User Experience of Trip Arrangements: A Comparison of Mobile Device and Computer Users

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ABSTRACT

This study examines the user experience of arranging a trip of low-intermediate complexity over a mobile device using existing travel services. A research platform is presented and findings reported to reveal the potential problem areas that users face when using their mobile device to make trip arrangements on a mobile device. The results are compared with computer users to understand whether the problems that mobile users face are statistically significant when compared with the potential problems that computer users face. To gain deeper understanding, the authors also analyze whether the type of services, mobile devices and user skills have an impact on the self-arrangement experience on a mobile device. Data was collected through controlled classroom experiments with samples of students. The main contribution of this study is that it identifies potential problem areas for mobile travel users and provides insights for practitioners to plan effective mobile channel strategies.

Keywords: Consumer Behavior, Electronic Commerce, Experiment, Mobile Services, Travel, User Experience

INTRODUCTION

The use of the Internet for doing commerce or interacting with customers has been growing rapidly in the worldwide travel and tourism industry and has changed the market conditions for organizations operating in the industry dramatically (Buhalis & Law, 2008). Mobile commerce, or e-commerce over mobile devices, on the other hand has had many conflicting predictions on its future popularity. Early predictions were generally overly optimistic (e.g., Durlacher Research Ltd., 2000). Many hindrances were identified and needs for improvements were called upon during the past years, especially regarding the ease of use (Kaasinen, 2005; Choe et al., 2007; Eriksson & Strandvik, 2009) and the lack of value services (Carlsson, 2006; Kaasinen, 2005; Choe et al., 2007; Eriksson & Strandvik, 2009). Today providers of operative systems (OS) for mobile devices and service providers of different mobile services like apps seem to have learned from these ease of use and value issues. In fact the user experience including ease of use and the relevance of many apps seems to have boosted the smart
phone market and mobile commerce along with it. According to Husson and Ask (2011) “Smartphone adoption is growing and with it activities usually associated with PCs, such as research products, booking hotels, trading stocks, finding nearby restaurants, or simply browsing the Internet” (p. 7). Mobile phones are now predicted to overtake PCs as the most common web access device worldwide by 2013 (Gammage, 2010). Downloads from app stores are growing in number each day and apps are found on growing number of peoples mobile devices. In fact an app culture is emerging (Pur-cell et al., 2010). A look at different online stores for mobile applications (e.g., Apple app store, Nokia Ovi store and Google Android Market) also shows that there is a wide range of travel and tourism related applications available on the market. Nevertheless, in an industry which is booming into an online era as we speak, it is also a good time to see whether there still are problem areas when a consumer actually uses his or hers mobile device to perform different tasks such as arranging a trip. Many things tend to be overlooked as business is growing rapidly. The travel industry press finds the mobile market challenging at the moment as well, e.g., Gunstone (2011) states, “It is comparable to the early days of the web in the same way that it is, unfortunately, a trial and error market right now.”

Given the market situation, the main objective of this study is to investigate the user experience of trip arrangements on a mobile device and compare it to the user experience on a computer. First we present potential problem areas in online self-arrangements for travel. Second we discuss different types of mobile users and online travel services. Third we describe the setup of the experiment and the task. Fourth we check the homogeneity of the samples and analyze the proposed research platform. Finally we report on the findings and draw some conclusions. In this study we will use the concept ‘mobile device’ interchangeably with ‘mobile pocket device’, ‘mobile handheld device’, ‘mobile phone’ and ‘smart phone.’

### POTENTIAL PROBLEM AREAS IN ONLINE SELF-ARRANGEMENTS FOR TRAVEL

Anckar and Waldén (2002) suggested a comprehensive model of potential consumer problems in Internet travel bookings. The suggested problem areas were: time consuming task, make price comparisons, limited industry knowledge, usability of websites, locating websites of service providers, technical problems, finding available hotel rooms and flights. The same authors, Waldén and Anckar (2006), reassessed the potential problem areas later on suggesting that some problems were decreasing (e.g., technical problems) but others had on the other hand increased (e.g., time consumption and uncertainty regarding what is a fair price). The model is therefore still a good starting point when looking into potential problem areas for doing online self-arrangements, although the online era has come a long way since the model was proposed and reassessed. For example specialized online service providers for availability and price comparisons are now better established. Many specialized online brands have also been fast to move into mobile commerce, which ought to reduce the suggested problem areas, such as making price comparisons on a mobile device as well. Next we will discuss the suggested problems by Anckar and Waldén (2002) with other relevant literature to create an appropriate research platform for this study.

### Efficiency

Increased efficiency or productivity is an important determinant for electronic information systems (Davis, 1989; Venkatesh et al., 2003) but also for the use of advanced mobile services (Ristola, 2010). We will here refer to efficiency provided by the system, not to efficiency provided by the mobility of the mobile medium, as the experiment in this study will be completed in a fixed setting. For example, being able to optimize time in transport by booking a room through a mobile device (when not being able to access a PC) would be regarded as mobile
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