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Welcome

The Tourism Educators South Africa (TESA) Board and the Local Organising Committee are pleased to announce that Cape Town, South Africa will be hosting the 1st TESA International Conference from 21st – 23rd September 2016. The conference will be made up of two parts: The first day (21st September) will be dedicated to a postgraduate seminar and will be taking place at the CPUT Hotel School. The main conference (22nd – 23rd September) will be taking place at the beautiful Radisson Blu Waterfront Hotel located in the world renowned V&A Waterfront as well as at the CPUT Hotel School. The month of September has been chosen for this conference as it coincides with tourism month in South Africa.

The conference aims at bringing together national and international academics, tourism stakeholders, students as well as public and private organisations involved in all aspects of the tourism and hospitality industry. The conference will offer a unique opportunity to share information and experiences and engage in open and meaningful dialogue on planning, developing, marketing, human resource management, strategic alignment and innovations for the future of the tourism and hospitality industry.

We trust that you will enjoy this conference & look forward to welcoming you to Cape Town in September 2016!

Prof. Rishi Balkaran   **Prof. Kamilla Swart**
TESA Board Chair   Scientific Chair

Who should attend

The conference is ideally suited for:

- Academics
- Public sector organisations involved in tourism, hospitality & events
- Private sector organisations involved in tourism, hospitality & events
- NGOs involved in tourism, hospitality & events
- Postgraduate tourism, hospitality & events students

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USABILITY MEASUREMENT OF WEB-BASED
HOTEL RESERVATION SYSTEMS

Shasha, Z.T.
WARC, CPUT
Tel: 021-460 3552
Fax: 021-913 4801
Cape Town

Weideman, M. Corresponding Author
WARC, CPUT
Tel: 021-460 3552
Fax: 021-913 4801
Cape Town
melius@gmail.com

HOTEL RESERVATION SYSTEM WEBSITE USABILITY

Abstract

Purpose. The purpose of this research paper was to determine if Cape Town hotel reservation systems are usable.

Method. The research instrument that was employed is usability testing. It is a technique used to evaluate product development that incorporates direct user feedback in order to decrease costs and create products and instruments that meet user needs. In this research paper, both standard approaches to user testing were applied in a combined quantitative and qualitative research design. For the qualitative component, some parts of a user testing session involved open-ended and perception-based questions. Other answers were recorded as quantitative data.

Results. It was found that the respondents have numerous requirements for ease of use; more than 52% of participants indicated that the key factors were content simplicity and understandable product offerings through booking systems. Only about 18% of participants felt that the websites were confusing, while about 12% experienced the booking process as frustrating.

Conclusion. In conclusion, it can be stated that booking systems were not easy to use, according to guidelines provided in other research. These results provide Web developers, designers and hotel owners with a clear understanding of the way in which website usability impacts on user satisfaction.

Keywords
measurement, usability, web-based, hotel, reservation system

Introduction

Background to the study

Churm (2012) and Kritzinger & Weideman (2008) stated that website usability in general refers to the efficiency with which a customer can perform a task through the website interface, and the degree of user satisfaction experienced. Usability incorporates many factors including: design, functionality, structure and information architecture. Yeung & Law (2006) state that poor website design results in a loss of potential sales due to users being unable to find what they want and a loss of potential repeat visits due to an initial negative experience. Cappel & Huang (2007) and Van der Merwe & Bekker (2003) note that websites which are not usable and do not provide a positive experience may cause customers to decide that it is easier to make a physical booking, or switch to competitor websites.

According to Chung & Law (2003) many hotels do not have adequate knowledge to build a usable website. Some hotel websites are not updated regularly and the outdated information may eventually be negative for the hotel's image (Chung & Law, 2003; Sindhuja & Dastidar, 2009). Jeong, Oh & Gregoire (2003) claimed that developing and maintaining an effective website is critical to the success of the business. Some hotels are faking reviews and providing misleading information which increase booking in the short-term, but eventually leads to low perceived value and even more negative reviews which tarnishes the hotel image in the long-term (Muller, 2011).

The importance of research on hotel interfaces was confirmed (Srikanth & Kutay, 2009) in a study done on the difference between single screen and multi-screen booking interfaces. The findings suggested that the general quality of hotel booking websites is low. Other research (Wei, Cheung & Law, 2010) on online hotel booking systems has proven that user demographics need to be considered in the design of these systems. Shasha (2016) carried out empirical research on website usability and the outcomes indicated that websites and booking systems were not usable. This confirms the importance of proper design and usability considerations in hotel booking systems. Ignoring this factor could lead to loss of

income as a result of fewer bookings. This confirms the importance of proper design and usability considerations with the interfaces of hotel booking systems. Based on this prior research, it has become clear that **the research problem is a lack of usability of online hotel booking systems - this deters potential clients from spending money at hotels**.

Research question
- Do users find hotel online reservation systems usable?

Research sub-question
The following were identified as sub-questions related to the research problem and formed the backbone of the research:
- Are the sample of online reservation systems usable?
- What are the main usability impediments of hotel reservation systems?

Research objective
The following are the objectives for this research study:
- To determine if hotel online reservation systems are usable.
- To identify the main usability impediments of hotel reservation systems.

Although the importance of social media as marketing tool in the hospitality industry has grown over the last decade (Aluri, Slevitch, & Larzelere, 2015), this phenomenon will not be covered in this research.

Literature review
Previously, hotels utilised a variety of ways of selling their rooms, including direct ones, for example sales offices and call centres, and indirect channels including tour operators (Yoon, Yoon, & Yang, 2006). When the company is present on the Internet, it automatically makes it available to potential customers anywhere in the world. Internet communication between the companies and consumers now means that there can be an electronic exchange of data. The Internet and e-commerce provide consumers with

opportunities, through easy online information gathering and convenient online hotel bookings or shopping, in order to be better prepared to purchase the right product at the right time (Schulze, 1999). Moreover, the Internet makes the gathering of competitive intelligence easier than ever before (Chaffey, 2009).

Many hoteliers seem to be unaware that it is not enough to merely be present on the Web. A hotel website should create a pleasant experience for the user, ensure lock-in and provide an easy way to book a room in order to avoid customer defection (Chaffey, 2009). Furthermore, it is claimed that hotels need to adopt effective reputation management techniques and they should take appropriate action to minimise adverse effects.

Online hotel booking systems
Technology, specifically online processes, have taken over almost all areas of applications in travel and tourism. Online hotel booking systems provide users with all the information that a user needs before embarking on this journey. A user can have a complete list of the best hotels relating to the area he/she intends to visit, information about the rooms and their tariffs, and even details concerning special offers and discounts being offered (Viduka, 2011). The value of a hotel website as part of the corporate identity has been proven (Mohammed, Guilet, Schuckert & Law, 2016). It has also been shown that the majority of clients feel more comfortable making hotel reservations online than visiting a travel agency (Yea, Law, Guc, & Chend, 2011).

Websites
A website is a collection of webpages (documents that are accessed through a user's browser). Hearn (2012) defines a website as a collection of related webpages or files and documents hosted on a Web server and accessed through the World Wide Web (WWW). According to Tu (2012), website features thus play a very important role in communicating with potential visitors by enhancing users' experience and comprehension, and thereby facilitating their evaluation and selection of destinations before the real visitation. It has been established that website features do not only expedite users' decision-making, but also

result in a positive online experience. More advanced product presentation may effectively increase the experiential value of a website.

Visser and Weideman (2011) claimed that the visibility of a website can be determined by the result page on which it ranks. Ranking on the first page of the SERP for a given keyword is an indication that the website is not only present in the index of search engines, but also that it ranks very well. Zuze and Weideman (2011) claimed that websites are increasingly being utilised as marketing tools, which results in competition amongst websites with similar content. At the same time, the ethical correctness of consumers facing content on search engine result pages which earned rankings due to payment and not content quality has been questioned (Weideman 2004). In the context of this research, it underlines the importance of high quality content and hotel booking websites with a high degree of usability.

Website usability
According to Nielsen (2012), usability is a quality attribute that assesses how easy and learnable user interfaces are. Rouse (2005) noted that "usability is the measure of a product's potential to accomplish the goals of the user". The author further refers to usability as a method for improving ease of use of a website. There are five quality components that define usability:

- Efficiency - how much time does the user spend learning the design when performing tasks?
- Errors - how often do users make errors and recover from the errors?
- Learnable - how easy is it for users to achieve basic tasks especially when is it their first time encountering these designs?
- Memorable - how easily can users re-establish proficiency, for example when the user returns to the website after some time?
- Satisfaction – how enjoyable is the website experience to a user during a working session?

According to Nielsen (2012) there are many other important quality attributes - a key one being usefulness, which refers to the functionality of the design. Utility and usability are equally important and together they determine whether or not something is useful. It is of little importance if something is easy to use, if it is not what the user wants. It is also meaningless if the system can hypothetically do what the user wants, but the user is unable to utilise it appropriately. To study a design's utility, the same user research methods that improve usability, such as user testing, can be implemented (Nielsen, 2012).

Measuring website usability

The ultimate objective of website usability is to create a website that is more enjoyable and efficient in the user's experience, compared to another similar website. As noted elsewhere, Nielsen (2000) suggested that website usability be defined by five elements, namely: It must be simple to learn, be efficient to use, be remembered easily, have a small number of errors and be an enjoyment to use. According to Rhodes (1998), well written content, easy-to-follow design and a small number of errors in grammar are required to establish the user's trust in the website. However, the value of user-generated content through reviews cannot be ignored (Herrero, San Martin & Hernández, 2015), and this content should be considered as part of the impact of the hotel's website.

Methodology

The researcher implemented triangulation and gathered data via a combination of a literature review, questionnaire and the data analyses. Triangulation in research is defined as the simultaneous use of different methods in order for different results to shed light on the same topic (Olsen, 2004:3). The rise of the mixed method approach in social science research and the identification of the triangulation approach is important (Tucker, 2010; Creswell & Plano Clark, 2011), and was implemented in this research.

Usability Testing

The user testing session took place in Cape Town, after canvassing users in a random fashion. A computer laboratory was used, with 60 computers available for the testing

session. Before commencing with the session, the 55 users were oriented on the laboratory and the testing process, and provided with an information document. The testers signed a document which reflected their consent, indicating that their names and affiliations would remain confidential and that the results were for research use only. Participants were asked to follow the supplied instructions in order to make an attempt to complete an online accommodation reservation. The users were asked to record their experiences as they progressed, and to terminate the process just before being prompted to make an actual payment.

Questionnaire

The questionnaires were distributed to the 55 target participants, who had previous experience with using the Internet and with making online accommodation bookings. All of the participants were provided with three questionnaires, each one based a on different reservation website. All the questionnaires were retuned - some were invalid or incomplete and the rest were used in further analysis.

Data Analysis

During this phase of research, the data was summarised from the questionnaires, and this summary was analysed. The Statistical Product and Service Solution (SPSS), was used as the instrument for the data analysis.

Results and Analysis

In an attempt to measure the user's experience of the booking systems in a less rigid way, words/phrases were provided to describe the emotion(s) evoked in a user when using the booking systems. Users were invited to tick anyone or more of a list of descriptive terms, which would correctly identify their experience of that specific website. A summary of the choices made by users is given in Table 1.
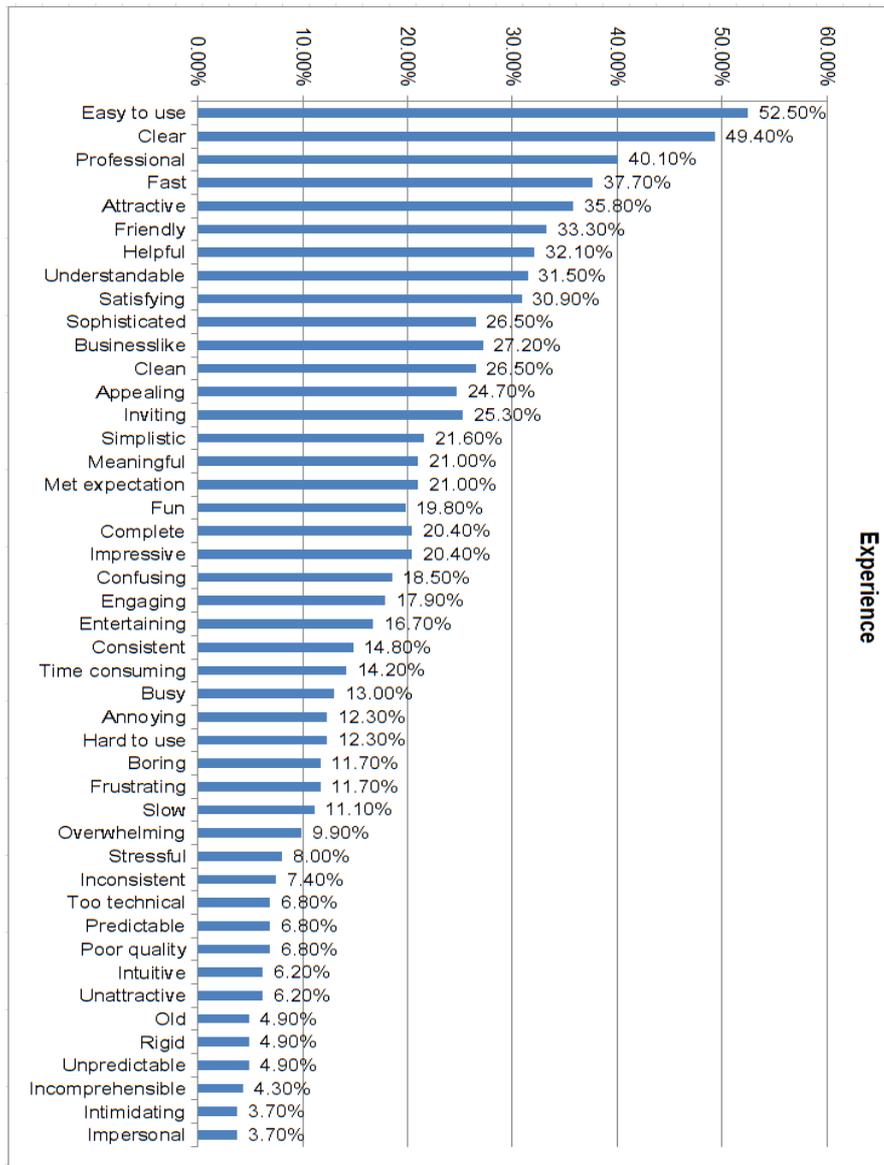
Table 1: Summary of the frequency of user's word choices.

The result is presented and the data collection and data analysis have been discussed in order to conclude the website usability of the hotel booking systems. According to the usability test of users' satisfaction of hotel booking systems, it was found that the respondents have numerous requirements for ease of use; more than 52.50% of participants indicated that the key factors were content simplicity and understandable product offerings

through booking systems. It was clear that a large part of the participants (49.40%) felt that the booking websites were easy to use, not causing any doubt on user's mind, easy to understand and free from confusion. A successful booking website is one that is most likely to generate a positive impression and it will keep visitors on the website. A total of 35.8% of participants felt that the websites were attractive. The results also show that 33.3% of participants considered the online booking system to be user friendly.

Satisfaction is a subjective measure from the user's perspective; 30.9% of participants indicated that they were satisfied with the websites. User satisfaction refers to the user experiences of the website (e.g. a user enjoys using the website and has fun while doing so). However, some problems of some of booking systems appear to be: they do not offer enough interactivity with users to help them though the booking process; the system design produced an unattractive interface; and the booking systems did not organise its functions in a user friendly way.

A total of 18.5% of participants felt that the websites were confusing. When a website is difficult to use, users tend to leave the site. When the home page does not state clearly what a website offers and what users can do on the site, users leave. The results show that 12.3% of participants felt that those websites were hard to use. A smaller number of the participants (11.7%) felt that the design of the websites was boring, unattractive, not engaging, not conveying the right message, and that the website was not user-friendly.

Just under 12% of the participants felt that the booking process was frustrating. More than 11% of the participants felt that the booking systems were slow. Page loading time is a very important part of any website user's experience, and a website which is too slow, wastes the user's time. A small fraction of users (6.6%) commented that the websites were unattractive. If the website design gets in the way of the user completing the task, is difficult to read, and is poorly sign posted, users will go elsewhere. Only 4.9% of the participants felt that booking systems were old.

In conclusion, it can be stated that booking systems were not easy to use. These results provide Web developers, designers and hotel owners with a clear understanding of the way in which website usability impacts on user satisfaction.

Discussion

The online reservation systems were not easy to use - systems were difficult for some users to finish their tasks. This indicates that the chances are high of a user doing a booking at that time abandoning a shopping cart without completing the process. Kritzinger and Weideman's study (2008:5) established that when a website does not state clearly what it offers to the users, the users would easily leave the website.

The author recommends that the designers and hotel owners carry out user testing on their hotel websites and reservation systems to ensure that they meet users' requirements. They also need to ensure that both websites and booking systems are continuously updated

Conclusion

When reviewing the objectives of this study, the following becomes clear:

- The sample of hotel reservation systems taken for this study has a low degree of usability, which confirms the expectation set by the literature review.
- The five most used terms to describe the typical user experience in this test are (from most to least important): Confusing, Time consuming, Annoying, Hard to use and Boring.

The importance of user testing has been proven in this research. The designers need to focus on making home pages simple and attractive for a better first impression. Overdoing graphical imagery is not always useful, rather, a balanced appearance of text and images is needed. Websites must have enhanced options to make navigation simple and easy, as this is significant for booking reservation systems. Taking advice from known providers of creative website services will enhance design.

In final conclusion: some users found the booking interfaces to be relatively easy to use, but approximately one half disagreed. This is not considered to be acceptable, based on guidelines provided in earlier research. Designers need to focus on making homepages attractive for a better first appearance to users. Websites must have enhanced options to make navigation simple and easy, as this is significant for booking reservation systems. Taking advice from known providers of creative website services will enhance design.

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