INFLUENCING FACTORS IN ADOPTING MOBILE ELECTRONIC TOURIST GUIDES

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I humbly dedicate this thesis to the biggest treasures of my life, my parents, who gave me their love, and also for their endless support and encouragement.

To my beloved mother and father
I love you for every second of my life

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ABSTRACT

Mobile devices stand the first place of market growth. Mobile phones have revolutionized the access to the Internet and our communication rapidly. Given the increasing growth of the mobile phone usage in the world and growth of tourism industry, mobile devices can be a decent replacement or at least tag along of old tourist tools such as maps, compass, brochures and guide books and instead pack them all in one. In addition, the growing numbers of tablet users who use tourism application is remarkable. Mobile devices, especially the location based services are one of the popular applications for the tourism industry. The industry can easily use the technology to create innovative, interesting and useful applications. When people are travelling mobile devices are useful companions to support, keep connected, inform and entertain. The purpose of this research is to explore tourists' acceptance of innovative information technologies by examining the factors influencing the intention to use mobile electronic tourist guides (METG). In order to do so this paper developed and tested a model for examining tourists 'acceptance of METG based upon Davis' technology acceptance model (TAM).The findings of this paper can be used to inform local and national strategies aimed at developing Malaysia's (and other countries') credentials as 21st century tourist destination. The result of this study contribute to enhance our understanding of how tourists perceive using mobile technologies in the context of the travelling experience.

ABSTRAK

Pada masa kini, peranti mudah alih berada di kedudukan pertama dalam peningkatan pasaran. Peranti mudah alih telah mengubah akses kepada internet dan komunikasi secara pesat. Memandangkan peningkatan penggunaan peranti mudah alih dunia adalah seiring dengan pembangunan industri pelancongan, peranti mudah alih boleh dianggap sebagai pengganti atau pelengkap kepada alat-alat pelancongan seperti kompas, peta, brosur dan buku panduan. Tambahan pula, penambahan jumlah pengguna tablet yang menggunakan aplikasi pelancongan adalah di tahap yang memberangsangkan. Peranti mudah alih yang menawarkan servis berasaskan lokasi merupakan sejenis aplikasi yang popular di kalangan industri pelancongan. Teknologi tersebut dapat digunakan bagi menghasilkan aplikasi yang inovatif, menarik dan berguna. Sewaktu mengembara, peranti mudah alih amat berguna bagi memastikan pengguna sentiasa dapat berhubung dan berhibur. Tujuan kajian ini dijalankan adalah untuk menyelidik penerimaan pelancong terhadap perkembangan teknologi maklumat yang inovatif dengan meneliti faktor yang mempengaruhi tujuan penggunaan Mobile Electronic Tourist Guides (METG). Kajian juga diperkembangkan dengan menguji model bagi mengkaji penerimaan pelancong terhadap METG berasaskan Technology Acceptance Model (TAM) oleh Davis. Hasil kajian dapat digunakan bagi meningkatkan strategi tempatan dan antarabangsa yang bertujuan membantu pembangunan Malaysia dan negara lain sebagai destinasi pelancongan pada abad ke-21. Selain itu, hasil kajian ini juga menyumbang kepada peningkatan terhadap pemahaman pelancong untuk melihat sejauh mana penggunaan teknologi mudah alih di dalam konteks pengalaman perjalanan.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Nowadays, an average tourist plans a vacation using web sites, magazine articles and guidebooks. The inability to modify this holiday plan in real-time motivates the need for a next generation of Mobile Electronic Tourist Guide (METG). The METG, a handheld embedded device, is aware of the tourist's preferences, attraction values and trip information. Based on real-time and reliable data, the device can immediately suggest new integrated holiday plans.

By 2022, South East Asia is expected to attract 115 million international tourist generating US156 billion in foreign visitor spending (Ruggles-Brise & Aimable, 2012). To achieve this target, a usable online travel system is needed for promoting South East Asia. One third of the world's travel sales will be completed via online travel system by the end of 2012 (Rheemet al, 2011). Smarter Travel, Expedia, Orbitz, Travelocity and Kayak are listed as the current top five online travel systems (www.toptenreviews.com, 2012). Common features provided in these systems include booking options for flights, hotels, car rental, cruises, travel guides, and support. These systems will also be available in smart phones and Google projected that 8% of mobile users will use smart phones to make travel bookings in 2012 (Gupta, 2011).

A smart phone is defined as a mobile phone that is equipped with a mobile operating system. The common mobile operating systems are: Apple's iOS, Google's Android, Microsoft's Windows Phone and RIM's BlackBerry OS. Instead of confining to simple activities such sending and receiving text, pictures and video messages, smart phone users are able to download various applications from application stores. Apple App Store is one of the biggest stores in the current market and there are 487 thousand mobile applications made available in the store (App Store Metrics, 2012). Nearly 45% of these applications are free of charge for smart phone users. These mobile applications include games (17.7%), books (10.4%) and travels (5.12%).

1.2 Background of the Problem

World Travel and Tourism Council (WTTC)'s latest Economic Impact Research shows that world Travel & Tourism continues to grow in spite of continuing economic challenges. World Travel & Tourism GDP is projected to grow by 2.7% in 2012. This is especially impressive as set against the wider global economic backdrop, many economies are slowing or are showing below-trend or negative growth. Tourism's direct contribution to GDP in 2011 was US$2 trillion and the industry generated 98 million jobs. Taking account of its direct, indirect and induced impacts, Travel & Tourism's total contribution in 2011 was US$6.3 trillion in GDP, 255 million jobs, US$743 billion in investment and US$1.2 trillion in exports. This contribution represented 9% of GDP, 1 in 12 jobs, 5% of investment and 5% of exports. Longer-term prospects are even more positive with annual growth forecast to be 4% per annum over the ten years to 2022.

Tourism was one of the first sectors to embrace Information Technology (IT). IT is crucial to the tourism industry and its success. IT has bought with it a number of changes and challenges that affect business and tourism. Mobile guides (based on PDAs,

smart phones, or mobile phones, tablets) play an increasingly important role in tourism, giving tourists ubiquitous access to relevant information especially during their trip. Due to a more difficult access to mobile applications in a ubiquitous usage environment, based on time constraints, lighting conditions, bandwidth, etc., user acceptance of mobile applications strongly depends on the application adaptation to the concrete usage context. M-tourism or mobile tourism talks about all those portable devices that makes tourists free from lots of different sources.

We start by outlining the problems which tourists face on their holidays. The first, seemingly straightforward, problem which tourists face in an unfamiliar place is *what to do*. Unlike work, where tasks are often determined (in part) by an overall goal or by other people's plans, tourism is much more open-ended. Tourism encompasses a broad range of activities such as sightseeing, relaxing, shopping, visiting friends and visiting family. Indeed, since tourism can be part of business travel, the boundary between work and leisure is often blurred. Yet whatever tourists do, they must at least make some sort of decision about what to do, often in advance. This decision must take into account the time it takes to get to different places, as well as balancing the attraction of different sites. Even when one arrives at a tourist 'attraction' this problem reappears at a different scale, e.g. which parts of a large museum to visit?

Along with the question of what to do, tourists need to work out *how* they are going to do these different activities. When one reaches a tourist site one has to be careful about how one acts, since behavioral norms can be different in different countries. Ignorance about local customs is an oft mocked feature of tourists. Even straightforward activities such as buying goods can be organized differently in different countries, compounded with the problems of working with a new currency, and avoiding being exploited, or just 'looking stupid'. Along with what and how, tourists have to manage *when* they do different activities. Tourism is usually constrained in time, because of the need to return home. Time is also a problem in that tourists work with organizations that provide services.

Opening times must be coordinated with the times of public transport, such as trains or buses. This is compounded by the ‘pre–booking problem’. Many facilities require pre–booking, so decisions need to be made before one has been to a place. These two problems in turn interact with our third tourist problem: finding *where* things are.

In visiting a city many of the attractions are distributed around the city. There is therefore a need to avoid spending too much time travelling between places, understand what one might see and do along the way, and group together attractions which are close together. In doing so tourists must also navigate public transport, often with limited information, or unfamiliar road systems.

Probably one of the tourist`s most challenging problem is communicating with locals. Although English has proved to be the first language of the world, still in some major tourism destinations such as France, China or Russia knowing this language is not sufficient. For a tourist this language barrier may become irritating especially when they can convey their meaning properly.

Lastly, an important part of a holiday is sharing that holiday with others who are at home. Although the tourist fascination with taking photos or videos has been often criticized, it displays how visitors are not isolated individuals but are part of a social group. Tourists record and represent experiences in the form of photos and stories, to remind themselves of the visit and to share with others after they return home. This is a valuable part of tourism. The most successful tourist technology is the camera, specifically designed for this ‘taking the visit back home’. The popularity of Internet cafés for tourists also suggests that email sent back home is becoming a significant part of the tourist experience.

1.3 Statement of the Problem

Based on what new mobile technologies offers especially in tourism area there have been a few studies on the expectation of the tourists and how they are going to respond to this emerging area. By doing so, mobile technology can offer what is required by tourists to feed their travelling needs.

1.4 Limitations

Using mobile technology on tourist devises seems really promising, considering the fact that it meets the wide range of tourist needs. Even though on paper the technology is in tourist s hand but a smart device would not be smart enough if there were no broad band internet connection like 3G or 4G. Regarding the new introduction of connections like 4G it may be yet not that much reasonable for tourists to try them. If tourists ignore the data transfer on the device we can always rely on Wi-Fi connections in the destination which gives the tourist the restriction of movement within the Wi-Fi coverage and not further. Roaming rates is another obstacle on the way of smart device users in a sense that tourist may prefer to keep their own sim card and not to change it with the destination operator sim cards, which may lead to overcharged bill back at home. Affordability of mobile devices must be taken into consideration as well. A major type of tourists nowadays are back packers who travels with minimum budget. Are they able to possess a mobile device which can cost them the round tickets of their journey more or less? Last but not least, phones and tablets are running by battery which will be exhausted by the end of the day if the device is fully charged. Battery life in daily bases may become so crucial in this sense. No battery means you are lost unless you find an outlet to recharge.

1.5 Purpose of the Study

Given the uprising number of mobile smart devices in the world and growth of tourism sector smart devices can be a good replacement of old tourist guides such as maps, compass, attraction brochures, hotel information and so on and so forth. The purpose of this research is to understand tourists' acceptance of innovative information technologies by examining the factors influencing the intention to use mobile electronic tourist guides (METG).

1.6 The Significance of the Study

Nowadays 80% of the population of the world is carrying mobile devices, next to number of the tourists each year and obvious growth of the both the importance of only gadget tourist carries all the time, comes into play. Added to this is the number of tablet users who use their devices for tourism purposes. This research adapts the TAM to study the acceptance of technology-based information technologies at their early stages of development. The findings of this study contribute to enhancing our understanding of what influences tourists' acceptance of METG. They can be used to inform local and national strategies aimed at developing Malaysia's (and other countries') credentials as digital destinations.

1.7 Objectives of the Study

1. To find out the importance of mobile technology in tourism.
2. To determine tourist problems and how mobile technologies can help them out.

3. To introduce the m-services via smart mobile technologies carried by tourists.
4. To find out tourist' intension for new technologies by examining the factors influencing their intention to use mobile electronic tourist guides.

1.8 Research Questions

1. Mobile technology for tourism businesses and why it is important?
2. What do we know about consumers' intention to adopt m-services?
3. How will these services make the day for the m-traveler and m-tourist?
4. What are the factors that influence on the tourist`s acceptance of METG?

1.9 Analytical Approach

This research developed and tested a model for examining tourists' acceptance of METG based upon Davis' technology acceptance model (TAM). The model considered three antecedents of intention: knowledge, usefulness and attitude. The relationships between them and between these and intention were explored using structural equation modeling.

1.10 Scope of the study

To determine the scope of this study, data were collected from a stratified sample of international users of a Travel Facebook Page (yTravel Blog). This page along with the weblog (www.ytravelblog.com) were funded by an Australian couple _Caz and Craig_ who have been travelling since 1997. Inside their community this couple and the page members (7656 Likes) have been sharing travel tips, real stories and great photos. The sample was randomly stratified by nationality and distributed via private massages in the Facebook page and received back during the November and December of 2012 from variety of nationalities.

1.11 Chapter Summary

In this chapter an overview of the thesis has been introduced and followed by background of the problem, the limitations of had been described. Purpose and significance of the study highlighted the jest of the research. Objectives and research questions paved the way to form the structure of the thesis and finally scope of the study had been introduced to determine the scale of the research via the questionnaire which was collected online. Chapter 2 discusses the Literature Review followed by Research Design in chapter 3. Chapter 4 and 5 focus mainly on the finding and conclusion of this research.

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