

Critical factors in the identification of word-of-mouth enhanced with travel apps: the moderating roles of Confucian culture and the switching cost view

Shu-Ning Zhang, Yong-Quan Li, Chih-Hsing Liu & Wen-Qi Ruan

To cite this article: Shu-Ning Zhang, Yong-Quan Li, Chih-Hsing Liu & Wen-Qi Ruan (2019) Critical factors in the identification of word-of-mouth enhanced with travel apps: the moderating roles of Confucian culture and the switching cost view, *Asia Pacific Journal of Tourism Research*, 24:5, 422-442, DOI: [10.1080/10941665.2019.1572630](https://doi.org/10.1080/10941665.2019.1572630)

To link to this article: <https://doi.org/10.1080/10941665.2019.1572630>



Published online: 31 Jan 2019.



Submit your article to this journal [↗](#)



Article views: 20



View Crossmark data [↗](#)



Critical factors in the identification of word-of-mouth enhanced with travel apps: the moderating roles of Confucian culture and the switching cost view

Shu-Ning Zhang^a, Yong-Quan Li^a, Chih-Hsing Liu^b and Wen-Qi Ruan^a

^aResearch Center of Tourism and Hospitality Management, College of Tourism, Huaqiao University, Quanzhou, People's Republic of China; ^bDepartment of Tourism Management, National Kaohsiung University of Science and Technology, Kaohsiung, Taiwan

ABSTRACT

The constant changes in new technology are affecting China's tourism environment. Tourists have become increasingly reliant on travel apps when searching for a tourism destination. This study reinvestigates whether the perception of an app advantage influences word-of-mouth (WOM) intentions through satisfaction and stickiness in the dynamic tourism environment of China. Mediation–moderation hypothesis is applied to build a conceptual framework of support for a proposition explaining how travel apps influence WOM. This study also explores the role of Confucian values and switching costs in this context. These findings provide important insights into why and when travel apps influence tourists' tourism behaviors.

KEYWORDS

Word-of-mouth; perception of advantage; satisfaction; stickiness; Confucian culture; switching costs

Introduction

As travel information searching technology experiences rapid change, the installation of travel-related applications (i.e. travel apps) or software on mobile terminals has become an important tool for tourists who are seeking a tourism destination (Lu, Mao, Wang, & Hu, 2015). The mobility and accessibility of the travel information network has substantially changed how tourists travel. With this change, which has occurred globally, tourism managers are increasing their attention to network reputation and feedback, constantly attempting to satisfy the needs of tourists in all aspects of travel through the convenience of mobile applications and the provision of sufficient information (Lin, 2017). There has been significant growth in consumers' use of mobile apps to book travel—17% of travelers did so in 2014, increasing to 50% in 2015—especially in China (Hotels.com, 2016). Therefore, in the aggressively competitive tourism environment in which similar app functions erode market share, it is crucial to explore the expansion of the smartphone market, which has significant implications for tourism practitioners, who must

adjust their promotion and marketing strategies to tap the largest share of the Chinese travel market (Fong, Lam, & Law, 2017).

Travel apps are one of the most powerful new tools for intelligent tourism based on information and communication technology (ICT). Recently, academics in the field of tourism studies have asserted that the benefit of ICT is that it can explain the degree of personal acceptance of innovative technologies based on Technology Acceptance Model (TAM) (Serenko & Bontis, 2004). The TAM model has revealed that customers trying a new technology can be affected by technology values and usefulness perceived. In other words, the higher the customer's evaluation of the app's usability and usefulness is, the more positive the app will be and the more willing the customer will be to use it (Byun, Chiu, Bae, & Pablos, 2018; Dieck & Jung, 2015). Previous tourism studies have focused on the degree of tourist acceptance of technology, but few studies have focused on the behavior of users after receiving technology (Fong et al., 2017). Customers are most likely to generate word-of-mouth (WOM) communication behaviors after using and

experiencing a certain technology, and WOM communication has seriously affected destinations' image and reputation following the expansion of the tourist market and travel app products (Okumus, Ali, Bilgihan, & Ozturk, 2018). With the rapid development of the Internet, everyone sees themselves as a part of the media, and WOM communication among consumers is generally considered reliable and effective (Liu, 2006). According to Chinese tradition, WOM is a double-edged sword. Positive WOM will stimulate potential users' demand for travel apps and encourage them to become actual users. Negative WOM affects not only the reputation of a destination but also the enthusiasm expressed in potential user selection behavior, generating a chain reaction that has an impact on customers' future destination choices (Jackson, 2018). Therefore, WOM is particularly critical when considering the choice of travel apps by potential users and the stickiness of actual users. Although the tourism industry is a unique context and is attracting increasing attention from the Chinese government, attracting customers' attention and behavior intention is critical to success throughout the developing tourism industry (Fong et al., 2017). Indeed, as tourism organizations become more globally oriented and dependent on new technology, it is increasingly important to understand customers' behavior both before and after receiving new technology. The potential benefits of identifying such customer behavior remain largely anecdotal. Therefore, a crucial and meaningful question unsolved in existing studies needs to be addressed: Does a user's perceived advantage of a travel app affect their WOM, and, if so, how?

In addition, even though the general relationship between certain types of new technology application experiences abroad and tourists' subsequent travel intention is beginning to find initial empirical support in the tourism literature (e.g. Dieck & Jung, 2015; Lin, 2017; Okumus et al., 2018), in Confucian culture and against the theoretical background of switching costs, the types of pre- and post-receipt behaviors abroad that will be powerful enough to impact the WOM output of travel apps remain unknown.

While customers are accepting or using a new technology, they are often influenced by traditional values (Jackson & Harris, 2003); however, the current tourism research ignores how new technology usage behavior is influenced by traditional values (e.g. Confucian culture). Chinese behavior has been deeply influenced by Confucian values. For example, when tourists "lose"

while experiencing a tourism app, they may not engage in negative WOM communication because of questions about a person's reputation. Thus, in the study of Chinese tourists' process of accepting tourism apps, the effect of traditional values on travel behavior in China is neglected and needs to be addressed (Ma, Buhalis, & Song, 2003). Therefore, according to the above reasons, it is critical to answer the previous unsolved question: What is the role of Confucian values in the travel decision process of travelers accepting and using WOM, suggesting that the travel app is used to correct the TAM.

In addition, the user's behavior is affected by switching costs because customer switching behavior also significantly affects the profitability and competitiveness of the enterprise (Hasan, 2018). Thus switching costs are a key factor in determining tourism organizations' profitability. When converting to other travel apps has a low cost, tourists may increase the probability of using other travel apps, which can seriously affect their loyalty and future travel intention. However, it is necessary to raise a third unsolved question, that is, whether switching costs affect the entire process of user acceptance and WOM. Therefore, it is necessary to study the effect of switching costs on the behavior of tourists both before and after acceptance. This study used a unique dataset to examine travel app users to determine how Confucian culture and switching costs predict WOM ratings before and after receiving the technology.

To fill such significant voids in the previous reference, the current proposition and integrated mediation-moderation theoretical model allow us to directly address numerous previous research gaps. Therefore, three critical and serious issues need to be solved: (1) we need to examine *whether* and *how* the advantage of travel app perception of certain influential users can impact WOM output through multiple mediation mechanisms of satisfaction and stickiness. (2) We need to explore *what* particular role Confucian culture plays in the impact of the WOM generation process of travel app benefit perception. (3) We need to discuss *whether* there are switching costs on all behavior processes of users before and after acceptance, and if so, *why*. Finally, this study integrates previously incomplete pieces of theoretical perspectives to develop a new model for understanding the specific process by which travel app perceptions of individuals translate their experiences into the WOM.

This study introduces a new theoretical model—the travel app experience model in Chinese contexts—combining use behavior, Confucian culture and switching cost theory to explain how and why breadth, depth, and Chinese culture can affect individual-level WOM output on travel app usage and perception. This study is the first to explore the WOM generation process of travel app benefit perception, which not only contributes to the research of pre- and post-receiving behaviors of users but also improves the TAM. Furthermore, this mediation–moderation integrated perspective allows us to generate new insights for the user evaluation process (Zhang, Wu, Morrison, Chi, & Chen, 2016), Confucian culture and switching cost theory, behavioral analysis (Huang & Liu, 2017), and cross-cultural management (Altunel & Erkut, 2015). Figure 1 showed the conceptual framework that proposed of this research.

Theory and hypotheses

The mediating roles of satisfaction and stickiness

The theory of the TAM is based on the social psychology perspective exploring the behavior of user acceptance of information service systems (Mu & De Jong, 2018). It is one of the most influential, stable, streamlined, and understandable theoretical models in the field of information technology acceptance, and provides a theoretical background of understanding individuals' potential acceptance or rejection of technological behavior (Wu & Chen, 2017). According to the definition provided in previous studies, the TAM has two main aspects that determine its perceived superiority: perceived usefulness and perceived ease of use. Specifically, perceived usefulness reflects the level to which an individual increases performance after using a certain technology, and perceived ease of use reflects the degree to which one considers a specific system easy to use (Saadé & Bahli, 2005). Considering the rapid development of new information systems and the adoption of travel apps for destination seeking, an investigation of the critical factors that influence tourists' continued usage of travel apps may reveal insights into their viability and sustainability, with significant implications for the development of China's tourist industry (Fong et al., 2017). However, a limited amount of tourism behavior research has examined the critical factors

that influence continuance intention related to travel apps in China's tourism environment.

In the tourism context of new technology application, TAM was applied in this study to explore and interpret the consumer behavior of adaption to new technology, which included online travel community participation (Agag & El-Masry, 2016), medical tourism information technology searching intention (Chang, Chou, Yeh, & Tseng, 2016), and big data collected in a mobile social context (SoCoMo) (Buhalis & Foerste, 2015), which introduces a new paradigm for travel and tourism. Regarding the link between perceptions of travel apps' advantage and WOM, Agag and El-Masry (2016) pointed out that customers' perception benefit of using travel apps has a positive influence on WOM intention. Consumers who have a positive perception of the advantages of travel apps, including perceived travel information usefulness and ease of use, will adjust their attitude toward positive WOM about these travel apps. The customers are likely to purchase the tourism products and services that a travel app provides because it offers greater value. Thus consumers will respond to this greater value by maintaining loyalty to travel app, which promotes its products and services through positive WOM to friends or family.

Hypothesis 1. The perceived relative advantages of travel apps affect WOM positively and directly.

While initial adoption behavior of a new information system is a critical first step toward realizing information system success, long-term viability and loyal users are a successful measuring system of such a system's eventual performance, as designers depend on continued use rather than first-time use (Bhattacharjee, 2001). Therefore, strengthening user stickiness is an important guarantee for the sustainable development of intelligent mobile technology (Furner, Racherla, & Babb, 2015). To maintain users' stickiness, satisfaction is the critical factor in influencing their attitudes and behaviors. This is so because, given the critical role of satisfaction in today's business processes, satisfaction not only leads to the positive intention of users but also relates to whether users have a combination of product or service loyalty and trust and to the degree of dependence and re-consumption expectations (Lu et al., 2015). Moreover, scholars have provided evidence that satisfaction enhances users' stickiness and loyalty (Chang et al., 2016; Hong, Thong, & Tam, 2006). However, one question worth

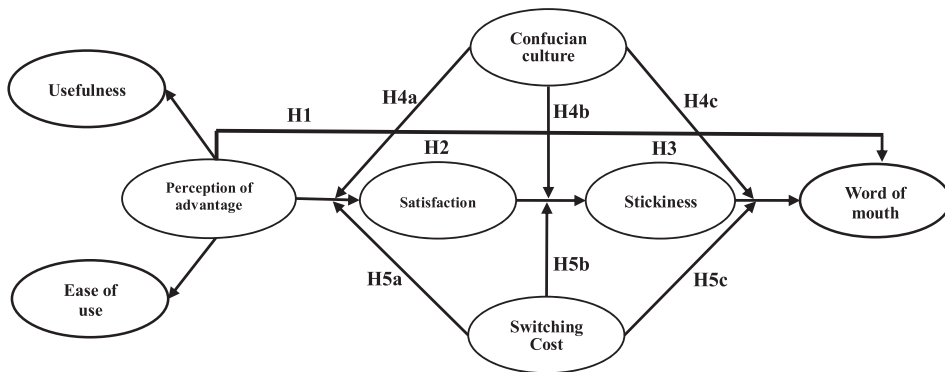


Figure 1. Research framework—hypothesized model.

noting is what factors will affect users' satisfaction with travel apps. User satisfaction mainly comes from the value of the product, and the biggest purpose of an app is to provide users with maximum convenience (Hsueh, Chen, & Chen, 2014). Furthermore, two major values and advantages of travel apps are usefulness and ease of use (Fang, Zhao, Wen, & Wang, 2017). Meanwhile, Flavián, Guinalú, and Gurrea (2006) also asserted that there is a direct and positive effect of perceived usability on the degree of satisfaction of users. Therefore, the current evidence allows us to predict that tourists who positively perceived the relative advantages of travel apps have more stickiness with travel apps through higher satisfaction.

Hypothesis 2. The perceived relative advantages of travel apps have an indirect and positive influence on stickiness through satisfaction.

There is some evidence to support the notion that the function of stickiness positively mediates the relationship between satisfaction and positive outcomes of WOM. It is well known that positive WOM is the high-level evaluation of a product's image and has the advantage of attracting potential users. Especially on the internet, online and offline WOM have become common behaviors among users (Kim, Kankanhalli, & Lee, 2016). However, the question of how to improve the WOM of users is an important issue in this study. According to the theory of rational emotive behavior, an individual's behavior is determined by his willingness to act, and that willingness to act depends on the individual's attitude (Turner & Davis, 2018). That is, whether the users achieve WOM depends on the attitude of the users toward an app. Satisfaction is a positive attitude, and

stickiness is a dependency relationship between users and apps. A number of studies have proved that satisfaction positively affects stickiness, which leads to positive behavior of users (Polites, Williams, Karahanna, & Seligman, 2012). Furthermore, some previous literatures have believed that WOM is an important component of loyalty and is related to tourists' willingness of revisit destination (Jones & Taylor, 2007; Sirdeshmukh, Singh, & Sabol, 2002). Some evidence emphasizes stickiness as an antecedent of WOM in the internet context (Kim, Gursoy, & Lee, 2006; Kumar, Lassar, & Butaney, 2014). Empirical tests of the WOM model have demonstrated that the greater the stickiness and loyalty related to WOM (such as higher user satisfaction with a product or technology) is, the greater the likelihood of positive loyalty (Ahrholdt, Gudergan, & Ringle, 2017) or stickiness (Lien, Cao, & Zhou, 2017), resulting in positive evaluation outcomes such as destination image and WOM (Kim, 2017). Moreover, the function of stickiness is shaped when tourists have a strong connection with and rely heavily on a travel app and when they have a strong connection with and rely heavily on the app's function; when they are satisfied with the mechanism that the app provides, it results in positive WOM (Racherla, Furner, & Babb, 2012). Customers' app stickiness also increases the possibility of positive WOM (Dick & Basu, 1994). Groth (2005) also asserted that positive WOM is based on customer satisfaction. When the products or services provided can satisfy the customers, they are more willing to use and experience the app for a long time. At the same time, they will suggest the app to others, sharing the information with others and helping others to recommend the product or service. In other words, increased customer satisfaction from travel apps drives subsequent

stickiness, leading to valuable WOM outcomes; to our knowledge, no tourism-related research has explored the mediating effect of stickiness on the relationship between satisfaction and WOM in the travel app experience until now.

Hypothesis 3. Satisfaction with travel apps has an indirect and positive influence on WOM through stickiness.

The moderating roles of Confucian culture and switching costs

Rational behavior theory (TRA) holds that individual attitudes and values determine whether a person will be motivated to engage in a particular behavior (Sontakke, Budania, & Paranjape, 2017). Kiatkawsin and Han (2017) pointed out that values are people's lasting beliefs about life and action. Values in the personal cognitive system occupy a core position in the heart and are considered a foundational cause of consumer decision-making systems and behavioral patterns (Back & Lee, 2009). In Chinese contexts, the values of Chinese consumers are influenced by China's traditional cultural, social, historical, and lifestyle factors. Traditional cultural factors such as Confucian culture and values have long occupied a central position, producing a strong and continuous influence and dominating traditional Chinese cultural values (Lee, 1991). In other words, Chinese customers' behavior has constantly been influenced by Confucian values. However, the manner in which users' technical acceptance of travel apps relates to traditional Chinese values has not been closely examined in previous studies. To explore this issue and fill the gaps, it is necessary to amend the TAM in the context of information technology development in Chinese tourism.

This study was built on the moderating role of Confucian culture and more specifically, how that culture influences the relationships between the perception of advantage, satisfaction, stickiness, and WOM. While Chinese consumer behavior studies regard Confucian culture as one of the most critical constructs, this construct and its influences have been subjected to varying explanations (Kwek & Lee, 2010; Yan & Sorenson, 2006). On the one hand, some researchers believe that consumers' perceptions and judgments of the value of their purchases are influenced by the mindset of values and loyalty (Kiatkawsin & Han, 2017). Kaba and Osei-Bryson (2013) have found that values play a positive moderating role in the relationship between personal motivational factors,

satisfaction, and stickiness to the intention to adopt information technology commerce. On the other hand, other researchers have discovered that traditional culture in the Chinese social context is typical because as a collectivist culture, the attitudes and decisions of tourists related to a particular travel product or service are largely influenced by others (Zhao et al., 2018). Kwek and Lee (2010) found that Chinese people are socially oriented; their behavior tends to conform to social expectations, and they value external opinions and social acceptance. Consequently, from the perspective of self-evaluation attitudes, Chinese customers want to give others a good impression and show friendly or accessible; accordingly, customers adopt behaviors consistent with social norms (Lee, 1991). More specifically, Chinese customers are affected by Confucian values, and the more motivated they are to use a travel app, the more they are motivated to generate positive attitudes and satisfaction toward that app. Therefore, influenced by Confucian values, when users are satisfied with a travel app, strong user stickiness and WOM should follow.

Hypothesis 4a. Confucian culture has a moderate and positive influence on the relationship between the perceived relative advantages of travel apps and satisfaction.

Hypothesis 4b. Confucian culture has a moderate and positive influence on the relationship between satisfaction and the stickiness of travel apps.

Hypothesis 4c. Confucian culture has a moderate and positive influence on the relationship between the stickiness and WOM of travel apps.

Switching costs are the costs (e.g. monetary, transactional, behavioral, exploratory, and time and effort of learning related) perceived by customers as they objectively measure the cost of moving from one product/service to another (Yang & Peterson, 2004). For technology products or services, interbrand technological incompatibility or functional differences can increase switching costs (Marinoso, 2001). Lee, Lee, and Feick (2001) believe that switching costs are an important barrier to maintaining customer relationships and an important factor in maintaining customer satisfaction and loyalty. They noted that for telecommunications products, the connection between customer-perceived relative advantages and satisfaction depends on switching costs. High switching costs often cause customers to spend money, time, effort, discounts, etc., to switch to another product. In this case, customers have paid

attention to technology providers that can provide greater values compared with what is provided by competitors. Therefore, when the switching costs and perceived relative advantages of technology are high, the user will stop using other products because of “suspected trouble,” thus enhancing satisfaction.

From the perspective of customer behavior, stickiness reflects a repeat behavior of purchasing the same product or service (Copeland, 1923), that is, for a technology provider, it refers to “an intangible ability” to make the purchasers choose the same product or service in a specific category for longer and longer periods (Khalifa, Limayem, & Liu, 2002). It is a fact that the satisfaction of customers will lead to repeat purchase behavior, which may display switching cost measuring. When consumers are satisfied with a brand, they will minimize switching costs, reduce excessive conversion capital expenditures, and purchase replacements (Liang, Choi, & Joppe, 2018). Additionally, customers who are satisfied with their original technology providers may avoid the search time and additional effort that spent on new technology learning (Ukpabi & Karjaluoto, 2017).

In tourism destination seeking, the appearance of travel apps as a new marketplace force has helped tourists decrease the searching cost, destination information, and product difference compare (Fong et al., 2017); it has also decreased the risk of physical travel (Chang et al., 2016). Nevertheless, researchers and practitioners have paid increasing attention to the role of switching costs in determining customers’ behavior. For example, Watchravesringkan, Hodges, and Kim (2010) discuss well-designed, easy-to-navigate websites that provide important incentives for repeat use, create switching barriers for customers and promote business success, which also prompts customer WOM (Nusair, Hua, Ozturk, & Butt, 2017). Therefore, moderating hypotheses of switching costs hypothesis are proposed:

Hypothesis 5a. The moderator of switching costs affects the relationship between the perceived relative advantages of travel apps and satisfaction.

Hypothesis 5b. The moderator of switching costs affects the relationship between satisfaction and the stickiness of travel apps.

Hypothesis 5c. Switching costs have a moderate and positive influence on the relationship between stickiness and the WOM of travel apps.

Methods

Sample and data collection

To achieve the objectives of this study, sample selection was performed using the procedures listed below. Similar sampling methods are utilized in other studies focusing on tourism experience (e.g. Kim et al., 2006; Zatori, Smith, & Puczko, 2018). First, before the data collection, detailed sample selection was clarified for this research topic. The targeted sample was defined as tour participants who have completed travel with travel apps. Moreover, the questionnaire must ask whether the respondents used a travel app for the first time during the travel. If the respondent has not used an app, the survey must be terminated. Second, the samples were obtained through a random sampling (Wang, Hung, & Li, 2018). To obtain a more effective sample, in-person intercept surveys and internet surveys were adopted. Intercept surveys are a common method used in studies related to tourism (Choi, Liu, Pang, & Chow, 2008), and the respondents are randomly selected by research assistants so that there will not be serious issues with a specific sample. Furthermore, Fuzhou, Xiamen, and Quanzhou, all in Fujian Province, are famous tourism cities with rich tourism resources and unique cultures. Some destinations in these cities are selected because the survey sites are representative and suitable. Third, internet surveys provided this study with the opportunity to obtain efficient samples around China (Hung & Law, 2011) and allowed the impact of geography and other factors to be eliminated in the sample as much as possible. Fourth, the survey was conducted eight times and collected at six destinations, which avoided homology errors in sample selection.

The questionnaire was collected from April to June 2018. A total of 509 surveys were distributed, and 497 surveys were completed and returned, representing a response rate of 97.64%. After the survey was completed, the researchers screened the questionnaires and excluded the invalid samples with obvious regularity and short response times. Sixth, 24 questionnaires were unusable because of incomplete responses. Finally, 473 questionnaires were used for the further research and the effective recovery rate was 92.93%. Furthermore, demographic information such as gender, age, education, monthly income, annual travel times, monthly usage frequency, and number of travel apps was also collected and is

shown in Table 1. Among the survey samples, there were a large proportion of female respondents, and most of the travel app users were young people. More than 70% of the users with travel app had received higher education.

Variables and measurement

The six main constructs were selected using the existing maturity scale from the literature and were used to measure users' experience of the travel app. Consequently, to more accurately assess a higher degree of self-assessment, this study utilized seven-point Likert scale that reflected the evaluation level from totally disagree to totally agree in the survey design. Specifically, the first construct is *perceived advantage*. Based on Pavlou (2003)' research, eight items were used and separate *perceived advantage* into two sub-dimensions (e.g. perceived usefulness and perceived ease of use), which reflected the user's perception of the travel app. The second construct is *satisfaction*, which was used three items from previous studies by Gao, Bai, and Park (2017). The third construct, based on the definition and measures developed by Gao et al. (2017), used four items to measure *stickiness*. The fourth construct, *word of mouth*, was referenced from Alexandrov, Lilly, and Babakus (2013), and three items were used to measure user evaluation and dissemination of the travel app. The fifth construct, *Confucian culture*, was measured using Wang, Bao, Wang, and Wu (2017) six items. The sixth construct, *switching costs*, was adapted from Aydin, Özer, and Arasil (2005) and reflects the cost of users switching to other travel apps. All the measurement items, mean and standard deviation (S.D.) were summarized in Table 2.

In order to confirm the convergent validity and discriminant validity of measured constructs, the combined reliability (CR) and average variance extracted (AVE) were applied to estimate (Liu & Lee, 2016). As illustrated in Table 2, the results showed that the values of CR for each construct were ranged from 0.859–0.959 (above 0.70), indicating that all items consistently interpret the potential constructs (Tasci & Milman, 2017). Moreover, the mean variance extraction value (AVE) shows that the validity of the variables is higher than 0.5 (Kao, Huang, & Wu, 2008). The values of AVE were from 0.513–0.886, which indicated that there was a good convergent validity for every construct. In the reliability test, the *perceived usefulness* (0.899), *perceived ease of use* (0.877), *satisfaction*

(0.935), *stickiness* (0.886), *word of mouth* (0.817), *Confucian culture* (0.704), and *switching costs* (0.729) variables all had values of a coefficients greater than 0.7, indicating that the questionnaire had better internal consistency. The AVE root mean square of any variable is greater than the coefficients of correlation between every two variables, indicating that there is sufficient discriminant validity between the dimensions (Fornell & Lacker, 1981).

Analyses of common method variance

The common method variation was tested through the following steps. First, this study clearly emphasized that the measurement item had no right or wrong answer and asked the users to fill in what they real feelings about being interviewed. Second, the factor structure and validity must be confirmed, and confirmatory factor analysis (CFA) was applied to confirm the issue about validity (Hurley et al., 1997). Third, to ensure that the respondent was anonymous, we indicated that personal information would not be revealed in this article (Podsakoff, Mac Kenzie, Lee, & Podsak off, 2003). Finally, the principal components of all the variables in the questionnaire were analyzed by SPSS 21.0. Harman's single-factor test was used to compare with the proposed measurement model (Olya & Al-ansi, 2018). The results revealed that the first principal component only accounted for 32.31% of the variance, which confirmed that common method variation was not a serious issue.

Confirmatory factor analysis

This study implements CFA to examine the first- and second-factor structure with the potential constructs to confirm the construct validity. Moreover, some indexes were applied to check fitness of the overall model. The first factors include satisfaction, user stickiness, Confucian culture, and switching costs. The results showed that first-order factor correlated to the theorized proposed six-factor model fit the data well ($\chi^2 = 519.199$, $p < 0.001$; $\chi^2/df = 2.917$; NFI = 0.885; RFI = 0.865; IFI = 0.921; TLI = 0.907; CFI = 0.921; and RMSEA = 0.064). Further, an alternative second-factor model was also examined in this study, including the two dimensions. The fitness of the second-factor model demonstrated an acceptance ($\chi^2 = 66.881$, $p < 0.001$; $\chi^2/df = 5.145$; NFI = 0.969; RFI = .950; IFI = 0.975; TLI = 0.959; CFI = 0.975; and

Table 1. Background information of participants.

	Items	Percentage	Items	Percentage	
Gender	Male	35.1	Travel times/per year	0 time	3.8
	Female	64.9		1–3 times	72.9
Age	20 below	5.7	Usage frequency/per month	4–5 times	19.9
	20–25	37.6		6–7 times	1.3
	26–35	41.2		8 times or above	2.1
	36–45	12.1		0 time	16.5
	46 above	3.4		1–3 times	65.8
Education	Junior high school and below	3.0	Use quantity	4–6 times	12.9
	Senior high school	7.4		6 times or above	4.8
	College	6.3		1	62.5
	University	68.3		2–3	13.8
Income/per month	MBA or above	15.0	Income/per month	4–5	14.4
	≤2500	27.9		6 above	6.6
	2501–5000	34.0		10,001–20,000	6.1
	5001–10,000	27.7		≥20,001	4.2

RMSEA = 0.094). Perceptual advantage and overall CFA assessment and evaluation indicated that the first- and second-factor structure models are well suited for further data analysis.

Results

The checking procedures were adopted in this study to examine a hypothetical relationship between

perceived advantage, satisfaction, user stickiness, WOM communication, Confucian culture, and switching costs. According to Podsakoff et al. (2003), if there is high correlation between variables, a potential issue about multicollinearity must be tested. We observed that there may be a high correlation between the measured variables. For example, the correlation between perceived usefulness and satisfaction is 0.684. Therefore, this study tested the

Table 2. Descriptive statistics and confirmatory factor analysis.

Indicator	Measurable variable	Mean	Standard deviation	Factor loading	t-value	CR	AVE
Perceived usefulness	PU1	4.909	1.001	0.910		0.937	0.831
	PU2	4.981	0.996	0.934	25.683***		
	PU3	4.939	0.984	0.891	22.080***		
Perceived ease of use	PE1	4.827	1.010	0.838		0.916	0.732
	PE2	4.890	1.019	0.886	18.661***		
	PE3	5.114	1.010	0.878	18.714***		
	PE4	4.989	1.049	0.820	16.836***		
Satisfaction	SAT1	4.808	1.073	0.921		0.959	0.886
	SAT2	4.706	1.066	0.957	30.294***		
	SAT3	4.617	1.087	0.945	28.432***		
Stickiness	STI1	3.970	1.238	0.884		0.929	0.814
	STI2	4.249	1.302	0.916	21.286***		
	STI3	4.228	1.251	0.907	21.273***		
Word of mouth	WOM1	4.393	1.154	0.817		0.892	0.734
	WOM2	4.366	1.177	0.867	14.876***		
	WOM3	4.710	1.119	0.884			
Confucian culture	CC1	4.918	1.196	0.881		0.859	0.513
	CC2	4.765	1.167	0.897	7.781***		
	CC3	4.776	1.131	0.537	4.570***		
	CC4	5.059	1.080	0.613	5.649***		
	CC5	5.588	1.007	0.678	5.828***		
	CC6	4.771	1.182	0.610	4.655***		
Switching cost	SC1	3.385	1.221	0.652		0.868	0.523
	SC2	3.968	1.244	0.758	11.436***		
	SC3	4.518	1.221	0.726	10.414***		
	SC4	4.643	1.350	0.752	6.844***		
	SC5	4.903	1.260	0.659	7.370***		
	SC6	4.353	1.328	0.689	9.542***		

Note: $N = 473$. * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

variance expansion factor (VIF) to explain the high correlation (Johnson, Rosen, & Djurdjevic, 2011). All the values of VIF were between 1.09 and 2.70, which indicated no potential for multicollinearity between the independent and dependent variables (Liu & Lee, 2016). The squares of the mean, standard deviation, correlation, and variable correlation are shown in Table 3.

Some procedures were adopted in this study to examine the hypotheses. First, we used structural equation modeling (SEM) by AMOS 20 software to test the direct and indirect hypotheses, and hierarchical regressions were performed to test the moderating effects with STATA 13. Importantly, SEM can handle the relationships between multiple variables simultaneously and provide estimates of the overall model fit (Lowry & Gaskin, 2014). Moreover, this study adopts bootstrapping method with 2000 resamplings and Monte Carlo (Liu, 2018). The results in Figure 2 showed good model fit for the proposed research framework ($\chi^2 = 259.037$, $p < 0.001$; $\chi^2/df = 2.643$; NFI = 0.955; RFI = 0.944; IFI = 0.971; TLI = 0.965; CFI = 0.971; RMSEA = 0.059).

As illustrated in Figure 2, the two subdimensions of perception of advantage (e.g. perceived usefulness, $\beta = 0.833$ and perceived ease of use, $\beta = 0.835$; all $p < 0.001$) are related to WOM. Meanwhile, the direct effect of perceived advantage on WOM is positive and significant ($\beta = 0.459$, $p < 0.001$), which supports Hypothesis 1. Furthermore, perception of advantage is positively associated to satisfaction ($\beta = 0.866$; $p < 0.001$), and satisfaction is positively related to stickiness ($\beta = 0.640$; $p < 0.001$). In addition, the average indirect effects are statistically significant of perception of advantage on stickiness through satisfaction ($\beta = 0.554$; $p < 0.001$). Thus Hypothesis 2 is supported. Hypothesis 3 will be examined with the similar way,

stickiness is positively associated to WOM ($\beta = 0.348$; $p < 0.001$), and the mediating effect of stickiness on the relationship between satisfaction and WOM is statistically significant ($\beta = 0.223$; $p < 0.001$), which also supports Hypothesis 3. Finally, two-tailed test is used to ensure the accuracy of indirect results testing. Table 4 proves that the maximum and minimum values of the confidence interval are not containing zero. Therefore, the mediating impacts of satisfaction and user stickiness are significant, which further supports Hypotheses 1 and 2.

Next, the moderating effects were examined with regression analysis. Table 5 shows an analysis of the interaction effects of Confucian culture and switching costs. Models 1 and 3 in Table 5 are baseline models that contain only control variables and independent variables. Models 2 and 4 increase the main effects and interaction effects associated with testing Hypotheses 4a and 5a. Models 1 and 2 were used to explain the coefficients in Hypothesis 4a, and Models 3 and 4 were used to interpret the coefficients in Hypothesis 5a.

Hypothesis 4a predicts that when Confucian culture is high, a positive interaction between perceived advantage and user satisfaction existed, and the coefficient for the interaction term of perceived advantage and Confucian culture was positive and significant for satisfaction (Model 2, $\beta = 0.014$; $p < 0.05$). As shown in Figure 3, the interactive effects of the user's Confucian culture are consistent with our predictions. A simple slope showed that this relationship was positive when Confucian culture was high and negative when Confucian culture was low. Thus Hypothesis 4a is supported. Hypothesis 5a proposes that switching costs regulate the relationship between perceived advantage and satisfaction. It was found that the effect of the interaction between

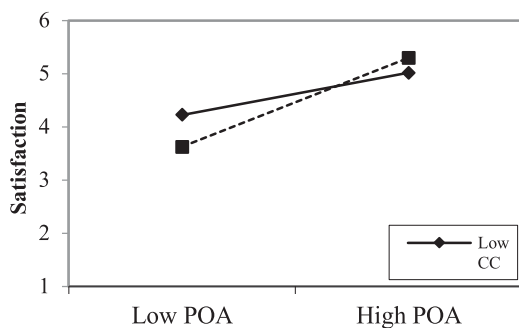


Figure 2. Research framework—results.

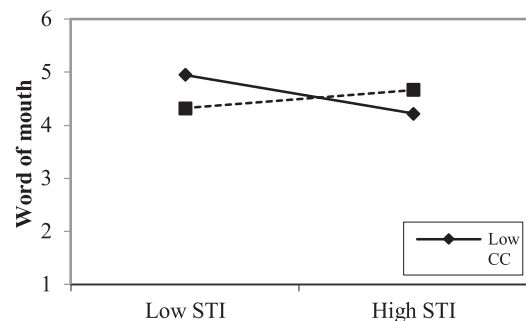


Figure 3. Interaction of perception of advantage and Confucian culture on satisfaction.

Table 3. Means, standard deviations, correlations and distinguishing validity.

Variables	Mean	S.D.	1.	2.	3.	4.	5.	6.	7.	VIF
<i>Perception of advantage</i>										
1. Perceived usefulness	4.927	0.879	0.691							
2. Perceived ease of use	4.955	0.874	0.667	0.839						2.06
3. Satisfaction	4.710	1.012	0.684	0.670	0.920					2.70
4. Stickiness	4.327	1.039	0.506	0.520	0.634	0.863				1.65
5. Word of mouth	4.490	0.984	0.498	0.475	0.570	0.553	0.796			1.82
6. Confucian culture	4.739	0.868	0.270	0.199	0.192	0.132	0.109	0.738		1.09
7. Switching cost	4.295	0.828	0.294	0.286	0.373	0.414	0.367	0.138	0.753	1.26

Note: The significance of Pearson's correlation coefficient reaches *** $P < 0.001$. The root mean square value of AVE is shown in bold on the diagonal.

switching costs and perceived advantage on satisfaction was not significant (Model 4, $\beta = 0.008$; $p = 0.098$). Therefore, Hypothesis 5a is not supported.

Models 5 and 7 in Table 6 are baseline models that contain only control variables and independent variables (satisfaction). Models 6 and 8 increase the main effects and interaction effects associated with Hypotheses 4b and 5b in Table 6. Models 5 and 6 were used to explain the coefficients in Hypothesis 4b. Moreover, Models 7 and 8 were used to interpret the coefficients in Hypothesis 5b.

As illustrated in Table 6, Confucian culture contributes to the relationship between satisfaction and stickiness positively. Results showed that coefficient Confucian culture and satisfaction had no significant interaction effect for stickiness (Model 6, $\beta = 0.010$; $p = 0.110$). Thus Hypothesis 4b is not supported. Next, Hypothesis 5b predicted the positive interaction between satisfaction and stickiness when the switching cost was high. The findings indicate that the coefficient for the moderate term of satisfaction and switching costs affects stickiness positively and significantly (Model 8, $\beta = 0.069$; $p < 0.05$). Figure 4 showed that satisfaction had a more positive impact on stickiness when switching costs was higher (rather than lower). Therefore, Hypothesis 5b is supported.

Finally, Hypotheses 4c and 5c were tested with Models 9–12 in Table 7. Models 9 and 11 are the baseline models and only include the control variables and independent variables. Models 10 and 12 increase the main effects and interaction effects associated with

Hypotheses 4c and 5c in Table 7. Models 9 and 10 were used to explain the coefficients of Hypothesis 4c, and Models 11 and 12 to interpret the coefficients of the Hypothesis 5c.

Hypothesis 4c predicted a positive interaction related to stickiness and WOM while the degree of Confucian culture received by users was different. The results showed that there was a positive and significant interaction term of Confucian culture and stickiness for WOM (Model 10, $\beta = 0.170$; $p < 0.01$). The simple slope in Figure 5 also demonstrated that when Confucian culture had a greater impact on users, the positive impact of stickiness on WOM was more pronounced. Thus Hypothesis 4c is supported.

Moreover, Hypothesis 5c predicted that switching costs played a positive moderator of the relationship between stickiness and WOM. The coefficient of the interaction item of stickiness and switching costs had a positive and significant influence on stickiness (Model 12, $\beta = 0.058$; $p < 0.05$). Figure 6 showed that when the switching costs were higher (rather than lower), the higher the user's stickiness was, the more positive WOM was spread. Therefore, Hypothesis 5c is supported.

Robustness checks

This study also provided an additional analysis of the first-order effects of perception advantage to examine the robustness of proposed model results. On the one hand, according to Wu and Wang (2005)

Table 4. Mediation effect test.

Hypothesis path	Standard error	Estimates	Bias-corrected 95% CI		Percentile 95% CI		Results
			Lower	Upper	Lower	Upper	
Perception of advantage → Word of mouth	0.044	0.193	0.114	0.287	0.110	0.281	
H2: Perception of advantage → Stickiness	0.046	0.554	0.458	0.641	0.458	0.641	Support
H3: Satisfaction → Word of mouth	0.052	0.223	0.130	0.326	0.125	0.325	Support

Table 5. Results of the ordinary least squares regression analysis.

Models Variables	Satisfaction							
	Model 1		Model 2		Model 3		Model 4	
	Coef.	t	Coef.	t	Coef.	t	Coef.	t
<i>Control variables</i>								
Gender	0.044	0.65	0.036	0.54	0.044	0.68	0.045	0.68
Age	0.003	0.11	-0.001	-0.04	-0.007	-0.20	-0.007	-0.21
Education level	-0.075	-2.20*	-0.077	-2.26*	-0.061	-1.81	0.061	-1.80
Income/per month	0.046	1.50	0.048	1.58	0.044	-1.46	0.044	-1.45
Travel times/per year	0.005	0.10	0.004	0.08	0.016	-0.32	0.017	-0.32
Usage frequency/per month	0.025	0.56	0.021	0.48	0.036	-0.81	0.036	-0.81
Confucian culture (CC)	0.000	0.06	-0.061	-2.14**				
Switching cost (SC)					0.164	4.18***	0.150	-0.85
<i>Independent variable</i>								
Perception of advantage (POA)	0.940	21.97***	0.511	2.59*	0.882	21.57***	0.871	5.83***
<i>Mediating variables</i>								
POA* CC			0.140	2.23*				
POA* SC							0.008	-0.94
<i>Model statistics</i>								
R ²	0.572	0.576	0.587	0.587				
R ² _{adj}	0.564	0.568	0.580	0.579				
F-value	77.44***	69.97***	82.54***	73.21***				

Note: N = 473. *P < 0.05; **P < 0.01; ***P < 0.001.

research, perception of advantage can be divided into two dimensions of usefulness and ease of use. On the other hand, similar process is used to test the original hypothesis with SEM and regression analysis. Next, this study evaluated the four alternative theoretical models that we proposed. First, alternative model 1 is to separate the dimension of “perception of advantage” into usefulness and ease of use and then to compare it to the original model. The robustness models have results as poor as the proposed model ($\chi^2=609.316$, $p < 0.001$; $\chi^2/df = 6.033$; CFI = 0.909; GFI = 0.869; IFI = 0.909; AGFI = 0.824; and RMSEA = 0.103). Further, the path test results are shown in Figure 7. The results show that satisfaction has a positive effect on stickiness ($\beta = 0.655$; $p < 0.001$), and there is also a positive effect between stickiness and WOM ($\beta = 0.653$; $p < 0.001$).

Ultimately, the mediating effect of stickiness on the relationship between satisfaction and WOM is statistically significant ($\beta = 0.284$; $p < 0.001$), which strongly confirms Hypothesis 3.

Second, alternative model 2 adds the path of “perception of advantage” to “stickiness.” The results show that the model fits the data well ($\chi^2 = 319.325$, $p < 0.001$; $\chi^2/df = 3.259$; CFI = 0.960; GFI = 0.932; IFI = 0.961; AGFI = 0.892; and RMSEA = 0.069). Meanwhile, the robustness models demonstrate that the mediation effects of satisfaction and stickiness are significant and there are the similar results of Confucian culture and switching cost. However, the direct effect between perception of advantage and stickiness is not significant. And Figure 8 shows the

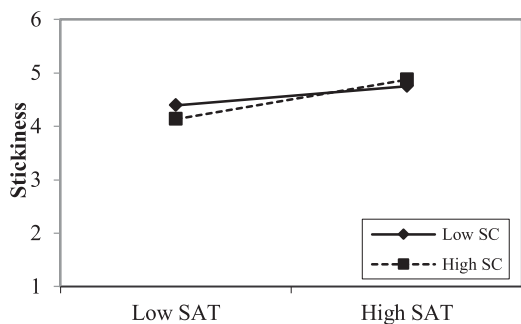


Figure 4. Interaction of satisfaction and switching costs on stickiness.

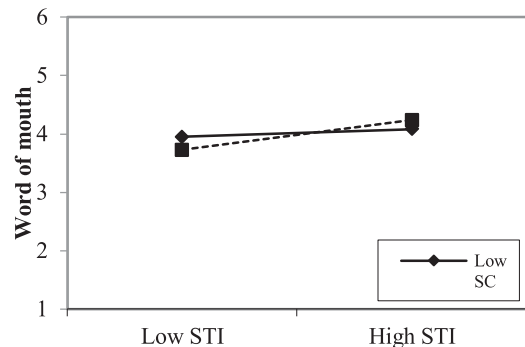


Figure 5. Interaction of stickiness and Confucian culture on word of mouth.

Table 6. Results of the ordinary least squares regression analysis (continued).

Models Variables	Stickiness							
	Model 5		Model 6		Model 7		Model 8	
	Coef.	t	Coef.	t	Coef.	t	Coef.	t
<i>Control variables</i>								
Gender	0.097	-1.07	0.090	-0.98	0.102	-1.16	0.107	-1.22
Age	0.092	-1.93	0.091	-1.90	0.075	-1.63	0.062	-1.35
Education level	-0.125	-2.69**	-0.126	-2.71**	-0.105	-2.34*	-0.104	-2.32*
Income/per month	0.040	-0.96	0.043	-1.03	0.041	-1.03	0.045	-1.12
Travel times/per year	-0.121	-1.69	-0.125	-1.75	-0.102	-1.48	-0.100	-1.46
Usage frequency/per month	0.205	-3.40***	0.202	3.34***	0.223	-3.82**	0.225	-3.85***
Confucian culture (CC)	0.006	-0.62	-0.038	-1.19				
Switching cost (SC)					0.306	-5.78***	-0.027	-0.16
<i>Independent variable</i>								
Satisfaction (SAT)	0.630	14.31***	0.312	-6.38***	0.543	12.43***	0.255	-4.71***
<i>Mediating variables</i>								
SAT* CC			0.010	-1.43				
SAT* SC							0.069	2.03*
<i>Model statistics</i>								
R ²	0.382		0.384		0.423		0.428	
R _{adj} ²	0.371		0.372		0.413		0.417	
F-value	35.78***		32.10***		42.44***		38.43***	

Note: N = 473. *P < 0.05; **P < 0.01; ***P < 0.001.

results for the path estimates. Hypothesis 2 proposed that the perception of advantage indirectly impacts users' stickiness through users' satisfaction. Consistent with this hypothesis, perception of advantage is positively associated to satisfaction ($\beta = 0.860$; $p < 0.001$) and indirectly influenced stickiness ($\beta = 0.481$; $p < 0.001$). In support of Hypothesis 3, satisfaction was positively related to WOM through stickiness ($\beta = 0.359$; $p < 0.001$). Therefore, the results still supported Hypotheses 2 and 3.

The tried alternative model 3 will be tested next, which adds the path of "satisfaction" to "word of mouth." The results showed that the alternative model also fit the data well ($\chi^2 = 268.720$, $p < 0.001$; $\chi^2/df = 2.742$; CFI = 0.969; GFI = 0.934; IFI = 0.970; AGFI = 0.909; and RMSEA = 0.061). Furthermore, consistent with Hypothesis 2, perception of advantage was positively associated to satisfaction ($\beta = 0.866$; $p < 0.001$) and indirectly influenced stickiness ($\beta = 0.640$; $p < 0.001$). In support of Hypothesis 3, satisfaction was

Table 7. Results of the ordinary least squares regression analysis (continued).

Models Variables	Word of mouth							
	Model 9		Model 10		Model 11		Model 12	
	Coef.	t	Coef.	t	Coef.	t	Coef.	t
<i>Control variables</i>								
Gender	-0.175	-2.10*	-0.188	-2.27*	-0.188	-2.29*	-0.183	-2.23*
Age	-0.032	-0.73	-0.027	-0.61	-0.024	-0.56	-0.037	-0.84
Education level	0.048	-1.12	0.052	-1.21	0.057	-1.34	0.056	-1.33
Income/per month	-0.048	-1.26	0.050	-1.32	-0.046	-1.21	-0.044	-1.18
Travel times/per year	0.197	-3.01**	0.199	-3.06**	0.198	-3.06**	0.192	-2.97**
Usage frequency/per month	-0.072	-1.28	-0.086	-1.54	-0.049	-0.88	-0.041	-0.74
Confucian culture (CC)	0.031	-3.69***	-0.034	-1.32				
Switching cost (SC)					0.228	4.50***	-0.014	-0.11
<i>Independent variable</i>								
Stickiness (STI)	0.427	12.09***	-0.079	-0.40	0.383	10.14***	0.127	-0.95
<i>Mediating variables</i>								
STI* CC			0.170	-2.63**				
STI* SC							0.058	1.99*
<i>Model statistics</i>								
R ²	0.306	0.317	0.316	0.322				
R _{adj} ²	0.295	0.303	0.304	0.309				
F-value	25.63***	23.84***	26.78***	24.40***				

Note: N = 473. *P < 0.05; **P < 0.01; ***P < 0.001.

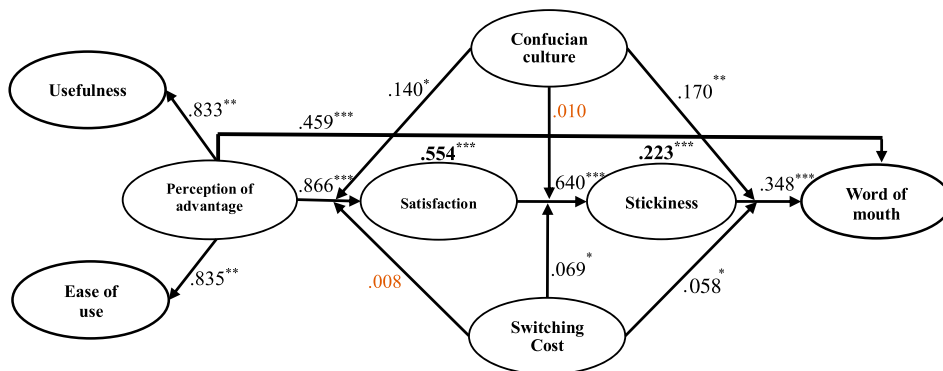


Figure 6. Interaction of stickiness and switching costs on word of mouth.

positively related to WOM through stickiness ($\beta = 0.326$; $p < 0.001$). Thus Hypotheses 2 and 3 remained supported (Figure 9).

Fourth, we test alternative model 4, which removes the path of “perception of advantage” to “word of mouth”. A good fitness was provided by the alternative model ($\chi^2 = 320.428$, $p < 0.001$; $\chi^2/df = 3.237$; CFI = 0.960; GFI = 0.922; IFI = 0.961; AGFI = 0.893; and RMSEA = 0.069). Furthermore, consistent with Hypothesis 2, perception of advantage was positively related to stickiness through satisfaction ($\beta = 0.771$; $p < 0.001$). In support of Hypothesis 3, satisfaction was positively related to WOM through stickiness ($\beta = 0.416$; $p < 0.001$). Thus Hypotheses 2 and 3 were fully supported (Figure 10).

Finally, we report the moderating effects. The results of alternative models 8, 9, and 10 for the moderating effect estimates with Hypotheses 4a–4c and 5a–5c are consistent, which shows similar results with the proposed models that are summarized in Tables 5–7. The evidence shows support for Hypotheses 4b, 4c, 5a, and 5c. This study followed Aiken and West (1991) suggested and plotted the moderation effects between perception of advantage and Confucian culture and stickiness and Confucian culture at 1SD above (high Confucian culture) and 1SD below (low Confucian culture) the mean of the user’s degree of Confucian culture. The plots are also included in Figures 3 and 5 based on the regressions and show that when users had a lower (rather than a higher) degree of Confucian culture, their perception of advantage was more positively associated with their satisfaction, and their stickiness was more positively associated with WOM.

Furthermore, this study draws a two-dimensional interaction effect diagram with the relationships

between satisfaction and switching costs and stickiness and switching costs at 1SD above (high switching costs) and 1SD below (low switching costs) the mean of the cost of using other apps. These moderators of switching costs strengthen the relationship between satisfaction and stickiness, which also strengthens the relationship between stickiness and WOM at high levels of switching costs. The plots of the moderating effects of switching costs are shown in Figures 4 and 6. We also discovered that the hypothesis model of this study has strong robustness.

Discussion

Based on Confucian culture and philosophy, this study conceptualized the theoretical conceptual model of “travel apps behavior” and examined how tourists engage in the new technology experience of destination information searching behavior in Chinese contexts. Our results provide new evidence to measure the validity of the new travel technology constructs and predictive WOM beyond established behaviors unique to Eastern tourists. The discussion makes the following three points. First, the degree of benefit that tourists perceived from the travel app may affect the app’s WOM. Specifically, perceived benefit can affect stickiness through satisfaction, indicating that the tourist’s new technology acceptance process of the travel app is consistent with the TAM built by Davis (1989). In other words, the higher the user’s acceptance and perceptions of the benefit of the travel app are, the more positive the evaluation and WOM that may be achieved through their stickiness and satisfaction.

Second, the results confirm that Confucian culture acts as a moderating role in the relationship

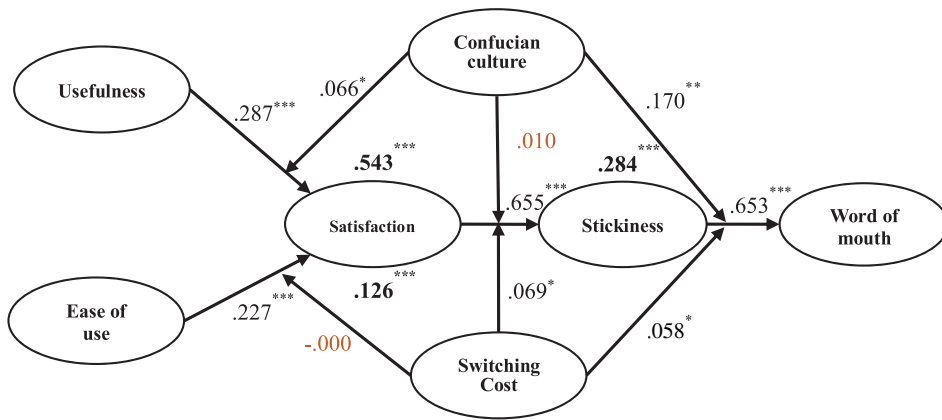


Figure 7. Alternative model 1—Separate dimension of “Perception of advantage” into usefulness and ease to use.

between perceived advantage, satisfaction, user stickiness, and WOM, but no such moderated effect is found between satisfaction and user stickiness. People’s psychological states are such that behaviors are always moderated by culture (Kacen & Lee, 2002). Cultural experience has been recognized by marketing theorists as one of the critical attributes in attracting tourists’ interest in visiting a site and in changing their behavior of intention (Howard & Sheth, 1969). Confucian culture is widely used in studies related to consumer behavior (Wang et al., 2017). The results of our study are consistent with the findings of a previous study. Scholars have asserted that Confucian culture affects consumer behavior intentions (Chung & Pysarchik, 2000; Lee, 1991) and, as a certain kind of moderator, affects the consumption process (Zhang, Zhu, & Liu, 2012). For example, Confucian culture focuses on “consistent words and deeds,” which influences the positive or

negative evaluation of present and future travel behavior of users when conducting WOM (Ren & Qiu, 2018). If the function of a travel app can satisfy their requirements, the user will move towards a positive behavior based on “consistent words and deeds” (Fong et al., 2017). In addition, the concept of harmony in Confucian culture will reduce users’ negative WOM about travel apps. Regarding the user experience psychology perspective of Confucian value influence, this study shows that stronger user stickiness will generate more positive WOM about a travel app. However, the original hypothesis that “Confucian values will positively strengthen the relationship between satisfaction and user stickiness” is not found to be supported, because satisfaction, rather than culture, is the decisive factor in terms of whether a user will decide to use an app for a long time. The findings indicated that travel App not only enables tourism enterprises continuously

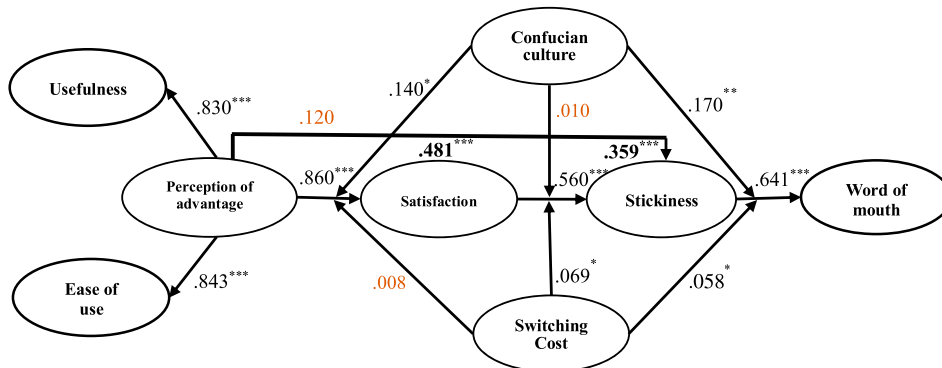


Figure 8. Alternative model 2—Add path of “Perception of advantage” to “Stickiness.”

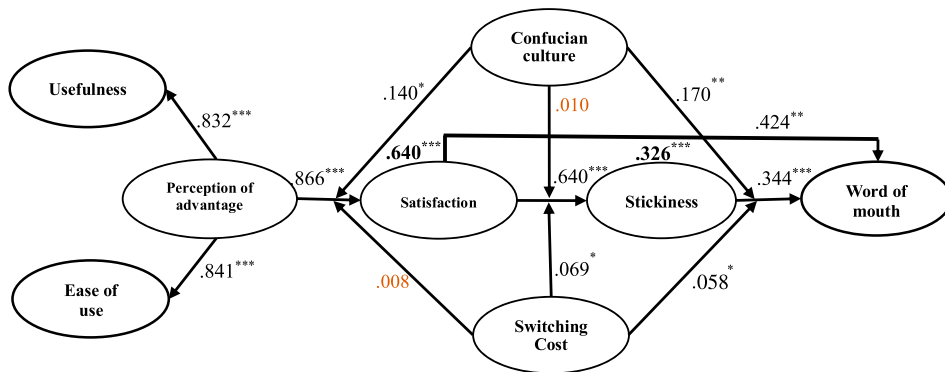


Figure 9. Alternative model 3—Add path of “Satisfaction” to “Word of mouth.”

enhance the competitiveness of products and service in the dynamic tourism environment to attract the tourist but also provided the conceptual model in predicting tourists’ behavior of new technology acceptance.

Third, this study asserted that there was a positive moderator effect of switching costs on the relationship between satisfaction, user stickiness, and WOM communication, but no such moderated effect is found between perceived advantage and satisfaction. In the long-term use phase, the switching costs play a positive role in the process of moving from user satisfaction to WOM communication. This result is consistent with the research done by Jones, Mothersbaugh, and Beatty (2000) on consumer behavior; that is, when the switching costs are higher, it may confound higher user satisfaction with stickiness to a travel app. Further, this study also found that when the user’s stickiness is high, people are more willing to engage in positive WOM communication because it is costly and inconvenient to switch to another travel app. However, in the initial stage of use, the switching costs did not enhance the relationship between perceived advantage and satisfaction. For example, when a tourist first uses a travel app, he/she can only determine whether it is useful and easy to use. In China, where travel apps are developing rapidly, apps such as Ctrip, Qunar, Ali, and the like are strongly competitive (Na, Xueyuan, & Yulian, 2016). Another explanation is that the final choice of users may be based on “first download the experience, then compare the same apps, and finally confirm the attitude toward use.” Therefore, in the new technology adoption process, because the user is in the stage of comparison and hesitation, it is difficult to feel the impact of the conversion cost during the initial use.

Thus, in the initial stage of travel app use, switching costs are difficult to use.

Theoretical implications

The support we found for this conceptual framework, aside from the traditional tourism destination searching explanation, provides strong evidence for the important role that travel app perceptions play in providing significant theoretical implications in Chinese contexts. First, this study focuses on the development path of tourists’ pre- and post-acceptance behaviors related to travel apps and answers previously unsolved questions in the field of tourism about whether users will be willing to spread WOM after accepting the information technology of a travel app, which will help in developing new tourism research in this field. The results provide a systematic explanation. Previous tourism studies have provided a systematic explanation, albeit one that is focused on discussing WOM as a factor in the individual’s use of a product or service, and argue that individuals will change their willingness to use, purchase intention and antecedents of tourist satisfaction (Wardi, Abror, & Trinanda, 2018). For example, Chang et al. (2016) provided empirical evidence of how critical factors such as perception of advantage, WOM communication and social influence affect users’ use of a Taiwanese medical app. Our research focuses on the behavior of users after using and experiencing travel apps, thus extending previous studies. Furthermore, previous research has asserted that users passively receive other people’s WOM communication information, affecting self-determination (Papadimitriou, Kaplanidou, & Apostolopoulou, 2018). This study focuses on whether users’ self-experience and post-

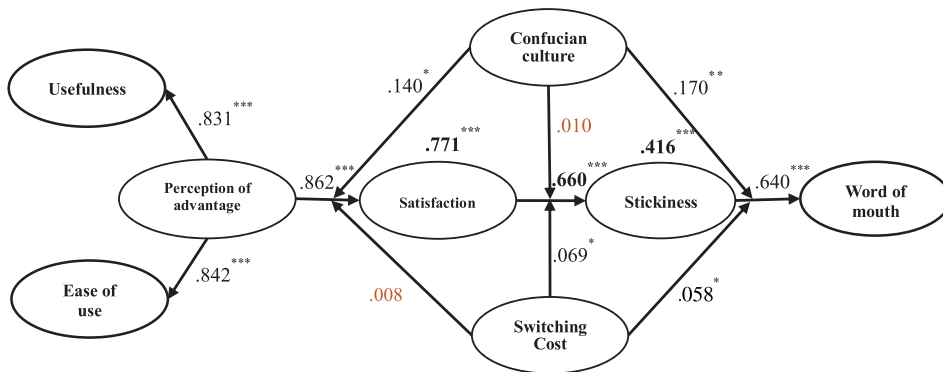


Figure 10. Alternative model 4—Remove path of “Perception of advantage” to “Word of mouth.”

entry will generate an active willingness to engage in WOM communication through mediation mechanisms such as satisfaction and stickiness that have not been discussed in the existing literature. The study found that when users perceive the usefulness and ease of use of travel apps, they will adopt a positive attitude because the functions of such apps fit their needs, which will increase user stickiness. This enduring effect of satisfaction and stickiness motivates users to form positive evaluations of the travel app. The conclusion of this study expands the research on the use and experience of tourism apps and provides a new research direction for this field in the area of new technology application.

Second, the study used psychology-based rational behavior theory, the technical acceptance model was revised (Mu & De Jong, 2018). The study focuses on the cultural values impacts on individual attitudes and behaviors, which explains whether users' acceptance and evaluation of a technology will be influenced by its own values (Altunel & Erkut, 2015). Previous research focus more on the values of consumers related to when they buy products or services (Kwek & Lee, 2010). However, whether users accept a new technology under Confucian values has been less discussed (Lu et al., 2015). This study asserted that consumers' perceptions and attitudes about the value of their behavior are influenced by their value mind set, especially by traditional values such as those in Confucian culture. The results are particularly important for tourist behavior in the new technology acceptance environment, as they not only enrich the research mechanism of the influence of traditional values on users but also further reveal the mechanism of its two processes: pre-acceptance and post-acceptance. In the increasingly competitive tourism

environment, the behavioral process plays a certain role in regulating the acceptance of apps, which can help us to form a comprehensive understanding of the effects of traditional culture on new tourism media applications and to extend follow-up research in the current environment.

Third, prior studies emphasized the effects of switching costs on individual behavioral and emotional outcomes such as perceived value (Yang & Peterson, 2004), satisfaction (Chebat, Davidow, & Borges, 2011), and loyalty (Back & Lee, 2009; Baloglu, Zhong, & Tanford, 2017). However, there has been little work that examines the interrelationships among the dimensions of switching costs and their moderating roles in the WOM process (Han & Ryu, 2012). The switching costs are a key factor driving customers' WOM intentions. Accordingly, this study focuses on the impact of switching costs on users' behavior before and after the acceptance of a travel app. Unlike previous studies, this study found that the effect of switching costs is an important consideration for the long-term use phase of the user, rather than the initial use phase of perception of advantage. In the past, the research on whether switching costs have an impact on user behavior only discussed the effect of single factors (e.g. customer satisfaction, values, loyalty, etc.) on the user's willingness to use new technology (Li & Duan, 2011). The impact of switching costs on the behavior of users before and after acceptance has not been explored in depth. Therefore, this study focuses on the difference between long-term use and the initial use of switching costs. This conclusion not only enriches the tourism research on the mechanism of switching costs but also further reveals its role in the initial and long-term phases of users' use of travel apps. The

mechanism is distinguishable and can help us develop a more comprehensive understanding of the effects of switching costs, highlighting the critical role of switching costs for the firms involved in travel app activities.

Practical implications

The results of this study suggest a number of practical implications for tourism managers. First, the findings of this study suggest that if managers want to satisfy users when they use an app in the initial stage, the advantage of the app is the most critical factor. Therefore, the accessibility of the usefulness and ease of use of travel apps in the early stages attract the potential users. In the rarely stage of stoneware introducing, researchers show perceived usefulness and ease of use will ultimately affect user stickiness and its WOM (Ortiz, Chih, & Teng, 2017). Thus tourism managers should pay more attention to optimizing the hardware and software of travel Apps, such as customize user needs and habits, optimize page layout, simplify operating system and navigation system, ensure users search for important information in a short time. Further, the travel apps functions may also strengthen technology embedding and integrated the big data processing system to realize resource integration and output in a timely and effective manner (Salas-Olmedo, Moya-Gómez, García-Palomares, & Gutiérrez, 2018). In addition to providing users with information of tourism value, managers may also think how to provide intelligent information of various travel information platform of compared function, such as hotel price comparison information, formation of optimization information, and so on (Pan & Yang, 2017). The multiple function of software operation system not only can enhance the usability of the software, establishes an information feedback mechanism and a personalized service system, but also may enable users to effectively get value information and feedback to meet their own needs.

Second, the results of this study prove that satisfaction is an important factor in improving user stickiness and WOM. Therefore, the needs of users must be satisfied as much as possible, which require managers to conduct market research and identify users' interests and needs. Tourism organization or destinations produce more WOM feedbacks if their tourist or users have pleasure and enjoyable experiences on travel Apps. Although create useful and easy to use functions is relatively straightforward of WOM, developing user friendly functions may require get more

closing to customers' changeable needs with tourism requirement. Thus for promotion strategy making, hospitality and tourism marketers have to understand target guest needs and reasons of travel apps usage, and try to explore those tourism product or service on these consumers to satisfy their changeable needs (Litvin, Goldsmith, & Pan, 2018). Finally, attracting the initial users, strengthening follow-up visits and experience surveys, seeking user suggestions, smoothing access to rights channels, and solving user complaints are the best ways to establish new user service mechanisms (Kim & Fesenmaier, 2015).

Third, this research provides useful information to managers in the tourism and hospitality industry regarding which switching and value factors facilitate customers' satisfaction and stickiness and which contribute to customer WOM. Studies have shown that the cost of switching does not have a major impact on first-time users, but when users have experience using apps, the role that loyal customers play is increasingly important in generating the positive WOM. Therefore, increasing the switching cost during the use process can enhance the user's stickiness. It is especially important for companies to maximize the cost of switching to other travel apps, establish a membership guarantee mechanism, and increase the value of coupons, credits and membership rights in order to improve the experience of using travel apps. Furthermore, discounts can be used to stimulate users' revisits and purchases in an app, and coupons can also be used to obtain other benefits when the customer's consumption has reached a certain scale, thereby increasing the conversion cost for the customer. Moreover, enhancing the brand awareness and product image of an app increases the emotional switching cost for the users. Because the satisfaction and emotional attachment of users accumulated by customers in their past consumption experience have become a barrier to conversion, customers will continue to maintain the decision to use their original app.

Limitations and future research

This research provides a theoretical foundation for the development of travel app research, not only as a new beginning to explore the role of traditional Chinese values in the information age but also as a supplement to the research on users' behavior after using a travel app. Despite this study's contributions, shortcomings

remain that require further research. First, although this study indicates that Confucian values have a role to play in the process of WOM before and after the acceptance of travel apps, the specific effects of Confucian values have not been fully revealed in this study. Other specific measurements of Confucian values such as “worship is a blessing,” “harmony,” and “moderation” have a subtle influence on individual behaviors. Furthermore, Yan and Sorenson (2006) have asserted that Confucian values are the most important philosophical and ideological basis for interpersonal patterns and individual behavioral prediction. Therefore, future research could also explore differences in user behaviors in different regions (e.g. China, Korea, Japan, and Taiwan) under the influence of different cultural values in cross-cultural situations (Zhang, Lin, Nonaka, & Beom, 2005).

Second, based on the TAM, this study analyzes the WOM behavior of users after their acceptance of travel apps. The results of this study did not show the effects of negative WOM; however, in a rapidly communicating information network, unfavorable WOM is more effective in changing customers’ service or product evaluations and in changing their purchase intentions (Sweeney, Soutar, & Mazzarol, 2014). Future research may compare the effects of positive and negative WOM to establish a new theoretical framework for analyzing travel apps. Such comparative approaches could also pinpoint when the potential mechanisms in our model—perception of advantage, satisfaction, stickiness, switching costs, and Confucian culture—are necessary to transform tourists’ behavior into a travel app experience.

Acknowledgments

The author would like to thank anonymous reviewers for useful suggestions and 2017 Project from National Social Science Foundation of China (No. 17BGL114) for financial support.

Disclosure statement

No potential conflict of interest was reported by the authors.

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(C), 97–111.

- Ahrholdt, D. C., Gudergan, S. P., & Ringle, C. M. (2017). Enhancing service loyalty: The roles of delight, satisfaction, and service quality. *Journal of Travel Research*, 56(4), 436–450.
- Aiken, L. S., & West, S. G. (1991). Multiple regression: Testing and interpreting interactions – institute for social and economic research (ISER). *Journal of the Operational Research Society*, 45(1), 119–120.
- Alexandrov, A., Lilly, B., & Babakus, E. (2013). The effects of social- and self-motives on the intentions to share positive and negative word of mouth. *Journal of the Academy of Marketing Science*, 41(5), 531–546.
- Altunel, M. C., & Erkut, B. (2015). Cultural tourism in Istanbul: The mediation effect of tourist experience and satisfaction on the relationship between involvement and recommendation intention. *Journal of Destination Marketing & Management*, 4(4), 213–221.
- Aydin, S., Özer, G., & Arasil, Ö. (2005). Customer loyalty and the effect of switching costs as a moderator variable. *Marketing Intelligence & Planning*, 23(1), 89–103.
- Back, K. J., & Lee, J. S. (2009). Country club members’ perceptions of value, image congruence, and switching costs: An exploratory study of country club members’ loyalty. *Journal of Hospitality & Tourism Research*, 33(4), 528–546.
- Baloglu, S., Zhong, Y. Y., & Tanford, S. (2017). Casino loyalty: The influence of loyalty program, switching costs, and trust. *Journal of Hospitality & Tourism Research*, 41(7), 846–868.
- Bhattacharjee, A. (2001). Understanding information systems continuance: An expectation-confirmation model. *MIS Quarterly*, 25(3), 351–370.
- Buhalis, D., & Foerste, M. (2015). Socomo marketing for travel and tourism: Empowering co-creation of value. *Journal of Destination Marketing & Management*, 4(3), 151–161.
- Byun, H., Chiu, W., Bae, J. S., & Pablos, P. O. D. (2018). Exploring the adoption of sports brand apps: An application of the modified technology acceptance model. *International Journal of Asian Business & Information Management*, 9(1), 52–65.
- Chang, I. C., Chou, P. C., Yeh, R. K. J., & Tseng, H. T. (2016). Factors influencing Chinese tourists’ intentions to use the Taiwan medical travel App. *Telematics and Informatics*, 33(2), 401–409.
- Chebat, J. C., Davidow, M., & Borges, A. (2011). More on the role of switching costs in service markets: A research note. *Journal of Business Research*, 64(8), 823–829.
- Choi, T. M., Liu, S. C., Pang, K. M., & Chow, P. S. (2008). Shopping behaviors of individual tourists from the Chinese mainland to Hong Kong. *Tourism Management*, 29(4), 811–820.
- Chung, J., & Pysarchik, D. T. (2000). A model of behavioral intention to buy domestic versus imported products in a Confucian culture. *Marketing Intelligence & Planning*, 18(5), 281–291.
- Copeland, M. T. (1923). Relation of consumers’ buying habits to marketing methods. *Harvard Business Review*, 1(3), 282–289.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.
- Dick, A. S., & Basu, K. (1994). Customer loyalty: Towards an integrated framework. *Journal of the Academy of Marketing Science*, 22(2), 99–113.
- Dieck, M. C. T., & Jung, T. (2015). A theoretical model of mobile augmented reality acceptance in urban heritage tourism. *Current Issues in Tourism*, 21(2), 154–174.
- Fang, J., Zhao, Z., Wen, C., & Wang, R. (2017). Design and performance attributes driving mobile travel application engagement.

- International Journal of Information Management*, 37(4), 269–283.
- Flavián, C., Guinaliú, M., & Gurrea, R. (2006). The role played by perceived usability, satisfaction and consumer trust on website loyalty. *Information and Management*, 43(1), 1–14.
- Fong, L. H. N., Lam, L. W., & Law, R. (2017). How locus of control shapes intention to reuse mobile apps for making hotel reservations: Evidence from Chinese consumers. *Tourism Management*, 61, 331–342.
- Fornell, C., & Lacker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(1), 39–50.
- Furner, C. P., Racherla, P., & Babb, J. S. (2015). What we know and do not know about mobile app usage and stickiness: A research agenda. *International Journal of E-Services and Mobile Applications (IJESMA)*, 7(3), 48–69.
- Gao, L., Bai, X., & Park, A. (2017). Understanding sustained participation in virtual travel communities from the perspectives of is success model and flow theory. *Journal of Hospitality & Tourism Research*, 41(4), 1–35.
- Groth, M. (2005). Customers as good soldiers: Examining citizenship behaviors in internet service deliveries. *Journal of Management*, 31(1), 7–27.
- Han, H., & Ryu, K. (2012). Key factors driving customers' word-of-mouth intentions in full-service restaurants: The moderating role of switching costs. *Cornell Hospitality Quarterly*, 53(2), 96–109.
- Hasan, A. A. T. (2018). Customer relationship Management (CRM) Practices of City Bank in customer Retention perspective in Bangladesh. *Global Journal of Management and Business Research*, 18(2), 15–24.
- Hong, S., Thong, J. Y., & Tam, K. Y. (2006). Understanding continued information technology usage behavior: A comparison of three models in the context of mobile internet. *Decision Support Systems*, 42(3), 1819–1834.
- Hotels.com. (2016). Chinese international travel monitor 2015. Retrieved from <http://www.citm2015.com/pdf/hcom-citm-report-2015-inter>
- Howard, J. A., & Sheth, J. N. (1969). *The theory of Buyer behavior*. New York: John Wiley and Sons, Inc.
- Hsueh, C. Y., Chen, K. H., & Chen, P. M. (2014). The exploratory study of constructing the scale for service convenience in mobile app: The case of Chain Hotel in Taiwan. *IEEE International Conference on E-business Engineering*. IEEE.
- Huang, Y. C., & Liu, C. H. S. (2017). Moderating and mediating roles of environmental concern and ecotourism experience for revisit intention. *International Journal of Contemporary Hospitality Management*, 29(7), 1854–1872.
- Hung, K., & Law, R. (2011). An overview of internet-based surveys in hospitality and tourism journals. *Tourism Management*, 32(4), 717–724.
- Hurley, A. E., Scandura, T. A., Schriesheim, C. A., Brannick, M. T., Seers, A., & Vandenberg, R. J. (1997). Exploratory and confirmatory factor analysis: Guidelines, issues, and alternatives. *Journal of Organizational Behavior*, 18(6), 667–683.
- Jackson, M. (2018). Utilizing attribution theory to develop new insights into tourism experiences. *Journal of Hospitality and Tourism Management*. doi:10.1016/j.jhtm.2018.04.007
- Jackson, P., & Harris, L. (2003). E-business and organisational change: Reconciling traditional values with business transformation. *Journal of Organizational Change Management*, 16(5), 497–511.
- Johnson, R. E., Rosen, C. C., & Djurdjevic, E. (2011). Assessing the impact of common method variance on higher order multidimensional constructs. *Journal of Applied Psychology*, 96, 744–761.
- Jones, M. A., Mothersbaugh, D. L., & Beatty, S. E. (2000). Switching barriers and repurchase intentions in services. *Journal of Retailing*, 76(2), 259–274.
- Jones, T., & Taylor, S. F. (2007). The conceptual domain of service loyalty: How many dimensions? *Journal of Services Marketing*, 21(1), 36–51.
- Kaba, B., & Osei-Bryson, K. M. (2013). Examining influence of national culture on individuals' attitude and use of information and communication technology: Assessment of moderating effect of culture through cross countries study. *International Journal of Information Management*, 33(3), 441–452.
- Kacen, J. J., & Lee, J. A. (2002). The influence of culture on consumer impulsive buying behavior. *Journal of Consumer Psychology*, 12(2), 163–176.
- Kao, Y. F., Huang, L. S., & Wu, C. H. (2008). Effects of theatrical elements on experiential quality and loyalty intentions for theme parks. *Asia Pacific Journal of Tourism Research*, 13(2), 163–174.
- Khalifa, M., Limayem, M., & Liu, V. (2002). Online customer stickiness: A longitudinal study. *Journal of Global Information Management (JGIM)*, 10(3), 1–14.
- Kiatkawsin, K., & Han, H. (2017). An alternative interpretation of attitude and extension of the value–attitude–behavior hierarchy: The destination attributes of Chiang mai, Thailand. *Asia Pacific Journal of Tourism Research*, 22(5), 1–20.
- Kim, J. H. (2017). The impact of memorable tourism experiences on loyalty behaviors: The mediating effects of destination image and satisfaction. *Journal of Travel Research*, 0047287517721369.
- Kim, J., & Fesenmaier, D. R. (2015). Measuring emotions in real time: Implications for tourism experience design. *Journal of Travel Research*, 54(4), 419–429.
- Kim, H. J., Gursoy, D., & Lee, S. B. (2006). The impact of the 2002 World Cup on South Korea: Comparison of pre- and post-games. *Tourism Management*, 27(1), 86–96.
- Kim, H. W., Kankanhalli, A., & Lee, H. L. (2016). Investigating decision factors in mobile application purchase. *Information & Management*, 53(6), 727–739.
- Kumar, S., Lassar, M., & Butaney, T. G. (2014). The mediating impact of stickiness and loyalty on word-of-mouth promotion of retail websites. *European Journal of Marketing*, 48(9/10), 1828–1849.
- Kwek, A., & Lee, Y. S. (2010). Chinese tourists and Confucianism. *Asia Pacific Journal of Tourism Research*, 15(2), 129–141.
- Lee, C. (1991). Modifying an American consumer behavior model for consumers in Confucian culture: The case of Fishbein behavioral intention model. *Journal of International Consumer Marketing*, 3(1), 27–50.
- Lee, J., Lee, J., & Feick, L. (2001). The impact of switching costs on the customer satisfaction-loyalty link: Mobile phone service in France. *Journal of Services Marketing*, 15(1), 35–48.
- Li, X. G., & Duan, X. K. (2011). The relationship among switching cost, customer satisfaction and customer loyalty based on mobile communication customer behavior. *China Soft Science*, 4, 154–160.

- Liang, L. J., Choi, H. C., & Joppe, M. (2018). Exploring the relationship between satisfaction, trust and switching intention, repurchase intention in the context of Airbnb. *International Journal of Hospitality Management*, 69, 41–48.
- Lien, C. H., Cao, Y., & Zhou, X. (2017). Service quality, satisfaction, stickiness, and usage intentions: An exploratory evaluation in the context of WeChat services. *Computers in Human Behavior*, 68, 403–410.
- Lin, S. W. (2017). Identifying the critical success factors and an optimal solution for mobile technology adoption in travel agencies. *International Journal of Tourism Research*, 19(2), 127–144.
- Litvin, S. W., Goldsmith, R. E., & Pan, B. (2018). A retrospective view of electronic word-of-mouth in hospitality and tourism management. *International Journal of Contemporary Hospitality Management*, 30(1), 313–325.
- Liu, C. H. S. (2018). Examining social capital, organizational learning and knowledge transfer in cultural and creative industries of practice. *Tourism Management*, 64, 258–270.
- Liu, Y. (2006). Word of mouth for movies: Its dynamics and impact on box office revenue. *Journal of Marketing*, 70(3), 74–89.
- Liu, C. H. S., & Lee, T. (2016). Service quality and price perception of service: Influence on word-of-mouth and revisit intention. *Journal of Air Transport Management*, 52, 42–54.
- Lowry, P. B., & Gaskin, J. (2014). Partial least squares (PLS) structural equation modeling (SEM) for building and testing behavioral causal theory: When to choose it and how to use it. *IEEE Transactions on Professional Communication*, 57(2), 123–146.
- Lu, J. Y., Mao, Z. X., Wang, M. B., & Hu, L. (2015). Goodbye maps, hello apps? Exploring the influential determinants of travel app adoption. *Current Issues in Tourism*, 18(11), 1059–1079.
- Ma, J. X., Buhalis, D., & Song, H. (2003). ICTs and internet adoption in China's tourism industry. *International Journal of Information Management*, 23(6), 451–467.
- Marinosa, B. G. (2001). Technological incompatibility, endogenous switching costs and lock-in. *The Journal of Industrial Economics*, 49(3), 281–298.
- Mu, R., & De Jong, M. (2018). The psychology of local officials: Explaining strategic behavior in the Chinese target responsibility system. *Journal of Chinese Governance*, 3(2), 243–260.
- Na, L., Xueyuan, W., & Yulian, X. (2016). Hotel information platform design and implementation based on cloud computing. *International Journal of Hybrid Information Technology*, 9(3), 61–72.
- Nusair, K., Hua, N., Ozturk, A., & Butt, I. (2017). A theoretical framework of electronic word-of-mouth against the backdrop of social networking websites. *Journal of Travel & Tourism Marketing*, 34(5), 653–665.
- Okumus, B., Ali, F., Bilgihan, A., & Ozturk, A. B. (2018). Psychological factors influencing customers' acceptance of smartphone diet apps when ordering food at restaurants. *International Journal of Hospitality Management*, 72, 67–77.
- Olya, H. G., & Al-ansi, A. (2018). Risk assessment of halal products and services: Implication for tourism industry. *Tourism Management*, 65, 279–291.
- Ortiz, J., Chih, W. H., & Teng, H. C. (2017). Electronic word of mouth in the Taiwanese social networking community: Participation factors. *Internet Research*, 27(5), 1058–1084.
- Pan, B., & Yang, Y. (2017). Forecasting destination weekly hotel occupancy with big data. *Journal of Travel Research*, 56(7), 957–970.
- Papadimitriou, D., Kaplanidou, K., & Apostolopoulou, A. (2018). Destination image components and word-of-mouth intentions in urban tourism: A multigroup approach. *Journal of Hospitality & Tourism Research*, 42(4), 503–527.
- Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International Journal of Electronic Commerce*, 7(3), 101–134.
- Podsakoff, P. M., Mac Kenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879–903.
- Polites, G. L., Williams, C. K., Karahanna, E., & Seligman, L. (2012). A theoretical framework for consumer e-satisfaction and site stickiness: An evaluation in the context of online hotel reservations. *Journal of Organizational Computing and Electronic Commerce*, 22(1), 1–37.
- Rachera, P., Furner, C., & Babb, J. (2012). Conceptualizing the implications of mobile app usage and stickiness: A research agenda. *SSRN Electronic Journal*. doi:10.2139/ssrn.2187056
- Ren, L., & Qiu, H. (2018). Developing a measurement scale for cultural values and norms of Chinese mass travelers. *Journal of Hospitality & Tourism Management*. doi:10.1016/j.jhtm.2018.04.006
- Saadé, R., & Bahli, B. (2005). The impact of cognitive absorption on perceived usefulness and perceived ease of use in online learning: An extension of the technology acceptance model. *Information & Management*, 42(2), 317–327.
- Salas-Olmedo, M. H., Moya-Gómez, B., García-Palomares, J. C., & Gutiérrez, J. (2018). Tourists' digital footprint in cities: Comparing Big data sources. *Tourism Management*, 66, 13–25.
- Serenko, A., & Bontis, N. (2004). A model of user adoption of mobile portals. *Quarterly Journal of Electronic Commerce*, 4(1), 69–98.
- Sirdeshmukh, D., Singh, J., & Sabol, B. (2002). Consumer trust, value and loyalty in relationship exchanges. *Journal of Marketing*, 66(1), 15–37.
- Sontakke, S. D., Budania, R. J., & Paranjape, S. G. (2017). Evaluation of knowledge, attitude and behavior about rational use of medicines in second year medical students. *International Journal of Basic & Clinical Pharmacology*, 2(5), 617–621.
- Sweeney, J., Soutar, G., & Mazarrol, T. (2014). Factors enhancing word-of-mouth influence: Positive and negative service-related messages. *European Journal of Marketing*, 48(1/2), 336–359.
- Tasci, A. D., & Milman, A. (2017). Exploring experiential consumption dimensions in the theme park context. *Current Issues in Tourism*, 4, 1–24.
- Turner, M. J., & Davis, H. S. (2018). Exploring the effects of rational emotive behavior therapy on the irrational beliefs and self-determined motivation of triathletes. *Journal of Applied Sport Psychology*, 1–20.
- Ukpabi, D. C., & Karjaluoto, H. (2017). Consumers' acceptance of information and communications technology in tourism: A review. *Telematics and Informatics*, 34(5), 618–644.
- Wang, J., Bao, J., Wang, C., & Wu, L. (2017). The impact of different emotional appeals on the purchase intention for green products: The moderating effects of green

- involvement and Confucian cultures. *Sustainable Cities and Society*, 34, 32–42.
- Wang, S., Hung, K., & Li, M. (2018). Development of measurement scale for functional congruity in guest houses. *Tourism Management*, 68, 23–31.
- Wardi, Y., Abror, A., & Trinanda, O. (2018). Halal tourism: Antecedent of tourist's satisfaction and word of mouth (WOM). *Asia Pacific Journal of Tourism Research*, 23(5), 463–472.
- Watchravesringkan, K., Hodges, N. N., & Kim, Y. (2010). Exploring consumers' adoption of highly technological fashion products. *Journal of Fashion Marketing & Management*, 14(2), 263–281.
- Wu, B., & Chen, X. (2017). Continuance intention to use MOOCs: Integrating the technology acceptance model (TAM) and task technology fit (TTF) model. *Computers in Human Behavior*, 67, 221–232.
- Wu, J. H., & Wang, S. C. (2005). What drives mobile commerce?: An empirical evaluation of the revised technology acceptance model. *Information & Management*, 42(5), 719–729.
- Yan, J., & Sorenson, R. (2006). The effect of Confucian values on succession in family business. *Family Business Review*, 19(3), 235–250.
- Yang, Z., & Peterson, R. T. (2004). Customer perceived value, satisfaction, and loyalty: The role of switching costs. *Psychology & Marketing*, 21(10), 799–822.
- Zatori, A., Smith, M. K., & Puczko, L. (2018). Experience-involvement, memorability and authenticity: The service provider's effect on tourist experience. *Tourism Management*, 67, 111–126.
- Zhang, Y. B., Lin, M. C., Nonaka, A., & Beom, K. (2005). Harmony, hierarchy and conservatism: A cross-cultural comparison of Confucian values in China, Korea, Japan, and Taiwan. *Communication Research Reports*, 22(2), 107–115.
- Zhang, J., Wu, B., Morrison, A. M., Chi, T., & Chen, Y. C. (2016). How country image affects tourists destination evaluations: A moderated mediation approach. *Journal of Hospitality & Tourism Research*, 42(6), 904–930.
- Zhang, L., Zhu, J., & Liu, Q. (2012). A meta-analysis of mobile commerce adoption and the moderating effect of culture. *Computers in Human Behavior*, 28(5), 1902–1911.
- Zhao, M., Dong, S., Wu, H. C., Li, Y., Su, T., Xia, B., ... Guo, X. (2018). Key impact factors of visitors' environmentally responsible behaviour: Personality traits or interpretive services? A case study of Beijing's Yuyuantan Urban Park, China. *Asia Pacific Journal of Tourism Research*, 23(8), 792–805.