regarding trust on eWOM in TSNs were integrated and adapted from Kim and Noh [43], Kim and Park [44], Wang et al. [45] and other related tourism literature. The measures for perceived usefulness and perceived ease of use were adapted from Casaló *et al.* [46], Choi and Chung [47], El-Gohary [48] and other prior literature. The scale items for consumer attitudes to GPTs were taken from Horner and Swarbrooke [49], Jalilvand and Samiei [50] and van der Veen and Song [51]. The items for purchase intentions toward GPTs were modified from Chiu [52], Fu Tsang *et al.* [53] and Khandelwal, *et al.* [54].

After completing the construct development and related scale items several small-scale pre-tests were conducted with a group of twelve panelists to ensure the completeness and appropriateness of the scale items developed. There is one formative second-order construct (i.e. Trust on eWOM in TSNs) with three reflective first-order factors included in our research model. The goal is to have a smaller number of items per construct while maintaining sufficient measurement properties. All measures developed in this study were reviewed by the panel of twelve academic and practical experts to ensure content validity. Those academic and practical experts' opinions on pilot questionnaire items were collected. Then, the researchers in this study rigorously checked the completeness of the scope of scale items, the representativeness of scale questions, and the accuracy and coherence of wordage and meaning to provide the important basis for questionnaire revision and correction. The usability and appropriateness of questionnaire items were confirmed with good expert validity.

The final questionnaire for the study consisted of two major parts, one including participants' demographic data and the other their responses to the scale items. The participants' basic information included gender, age, monthly income, browsing frequency on tour products and monthly disposable income on GPTs. The second part contained the scale items for the major constructs of the proposed research model. See Table 2 for a final list of questionnaire items. All items were measured using a

five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). We provided clear definitions of the major constructs at the beginning of the questionnaire to ensure that the respondents would have the same understanding of the research context.

# 3.2. Sampling and Survey Administration

The proposed research model was tested with data collected from mySurvey website and its members. From October. 1 to December 31, 2015, tourists with experience on participating GPTs were cordially invited to support this survey. Fifty randomly selected respondents were offered an incentive in the form of cash amounting to NTD\$1000. The first page of the questionnaire explained the purpose of this study and ensured the confidentiality. By the time this survey was concluded, 293 questionnaires were collected. An attention check question was included in the survey questionnaire to examine if the participants paid attention to the survey questions to ensure the quality of the data. After a strict screening and examining procedure, 27 participants who did not pass the attention check question or gave incomplete answers were excluded. This left us with 266 valid questionnaires (valid-return rate = 90.79%) for further data analyses. The profile of the respondents is shown in Table 1.

Variable	Classification	Freq.	%	Variable	Classification	Freq.	%
Gender	Male	94	35.3%		Less than 3,000	35	13%
	Female	172	64.7%	Monthly	3,001-6,000	41	15%
Age	Less than 20	5	2%	disposable	6,001-9,000	50	19%
	21-30	75	29%	income	9,001-12,000	39	15%
	31-40	44	17%	(NTD\$)	12,001-15000	33	12%
	41-60	98	38%		Above15000	68	26%
	Above 61	55	22%	Monthly	Less than 2,000	69	26%
Education	Junior High School	1	1%	disposable	2,001-4,000	90	34%
	Senior High School	11	4%	income on	4,001-6,000	64	24%
	College/University	187	70%	GPTs	6,001-8,000	18	7%
	Graduate School	67	25%	(NTD\$)	Above 8,000	25	9%
Monthly income (NTD\$)	Less than 20,000	53	20%		Once a week	16	16.02%
	20,001-40,000	80	30%	Browsing	Twice a week	26	9.77%
	40,001-60,000	81	30%	Frequency	Thrice a week	17	6.39%
	60,001-80,000	45	17%	Products	Four times a week	13	4.89%
	Above 80,000	7	3%		Not Sure	193	72.93%

Table 1. The Profile of the Respondents (*N*=266).

# 3.3. Analysis Methods

The empirical data collected were analyzed using the partial least squares (PLS) method, which is particularly suitable for identifying the variance and validating the causal relationships between latent variables comprising complex theoretical and measurement models [55]. The proposed hypotheses for the predictive and nomological validity of the principle constructs of the research model were simultaneously validated. The PLS method allows for the validation of the measurement model and the estimation of the structural model.

The two-stage approach was applied to estimate the proposed conceptual framework and plausible hypotheses, particularly when the formative second-order constructs (i.e., trust on eWOM in TSNs) with the reflective first-order factors (i.e., perceived usefulness, perceived ease of use, consumer attitudes and purchase intentions) were involved in this study. The model fit was also evaluated using a two-phase

approach, i.e., a measurement model and a structural model. In the measurement model the psychometric properties of all scales were first assessed through a confirmatory factor analysis (CFA). This step was used to assess the reliability and validity of the measurement model and to test whether the empirical data conformed to the presumed model. Then, a bootstrapping procedure was used to estimate the statistical significance of the parameter estimates for path coefficients of the structural model.

Structural equation modelling (SEM) techniques such as LISREL, AMOS, EQS and partial least squares (PLS) are second generation data analysis techniques that can be used to perform path analytic modelling with latent variables [55]. PLS employs component-based estimation [56]. It does not require the data to have multivariate normality [57] and it can handle formative constructs (Chin *et al.* 2003). In general, PLS is better suited for explaining complex relationships as it avoids two serious problems: inadmissible solutions and factor indeterminacy [58]. Because of the aforementioned reasons, we chose this approach because PLS's ability to assess the measurement model within the context of its theoretical mediated model makes it superior to multiple regression, especially when using new scales.

### 4. Data Analysis and Results

### 4.1. Measurement Properties

As mentioned above the research model (see Fig. 1) to be tested in this study is a second-order factor model with reflective indicators for the first-order factors and three formative dimensions for each of the two second-order factors. Specifically, all of the seven first-order sub-constructs (i.e., content timeliness, evaluation scores and reputation of providers as well as perceived usefulness, perceived ease of use, consumer attitudes and purchase intentions) were modelled as reflective and the second-order constructs (i.e., trust on eWOM in TSNs) were modelled as formative. The measurement model relating the scale items to their latent constructs was analyzed using SmartPLS 2.0 M3 software. All of the first-order constructs in the conceptual model were modeled as reflective and were measured using multiple indicators. The measurement model relating the scale items to their latent constructs was analyzed by SmartPLS 2.0 M3 [59]. The assessment of item loadings, reliability, convergent validity, and discriminant validity was performed for the latent constructs through a CFA. Reflective items should be unidimensional in their representation of the latent variables, and therefore correlated with each other. Factor loadings of scale items should be above 0.707, showing that over half of the variance is captured by the constructs. Also, all constructs in the measurement model should exhibit good internal consistency as evidenced by their composite reliability scores. The composite reliability coefficients of all constructs and the AVE in the proposed conceptual framework were also checked for the adequacy. As shown in Table 2, the loadings for all constructs with reflective measures were well above the 0.7 guideline and statistically significant at the 0.001 level, indicating satisfactory item reliability for the reflective measures. These results collectively suggest good measurement properties for all constructs.

All constructs in the measurement model exhibit good internal consistency as evidenced by their composite reliability scores. The composite reliability coefficients of all constructs in the proposed conceptual model (see Fig. 1) are more than adequate. There are two requirements used in assessing discriminate validity: (1) indicators should load more strongly on their corresponding construct than on other constructs in the model; and (2) the square root of the average variance extracted (AVE) should be larger than the inter-construct correlations [55]. The percent of variance captured by a construct is given by its AVE. We also evaluated the discriminant validity of the major constructs of the conceptual framework using the PLS analytical method.

Table 3 shows the composite reliability, average variance extracted (AVE) and square root of the AVE, as well as the correlations between the constructs. The composite reliability values for all constructs were

above the recommended level of 0.70, indicating adequate internal consistency [60]. Convergent validity is demonstrated as the AVE values for all constructs and is higher than the suggested threshold value of 0.50. Comparing the square root of the AVE (bold figures on the diagonal) with the correlations among the constructs, the result indicates that each construct was more closely related to its own measures than to those of other constructs, so discriminant validity was therefore supported [55,60]. All constructs share more variance with their indicators than with other constructs. Thus, the convergent and discriminant validity of all constructs in the proposed research model can be assured.

Table 2. Descriptions and comminatory factor Loadings of Scale Items							
Construct	Dimension	Scale Item	Mean	Loading			
Trust on eWOM in TSNs		The eWOM contents about GPTs described by SNSs are trustworthy.	3.32	0.839			
	Content	The eWOM contents about GPTs provided by SNSs are well-grounded.	3.28	0.853			
	Timeliness	TSNs can update GPT information instantly, which enhances my trust on eWOM.	3.52	0.841			
		Compared with traditional advertisements, eWOM in TSNs can deepen my trust.	3.50	0.723			
	Evaluation	The positive evaluations about tourism information of eWOM in TSNs are trustworthy.	3.43	0.909			
	Scores	The negative evaluations about tourism information of eWOM in TSNs are trustworthy.	3.47	0.882			
	Reputation of eWOM Providers	I will trust the eWOM evaluations about the GPT products that are recommended by a large number of people.	3.63	0.748			
		I will trust the eWOM that elicit a large number of responses in TSNs.	3.54	0.796			
		I will trust the eWOM provider who is sufficiently professional.	3.95	0.796			
		I will trust the information from the eWOM provider who is similar to me.	4.01	0.742			
Perceived Usefulness of TSNs		Using TSNs can help me solve problems about GPTs.	3.90	0.853			
		Using TSNs can let me know about positive and negative GPT information.		0.805			
		Using TSNs can inform me in advance of GPT trends.		0.811			
		Using TSNs can make it easy to find the related GPT information for my needs.	3.68	0.773			
Perceived Ease of Use of		It is always clear and easy to understand the GPT information of TSNs.	3.65	0.791			
		It doesn't take much time to grasp the GPT information of TSNs.		0.832			
T	SNs	It is fast, instant and convenient to acquire GPT information through TSNs.		0.843			
		It is comparatively easy to acquire GPT information through TSNs.		0.762			
Consumer attitudes to GPTs		I will purchase GPTs by searching for eWOM in TSNs.	3.87	0.865			
		I will purchase GPTs by comparing eWOM in TSNs.		0.870			
		I will purchase GPTs by referring to eWOM in TSNs.		0.835			
		I will purchase GPTs through the using of TSNs.		0.810			
Purchase Intentions toward GPTs		I will have strong purchase intentions to GPTs with good eWOM evaluations.		0.838			
		I regard it worth to purchase GPTs with good eWOM evaluations.		0.891			
		I will give priority to those with good eWOM evaluations when purchasing GPTs.		0.818			

# Table 2. Descriptions and Confirmatory Factor Loadings of Scale Items

Table 3 Composite Reliability and Inter-correlations among Major Constructs

Construct	Dimension	1.	2.	3.	4.	5.	6.	7.
Trust on eWOM in TSN	1. Content Timeliness	0.82*						
	2. Evaluation Scores	0.63	0.90					
	3. Reputation of e WOM Providers	0.64	0.56	0.77				
4. Perceived Usefulness of TSN		0.56	0.44	0.52	0.81			
5. Perceived Ease of Use of TSN		0.57	0.46	0.49	0.65	0.81		
6. Consumer attitudes to GPTs		0.53	0.44	0.50	0.61	0.57	0.85	
7. Purchase Intentions toward GPTs		0.55	0.45	0.56	0.55	0.52	0.67	0.85
Composite reliability		0.89	0.89	0.85	0.88	0.88	0.91	0.89
Cronbach's alpha coefficient		0.83	0.75	0.77	0.83	0.82	0.87	0.81
Average variance explained (AVE)		0.67	0.80	0.59	0.66	0.65	0.71	0.72

\*Diagonal elements are the square roots of the AVE.

### 4.2. Test of the Structural Model

With replacement using 5000 subsamples, a bootstrapping procedure was used to estimate the statistical significance of the parameter estimates. The structural model was examined and the effects among those latent constructs were also tested. A test of the structural model was used to assess if the causal relationships specified by the research model were consistent with the available data. The PLS method does

not directly provide significance tests and path coefficient confidence interval estimates in the proposed model. Hypotheses and corollaries testing were performed by examining the size, the sign and the significance of the path coefficients and the weights of the construct dimensions, respectively. The statistical significance of weights can be used to determine the relative importance of the indicators in forming a latent construct. The path coefficients and explained variances for the conceptual model in this study are shown in Fig. 2.

The PLS analysis results show the direct and indirect effects from all of the antecedents in the conceptual framework, accounting for 49.7 percent of the variance in consumers' purchase intentions toward GPTs. For the construct of consumer attitudes to GPTs, 46.3 percent of the variance was explained by the related antecedent constructs (i.e., perceived usefulness, perceived ease of use, and trust on eWOM in TSNs). Correspondingly, 35.6 percent of the variance in perceived usefulness of TSNs and 35.6 percent of the variance in perceived ease of use of TSNs. The magnitude and significance of these path coefficients provides further evidence in support of the nomological validity of the research model. As a whole the research model has strong explanatory power for the construct of tourists' repurchase intentions toward travel agencies' package group package tours.



Fig. 2. Results of PLS analysis.

The causal relationships from trust on eWOM in TSNs to perceived usefulness and perceived ease of use in the proposed research model, hypotheses H1, H2 and H3, are strongly supported by the significant path coefficient of 0.60 (*t*-value = 14.02, p < 0.01), 0.27 (*t*-value = 3.60, p < 0.01) and 0.60 (*t*-value = 16.32, p < 0.01), respectively. The PLS analysis results imply that consumers who perceived higher levels of trust on eWOM in TSNs will perceive higher usefulness and ease of use on the tourism SNSs and have more positive attitudes toward the GPT consumption. In line with our hypotheses, hypotheses H4 and H5, effectively drawn from perceived usefulness to consumer attitudes and purchase intentions toward GPTs, are also supported with significant path coefficients of 0.32 (*t*-value = 4.18, p < 0.01) and 0.40 (*t*-value = 2.49, p < 0.05). That is, consumers' perceptions in TSN usefulness apparently influences their consumer attitudes and purchase intentions toward GPTs resulting also from trust on eWOM in TSNs. Similarly, with significant path coefficients of 0.20 (*t*-value = 2.94, p < 0.01) and 0.13 (*t*-value = 2.16, p < 0.05), the analysis results also

provide support for hypotheses H6 and H7, effectively drawn from perceived ease of use to the constructs of consumer attitudes and purchase intentions toward GPTs, respectively. That is, the perceptions of respondents on ease of use of TSNs will positively affect their consumer attitudes and purchase intentions toward GPTs. For hypothesis H8, the direct effect drawn from consumer attitudes to purchase intentions is also confirmed by the significant path coefficient of 0.50 (*t*-value = 8.14, p < 0.01). This result implies that trust on eWOM, perceived usefulness, perceived ease of use, and consumer attitudes will collectively contribute to consumers' repurchase intentions toward GPTs in TSNs.

#### 5. Discussions and Conclusions

Today, as the network environment matured day by day and technology developed rapidly, TSNs is becoming a critical channel of tourism information and word of mouth transmission among tourists. Considering eWOM in TSNs when making GPT purchase decisions has become modern consumers' consumption norm. However, numerous travel agencies and/or tourism firms fail to promote trust on eWOM in TSNs effectively. Driven by the need for a theoretical and practical implications for understanding the influences of trust on eWOM on consumers' perceptions on usefulness and ease of use about TSNs that may further impact their consumption attitudes toward and purchase intentions toward GPTs in TSNs. Integrating trust on eWOM with TAM, this study investigated the influences of trust on eWOM in TSNs on online consumers' GPT purchase behaviors. This study collected, sorted out and compared the prior tourism literature related to trust on eWOM in TSNs and the major constructs of TAM, and then tentatively developed a nomological framework and related hypotheses about the influence of trust on eWOM in TSNs on the purchase intention for GPTs. The research findings of this current study can provide practical implications for virtual TSN operation, propose valuable suggestions about eWOM marketing for Taiwan's tourism industry, and manifest the rich connotations of and the potential commercial values behind eWOM in TSNs.

The research findings of this study indicate that the proposed model provides satisfactory explanatory power for the impacts caused from trust on eWOM in TSNs and related perception constructs of TAM to consumers' attitudes and purchase intentions to GPTs. The core construct of trust on eWOM actually exerted positive and significant effects on the PEOU and PU about TSNs as well as consumption attitude. As tourism enterprises began to regard TSNs an important marketing channel for development, online consumers could acquire tourism information more conveniently by TSNs in the future and would thereby have stronger purchase intentions to their tour products or services. In the network era, consumers mostly tended to, before purchasing GPTs, search for, browse or refer to the eWOM or related tourism information of TSNs. The trust on eWOM in TSNs would significantly impact consumers' attitude toward purchasing GPTs. The enhanced trust on eWOM would strengthen the confidence in using websites, the willingness to use websites, and the intention to purchase GPTs. Even when the price of the product recommended by eWOM in TSNs exceeded the expected budget, consumers would be still likely to try purchasing this GPT.

Furthermore, according to the PLS analysis results (see Figure 2), both the PU and PEOU about TSNs saliently influenced the consumption attitude and purchase intention. This verified result indicated consumers' PU and PEOU about TSNs did influence their consumption attitudes and purchase intentions to GPTs in TSNs. Namely, we can refer that if online consumers have a positive tendency to use TSNs, they might hold a positive attitude toward consuming GPTs online, and behaved more actively in GPT purchase. When purchasing GPTs by TSNs, consumers could quickly gain the knowledge and information from different sources. The more convenient search for GPT information could achieve expected efficiency and efficacy. Hence, consumers would hold a more positive consumption attitude toward using TSNs when purchasing GPTs. As consumers purchased GPT services and functions by TSNs, the easier it was for

consumers to learn the operation or interact with social networking website information sources, the more positive attitude they would hold toward consuming in TSNs. In other words, when consumers purchased GPTs, if the used tourism SNSs could facilitate the purchase or increase actual benefits and consumers did not have to spend much time and effort in learning, such benefit and convenience brought to consumers influenced their intention to purchase GPTs in TSNs.

The main contributions of this study could be specified in two aspects. Firstly, regarding academic research, (1) this study summarized prior tourism literature and gained insights into the influence of trust on eWOM on purchase intention for tourism intention; (2) this study verified the influence of trust on eWOM in TSNs on TAM; (3) this study increased the applicability, extrapolation ability and explanatory effect of TAM to the sightseeing and leisure industry, and extended the theoretical scope of application. Secondly, regarding practical application, this study could provide the operators in the sightseeing and leisure industry with (1) references for TSNs eWOM application; (2) references for how trust on eWOM upgraded the corporate image and operation of tourism practitioners and promoted the potential development of scenic spots; (3) rich connotations of eWOM and potential commercial values behind eWOM in the practical sightseeing and leisure operation.

In spite of its valuable findings and implications, this study contains several limitations that also represent opportunities for future research. First, this study adopts convenience sampling and conducts questionnaire survey on consumers who purchase package tours of travel agencies without in-depth interview with subjects. It cannot explore the subjects' profound feelings and thoughts. Therefore, it is suggested that future researchers can adopt qualitative research based on this study to expand variables in order to enrich the findings. Also, the survey subjects might not thoroughly represent all sorts of consumers. Different consumer characteristics, cultural backgrounds and social conditions are different and may have different perspectives. Thus, demographics, cultural backgrounds and social conditions must be considered when drawing conclusions from the results of this study. Second, the research findings are from this single study conducted in Taiwan; the implications might not hold true in other countries. Therefore, research should use caution when generalizing the findings to other countries. Third, a further confirmatory analysis and cross-context validation using another large sample gathered elsewhere is required for improving the generalizability to other tourism situations. Questionnaire in this study is self-administration-based and the researchers assume that the subjects respond to the questions honestly. Hence, when respondents fill in questionnaires, they might be influenced by their comprehension of the meaning of items and it results in errors of findings. Besides this, measure validation requires the assessment of the measurement properties over a variety of samples in different tourism contexts. Hence, it is suggested that more attention can also be directed toward understanding the antecedents and consequents of other tourist subjects and/or research contexts for future research.

### References

- [1] Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., & Venkatraman, V. (2013). Visions and voices on emerging challenges in digital business strategy. *MIS Quarterly*, *37*(*2*), 633-661.
- [2] Mangold, W. G., & Faulds, D. J. (2009). Social media: The new hybrid element of the promotion mix. *Business Horizons*, *52(4)*, 357-365.
- [3] Chen, Y. C., Wu, J. H., Peng, L., & Yeh, R. C. (2015). Consumer benefit creation in online group buying: The social capital and platform synergy effect and the mediating role of participation. *Electronic Commerce Research and Applications*, 14(6), 499-513.
- [4] Sigala, M., Christou, E., & Gretzel, U. (2012). *Social Media in Travel, Tourism and Hospitality: Theory, Practice and Cases.* Ashgate Publishing, Ltd..

- [5] Sharda, N. (2009). Tourism Informatics: Visual Travel Recommender Systems, Social Communities, and User Interface Design: Visual Travel Recommender Systems, Social Communities, and User Interface Design. IGI Global.
- [6] Hernández-Méndez, J., Muñoz-Leiva, F., & Sánchez-Fernández, J. (2015). The influence of e-word-of-mouth on travel decision-making: consumer profiles. *Current Issues in Tourism*, 18(11), 1001-1021.
- [7] Husain, W., & Dih, L. Y. (2012). A framework of a personalized location-based traveler recommendation system in mobile application. *International Journal of Multimedia and Ubiquitous Engineering*, *7*(*3*), 11-18.
- [8] Tussyadiah, I. P. (2012). A concept of location-based social network marketing. *Journal of Travel & Tourism Marketing*, 29(3), 205-220.
- [9] Barreda, A. (2014). Creating brand equity when using travel-related online social network Web sites. *Journal of Vacation Marketing*, *20*(*4*), 365–379.
- [10] Morrison, A. M. (2013), *Marketing and Managing Tourism Destinations*. New York: Routledge.
- [11] Guzzo, T., D'Andrea, A., Ferri, F., & Grifoni, P. (2013). A framework to promote and develop a sustainable tourism by using social media. *In OTM Confederated International Conferences On the Move to Meaningful Internet Systems* (pp. 656-665). Springer Berlin Heidelberg.
- [12] Santouridis, I., & Krikoni, E. (2016). Extending ES-QUAL with hedonic dimensions to measure the quality of internet travel services and its effects on perceived value, loyalty and switching barriers. *International Journal of Technology Marketing*, 11(3), 301-318.
- [13] Aramberri, J. (2010). Modern Mass Tourism. Emerald Group Publishing.
- [14] Blackwell, R. D., Miniard, P. W., & Engle, J. F. (2001). *Consumer Behavior*. Cincinnati: South-Western College Publishing.
- [15] Hsu, C. H., & Huang, S. S. (2012). An extension of the theory of planned behavior model for tourists. *Journal of Hospitality & Tourism Research*, *36*(*3*), 390-417.
- [16] Mazaheri, E., Richard, M. O., & Laroche, M. (2012). The role of emotions in online consumer behavior: a comparison of search, experience, and credence services. *Journal of Services Marketing*, *26(7)*, 535-550.
- [17] Shareef, M. A., Dwivedi, Y. K., & Kumar, V. (2016). *Mobile Marketing Channel: Online Consumer Behavior*. Springer.
- [18] Shende, V. (2014). Analysis of research in consumer behavior of automobile passenger car customer. *International Journal of Scientific and Research Publications*, *4*(*2*), 1.
- [19] Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, *13(1)*, 210-230.
- [20] Park, N., Kee, K. F., & Valenzuela, S. (2009). Being immersed in social networking environment: Facebook groups, uses and gratifications, and social outcomes. *CyberPsychology & Behavior*, 12(6), 729-733.
- [21] Dixit, S. K. (2016). eWOM marketing in hospitality industry. *In Managing Public Relations and Brand Image through Social Media* (pp. 266-280). IGI Global.
- [22] Cheung, C. M., & Thadani, D. R. (2012). The impact of electronic eWOM communication: A literature analysis and integrative model. *Decision Support Systems*, *54(1)*, 461-470.
- [23] Munar, A. M., & Jacobsen, J. K. S. (2013). Trust and involvement in tourism social media and web-based travel information sources. *Scandinavian Journal of Hospitality and Tourism*, *13(1)*, 1-19.
- [24] Matute, J., Matute, J., Polo-Redondo, Y., Polo-Redondo, Y., Utrillas, A., & Utrillas, A. (2016). The influence of EWOM characteristics on online repurchase intention: Mediating roles of trust and perceived usefulness. *Online Information Review*, *40(7)*, 1090-1110.

- [25] Purcarea, V. L., Gheorghe, I. R., & Petrescu, C. M. (2013). Credibility elements of eWOM messages in the context of health care services. A Romanian perspective. *Journal of Medicine and Life*, *6*(*3*), 254.
- [26] Wang, P., Zhang, X., Suomi, R., & Sun, C. (2017). Determinants of customers' eWOM behavior A system success perspective. In Information and Communication Technologies in Tourism 2017 (pp. 401-415). Springer, Cham.
- [27] Wu, P. C., & Wang, Y. C. (2011). The influences of electronic word-of-mouth message appeal and message source credibility on brand attitude. *Asia Pacific Journal of Marketing and Logistics, 23(4)*, 448-472.
- [28] Kalpaklioglu, N. U., & Toros, N. (2011). Viral marketing techniques within online social network. *Journal of Yasar University*, *24(6)*, 4112-4129.
- [29] Chambliss, D. F., & Schutt, R. K. (2015). *Making Sense of the Social World: Methods of Investigation*. Sage Publications.
- [30] Middleton, V. T., Fyall, A., Morgan, M., & Ranchhod, A. (2009). *Marketing in Travel and Tourism*. London: Routledge.
- [31] Vrana, V., & Zafiropoulos, K. (2010). Locating central travelers' groups in travel blogs' social networks. *Journal of Enterprise Information Management*, *23(5)*, 595-609.
- [32] Zainal, N. T. A., Harun, A., & Lily, J. (2017). Examining the mediating effect of attitude towards electronic words-of mouth (eWOM) on the relation between the trust on eWOM source and intention to follow eWOM among Malaysian travellers. *Asia Pacific Management Review*.
- [33] Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly*, *27(1)*, 51-90.
- [34] Kuan, H. H., & Bock, G. W. (2007). Trust transference in brick and click retailers: An investigation of the before online visit phase. *Information & Management*, *44(2)*, 175-187.
- [35] Racherla, P., Mandviwalla, M., & Connolly, D. J. (2012). Factors affecting consumers' trust on online product reviews. *Journal of Consumer Behaviour*, *11(2)*, 94-104.
- [36] Venkatesh, V., & Davis, F. D. (1996). A model of antecedents of perceived ease of use: Development of test. *Decision Sciences*, *27(3)*, 451-480.
- [37] Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, *46(2)*, 186-204.
- [38] Venkatesh, V. (2000). Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the technology acceptance model. *Information Systems Research*, *11(4)*, 342-365.
- [39] Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13(3)*, 319-340.
- [40] Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading. MA: Addison-Wesley.
- [41] Reichheld, F. F., & Schefter, P. (2000). E-loyalty: Your secret weapon on the web. *Harvard Business Review*, *78*(4), 105-113.
- [42] Erkan, I., & Evans, C. (2016). Social media or shopping websites? The influence of eWOM on consumers' online purchase intentions. *Journal of Marketing Communications*, 1-17.
- [43] Kim, S., & Noh, M. J. (2012). Determinants influencing consumers' trust and trust performance of social commerce and moderating effect of experience. *Information Technology Journal*, *11(10)*, 1369.
- [44] Kim, S., & Park, H. (2013). Effects of various characteristics of social commerce (s-commerce) on consumers' trust and trust performance. *International Journal of Information Management*, 33(2), 318-332.
- [45] Wang, T., Yeh, R. K. J., Chen, C., & Tsydypov, Z. (2016). What drives electronic word-of-mouth on SNSs?

Perspectives of social capital and self-determination. *Telematics and Informatics*, 33(4), 1034-1047.

- [46] Casaló, L. V., Flavián, C., & Guinalíu, M. (2010). Determinants of the intention to participate in firm-hosted online travel communities and effects on consumer behavioral intentions. *Tourism Management*, 31(6), 898-911.
- [47] Choi, G., & Chung, H. (2013). Applying the technology acceptance model to SNSs (SNS): Impact of subjective norm and social capital on the acceptance of SNS. *International Journal of Human-Computer Interaction*, *29(10)*, 619-628.
- [48] El-Gohary, H. (2012). Factors affecting e-marketing adoption and implementation in tourism firms: An empirical investigation of Egyptian small tourism organisations. *Tourism Management, 33(5)*, 1256-1269.
- [49] Horner, S., & Swarbrooke, J. (2016). *Consumer Behavior in Tourism*. London: Routledge.
- [50] Jalilvand, M. R., & Samiei, N. (2012). The impact of eWOM on a tourism destination choice: Testing the theory of planned behavior (TPB). *Internet Research: Electronic Networking Applications and Policy*, 22(5), 591-612.
- [51] van der Veen, R., & Song, H. (2010). Exploratory study of the measurement scales for the perceived image and advertising effectiveness of celebrity endorsers in a tourism context. *Journal of Travel & Tourism Marketing*, 27(5), 460-473.
- [52] Chiu, C. K. (2009). Understanding relationship quality and online purchase intention in e-tourism: A qualitative application. *Quality & Quantity*, *43(4)*, 669-675.
- [53] Fu Tsang, N. K., Lai, M. T., & Law, R. (2010). Measuring e-service quality for online travel agencies. *Journal of Travel & Tourism Marketing*, *27(3)*, 306-323.
- [54] Khandelwal, U., Bajpai, N., & Sharma, J. P. (2012). Purchase intention of Indian consumers on online travel buying decision: A comparative study on metro and non-metro city. *International Journal of Hospitality & Tourism Systems*, 5(2), 13-22.
- [55] Chin, W.W. (1998). Issues and opinion on structural equation modeling. *MIS Quarterly*, 22(1), vii-vxi.
- [56] Lohmöller, J. B. (1989). The PLS program system: Latent variables path analysis with partial least squares estimation. *Multivariate Behavioral Research*, *23*(1), 125-127.
- [57] Gefen, D., Straub, D. W., & Rigdon, E. E. (2011). An update and extension to SEM guidelines for administrative and social science research. *MIS Quarterly*, *35*(*2*), iii-xiv.
- [58] Fornell, C., & Bookstein, F. L. (1982). Two structural equation models: LISREL and PLS applied to consumer exit-voice theory. *Journal of Marketing Research*, *19(4)*, 440-452.
- [59] Ringle, C. M., Wende, S., & Will, S. (2005). SmartPLS 2.0 (M3) Beta. Hamburg, Germany.
- [60] Hair, J. F., Jr., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate Data Analysis with Readings*. (5th ed.). Englewood Cliff, NJ: Prentice Hall.



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