Perspective of Thai Visually-impaired People Toward E-service Quality of Online Travel Booking Service

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Abstract

With the growing of online travel service, it seems to generate high benefit to visually-impaired tourists as they enable to access travel booking service just in front of their computers and not necessary to go to travel agents. The major purpose of this paper therefore was to study thePerspective of Thai Visually-impaired People toward E-service quality of Online Travel Booking service system by measuring five e-service quality factors include web design, reliability, privacy, responsiveness, and web customization. Data were collected from 189 thai visually-impaired people both total blindness and low-vision persons who ever used online travel service system at least once through survey method by e-mail sending. Findings were overall e-service quality of online travel booking service system was in fare level as the mean value equal to 2.99, however overall sample respondents viewed good level toward Reliability and responsiveness as the mean value were 3.54 and 3.46 respectively.

Keywords: E-service Quality, Online Booking, Online Travel Service, Perspective,

Visually-impaired People

บทคัดย่อ

การเติบโตของการตลาดออนไลน์ของธุรกิจการท่องเที่ยวดูเหมือนจะก่อให้เกิดประโยชน์แก่นักท่องเที่ยวที่มีความพิการทางการเห็นเนื่องจากสามารถจองการเดินทางได้ที่หน้าคอมพิวเตอร์โดยไม่จำเป็นต้องเดินทางไปยังสำนักงานตัวแทนการท่องเที่ยว ดังนั้นวัตถุประสงค์หลักของงานวิจัยชิ้นนี้คือเพื่อศึกษามุมมองของผู้พิการทางการเห็นต่อคุณภาพการบริการทางอิเล็กทรอนิกส์ของบริการการจองการเดินทางผ่านระบบออนไลน์ โดยทำการวัดคุณภาพการบริการทางอิเล็กทรอนิกส์ผ่าน 5 องค์ประกอบได้แก่ การออกแบบเว็บไซด์ ความน่าเชื่อถือ ความเป็นส่วนตัว การตอบสนอง และ การปรับแต่งเว็บ ข้อมูลรวบรวมจากกลุ่มผู้พิการทางการเห็นที่เคยใช้บริการจองการเดินทางผ่านระบบออนไลน์ทั้งผู้ที่ตาบอดสนิทและผู้ที่มีสายตาเรือนรางจำนวน 189 คน โดยการสำรวจผ่านทางจดหมายอิเล็กทรอนิกส์ ผลการวิจัยพบว่าคุณภาพการบริการทางอิเล็กทรอนิกส์ของบริการการจองการเดินทางผ่านระบบออนไลน์โดยรวมอยู่ในระดับพอใช้ซึ่งมีค่าเฉลี่ยอยู่ที่ 2.99 แต่อย่างไรก็ตามกลุ่มตัวอย่างระบุว่าองค์ประกอบด้านความน่าเชื่อถือและการตอบสนองอยู่ในระดับดีโดยมีค่าเฉลี่ยอยู่ที่ 3.54 และ 3.46 ตามลำดับ

คำสำคัญ : คุณภาพการบริการทางอิเล็กทรอนิกส์ การจองออนไลน์ บริการการเดินทางออนไลน์ มุมมองผู้พิการทางการเห็น

Introduction

Internet has changed many business industry, also has significantly revolutionized travel industry in the last decade. According to Buick (2003) for the travel industry, the positive impacts of the internet include more effective distribution channels and disintermediation.

Channels.

With the spread development of the internet and information technology, there were increasing number of tourists to use the internet for finding and searching information about tourism which leads to the buying decision (Madu&Madu, 2002). Hence, company that has not implemented the technology is likely losing its competitive potential to win customers' hearts (Vladimirov, 2012).

With an increasing number of travel companies participating in the Internet market, the initial price advantages in online travel service has nullified, and low price has become a minimum qualification to compete in the Internet market (Sohn and Tadisina, 2008).

Currently, online travel service operators do not focus only on pricing strategy, but most of them gradually moved to focus on service quality. According to Damanpour (2001), the Internet enables e-Service move to the forefront of technology priorities. And, one of the

important factors of the Internet is that it offers an interactive function with its customers. Companies that take advantage of this interactive function simply were considered to have good e-Service quality (Hagg et al., 2000).

Although several companies have realized the importance of online travel service to customers, they seem not to understand customer's perception of online travel service and how customers assess their online travel service quality. And despite many studies concerning traditional service quality, relatively few studies have been conducted in the Internet market, and even less on online travel service quality (Li and Suomi, 2009).

Meanwhile, the internet using by various sectors is growing, but several people still unable to access the information and service through such technology. According to Lilly (2001), The Internet and World Wide Web (Web) provide instant access to vast quantities of information. Unfortunately, many people with visual, hearing, mobility, or learning disabilities are unable to take advantage of the opportunities afforded by the Web. This is because badly designed and/or inaccessible Web sites prevent them from fully experiencing the graphical and aural benefits of the medium. Regarding to online travel service sector, among the tourists who turned to use online channel for their travel booking were visually-impaired people. But however, many online travel service not yet appropriately designed to support visually-impaired people in some process, which lead visually-impaired users to face some problems while using online travel service. According to Sentence (2016), many of the top travel sites were still missing many of the features that will make their websites accessible to users with disabilities particularly visually-impaired users. Thus, visually-impaired tourists may not fully gain benefit from online travel service channel. Online travel service operators are therefore required to more consider about their e-service quality to support all customers including visually-impaired customers.

This paper as a result done to propose thePerspective of Thai Visually-impaired People toward E-service quality of Online Travel Booking service system.The literatures reviewed in this paper include definition of visually-impaired people, the trend of online travel service industry and online travel service with visually-impaired people, the concept of e-service and e-service quality. Then, the research methodology, result, conclusion and recommendation were presented after that.

Objective

To study the Perspective of Thai Visually-impaired People toward E-service quality of Online Travel Booking service system.

Conceptual Framework
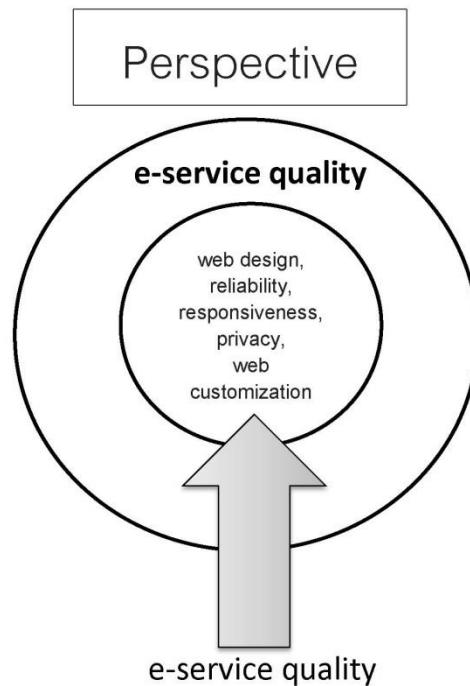
There were five variables to measure perspective toward e-service quality of online travel booking service system include web design, reliability, responsiveness, privacy, and web customization.

Literatures

1. Visually-impaired People

According to Bourne et al. (2017), in year 2017, an estimated 253 million people live with vision impairment which categorized into 36 million blind and 217 million have moderate to severe vision impairment.

The World Health Organization (2017) defined the visually-impaired people as people who are visual acuity of less than 3/60, or a corresponding visual field loss to less than 10°, in the better eye with the best possible correction.

In Thailand according to the description of Ministerial Regulation B.E.2537 No.2 of Ministry of Public Health defined the term visually-impaired people as any person who has

the better eye, after using regular eyeglasses, is able to see less than 6/18 or 20/70 downward until unable to see any light, or a visual field of less than 30°.

2. Overview of Online Travel Service Industry

Li and Suomi (2007), The increased penetration of online service and home computing has resulted in more consumers' home-shopping. Consumers are able to search travel information through websites, to engage in the subsequent decision-making process, and to purchase travel services without leaving home.

With the change of consumers' behavior, travel service providers have been implemented online travel service distribution to customers. As the travel industry is largely information-driven, the Internet has been considered ideally suited as a medium for travel service delivery (Morgan et al., 2001).

Schreiber (2016) indicated that online Travel Booking is convenient, saves time, and allows an easy and quick comparison of prices for all three segments include Package Holidays, Hotels, and Vacation Rentals which take a significant share from today's offline booking volume.

Li and Suomi (2007) stated that with the wide adoption of e-commerce in travel and tourism industry, the traditional travel agency has been under severe disintermediation threat. More and more travel service providers has been conducting travel service distribution online without dependence on traditional intermediaries of travel agencies and without commissions paid to travel agents.

3. Online Travel Service and Visually-impaired People

Mills *et al. (*2006) stated that People able to search for services, prepare suitable itineraries and book reservations with only a few mouse clicks, so Travel planning that previously took more than an hour but now takes only a few hassle–free minutes.

According to Carstens and Patterson, 2005), online travel operators also provide informations that further benefit to travelers such as weather updates, flight status, travel guides and tips, and etc.

However, all above offering services and benefits were useless for visually-impaired travelers unless those online travel service operators lack of concerning on accessibility issue for every people through their sites. Therefore, one thing that all online travel booking

service operators unable to forget is their online channels are accessibled by every group of travelers including disability people like visually-impaired users.

According to Babu (2013), Millions of visually-impaired people could not use travel sites effectively due to the significant access and usability barriers, also several Literatures recognized that travel sites lack accessibility and usability.

As the member of society, visually-impaired people engage in travel and tourism like other groups of people.

Generally, visually-impaired travelers prefer travel sites over travel agents to take advantage of the attractive deals on offer and the additional options available, but literatures found that travel sites lack the accessibility and usability interaction service for visually-impaired travelers (Mills *et al.,* 2006; Han and Mills, 2007).

Very scant research (SR) investigated the accessibility of online travel service channel for visually-impaired travelers (Mills *et al.,* 2006; and Han and Mills, 2007) presented that interacting with an online travel sites properly be significantly challenging for visually-impaired users. For example: graphics such as pictures, virtual tours, and videos common on these sites present two potential problems for visually-impaired user (Han and Mills, 2007).

Furthermore, online travel sites often use Java and Macromedia files to embed links and menu options that unable to support interaction among visually-impaired users (Han and Mills, 2007).

Moreover, Flash can cause two additional problems for visually-impaired people to use online travel channel. First, it could trigger the screen reader program to repeatedly read the top part of a page without reading the bottom part (BBC, 2013). Second, content updates cause the screen reader program back to read the top of the page again and again (Smith *et al.,* 2004).

Han and Mills (2007) further stated that two more disruptive features of online travel sites for visually-impaired users were the ads and pop–ups that did not interoperate with screen reader program effectively.

Hyperlinks without Alt–Text was another source of problems on travel sites, because the screen reader program to read as "link, link, link" which simply make visually-impaired users confused (Han and Mills, 2006).

According to Babu (2013), another source of problems for visually-impaired users on travel site was the online form, when designed such form without any information assistance could make visually-impaired users faced complicate to fill. Locating the correct line and placing the cursor focus to fill out a form.

Although those problems could basically caused visually-impaired travelers unable to fully access through online travel sservice, visually-impaired travelers still eager to use online travel channel and still able to perform basic task such as booking flight or hotel by themselves or with assistance by sighted people (Babu, 2013).

4. E-service

An e-service defined as the provision of service over electronic networks such as "the internet" and includes the service product, service environment, and service delivery that comprise any business model, whether it belongs to a goods manufacturer or a pure service provider (Rust and Kannan, 2002).

5. E-Service quality

E-service quality can be examined as the extent to which a websites facilitates efficient and effective purchasing, and delivery of products and services (Parasuraman, 2005).

There have been many researchers have developed key of e-service quality dimension to measure the consumer or user's perception of quality. Much of them had taken a combination of traditional service quality dimensions and web interface quality dimensions as the starting point to measure (Li et al, 2009).

In this paper, five e-service quality dimentions would be proposed based on the study of previous literatures as follows:

1) Web Design: The web design was significantly important as the websites have to be designed for a targeted customer segment and it was directly related to the user interface (Van Riel et al, 2004); and (Wolfinbarger and Gilly, 2003). Web design elements consists of symbols, color, layout, language and content (Cyr and Trevor-Smith, 2004).

2) Reliability: Reliability refers to the consistency of performance and dependability of companies (Parasuraman et al, 1988). It was the capability to perform the promised service accurately and consistently, which it could be including the frequency of website update, prompt reply to customer enquiries, also the accuracy of online purchasing and billing.

Reliability is the most important dimension of e-service quality, as it is vital to make customers to trust that the company is going to perform what it promises to do (Li et al, 2009).

3) Privacy: Parasuraman et al. (2005) defined privacy as the degree to which the site is safe and protects customer or user information. Privacy significantly influence on consumers or users' evaluations of websites as well as their satisfaction toward the websites (Branscum and Tanaka, 2000).

4) Responsiveness: Responsiveness defined as an effective handling of problems or issue and how well it returns through the websites (Parasuraman et al, 2005). Company's prompt service to customers via the Internet could make customers feel more comfortable during purchasing and continue purchasing without interruption (Li et al, 2009). Kim et al. (2006) stated that responsiveness is related to willingness of the company that helps consumers or users and to provide prompt service when consumers have problems.

5) Web Customization: The web customization dimension could be understood as the empathy dimension of the traditional SERVQUAL (Zeithaml et al, 2002). Web customization could reflected the degree to which information or service is customized / made to order to meet the needs / requirements of the individual visitor (Lee, 2005).

Methodology

The sample population selected to study were thai visually-impaired people who ever used online travel service system at least once. Non-Probability sampling with purposive sampling was the sampling method to select the sample. The total number of samples were 189 visually-impaired respondents, both total blindness and low-vision, both male and female, age at least 20 years old. All respondents were visually-impaired people based on the description Ministerial Regulation B.E.2537 No.2 of Ministry of Public Health.

The data collection method was survey method via e-mail sending. The instrument used for collecting data was structural questionnaire created on google form and send link to visually-impaired respondents.

The data analysis method were frequency and percentage taken to analyse the demographic data of respondents, and mean value analysis taken to measure the perspective toward e-service quality of online travel booking service system.

Result

Based on the analysis done by frequency, percentage and mean value on the data collected from 189 thai visually-impaired people who at least ever used online travel service system, it could be summarized in 2 below tables:

For the first table, frequency and percentage value were used to interpret the demographic data of respondents include gender, age, types of visual impairment, and frequency to use online travel service system.

For the second table, mean value was used to interpret the perspective of respondents toward e-service quality of online travel service system include web design, reliability, privacy, responsiveness, and web customization, which were set in term of likert scale questions: very good, good, fare, poor, and very poor. Also, the interpretation meaning of mean value were: 4.21-5.00 = very good, 3.41-4.20 = good, 2.61-3.40 = fare, 1.81-2.60 = poor, and 1.00-1.80 = very poor.

Table 1 Frequency/Percentage of demographic data

Demographic		Freq.	Perc.
Gender	Male	99	52.38
	Female	90	47.62
	Total	189	100.00
Age	20 - 25 years old	18	9.52
	26 - 35 years old	28	14.81
	36 - 45 years old	82	34.39
	46 years old and over	61	32.28
	Total	189	100.00
Types of visual impairment	Total blindness	87	46.03
	Low-vision	102	53.97
	Total	189	100.00
Frequency to use online travel service system	1 - 3 times	30	15.87
	4 - 6 times	60	31.75
	7 - 10 times	76	40.21
	More than 10 times	23	12.17
	Total	189	100.00

Table 1 represents the demographic information of all 189 sample respondents: For gender, there were 52.38% of male respondents and 47.62% of female respondents, for age, there were two major groups of respondents age between 36 and 45 years old and 46 years old and over which equal to 34.39% and 32.28% respectively. Meanwhile, there were 14.81% of respondents age between 26 and 35 years old, and 9.52% remaining were age between 20 and 25 years old. For types of visual impairment, there were 53.97% low-vision persons and 46.03% total blindness persons. And for frequency to use online travel service system, majority group of respondents which equal to 40.21% ever used online travel service system 7 to 10 times, followed by those who ever used 4 - 6 times which equal to 31.75%. And, there were 15.87% and 12.17% of respondents ever used 1 - 3 times and more than 10 times respectively.

Table 2 Mean analysis of perspective toward e-service quality of online travel service system

Perspective	X	Meaning
Web design	2.45	Poor
Reliability	3.54	Good
Privacy	2.97	Fare
Responsiveness	3.46	Good
Web customization	2.51	Poor
Overall perspective	2.99	Fare

According to the table, overall respondents stated fare level toward overall e-service quality of online travel booking service system in average as the mean value equal to 2.99. To specify in each e-service quality factor: overall respondents stated that e-service quality in terms of reliability and responsiveness of online travel booking service system were good in average as the mean value were equal to 3.54 and 3.46 respectively. While, overall respondents stated fare level toward privacy in E-service quality of online travel booking service system in average as the mean value equal to 2.97. However, overall respondents stated poor level on two e-service quality factors in average include web customization as the mean value equal to 2.51, and web design as the mean value equal to 2.45.

Conclusion and Discussion

From the result, it could be concluded that overall e-service quality of online travel booking service system was in fare level in the perspective among the visually-impaired customers. This result relevants to Mills *et al.* (2006) and Han and Mills (2007) that travel sites lack the accessibility and usability interaction service for visually-impaired travelers, which lead the visually-impaired samples rate overall e-service quality in the fare level only.

Even though, visually-impaired customers viewed that both reliability and responsiveness were in the good level, while viewed privacy in the fare level, but two remaining categories include web design and web customization were in the poor level. This result support to Babu (2013) that Millions of visually-impaired people could not use travel sites effectively due to the significant access and usability barriers.

Although the result represented that reliability and responsiveness were both in the good level which in line with Li et al (2009) that reliability and responsiveness were the important factors to attract customers using their service.

From the conclusion, online travel booking service operators should more focus to improve their e-service quality to support visually-impaired customers so that visually-impaired customers could proper use online travel booking service system like other groups of customer.

IN particularly, online travel booking service operators should more concern on two main categories which are web design and web customization, as these two main things are the key important factors of the service that most affect to visually-impaired customers. Therefore, online travel booking service operators should design their own websites together with customize their websites that enable to support all users including visually-impaired customers to use without facing any problems.

Recommendations

Regarding to online travel booking service operators, in order to design and customize the system to fully support visually-impaired users, online travel booking service operators can rely on the web accessibility guidelines proposed by W3C to improve their service system to support both visually-impaired and non-visually-impaired customers to use together without causing any barriers.

Regarding to researchers, further studies can be done by relying on data from this paper such as to study the satisfaction of visually-impaired people toward online travel booking system, to develop the web accessibility model of online travel booking system, and to analyse the effectiveness of online travel booking system for disability users.

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