Web functionality, web content, information security, and online tourism service continuance

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ABSTRACT

This paper aims at examining key information dimensions in association with online tourism service continuance from the consumer perspective. We propose a conceptual model and four hypotheses to articulate the relationships of the relevant constructs. The empirical results unveil that web functionality, web content, and information security positively influence consumers' perceived value of online tourism services which in turn significantly mediates the effects of these determinants on continuance intention to use online tourism services. The present study makes contributions to research and practice with theoretical and managerial implications. The empirical findings deepen the understanding of consumer attitudes and key information determinants of online tourism services and provide insights for enhancing online travel and tourism services.

1. Introduction

Online tourism services are increasingly popular as numerous online travel agencies have been operating websites to provide consumers with a variety of tourism information and enable consumers to make travel plans and reservations. The online travel agencies play an important role in the tourism industry by offering a wide range of services in relation to online reservations of tours, vacation packages, air-tickets, accommodations, and cruises. Recently, consumers tend to use online travel and tourism services (Nasr, 2015), because they can conveniently access to travel and tourism information and compare relevant services. At the same time, the consumers can easily switch to different online services in the competitive marketplace. Therefore, it is considerably difficult for the online travel agencies to retain customers and convince them to repeatedly use their services.

The existing works have explored online travel and tourism services with regard to consumers' attitudes and behaviors in different contexts. For instance, Bernardo et al. (2012) suggest that functional quality and hedonic quality of tourism websites considerably influence perceived value which further influences customer loyalty to online tourism services. Consumers' perceptions of information, effectiveness, and entertainment have an effect on purchase intention and satisfaction with online travel websites (Cao and Bai, 2014). In addition, perceived usefulness and satisfaction positively affect continuance intention to use online travel services (Li and Liu, 2014; Bhatiasevi and Yoopetch, 2015). Moreover, consumers' attitudes, perceived compatibility, and perceived risk influence intention to purchase travel services online

(Amaro and Duarte, 2015). A recent study indicates that customer satisfaction considerably mediates the effects of website image, online routing, and website knowledge on customer loyalty (Pereira et al., 2016). A review of the relevant literature suggests that although there are various factors in relation to online travel and tourism service operations, such information dimensions as web functionality, web content, and information security remain critical to the sustainable development of online tourism services. In particular, further empirical studies are needed to articulate the relationships of the relevant information dimensions, perceive value, and continuance intention to use online tourism services from the consumer perspective.

Therefore, the present study focuses on key information determinants with an aim at examining the effects of web functionality, web content, and information security on consumers' perceived value and continuance intention to use online tourism services. We propose a conceptual model and four hypotheses to articulate the relationships of the relevant constructs along the lines of the theoretical underpinnings of technology adoption and electronic service quality. In addition, we systematically test the survey data gathered from individual consumers. The analytical results to be presented in the following sections empirically unveil that web functionality, web content, and information security positively affect perceived value which in turn significantly mediates the effects of the key information determinants on consumers' continuance intention to use online tourism services. The findings not only contribute to research by deepening the understanding of mediating effect of perceived value on the relationships between the three information determinants and online tourism service continuance, but

also contribute to practice by providing managerial insights for improving online travel and tourism services.

This paper is structured as follows. It illustrates the construction of the conceptual model and proposes four hypotheses in the next section. It then describes our research method and presents the analytical results. Moreover, it discusses the empirical findings and contributions of this study. Finally, the paper is concluded by summarizing the present work and highlighting the directions for future research.

2. Conceptual model and hypotheses

The theory of reasoned action (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980) and the theory of planned behavior (Ajzen, 1985, 1991) suggest that human behavior is under volitional control, while individual decisions can be estimated through appropriate measures of perceptions and interactions. These theories provide important foundations for research on consumer attitudes and behavior (Sheppard et al., 1988). In the context of online tourism services, consumers should rationally search tourism information from different online travel websites for travel planning and decision-making, because they are able to volitionally control their budgets, itineraries, and schedules. As a matter of fact, online tourism becomes a dynamic and information-intensive business. It is therefore crucial to explore online tourism services with regard to such information determinants as web functionality, web content, and information security. The existing studies also indicate that it is imperative to examine consumers' perceived value and continuance intention in different contexts (Sanchez-Franco and Rondan-Cataluña, 2010; Belanche et al., 2012; Meyer-Waarden, 2013; Boakye et al., 2014; Tseng, 2015). Therefore, drawing on the theoretical underpinnings of the technology acceptance model (Davis et al., 1989) and electronic service quality (Parasuraman et al., 2005), we design a conceptual model to investigate the extent to which consumers' perceived value mediates the effects of web functionality, web content, and information security on online tourism service continuance. As depicted in Fig. 1, the conceptual model is aimed at examining the effects of web functionality, web content, and information security on consumers' perceived value and articulating the mediating effect of perceived value on the relationships between the three information determinants and consumers' continuance intention to use online tourism services.

2.1. Web functionality

In the present work, web functionality is related to various aspects of online tourism service websites with regard to user friendly interface, information presentation, classification, navigation, artistic design, and personalization (Cheung and Liao, 2003; Lightner, 2007; Sanchez-Franco and Rondan-Cataluña, 2010). In general, online tourism services should provide user-friendly websites that clearly display travel
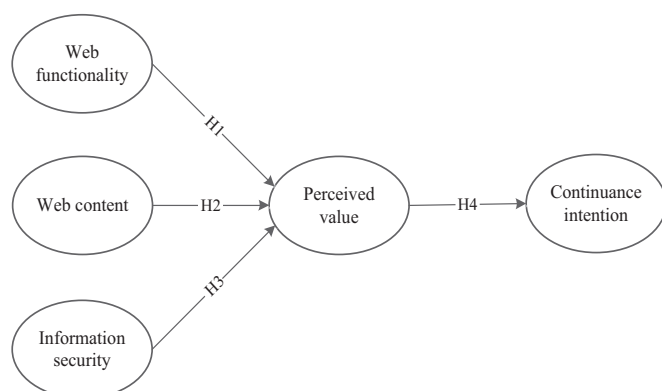
information and logically classify the relevant information into different categories such as tours, flights, and hotels (Morrison et al., 2004). Thus, the tourists can easily obtain travel information needed. In addition, online tourism websites should enable consumers to search and navigate the relevant tourism information (Cyr, 2013). Moreover, well-designed tourism websites may enhance tourists' perceptions of online tourism services. In particular, the tourism websites are expected to be artistically designed so that tourists may feel enjoyable when using online services (Sanchez-Franco and Rondan-Cataluña, 2010).

This study especially examines several features of online tourism websites including web interface, information classification, artistic design, information search, and personalization in order to reveal the extent to which web functionality influences consumers' perceived value of online tourism services. The tourism websites should enable consumers to easily obtain travel information and make reservations, which is consistent with the theoretical underpinning of technology acceptance model (Davis et al., 1989). As some tourists may look for a specific itinerary, the tourism websites should also allow them to personalize itineraries and make customized tour plans based on individual preferences. Thus, it is desirable that online tourism services can meet the expectations of different individuals and facilitate personalized services. It is also desirable that online tourism services can respond to the requests from customers and fulfil their service promises. Generalizing from the above observations, we propose Hypothesis 1.

Hypothesis 1. Web functionality has a positive effect on consumers' perceived value of online tourism services.

2.2. Web content

In this study, web content refers to the information in association with online tourism services with regard to accuracy, conciseness, timeliness, usefulness, and completeness (Cormany and Baloglu, 2011; Cyr, 2013). Actually, the information presented on tourism websites is imperative to online tourism service operations. The websites of online travel agencies should serve as a platform that displays useful and comprehensive information in relation to different travel destinations and a variety of tourism products and services, which is also consistent with the theoretical underpinning of technology acceptance. The tourists may look for travel information from the websites of online tourism services, while some may depend on the information to make travel arrangements. Therefore, online travel agencies need to constantly improve the quality of tourism information and update the service websites with the latest information.

Generally speaking, online travel agencies are expected to provide timely, accurate, useful, and comprehensive information on the websites in order to encourage consumers to make tourism plans and make online reservations. Thus, the online tourism websites should display useful information of different tourism destinations and clearly describe the relevant itineraries. They may introduce more hospitality information in relation to hotels, restaurants, and entertainment facilities. They may also advertise relevant promotions to attract customers' attentions. It is desirable that the online tourism service websites can provide customers with detailed information in order to facilitate them to plan itineraries and make travel reservations. It is also desirable that online travel agencies can arrange a variety of travel packages and value-added services. Generalizing from the above observations, we propose Hypothesis 2.

Hypothesis 2. Web content has a positive effect on consumers' perceived value of online tourism services.

2.3. Information security

In the context of online tourism services, customers are required to enter personal data into the tourism websites when they register as

Fig. 1. The conceptual model.