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GREEN INFORMATION TECHNOLOGY AUDIT AND DIGITALIZATION IN SMALL MEDIUM ENTERPRISE (SME): FACTORS THAT INFLUENCE INTENTIONS TO USE HOTEL WEBSITES

REVIZIJA ZELENE INFORMACIJSKE TEHNOLOGIJE I DIGITALIZACIJA U MALIM I SREDNJIM PODUZE IMA: FAKTORI KOJI UTJE U NA NAMJERE KORIŠTENJA WEB STRANICA HOTELA

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Abstract: *Internet is helping to drive down overhead costs for the hospitality industry and cost of information for the customers, as the traditional method of communication is slowly being phased out. Authors argue that the Internet gives the customers more advantages by allowing them to obtain valuable information such as prices and hotel facilities without the need of getting into contact with any sales agents. In addition, the Internet provides the customers with numerous supplies allowing customers to access a pool of products and services information from which they can make choices and compare prices.*

Keywords: *Internet, technology, hospitality*

Sažetak: *Internet pomaže u smanjivanju režijskih troškova u ugostiteljstvu i troška informacije za korisnike, pa se tradicionalni na in komunikacije polako ukida. Autori tvrde da Internet pruža korisnicima više prednosti, dopuštaju i im da dobiju vrijedne informacije kao što su cijena hotelskih objekata, bez potrebe za dobivanje kontakta s bilo kojim prodajnim agentima. Osim toga, Internet omogu uje korisnicima pristup nizu proizvoda, usluga i informacijama iz kojih oni mogu donositi odluke i usporediti cijene.*

Ključne riječi: *Internet, tehnologija, hotelijerstvo*



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1. Introduction

According to Chung and Law; Jeong et al.; Jeong and Lambert and Kim et al., information satisfaction is the most important requirement of online customers' purchases decision making [3] [7] [9]. This need remains largely unmet despite the growing importance of e-commerce within the hospitality industry. According to Kim et al., the changing trend in the business activities is largely attributable to the fast and improved developments in information and telecommunications. As a result, Chung and Law noted that the Internet is also helping to drive down overhead costs for the hospitality industry and cost of information for the customers, as the traditional method of communication is slowly being phased out. Similarly Kim et al. argue that the Internet gives the customers more advantages by allowing them to obtain valuable information such as prices and hotel facilities without the need of getting into contact with any sales agents. In addition, the Internet provides the customers with numerous supplies allowing customers to access a pool of products and services information from which they can make choices and compare prices.

In response to these demands, the hotel industry is fast adopting e-commerce so as to benefit from the global opportunities, distinguish themselves from their competitors and lower the costs of reservation processes. Kim et al. point out that the Internet offers optimum flexibility to enable hotels operators to react more swiftly to the changes in the business environment. However, before the hotels can reap these benefits, Jeong and Lambert posit that these benefits will not come on a silver platter. They assert that it is no longer adequate simply to market products and services online, but it is vital for hoteliers to fully understand the factors that determine online customers' courses of actions (i.e. to buy or not to buy). This is one of the main concerns on the effectiveness of hotel web sites, which include the values of the information content for online customers' purchase decisions. [3] [7] [9].

2. The Purpose of the Research

The main purpose of this study is to:

- Investigate and identify UK online customers' perceived key elements of hotel websites information contents for purchases decision.
- Use the key elements identified as 'measurement indicators'.
- Evaluate the performance of UK two and three –star hotel websites.

3. The Research Questions

According to a survey conducted by American Express, e-commerce presents the UK hotel managers with one of the five biggest challenges facing the industry today. When Jeong and Lambert tested a framework for evaluating information quality of hotel web sites, they found that the 'usefulness' of web site 'information' about hotel products and services has important implications on the customers' purchase decision behaviours. Although more research has been done since Jeong and Lambert latter studies suggest not much has changed in terms meeting customers' information needs

through the websites [7]. This prompts the main question of interests: What information do online customers expect to find on the hotel web sites?

4. The relevance of the study

There are a growing number of researches on e-commerce for the hospitality industry, however many of these studies are being carried outside the UK and/or in general terms of hotel website overall performance. For example, Kim et al. investigated the factors that influence the Chinese online reservation intentions and their satisfactions with online reservation in Beijing, China. Jeong et al, conducted a similar study in New York, USA. And Chung and Law who moved a step further to address specific aspects of the hotel web site quality- (i.e. information content), conceptualised their framework and tested the model in Hong Kong, on Hong Kong hotel web sites. [3] [7].

These examples demonstrate that, although some work has been done to address the information needs of online customers, it is equally important that the perceptions of UK online customers and hotel operators are incorporated in such evaluation frameworks if such frameworks are to be universally acceptable. The findings of this study should therefore be of interests to other researchers as well as hotel practitioners and web site developers.

5. Theoretical framework

This study will be based on the Technology Acceptance Model (TAM) which is the major framework that has been used to explain information technology usage and user acceptance behaviours [10]. Anchored on the Theory of Reasoned Action the TAM posits that IT usage and acceptance depends on two constructs , namely perceived ease of use (PEOU) and perceived usefulness (PU), which in turn predict the attitude that an individual will develop towards the system and eventually his /her intentions of using or not using the IT [1]. A major shortcoming of the TAM with its original emphasis on system characteristics (Malhotra and Galletta 1999), was that it ignored the role of social influence in adoption of the technology [4] hence in this study the TAM will be incorporated into the TPB [1], in order to account for social influence. The TPB holds that for an individual to perform a given behaviour he /she must have an intention. However intention is predicted by the individual's attitude towards the behaviour in question, his /hers perceived behavioural control PBC (confidence, capacity, resources) and what important others say about the behaviour (subjective norms). The proposed study model is presented in figure 1 below:

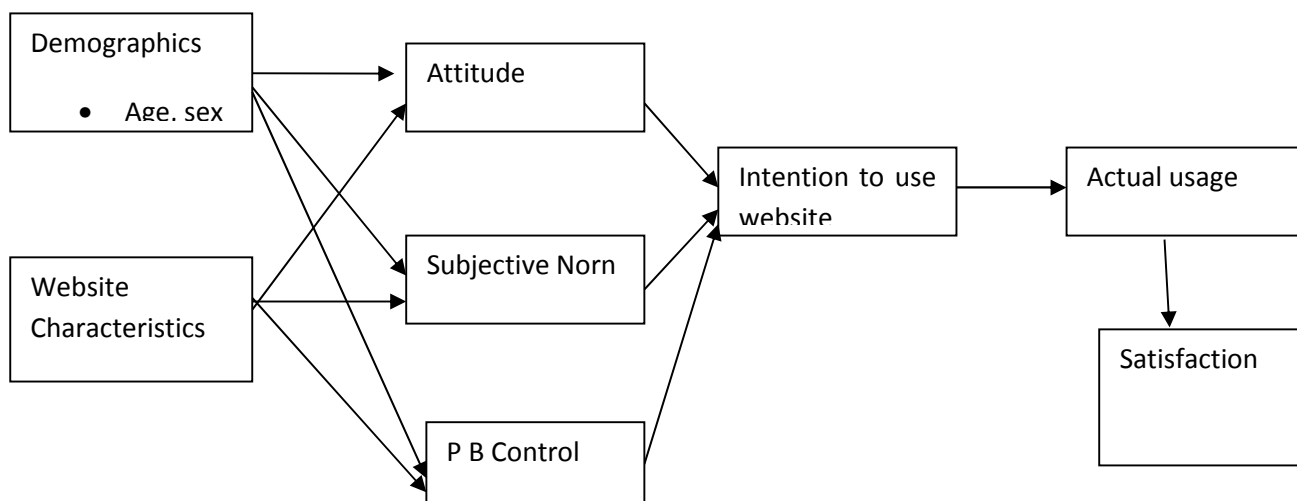


Figure 1. The study conceptual model [15]

Website characteristics include two major dimensions i.e. perceived usefulness and perceived ease of use (the original TAM dimensions). For this study in particular, website perceived usefulness (information content) includes:

- Sufficient information
- Security of personal details
- Customer contact information
- Reservation information
- Surrounding environment information
- Level of service and services available
- Reputation of the hotel
- Price
- Information accuracy
- Information completeness
- Visual appeal of the website

Perceived Ease of use consists of

- Ease of access (speed).
- Availability of links to information centres
- Ease of reading information
- Extent to which the website can be easily used

6. Customer's information needs

Although initial response to calls for investigating the issues that affect online customers were slow, more researchers are now entering the hotel web sites and

attempts to improve and add literature on e-commerce within hotel industry, in particularly customers' information needs are gradually forthcoming. For instance, in an empirical study to investigate the relationship between information quality and the customers' decision-making behaviour, Jeong and Lambert, adapted a framework that consisted of four major dimensions of hotel web sites. These are: “perceived usefulness”, “perceived ease of use”, “perceived accessibility” and “customers' attitude”. The study involved evaluation of eight web sites built on the basis of the framework. Jeong and Lambert, believed that these factors have strong impacts on customers' intention to use information to make room reservations and information use for decision-making [8]. The researchers argued that the intent to use the web site information involved two stages (i.e. ‘after examining the web content and before using the information to make a decision’). While the aspect of “information use” formed two significant behavioural results (i.e. ‘obtaining the information and making online reservation’). Thus in the event that the information obtained from the web site was used and purchases were made, Jeong and Lambert assumed that this would lead to recommendation of the web site to other prospective guests. They used these three factors: ‘use information’, ‘intention to use web site information’ and ‘recommendation of the web site’ as dependent variables to measure the information quality of the purported hotel web sites and to weigh customers' behavioural decision. Their findings suggested that “security of personal information” followed by “immediate reservation number”, “room rate” and ease of reading information” were the most important information among the 38 questions asked. In the end, they concluded that “perceived usefulness”, “ease of use”, “attitude”, and “intention to use web site information” have very strong impacts on the customer's purchase decision behaviour. However, Jeong and Lambert's study though very comprehensive, to some extent there are reasons for it to be treated with reservation. For instance, the study was based on hypothetically built web sites. If the same study was conducted using real hotel web sites, the results would perhaps be different. Secondly, the time lapse between the period of study and now reduces the validity of the findings. For example, Internet application software, technology and telecommunication infrastructures have become more advanced. Furthermore, customers' attitudes toward technology acceptance have also greatly changed. Therefore the validity of the results, which are based on their expertise at the time in web design and, users' attitude and experience of using the Internet, can be distorted by time frame. In a similar study, Jeong proposed that information satisfaction and purchase-related behavioural intentions are direct results of web site quality. They defined web site quality as “overall excellence or effectiveness of a web site in delivering intended messages to its audience and views”. Extending the work of Jeong and Lambert, the researchers investigated the likely effects of web site quality. Unlike the predecessors of the concept Jeong and Lambert made distinctions between the classes of the hotels (equivalent of five-star, four-star, three-star and two-star) in their research. In addition, the travel situations of either business or leisure were considered. Using of random sampling, 16 hotel web sites were examined through online questionnaire by prospective hotel guests. To measure the quality of the web sites, six variables were

used. These were: “information accuracy, completeness, ease of use, navigation quality and colour combinations”[8].

The results of Jeong et al’s shared some similarities with the result of a study conducted by Chung and Law who also found that the web site quality of budget hotel (e.g. two-star), were inferior to the rest of the upper classes (i.e. five-star, and four-star hotels). However, it has been argued that the degree of information technology application and sophistication are relative to the classes of hotels [3]. Jeong et al’s findings also suggested that information accuracy, sufficiency and colour combinations were relative to the classes of the hotel. While the value of information, sufficiency and ease of navigation had strong influence on customers’ behavioural intention, a finding which is consistent with that of Jeong and Lambert (2001). Furthermore, Jeong found that sufficient information and ease of navigation were both significant to information satisfaction, which in turn determined customers’ behavioural intentions. While the study of Jeong remain interesting, like Jeong and Lambert they make assumptions that no novice Internet users would want to use the hotel web sites since their samples consisted only of experienced hotel web site users. In my view, an easy to use web site should provide the novice with a first positive and lasting impression. In addition, the random sampling method reduces the reliability of the results. For instance, 70% of the respondents were female. Such a composition cannot give a true and fair gender representation and has great influence on the generalised concept. [8]

The theory of information quality has been used in various circumstances. Chung and Law, (2003), adapted information quality as a model to measure the performance of hotel web sites with due regards to information value. The concept measured five dimensions of luxury, mid-priced and budget (equivalent of five-star, four and three-star and two-star) hotel web sites. Theses dimensions included; “facility information, customer contact information, reservation information, surrounding area information and management of the web sites”. In addition, the dimension and their attributes were modified by hotel professionals and the study was conducted on 80 Hong Kong hotel web sites. The results of the study revealed that the web sites of the luxury hotel had a better performance that of the mid-priced and which in turn did better than the budgeted hotel. The most significant part of the result was its suggestion that reservation information was the highest rated item, which is consistent to the findings of Jeong and Lambert [7] . However, the generalised study leaves a lot to be desired. Firstly, there was no clear sampling method for comparison of results with other studies. For example, it is not clear whether the respondents have ever used the Internet at all or visited hotel web sites and/or made online reservations. Apart from the above, other concepts have produced information requirements as a crucial factor in determining hotel web sites’ performance and customers’ intentions to make online room reservation. For instance, in a study conducted in Chine to investigate the factors that manipulate the Chinese’s online reservation intentions, Kim et al concluded that the Chinese were far more concerned about information requirements than any other factor [9]. Followed by security, ease of use and being keen to use technology as determinants of electronic fulfilment. These findings are very closely related to the findings of Jeong and Lambert conducted in the USA and Jeong

carried out in the USA. On the other hand, the result revealed that, being keen to use technology was vital in determining purchase intentions. This was followed by gains from 'price, level of service and reputation, security and ease of use'. They considered six factors: "information needs, service performance and reputation; convenience, price benefits, technology inclination and safety". The dependent variables considered were "e-satisfaction and purchase intentions". In light of this literature review, it is unquestionable that information requirements have significant implications on e-commerce within hotel industry. Moreover, the need to improve information quality within the lower classes of the hotel categories is indeed urgent. However, the significance of these studies to remain relatively low in term of the performance of UK hotel web sites, which remains largely unknown. Equally, the perceptions of the British people and other nationals on the performance of UK hotel web sites also remain in the dark. Together with the limitations highlighted in the review, it would therefore be inappropriate to believed in the above generalised frameworks can be sued for evaluating UK hotel web sites without empirical studies.

7. The study design

The literature review attached formed the first stage of the study. This has been undertaken to gain deeper knowledge in the current issues in e-commerce for hospitality industry and the work that has been done in the field of e-commerce. It is proposed that the study will adapt the conceptual framework developed by Kim et al and Chung and Law for evaluating the information quality of hotel web sites [3].

This will also form the second stage of the study and will involve consultations with at least five hotel managers from 2 and 3- star UK hotels as classified by the tourism trade organisation. The consultation will be necessary to ensure what the hotel mangers consider as the most important web site information contents are included in the scope of the study. The third stage of the study will be to prepare the first set of questionnaires to carry out the initial survey. The forth stage will be to conduct the initial survey with the UK publics in London to investigate what customers perceive as the most important elements of hotel web sites information contents. The fifth stage will be to prepare the second set of questionnaires based on the result of the initial survey. The final stage of the study is to make a comparative evaluation of 3 two-star hotel and 3-three star hotel web sites' information content.

8. Data sample and collection

A stratified data sampling method will be used. The target group will be prospective hotel customers of two and three-star classes of hotels. The stratification will be done by asking (screening question) respondents if in the past twelve months they stayed in any 2 or 3-star hotel in the UK or if they intend to stay in any 2 or 3-star hotel in the UK in the near future. If their answer is 'Yes', then they will be ask if they have used the Internet to make the choice of hotel they stayed in or will consider using to Internet to look for information about the hotels at their destinations. If there is 'Yes'

then they will be asked if they can participate in the survey. The data sample will be collected from both UK nationals and foreign visitors London.

Measures: Data for the various dimensions in this study will be collected from the study respondents using psychometrically acceptable measures from published studies. For example, ease of use will be measured with 3 items from Wang plus 1 item from Teo while perceived usefulness will be measured with 2 items from Teo 2001 and 1 from Wang. Intention to use website will be measured with 2 items modified from Wang. Subjective norm will be measured with 2 items from Gopi and Ramayah plus 1 item from Taylor and Todd 1995. Perceived behavioural control will be measured with three items from Gopi and Ramayah, while attitude will be measured with three items from Taylor and Todd. All items will be anchored on a 5 point likert scale, ranging from “1 strongly disagree” to “5 strongly agree. Website characteristics to be examined will be obtained from the literature e.g. Zhou et al. London has been select as the geographical area for data collection for two main reasons. One is to reduce cost of movement and the second being constraints that will be imposed be time. 50 copies of questionnaires will be prepared for data collection for the initial study. In line with past similar studies, sample size in the second study will consider 500 respondents as adequate. [14] [12] [6] [15]

9. Data analysis

The main tool of data analysis will be SPSS, because the software provides all the functions necessary for quantitative analysis. First factor analysis will be conducted in order to group the variables into meaningful dimensions. Factor scores will be saved, and these will then be used in linear regression in order to test the study model. Independent sample t tests will be carried out to ascertain whether there are significant differences between two and three star hotel websites, as well as whether there are differences by genders in the perception of hotel website characteristics.

10. Expected methodological problems and limitations of the study

A study of this scale can better achieved over a longer period of time and involves greater understanding of demographic composition and lifestyle. Given the short space of time available for the study, the researcher is bound to overlook the implications of some of those issues. Secondly, stratification of the data sample may prove to be more difficult than first thought, such problems may have impact on the validity of the data collected for analysis.

Secondly, problems may be encountered in statistical analysis, but the researcher is fully aware that any inaccuracy in the statistical analysis which will be unresolved will limit the reliability of the study findings. It has also been said that experience counts when it comes to academic research; since this is the first time the researcher is undertaking such a study, limited experience will may have impacts on the findings of the chosen methods and as such, the findings of the study will have be treated with cautions and follow up studies will be desirable.

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