

Developing a Model for Online Social Travel Networks in the Tourism Industry

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The importance of the online social travel networks for tourism businesses is gaining new attention in the academic literature. This paper utilizes the Technology Acceptance model (TAM) to investigate key variables that affect the use of an information system with respect to Korean tourists. According to the TAM model, the antecedents of actual acceptance of the information system are positively related to both the roles of usefulness and ease of use. The antecedent of the intention of future use is also derived from the attitude towards the information system. As tourism is an intangible and information-intensive industry, the communication and the relationships between service providers and travellers represent a vital factor in travel marketing. In order to better predict and increase user acceptance, tourism management needs to better understand the reasons for people accepting or rejecting the information system. This can help to understand the key variables for end-users to accept and use the information technology that enhances information search behaviour. This paper aims to establish research propositions in the context of TAM model and to identify critical factors influencing user intentions to utilize internet in an online travel network, namely TripAdvisor. Five propositions were developed for future testing. The conceptual model proposed hopes to explain the antecedents of user acceptance in an attempt to suggest managerial practices for increasing online travellers' practical value for using the information system.

Key words: Internet, TAM model, TripAdvisor, Information system, tourism marketing

Research Field: Marketing

1. Introduction

With the onset of the global financial crisis and the high Australian dollar, the tourism industry in Australia is facing vast competition for resources, prestige and sustainability. Tourism operators are now cooperating enthusiastically with their counterparts and competitors. No tourism operator can afford to stay behind by avoiding the challenges of performing in this fiercely competitive environment and the only way of surviving is a perpetual stream of visitors all year round. The brand value of each tourism operator and global pecking order seem to be shaped by the rank of internet review sites, such as Expedia, Yahoo travel planner and TripAdvisor rankings in particular. Although the TripAdvisor community review or social travel network began only in 2000, its influence has rapidly spread. Unquestionably,

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TripAdvisor is one of the most useful and effective means for tourists to seek travel information and purchase tourism-related products.

Therefore, there is no doubt that computer systems can improve the performance of tourism business. In order to better predict and increase user acceptance, management needs to better understand the reasons for people accepting or rejecting information technology (IT). The primary purpose of this paper is to establish research propositions in the context of the Technology Acceptance Model (TAM) with respect to the Asian Market, particularly Korean tourists to demonstrate critical factors which influence Korean tourists' use of technology in online social travel networks.

According to the World Travel and Tourism Council (WTTC, 2013), the Korean tourist economy grew by 10.4% in 2012, making it the fastest growing in Asia. Furthermore, Korea was rated as the best country in the world in terms of the internet speed as well as the internet connectivity (mashable.com, 2013). This can help to understand key variables for Korean tourists to accept and use information technology that can enhance information search behaviour. This study also aims to provide travel marketers with practical recommendations to maintain or develop sustainability in highly competitive marketplaces.

2. Literature Review

Tourism is an intangible and information intensive industry where tourism marketers rely on connection and communication with tourists by using information technology to promote their travel-related products and establish customer relationships. In today's competitive environment, it is essential for tourism marketers to understand how tourists acquire knowledge and information (Schmidt and Spreng, 1996). Indeed, it is during information acquisition that marketing management can affect consumers' buying decisions (Schmidt and Spreng, 1996). This study investigate the key determinants of users' internet acceptance from a measure of their behaviour intentions in related to their perceived ease of use (EOU), perceived usefulness (U), their attitudes (A) and related determinants.

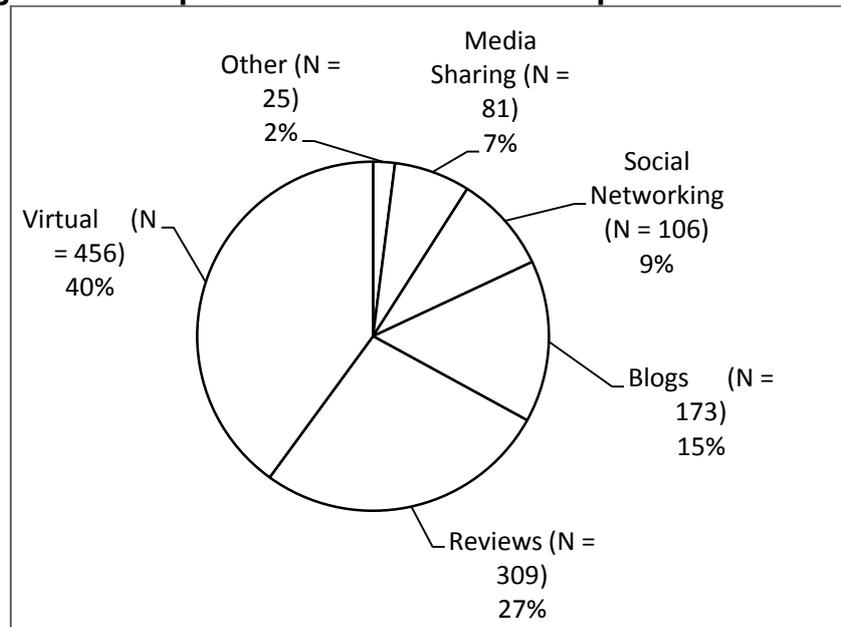
Tripadvisor

Tourists utilize the internet to plan their holidays (Tierney, 2000), to interact with suppliers, family and friends while on vacation (Akehurst, 2009), as well as to recommend their travel experiences to others (Prideaux and Coghlan, 2010). The role of IT in creating communication and connection has become a truly global socio-economic development as well as wellbeing (Akehurst, 2009).

Despite the limitations, problems of biases, and unique measures, the consumer's ranking systems have an ever-growing influence in determining tourism operators' reputation, tourists' selection, government funding and the decisions of management and benefactors (Xiang and Gretzel, 2010). Thus, many businesses are focused on improving ranking performance yet not all strategic implementation works. The main factors and metrics that drive success need to be identified and analysed.

The research done by Xiang and Gretzel (2010) showed the different types of social media (see Figure 1). Virtual communities (e.g., igougo.com and lonelyplanet.com) represent approximately 40% of social media sites. This shows that online travellers use virtual communities as the primary platform to share their experiences. Consumer review sites such as tripadvisor.com and zagat.com, come next, accounting for 27%. In regards to the context of the travel information search, personal blogs and blog aggregators also represent a considerable proportion of social media with 15%. Overall, these three types of social media represent 82% of social media illustrated in Google.

Figure 1: Composition of Social Media Represented in Google



Source: Adapted from Xiang and Gretzel (2010, p.184).

In addition, the top 20 social media websites as determined by Google are illustrated in Table 1.

Table 1: The Top 20 Unique Domain Names Among Social Media Search Results

Domain	Frequency	Cumulative Percentage
tripadvisor.com	96	8.3%
virtualltourist.com	78	15.1%
iguogo.com	58	20.2%
mytravelguide.com	54	24.9%
yelp.com	37	28.1%
meetup.com	30	30.7%
travelpost.com	26	33.0%
associatedcontent.com	25	35.1%
insiderpages.com	17	36.6%
yellowbot.com	17	38.1%
blogspot.com	16	39.5%
myspace.com	16	40.9%
gusto.com	15	42.2%
outside.in	13	43.3%
realtravel.com	13	44.4%
topix.com	13	45.6%
pubcrawler.com	12	46.6%
zagat.com	11	47.6%
fodors.com	10	48.4%
lonelyplanet.com	10	49.3%

Source: Adapted from Xiang and Gretzel (2010, p.184).

Not surprisingly, TripAdvisor is the most popular consumer review site, and has more than 500,000 travellers visiting the site every day (TripAdvisor, 2013). TripAdvisor also has reviews and information on over 400,000 locations all around the world (TripAdvisor, 2013). Why is TripAdvisor becoming increasingly pervasive? We shall answer this question after discussing the TAM model.

Technology Acceptance Model (TAM)

The TAM model has played a vital role in information technology (IT) research with over twenty years of development and is currently one of the most highly regarded theories in terms of IT usage behaviour. This paper reviews the development of the TAM by identifying the different variables including the perceived ease of use (EOU) and the perceived usefulness (U) (Davis, Bagozzi and Warshaw, 1989) to provide a reference for the purpose of this paper. In addition, external variables influence attitudes towards using IT (A) and behavioral intentions (BI) through U and EOU which finally affect the actual use of information system (IS) (Davis, Bagozzi and Warshaw, 1989; Li, Qi, and Shu, 2008).

Even though TAM is considered as a popular and well-recognized model in information systems, little empirical research has been conducted in the tourism sector. Therefore, there is a need to develop empirical support for the TAM model to identify two key beliefs including perceived ease of use (EOU) and perceived

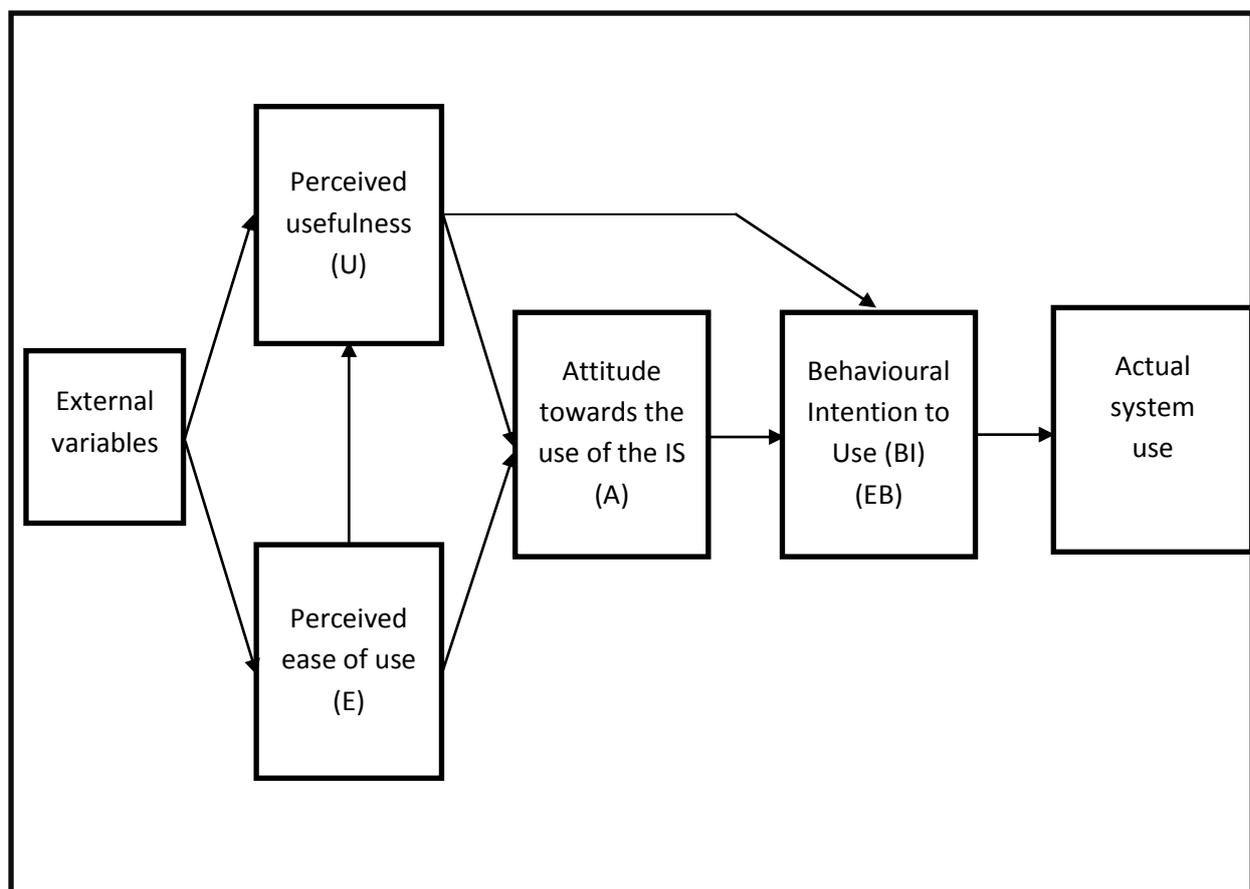
usefulness (U) so as to explain and predict the user acceptance of an information system (IS) in the tourism sector.

By using the TAM model, the different variables are as follows.

a) The Perceived Ease Of Use (EOU)

The perceived ease of use is stated as “the degree to which the prospective user expects the target system to be free of effort” (Davis, Bagozzi and Warshaw, 1989, p.985). That includes easily understandable functions, simplicity, ease of moving, and speed of information search (Castan˜eda, Fri˜as and Rodrı´guez, 2009).

Figure 2: Technology Acceptance Model



Source: Adapted from Adapted from Davis, Bagozzi and Warshaw (1989 p.985)

Perceived ease of use and positive attitudes towards the information system may increase performance in problem solving and decision making during the information seeking process (Castan˜eda, Fri˜as and Rodrı´guez, 2009). The ease of use is stated as a great amount of variance in usefulness (Mathieson, 1991) and increasing work productivity with the same effort (Davis, Bagozzi and Warshaw, 1989). Some researchers argued that perceived usefulness is influenced by the ease of use, but not vice versa (Castan˜eda, Fri˜as and Rodrı´guez, 2009).

In this vein, the following hypotheses are proposed:

H1. The perceived ease of use of TripAdvisor is positively related to the Korean tourists' perceptions regarding the perceived usefulness of TripAdvisor.

H2. The perceived ease of use of TripAdvisor is positively related to the Korean tourists' perceived attitude towards TripAdvisor.

b) Perceived usefulness (U)

Perceived usefulness is defined as "the prospective user's subjective probability that using a specific application system will increase his or her job performance within an organizational context" (Davis, Bagozzi and Warshaw, 1989, p. 985). The perceived usefulness is also related to the working speed, effectiveness, efficiency and other practical considerations (Castaneda, Friás and Rodríguez, 2009). King and He (2006) confirm that the influence of perceived usefulness is almost twofold that of ease of use. These variables have a direct impact on the actual use of a particular information system with high usefulness (King & He, 2006). The TAM model also suggests that there is a direct relationship between perceived usefulness and behavioural intention (Davis, Bagozzi and Warshaw, 1989) to use the information system in the future to achieve enhanced performance and associated benefits.

The following hypotheses were proposed:

H3. The perceived usefulness of TripAdvisor is positively related to the Korean tourists' actual use of TripAdvisor.

H4. The perceived usefulness of TripAdvisor is positively related to the Korean tourists' intention to use TripAdvisor in the future.

H5. The perceived usefulness of TripAdvisor is positively related to the Korean tourists' attitude towards TripAdvisor.

c) Attitude towards the use of the information system (A)

Attitude towards the information system is defined as "a person's predisposition to respond in a consistent manner to a given information system" (Bruner and Kumar, 2002, p.164). Recently the relationship between the attitude towards a given information system and behavioural intention to use the information system has been applied to the adoption of the internet (Pavlou, 2003; Sánchez and Roldán, 2005) and has been used in consumer behaviour models (Bagozzi, 1992). According to the expectation-value theory, the attitude towards a specific behaviour is stated as evaluations of behaviour outcomes and a function of salient beliefs (Shih, 2004). Therefore, individual attitudes are related to the casual relationship between beliefs and behaviour (Castaneda, Friás and Rodríguez, 2009). Therefore, a positive attitude towards the use of the information system will impact on the tourist's intention of using the information system in the future.

Based on the literature, the following hypothesis was proposed:

H6. Attitude towards TripAdvisor positively determines Korean tourists' intention to use TripAdvisor in the future.

The reason for not proposing a hypothesis between attitude and actual use of the information system is that (1) attitude directly affects intention (which occurs before behaviour) and does not affect the actual behaviour (Fishbein and Ajzen, 1975; Davis, Bagozzi and Warshaw, 1989) and (2) intention and attitude occur before

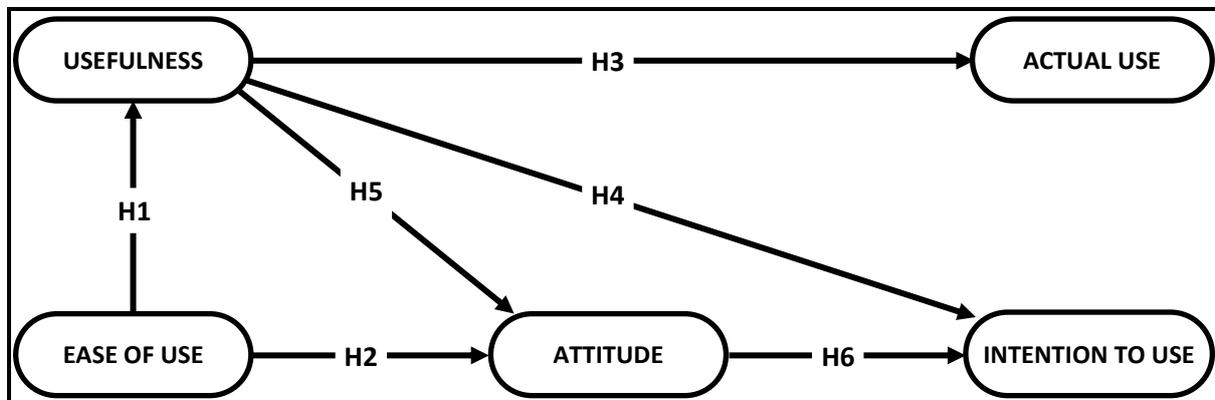
actual behaviour and variables need to be measured at the same moment, not at different moments in time according to the measurement of variables sequence (Castaneda, Frias and Rodriguez, 2009). Therefore, the attitude towards the information system is not an antecedent of actual behaviour.

Coming back to the question on why TripAdvisor is so pervasive and popular? It might be related to the quality and effectiveness of their website. For example, TripAdvisor provides online users with a better system design (ease of use) and more effective travel planning (usefulness) to communicate desired travel information. This shows that understanding the acceptance of information technology can help tourism management develop the marketing communications and connections more effectively and enable the design of better marketing programs. Furthermore, the tourism website can help online viewers to create the perceived image of travel destinations and provide various virtual experiences (Rosen and Puriton, 2004). Moreover, the searching effort and time can be saved by offering information closely fitted to their needs and easy comprehension.

Conceptual Model

The conceptual model is developed with the set of hypotheses based on the foregoing literature review. These hypotheses will be tested by an empirical study focused on a sample of Korean tourists as illustrated below.

Figure 3: Conceptual Model



3. Methodology

A structured questionnaire will be presented to Korean tourists travelling through Incheon International Airport in Korea. The interviews will be held at Incheon International Airport which is the major airport located in the Seoul capital area in Korea and one of the world's busiest and largest international airport (CNN Travel, 2012). Since 2005, the Incheon International Airport was awarded as the title of "the Best Airport Worldwide for Airport Service Quality" by Airport Council International (ACI) for seven years in a row (CNN Travel, 2012).

According to the Korean Tourism Organisation (KTO), the total number of Korean departures in 2012 was "13,736,976" (Korea Tourism Organisation, 2013). The target sample size will be set at 500 to get 384 as the total number of valid

questionnaires, in order to be able to generalise to the population with 95 per cent confidence level and a 5% margin of error (Research Advisors, 2013). A systematic sampling method will be used to ensure randomness. The structured questionnaires will be translated into the Korean language.

Sample characteristics will be based on socio-demographic concerns including sex, age, education, employment status, profession, income and household size. The questions will consist of general opening questions, followed by questions concerning the tourist's use of TripAdvisor for holiday planning. Lastly, the concluding questions will be concerned with the usefulness of the TripAdvisor, ease of use, attitude, and intentions to use TripAdvisor in the future.

With regard to measurement of variables including ease of use and usefulness, a five-point Likert scale will be used from Pavlou (2003)'s literature, while the scale for measuring the attitude towards TripAdvisor will be the commonly used five-point differential semantic scale (Unfavourable-Favourable).

With regards to the data analysis, the reliability of the scales will be tested using the Cronbach's alpha coefficient. Discriminant validity will be tested using the Fornell-Larcker ratio and by analyzing the correlations between constructs. The "Structural Equation Modeling (SEM)" procedure will be the method used to test the proposed hypothetical model. The conceptual model in this paper is designed to investigate causal relationships among the unobserved constructs developed on the basis of prior empirical research and theory.

4. Conclusion

According to the literature, a degree of influence of ease of use and usefulness is explained by different motivation driving the use of an Information system. The TAM model indicates that the major outcome of ease of use on user behaviour occurs through its positive link with perceived usefulness. In other words, the reason for using TripAdvisor as the information source for the tourists is to intend to enjoy the process of searching for travel related information, to integrate this activity into their virtual travel experience and to reduce connection cost and individual efforts.

In this regards, practical implications could be inferred from the study, experienced online users try to continue to utilize the internet as they have fulfillment of expected outcomes or its effectiveness in completing their tasks. Thus, tourism markets with an internet presence need to consider developing all sorts of mechanisms such as ease-to-use free email account, continuous updated information, creation of virtual communities and the offer of free value services attracting frequent visits to the website. In other words, the functional components of an information system including providing in-depth travel information and richer contents are critical in travel marketing and in the actual quality of tourism website.

To sum up, the user acceptance of an information system in the tourism industry seems an indefinable, complex, but tremendously vital phenomenon. The research for the technology acceptance model in various areas made significant progress toward providing empirical support over the past decade. The development and test of the TAM model adapted to tourism industry here will advance theory and report on this important issue.

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