Predicting the Influence of Travel Web Site Effectiveness Characteristics on Technology Acceptance and Its Marketing Implications

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ABSTRACT

There is a growing reliance on web sites of tourism and travel related product/services promotion. The Internet or web site can be a powerful tourism communication tool if used in a proper way. Thus, identification of travel web site effectiveness characteristics based on travellers/internet users’ expectation is necessary. This paper explores the travel web site effectiveness characteristics and their relationships with the extrinsic motivation and intrinsic motivation of technology acceptance. Here, an attempt is made to explain internet users’ beliefs using Technology Acceptance Model with data collected from 679 internet users/travellers. Factor analysis reveals three dimensions of travel web effectiveness characteristics were derived, namely: 1) Technical Adequacy & Customization, 2) System Quality & Specific Content and 3) Web Appearance. Additional procedures are employed in order not to violate the assumptions of the multiple regressions. Tabachnick and Fidell (2007) suggested that if there is very strong correlation between independent variables with r value more than 0.75, there is a need to drop one of the variables or forming a composite variable. The correlation between Technical Adequacy & Customization and System Quality & Specific Content is high (r = 0.79). Thus, a new composite variable is created by taking the mean values of both variables. The new variable is labelled as Technical Adequacy & System Quality. The multiple regression results show that Travel Web Site Effectiveness Characteristics have direct influence on Extrinsic Motivation and Intrinsic Motivation of technology acceptance. However, Technical Adequacy & System Quality is more influential in explaining Extrinsic Motivation and Intrinsic Motivation with beta value higher than Web Appearance.

ABSTRAK

Terdapat peningkatan penggunaan laman web atau laman sesawang pelancongan dalam mempromosikan produk/perkhidmatan pelancongan pada masakini. Kajian dilakukan untuk meneroka ciri laman web pelancongan
Tourism is widely regarded as the world’s largest industry that contributes significantly to the economies of many countries (APEC 2002). It is also considered that an information-intensive industry in which electronic commerce is expected to play a very significant role. The expected growing importance of electronic commerce raises issues pertaining to the acceptance, usage and its impact on the industry especially on developing countries like Malaysia (UNCTAD 2000). Online transaction in the tourism industry has grown continuously even during the economic downturn in the late 1990s. Although more and more companies realize the importance of leveraging on the WWW to conduct their businesses, they are finding it difficult to keep up with fast moving markets and the customer conditions that are the distinctive features of the Internet (Alridge et al. 1997). There is now a stronger...
demand that requires a greater understanding of the Internet (Chang et al. 2003). The marketers or managers also need to understand the implications of the factors associated with the adopting of Internet operation. Song and Zahedi (2006) stated that there has been little scientific testing of the internet market strategies and this is largely because the e-business is a relatively new concept. Travellers are not only using the web sites for information gathering but also for transaction purpose such as booking and ordering. Tierney (2000) and Shankar et al. (2000) claimed that published researches in the context of tourism web sites effectiveness characteristics and factors influencing Internet usage are still very limited and most of the researches on web site are based on personal opinion or experience (D’Angelo & Little 1998).

The Technology acceptance model developed by Davis (1989) is a general model applied to studies of individual perceptions, attitudes and behaviour when using information systems. Although the constructs in TAM is mainly used to explain the acceptance of technology within organizations but according to Davis et al. (1989) the variables of the model are general and universal and can be applied to different types of computer system and user population. TAM actually is an extended model that adopts the Theory of Reasoned Action model developed by Ajzen and Fisbein (1980).

Identification of antecedent conditions of intrinsic and extrinsic motivation in technology acceptance is important in order to understand what factors determine this construct and hence its actual use of a system. However, the antecedents have been tested in different contexts and only a few studies examined the antecedents of extrinsic and intrinsic motivation in the technology acceptance model particularly in the tourism area. Therefore, it is crucial to understand what factors determine the effectiveness of travel web sites from consumer perspective that might encourage extrinsic motivation and intrinsic motivation. This study has applied the Technology Acceptance Model (TAM) constructs and aims at filling the gap of knowledge in the information technology and tourism marketing literature. It is well accepted that TAM has emerged as a powerful model in investigating the acceptance and use of information technology (Nysveen & Pedersen 2004; Mathieson 1991; Davis & Venkatesh 1996; Venkatesh & Morris 2000).

The aim of this study is to identify factors of travel web site effectiveness characteristics that determine travellers’ acceptance of electronic services and its practical marketing implications. This could be achieved through the following objectives.

1. To determine the major component of Travel Web Site Effectiveness Characteristics perceived by travellers.
2. To identify Travel Web Site Effectiveness Characteristics factors that influence on the Extrinsic Motivation and Intrinsic Motivation of technology acceptance.
According to Yang et al. (1996), the effectiveness of a web site is based on the company’s ability to customize its site to the predictors that customer value. The web site success depends on the system use, system design quality, information quality and enjoyment/playfulness (Aladwani & Palvia, 2002). These factors increase customer’s trust toward web sites (Lee Katterattanakul & Hong 2005). Organizations are encouraged to improve information and service quality and their web site design should be customer oriented. Online service encounter satisfaction was higher when information content at the web site is detailed and comprehensive (Shankar et al. 2000). Extrinsic motivation can be gauged by the web site’s ability to attract existing customers and provide them with services such as redemption of rewards (Shankar et al. 2000).

Web sites that are easy to use normally display good aspects of navigability, efficient consistency and compatibility. Among reasons that motivate customers to use web sites are information, features and the various optional functions related to intrinsic motivation that lead consumers to look for information and make purchase decision (Morrison et al. 1999). Through interviews with 638 travellers, Wong and Law (2005) identified three important dimensions that will lead consumer’s intention to make online hotel booking/purchases. These dimensions are information quality, sensitivity content and time. Information quality is perceived as the most significant dimension motivating the intention to use hotel web site. This dimension is represented by travel web site’s attributes such as hyperlinks, web site features, useful information, and price information. Sensitivity concerns with issues of security and privacy, while, time dimension is related to the perceived ease of use such as time to search for information. Beldona, Morrison and O’Leary (2005) conducted a telephone survey and randomly selected 2306 respondents in USA and Canada in order to evaluate the relationship between consumers online purchase motivations across travel related products. The results show that online shopping motivations are distinctively different between low and high complexity of travel products. Shopping motivations behind complex travel related products (tours, activities, and attractions) are driven by informational parameters such as detailed information, price and rewards. The study also reveals that low and high skilled Internet users are distinctively different whereby high skill users place greater emphasis on information detail of high complex travel products. On the other hand, low skilled Internet users focus more on availability of travel related products online. A travel web site needs to change in order to meet travellers’ needs and should provide personalized
tools such as providing value added services (Werthner & Ricci 2004). Among general web-users, they may only need to find out general information about a destination.

However, for potential travellers some value added services on the web site such as detailed information about hotels, restaurants, attractions, transportation and car rentals are important to be featured (Bonn et al. 1998). Jung and Butler (2000) stated that useful information and ease to use are among the most important variables for successful web site design in the tourism industry. According to Starkov and Price (2003), low price is a major driver of online travel purchasing. "It seems imperative that any holistic web site evaluation approach must have at its foundation an assessment of the technical details of the web site design. Insufficient attention to web site design and search engine positioning greatly reduce the value of good content and sound marketing" (Morrison et al. 2004:246). In addition, "uncluttered" web site are seen as an asset of any web site regardless of the targeted audience (Morrison et al. 2004:250).

EXTRINSIC MOTIVATION AND INTRINSIC MOTIVATION IN TECHNOLOGY ACCEPTANCE

Perceived usefulness is an extrinsic source of motivation and perceived enjoyment is as an intrinsic source of motivation for the use and usage of microcomputer in organizations (Davis et al. 1992). According to Teo et al. (2001), intrinsic motivation can be referred to as the performance of an activity for no apparent reinforcement other than the process of performing the activity per se. Intrinsic web use motivation is an important part in any computer usage and if the system is easy to use and users are enjoying using it, it will increase the likelihood of adoption (Chung & Tan 2004; Ndubisi & Jantan 2003 and Pikkarainen et al. 2004). Perceived enjoyment is in the concept of flow and is a crucial determinant in encouraging users to utilize a system (Chen et al. 2002). In the web site context, characteristics such as content, speed, ease of use, variety, navigation, and feedback are considered the antecedents of perceived playfulness/enjoyment (Chung & Tan 2004). Schmidt (1996) suggested that cultivating hedonic pleasure and creativity in web site design is an important aspect to increase system usage. Moon and Kim (2001) explained that perceived playfulness/enjoyment is as the extent to which the individual perceives that his or her attention is focussed on the interaction with the web site. If the interaction is perceived as curious then the interaction is found to be enjoyable or interesting. Besides perceived ease of use, they extended the Technology Acceptance Model (TAM) by including perceived enjoyment as another intrinsic motivational variable. They also concluded that perceived playfulness as part of TAM that had a significant positive relationship with attitude toward using web sites.
Teo et al. (1999) defined the extrinsic motivation as the performance of an activity because it is perceived to be instrumental in achieving valued outcomes that are distinct from the activity itself. Perceived usefulness has a strong relationship with information technology and system usage (Davis, 1989). Teo, Lim and Lai (1999) indicated that usefulness is generally more important than perceived ease of use and perceived enjoyment. They viewed that the continued usage of the web without any specific purpose may decline over time when the novelty effect of website wears off.

Many researches in the information system and information technology fields found evidence of the significant roles of perceived usefulness (extrinsic motivation) and perceived ease of use (intrinsic motivation) on the usage intention (e.g. Agarwal & Prasad 1999; Davis et al. 1989). Lederer et al. (2000) examined the application of the Technology Acceptance Model for different technologies such as ATM, email and Internet. They believe that the perceived ease of use and perceived usefulness as the major factors which influence intentions to use. This implies that perceived ease of use and the perceived usefulness encourage users' interaction with travel web sites. Perceived usefulness and perceived ease of use are TAM motivational variables that mediate the effect of system design features on the attitude toward use (Liu et al. 2003). This reveals that standard navigation usage behaviour is intrinsically motivated because users who are familiar or who have experienced the motivation will enjoy the process of using it and not because they are extrinsically rewarded for the performance of usage. According to Jarvenpaa and Todd (1997), shopping on the web produces hedonic experience besides its utilitarian function. The act relates to extrinsic and intrinsic rewards (personal and emotional gain) and these rewards can increase customer satisfaction.

RESEARCH MODEL AND HYPOTHESES

![Research Model Diagram]

FIGURE 1. Research model adapted from Technology Acceptance Model (Davis et al. 1992).

The Technology Acceptance Model (TAM) illustrates the evidence concerning the relation between intentions and behaviour with regard to the information technology usage and acceptance. According to Moon and Kim (2001), the usage of a web site is influenced by fundamental beliefs and
perceived playfulness/enjoyment. These have significant effects on behavioural intention to use web sites. Hsu & Chiu (2003) suggested that IT or IS practitioners must consider the extrinsic motivation and intrinsic motivation in user interface and functionality design of electronic service. They also need to improve consumer's subjective assessment of uncertainty and adverse consequences of using service on the Internet. According to Teo et al. (1999) perceived playfulness reflects an individual's intrinsic belief in IT acceptance. Meanwhile, Ndubisi & Jantan (2003); Pikkarainen et al. (2004) stressed that if the computer system is easy to use (intrinsic motivation) and requires less user's effort, the adoption and usage will increase.

Using content analysis, Chung & Tan (2004) discussed several important web site characteristics. These are content, speed, ease of use, expectation, variety of navigation and feedback. All these factors affect the acceptance of general web sites. Additionally, the findings of the study also show that web site characteristics and perceived usefulness play a dominant role in allowing users to experience perceived enjoyment. Intrinsic motivation is an important part in computer usage and they will keep using it if they enjoy using it. Perceived enjoyment is considered a crucial determinant factor in encouraging users to utilize web sites (Chen et al. 2002). They add that perceived information quality, system quality and service quality significantly affect user acceptance of electronic shopping.

Thus, in line with the above literature the following hypotheses are formulated.

- Travel Web Sites Effectiveness Characteristics have an influence on Extrinsic Motivation of technology acceptance.
- Travel Web Sites Effectiveness Characteristics have an influence on Intrinsic Motivation of technology acceptance.

RESEARCH METHODOLOGY

SAMPLE AND PROCEDURE

Using multistage cluster sampling, respondents in this study were selected among employees from organizations in Klang Valley, Malaysia. Only those who indicated that they had used the Internet as well as travelled or planned to travel for vacation were chosen to answer the questionnaire. Klang Valley was chosen because it is the largest metropolitan areas that support the largest heterogeneous individuals as well as homogenous group of people, economically feasible, and representing different social class, lifestyle and culture. As reported by Malaysia Statistic Department (2000), the two states that have very high proportions of urban population are Federal Territory of Kuala Lumpur (100%) and Selangor (87.6%). Klang Valley is located within these two states. The Klang Valley is known as the most advanced and
modern region in Malaysia. The area covers the main districts of Kuala Lumpur, Petaling Jaya, Shah Alam, Klang, Ampang Jaya, Subang Jaya and Kajang and is dwelled 3.67 million.

Office workers who have internet access were the target sample in this research because many of them would have access to web sites in their organisations. For them internet access is not only useful for communicating with others, but also to search for information including the information on their travel or vacation purposes. They are considered as more familiar with the Internet and thus can be viewed as a group of people who are more likely to search for and purchase travel related products from the media. Furthermore, they have more chances to view or shop online and have capacity in purchasing travel related product (Shih 2004). Researching the actual consumer groups allow more valid and reliable explanation because office workers are more likely to possess purchasing power and decision making (Cacioppo & Petty 1979). The data was collected using self-administered questionnaires. During data collection, the dropping off method was used as introduced by Fowler (1993). From each organization, a senior employee was selected as representative to distribute and collect the questionnaire. As proposed by Reeves (1992) and suggested by Krejcie and Morgan (1970) that is quoted by Sekaran (2003), based on the table for determination of sample size, the minimum samples size for the target population of 500,000 and above was calculated to be 399 that provides 95% of confidence level.

In order to reduce error of the sample population for this study was to set a total sample size of 500. This permits an allowable error rate of less then five percent at the 95% confidence level (Kozak 2002). Thus, 800 questionnaires were distributed to organizations within the identified precincts. As mentioned earlier, a multistage cluster sampling was used and the sample was drawn in series of stages as suggested by Zikmund (2003), Cavana, Delahaya and Sekaran (2001) and Burns and Bush (2003). The sampling process in this study consists of three stages. The first stage involved choosing the primary areas within the Klang Valley that represents the different areas in the sample. There are seven main districts in Klang Valley. The next stage involves the identification of the precincts (central business districts) within the selected primary areas. At final stage, organizations within the central business district were chosen using probability random sampling. The organizations were randomly chosen from the state of Selangor and Wilayah Persekutuan telephone directory of business clients issued by Telekom Malaysia. The list of organizations/firms in the selected central business districts was assigned a number and these numbers were randomized by using the random number function in SPSS. Data collection was carried out for the period of 3 months within the month of July to October 2006. A total of 679 useable questionnaires were returned and used for data analysis.
INSTRUMENT

Churchill (1979) stated that the development of better measures should involve in identifying and generating items that capture the constructs of the study. The study’s constructs were based on representative items from large base of past-related literature and empirical studies. Travel web site effectiveness characteristics were measured in terms of the level of agreement among respondents using 26 items. They were derived mainly from constructs developed by Aladwani and Palvia (2002). Other related studies were also referred to in order to ensure the suitability of items chosen in the context of travel web site were of Katerattankul and Hong (2005); Wong and Law (2004); Lee et al. (2005); Doolin et al. (2002); Chu (2001) and Tierney (2000). The constructs cover broad attributes that have direct and indirect influence as well as contribute to the effectiveness of a commercial web site. Respondents were required to indicate the extent to which they agreed with the item statements that they considered important for the effectiveness of a travel web site. For extrinsic motivation and intrinsic motivation, the present study employed the same constructs developed by Moon and Kim (2001). The 6-point Likert scale was used to anchor each item statement ranging from strongly disagree (1) to strongly agree (6). The scale was chosen in order to avoid the clustering of responses at the neutral point and remain non-committal (Quee 2002).

FINDINGS

PROFILE OF RESPONDENTS, TRAVELLING INFORMATION AND INTERNET ACTIVITIES

Out of 679 respondents 46.8% are male while 53.2% female. In terms of gender, the sample indicates a somewhat balance between male and female and all of them are above the age of 18 with the average age of 31.49 years old. The majority of the respondents are Malays 57% and this is followed by 31.1% Chinese and 9.4% Indian. This ethnic breakdown is a representative sample of Malaysian population. With respect to household income, the monthly household incomes of the respondents are varied ranging from below RM1, 500 to above RM10, 500. The majority of the respondents 26.8% earn between RM1, 500-RM3, 000 and this is followed by 22.4% who earn between RM3, 001-RM4, 500. As expected based on the target sampling method, respondents are very educated. More than 90% of them have tertiary education. The results show that the Internet users continue to be young and well educated and this supports other findings in previous research conducted by Weber and Roehl (1999), Witthaus (1998), Mowen and Minor (1998) and Skadberg et al. (2005). For the respondents, friends and relatives are the main source of travel information 32.8% and this is followed
by 28.6% from Internet and 15.9% from magazines or newspapers. 32.8% of the respondents indicate school holiday as the best time to travel while 20.5% of them state the end of the year. More than half of the respondents 66.6% use Internet several times in a day while 18.4% access to it few times a week.

**FACTOR ANALYSIS**

To establish construct validity, principal component analysis with varimax rotation is carried out and items are retained based on the value of factor loadings. The cut-off value of 0.5 and higher is assigned such that only items with loadings of at least 0.50 are retained in order to obtain a power level at 80% at 0.05 significant levels (Hair et al. 1998). Items with loadings exceeding 0.50 on two or more dimensions are removed and have to retest (King & Teo 1996). In addition, reliability analysis is carried out to eliminate items that are not strongly related to other items in the construct and construct reliability was assessed using Cronbach’s alpha. As suggested by Nunnally (1978), the reliability of a construct between 0.6 and 0.8 is acceptable. The results of the factor analysis with the eigen values of all factors exceeded 1.0 are presented in Table 1, 2 & 3.

Table 1 presents the factor analysis of items for travel web site effectiveness characteristics. Three factors are extracted with cumulatively explained 62% of the variance. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.95 and the Bartlett’s test of sphericity is significant which indicate that the items for consumption factor are appropriate for factor analysis. The factor loadings for these items are between 0.50 and 0.86. The three factors extracted from factor analysis are labelled as Technical Adequacy & Customization (22.7% of the total variance), System and Content Quality (20.1% of the total variance) and Web Appearance (19.2% of the total variance).

Factor analysis performed on the 20 items of the Travel Web Sites Beliefs construct does not produce a clean factor structure with two factors emerged following three iterations. One item is cross loading at above 0.5 above and thus eliminated for further analysis. The result is presented in Table 2. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.96 and the Bartlett’s test of sphericity is significant which indicates that the items for organizational structure are appropriate for factor analysis. The two factors explained 64.8% of the total variance. The factor loadings for these items are between 0.60 and 0.82. The two factors extracted from factor analysis are labelled as Extrinsic Motivation (Perceived Usefulness) (39.8% of the total variance) and Intrinsic Motivation (Perceived Ease of Use & Perceived Enjoyment) (25% of the total variance).
<table>
<thead>
<tr>
<th>Measures/Scale Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>F1: Technical Adequacy &amp; Customization</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide personalised/customized service</td>
<td>0.74</td>
<td>0.20</td>
<td>0.24</td>
</tr>
<tr>
<td>Provide many interactive features (i.e. currency converters, maps)</td>
<td>0.73</td>
<td>0.21</td>
<td>0.24</td>
</tr>
<tr>
<td>Provide fast downloading response time</td>
<td>0.70</td>
<td>0.39</td>
<td>4.415E-02</td>
</tr>
<tr>
<td>Provide adequate search facilities (i.e. searchable database/search functions – attractions, activities)</td>
<td>0.63</td>
<td>0.40</td>
<td>0.15</td>
</tr>
<tr>
<td>Provide sites that are easy to access</td>
<td>0.61</td>
<td>0.44</td>
<td>0.27</td>
</tr>
<tr>
<td>Provide comprehensive content</td>
<td>0.58</td>
<td>0.46</td>
<td>0.28</td>
</tr>
<tr>
<td>Provide hyperlinks to related sites</td>
<td>0.58</td>
<td>7.952E-02</td>
<td>0.43</td>
</tr>
<tr>
<td>Provide price comparison</td>
<td>0.57</td>
<td>0.28</td>
<td>0.26</td>
</tr>
<tr>
<td>Provide information related to customer policies/privacy</td>
<td>0.50</td>
<td>0.32</td>
<td>0.38</td>
</tr>
<tr>
<td><strong>F2: System Quality &amp; Specific Content</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide online booking facilities</td>
<td>0.26</td>
<td>0.75</td>
<td>0.10</td>
</tr>
<tr>
<td>Provide secure transactions online</td>
<td>0.40</td>
<td>0.70</td>
<td>3.562E-03</td>
</tr>
<tr>
<td>Provide contact information (i.e. email contact details)</td>
<td>0.28</td>
<td>0.68</td>
<td>0.31</td>
</tr>
<tr>
<td>Provide online payment by credit card</td>
<td>6.796E-02</td>
<td>0.68</td>
<td>0.34</td>
</tr>
<tr>
<td>Provide accurate information</td>
<td>0.48</td>
<td>0.65</td>
<td>0.14</td>
</tr>
<tr>
<td>Provide product/services details (i.e. itinerary, schedule)</td>
<td>0.47</td>
<td>0.56</td>
<td>0.34</td>
</tr>
<tr>
<td>Provide clear instructions for navigating the web site</td>
<td>0.49</td>
<td>0.52</td>
<td>0.22</td>
</tr>
<tr>
<td><strong>F3: Web Appearance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proper use of colours/background</td>
<td>9.483E-02</td>
<td>0.18</td>
<td>0.86</td>
</tr>
<tr>
<td>Proper use of fonts/icons/headers</td>
<td>0.13</td>
<td>0.23</td>
<td>0.81</td>
</tr>
<tr>
<td>Provide multimedia features</td>
<td>0.28</td>
<td>-7.563E-03</td>
<td>0.80</td>
</tr>
<tr>
<td>Provide attractive visual/images</td>
<td>0.36</td>
<td>0.21</td>
<td>0.68</td>
</tr>
<tr>
<td>Provide general information (i.e. corporate information)</td>
<td>0.20</td>
<td>0.23</td>
<td>0.65</td>
</tr>
<tr>
<td>Provide well-standardized structure/format</td>
<td>0.38</td>
<td>0.43</td>
<td>0.52</td>
</tr>
</tbody>
</table>

KMO - 0.95

Eigenvalue

|          | 11.8 | 2.07 | 1.04 |
| Total variance | 22.7% | 20.1% | 19.2% |
| Cronbach's Alpha | 0.90 | 0.89 | 0.89 |
TABLE 2. Results of principal components analysis – Beliefs (Mediators)

<table>
<thead>
<tr>
<th>Measures/Scale Items</th>
<th>Factor 1 (Extrinsic Motivation)</th>
<th>Factor 2 (Intrinsic Motivation)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F1: Extrinsic Motivation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Using travel web sites is clear/understandable</td>
<td>0.82</td>
<td>0.15</td>
</tr>
<tr>
<td>• Easy to use travel web sites</td>
<td>0.80</td>
<td>0.22</td>
</tr>
<tr>
<td>• Easy to find travel information</td>
<td>0.79</td>
<td>0.19</td>
</tr>
<tr>
<td>• Helps to fulfill travel arrangement effectively</td>
<td>0.77</td>
<td>0.37</td>
</tr>
<tr>
<td>• Using travel web sites makes travel arrangements easier</td>
<td>0.75</td>
<td>0.35</td>
</tr>
<tr>
<td>• Makes quick travel arrangements</td>
<td>0.73</td>
<td>0.41</td>
</tr>
<tr>
<td>• Have more accurate information</td>
<td>0.73</td>
<td>0.32</td>
</tr>
<tr>
<td>• Access a lot of information</td>
<td>0.70</td>
<td>0.37</td>
</tr>
<tr>
<td>• Access to the latest information</td>
<td>0.69</td>
<td>0.34</td>
</tr>
<tr>
<td>• Provides with information that lead to better decisions in travelling</td>
<td>0.67</td>
<td>0.40</td>
</tr>
<tr>
<td>• Reduces costs in making travel arrangements</td>
<td>0.66</td>
<td>0.31</td>
</tr>
<tr>
<td>• Saves times</td>
<td>0.61</td>
<td>0.39</td>
</tr>
</tbody>
</table>

F2: Intrinsic Motivation

• Travel web sites arouses imagination | 0.19 | 0.79 |
• Do not realise the time has elapsed | 0.17 | 0.76 |
• Travel web sites stimulate curiosity | 0.31 | 0.72 |
• Using travel web sites in arranging travel/vacation is fun | 0.37 | 0.71 |
• Using travel web sites is interesting | 0.40 | 0.71 |
• Lead to exploration of travel related product/services | 0.39 | 0.68 |

KMO – 0.96

| Eigenvalue | 10.7 | 1.51 |
| Total variance | 39.8% | 25% |
| Cronbach’s Alpha | 0.95 | 0.88 |

MULTIPLE REGRESSION

The multiple regression analysis is performed to test empirically the hypothesis postulated in the study. It enables us to better assess the contribution of independent variables to extrinsic and intrinsic motivation. Additional procedures are employed to detect outliers and not to violate the assumptions of the multiple regressions. The most popular way of investigating colinearity
Predicting the Influence of Travel Web Site Effectiveness Characteristics

is to examine the correlation matrix (Hair et al. 1998). A general cut-off value is 0.90 and above (Hair et al. 1998). A more conservative level is set at 0.80 and above (Hair et al. 1998; Licht 1997). Benny and Feldman (1985) point out that a rule of thumb states that any correlation exceeding a value of 0.8 (very strong correlation) between independent variables is likely to result in multicollinearity in the data. Furthermore, Tabachnick and Fidell (2007) suggested that if there is very strong correlation between independent variables with r value more than 0.75, there is a need to drop one of the variables or forming a composite variable. The correlation between Technical Adequacy & Customization and System Quality & Specific Content is high ($r = 0.79$).

Prior to the decision to drop the Technical Adequacy & Customization or System Quality & Specific Content, a first run of stepwise regression analysis is conducted in order to test the significant contribution of the stated independent variable on dependent variable. The result in the first run of regression shows that both factors, Technical Adequacy & Customization and System Quality & Specific Content are significant contributors to the dependent variables. Thus, a new composite variable is created by taking the mean values of both variables. The new variable is labelled as Technical Adequacy & System Quality.

The variables of extrinsic motivation and intrinsic motivation were regressed on all independent variables and dependent variables. The significant F value is less than 0.01, which indicates that the model has 99% confidence in the ability to explain the dependent variable. The result of the analysis is presented in Table 3.

As stated earlier, hypothesis proposes that Travel Web Site Effectiveness Characteristics have direct influence on Extrinsic Motivation and Intrinsic Motivation of technology acceptance. Table 4 shows the multiple regressions and overall the regression equation was significant at 0.01 level. Thus, the hypothesis is supported. Technical Adequacy & System Quality is more influential in explaining Extrinsic Motivation and Intrinsic Motivation with beta value higher than Web Appearance.

DISCUSSION

Through a critical review of the existing tourism, marketing and information technology literature, this study identifies knowledge gaps with the current body of information technology and tourism knowledge. The goal of the present study is to extend current understanding about the technology acceptance and its antecedents empirically in the context of tourism electronic-service. This study is based on Technology Acceptance Model developed by Davis et al. (1992).

From the Table 3, it can be seen that the two dimensions of Travel Web Effectiveness Characteristics, Technical Adequacy & System Quality and
TABLE 3. The influence of travel web site effectiveness characteristics on extrinsic & intrinsic motivation

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Independent Variables</th>
<th>Unstd. B</th>
<th>Std. Beta</th>
<th>T</th>
<th>Sig. (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extrinsic Motivation</td>
<td>Constant</td>
<td>1.994</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Web Appearance</td>
<td>0.202</td>
<td>0.223</td>
<td>4.926</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Technical Adequacy &amp; System Quality</td>
<td>0.395</td>
<td>0.403</td>
<td>8.904</td>
<td>0.000</td>
</tr>
</tbody>
</table>

R = 0.572  R Square = 0.328  Adjusted R Square = 0.325

| Intrinsic Motivation | Technical Adequacy & System Quality | 0.418    | 0.433     | 9.228  | 0.000          |
|                      | Web Appearance                 | 0.137    | 0.131     | 2.803  | 0.005          |

R = 0.527  R Square = 0.278  Adjusted R Square = 0.275

Web Appearance have a significant positive impact on Extrinsic Motivation (Perceived Usefulness) and Intrinsic Motivation (Perceived Ease of Use and Perceived Enjoyment). The positive relationship of Technical Adequacy & System Quality as well as Web Appearance on Extrinsic Motivation and Extrinsic Motivation found in this study are consistent with previous findings. The major component of commercial web site effectiveness is linked to functionality and usability that determine its usefulness that is Extrinsic Motivation. Schmidt et al. (1996), Hoffman and Novak (1996) elaborate that by providing entertainment such as interactive features will support the experiential flow of web user that leads to intrinsic motivation.

Other studies such as Chung and Tan (2004), Ghose and Dou (1998) indicated that antecedents such as content, speed, ease of use, experimentation, feedback, and variety of navigation affect the acceptance of Internet users and will influence the perceived enjoyment that is the intrinsic motivation. These findings are also supported by Chen et al. (2002), Beldona et al. (2005) explained that information quality and system quality significantly affect user acceptance of electronic service. Consistent with Hsu and Chiu (2003), and Wong and Law (2005), information technology or information system practitioners should reflect extrinsic motivation and intrinsic motivation of its services in order to improve consumer’s perception and increase the usage. Findings of other studies such as Davis et al. (1992), proved that perceived usefulness as an extrinsic source of motivation and perceived enjoyment as an intrinsic source of motivation. Ndubisi and Jantan (2003), Pikkarainen et al. (2004) and Teo et al. (1999) pointed out that a system that is easy to use and playfulness is related to intrinsic motivation.
Substantial researches have provided evidence of the significant effect of perceived ease of use on usage intention. There is also an extensive research on the information system and information technology that provides evidence of the significant effect of perceived usefulness on usage intention by Agarwal and Prasad (1999), Davis et al. (1989), and Venkatesh and Morris (2000). The findings of this study also support Lederer et al. (2000) that tested the TAM for different technologies and considered perceived ease of use (intrinsic motivation), and perceived usefulness (extrinsic motivation) as the important factors in influencing intention to use.

Even though, there are studies assessing travel web sites as tools for marketing, much of the research on travel web site to date have focussed on travel web site as an advertising medium and promotion for travel related product and services for destinations marketing in Wan (2002) and Tierney (2000) studies. However, these studies do not adequately address the factors that influence directly and indirectly the usage of travel web site among actual travellers and users. It is argued that, as travel web site is considered new interactive marketing channel and is very different from traditional marketing, thus these new approaches should be employed in understanding and assessing this channel from consumer perspective. The current study suggests that in addition to technology acceptance in tourism context, Extrinsic Motivation and Intrinsic Motivations should be included as mediator variables in any model that aims to explain travel web site effectiveness. This claim reflects the argument that a more sophisticated multi-dimensional view is required when studying response to travel web sites. By assessing the Extrinsic Motivation and Intrinsic Motivations of technology acceptance assist to understand the underlying meanings of the behavioural intention associated with Travel Web Site Effectiveness Characteristics and these variables explain the key dimension of travellers/internet users’ beliefs toward travel web sites.

MANAGERIAL IMPLICATIONS & SUGGESTIONS

This empirical study shows that practitioners should understand their customers’ needs and wants. The result of this study shows that hypermedia and the integrated communication employed by travel web site are considered effective rather than static image and the basic information type. This implies that consumers prefer more information and interactive travel web sites, which ultimately helps travellers/users feel that they are interacting with firms and perceived the information provided is useful and enjoyable. Thus, companies that involved in tourism need to ensure their web sites provide the right content and should focus on quality features because quality attributes can enhance and help the organization to gain competitive
advantage (Gilbert et al. 1999). Travel websites should integrate the company’s marketing communication because integrated marketing communication is important for business success (Strauss & Frost 1999).

According to Rayport and Jaworski (2002), there are several Internet marketing elements such as content, customization, community, commerce, communication, connection and context should be accounted for any website. This study reveals that Technical Adequacy & System Content is a crucial element in travel websites to provide personalized service, many interactive features, online booking facilities, secure transactions online etc that cover most of the elements.

The ‘content’ aspect covers what is being presented in travel websites. Managers in travel related companies should enhance the browsing mechanism of their websites because browsing function is the first line with the visitors. The more travellers are seeking information needed the more possibility of success and benefit to the organization. Travel websites need to provide enough navigation mechanism so that travellers can obtain the desired information with accurate as well as reliable information that will affect the internet users’ intention for purchase (Shankar et al. 2000; Morrison et al. 2004). Maximizing trusts and minimizing consumers’ perceived risks by providing secure and reliable transactions conducted over the web is necessary for travel related companies.

Travel website should also cover the ‘customization’ aspect; the ability of travel website to tailor itself to users or to allow travellers to personalize the site is one of important elements for customization. A travel website service that allows customers to design personal itineraries by themselves will encourage more internet usage for vacation. At the same time, the useful content should be combined with excellent e-service, which is associated with stickiness of the website (Zemke & Connellan 2000).

In terms of ‘commerce’, the related elements are discussed in the system quality factor whereby the travel site’s ability to facilitate commercial transaction, such as to provide information related to prices, availability, description of travel related services, etc. It is important that travel marketers ensure their websites are useful for travellers by providing up-to-date, relevant information, simple, easy to use, good virtual links and easy browsing facilities in order to attract travellers/internet users to make use travel websites for planning their vacation (Teo 2001). Moreover, the effective travel website should consider providing company information to help establish credibility and providing secure online payment methods such as using credit cards as the major payment method as well as regulations or rules of the transactions should be employed and clearly stated.

The ‘context’ involves with the travel website’s layout and design. Travel website’s design should have both aesthetic and functional elements
such as visual, simple, easy to navigate in order to enhance the site’s main benefits. Furthermore comprehensive content, easy to access, and easy to understand will increase travel web users’ perceived benefit vs. cost advantages in their information search over travel web sites. Fast downloading and adequate search facilities will increase reliability and flexibility that lead users to elevate their trust in travel web sites (Lee, Katterattanakul & Hong 2005).

The ‘connection’ aspect of Internet marketing is involved with the number of formal linkages between the site and other sites. It involves a program that supplies affiliated site such as banner advertisements to link visitors from other sites to a particular site. Thus, the opinions of travel marketers as well as web designers should also be considered in order to create successful travel web site with interactive features and fast downloading, hyperlinks, adequate search facilities help increase online travellers’ ability to search because these factors allow travel web users to reach desired information quickly and efficiently (Turban et al. 1999).

Meanwhile, ‘communication’ refers to the dialogue that unfolds between the travel web site and its users. The communication aspect consists of site-to-user communication (e.g. email notification), user-to-site (e.g. customer service requests) or two-way communication (e.g. instant messaging). This enables the users to communicate directly with the contact person while using the site. Travel marketers must make sure that they respond to travellers’ inquiries in a timely manner, provide individual attention and allow them to track their booking or purchasing at any time. All travellers/users are very precious to travel related companies particularly e-travel companies. It is important to engage them with the system not only browsing but also purchasing travel related products/services.

They should provide them with substantive interface and consequently foster more positive online travel web site usage. In addition, the ‘community’ is defined as the interaction that occurs between site users. User-to-user communication can occur between two users (e.g. emails) or between one user and many (e.g. chat rooms). Travel marketers should employ this in order to have favourable customers and to increase loyalty. Rayport and Jaworski (2002) emphasize that community opinions on-line are considered as a more effective marketing means such as ‘word of mouth’ in the offline context.

Thus, travel marketers must develop an integrated online marketing program that includes delivering quality service, monitoring customer satisfaction and building consumer (traveller) profiles. Travel marketers need to have well-designed travel web sites that caters to targeted visitors. Besides that they must diligently maintaining their web sites that are pleasing and functionally perceptive.
CONCLUSION

The present study has certain limitations and needs further research. The figure in the results implies that the model may not have included some important factors that have direct and indirect effects on travellers/users intention to use travel web sites. Thus, there is a need for further investigation on other factors as the external variables are based on the travellers/users’ perception of travel web sites effectiveness characteristics, which are subjective and may be influenced by individual characteristics such as age, education level, etc. Another limitation of the study is the absence to indicate the various components such as flights, accommodations and other travel related services. Future research should separately identify the travel web effectiveness characteristics and motivational variables in terms of technology acceptance with various complex travel related products/services such as etc. airline, hotels, travel agencies, destinations, etc. Therefore, a comparative analysis between the predictor and travel web site acceptance model should be researched into for various types of travel web sites.

The current study adopted a cross-sectional design, which was conducted at one point in time. While it provided a useful “snapshot” of consumer or travellers/users data and help to understand the phenomenon under study, it could not explain possible changes in travellers/users’ attitudes and behavioural characteristics over time. According to De Wulf (1999), longitudinal study could detect attitude and behavioural changes over time and allow stronger inferences to be drawn from the dynamic elements of behaviour. Future research should collect longitudinal data to test predicative validity that exists between travel web site effectiveness characteristics and intention to use travel web sites. More versatile and powerful statistical technique such structural equation modelling (SEM) should be employed in order to further understand the cause and effect relationship.

The study has been conducted in a single country setting (Malaysia) and as a result, the generalisability of findings might be limited. Thus, additional research across different countries will be required in order to generalize the findings. For example, culture is widely believed to influence consumer behaviour because a web site is inherently an international communication medium. In addition, the sample was drawn from working adults in Klang Valley, which probably lack in the diversity that can be expected from and comparable sample chosen from across the entire country. The www have found significant differences across organizations, industries and countries such as Huzingh (2000). As a result, it is expected that travellers/internet users living in different countries would respond to a web site differently. Hence, this proposed conceptual model should be tested in the context of different cultures as suggested by Aaker and Maheswaran (1997). Thus,
further studies in different countries with different cultures, would strengthen
the model's explanatory and predictive power.

This study enhances the current body of knowledge on e-commerce,
specifically our understanding of Malaysian travellers' beliefs and adoption in
online travel web sites. The findings of this study can serve as preliminary
guidelines to online travel marketers to mitigate these effects in order to
enhance Internet usage motivation and e-commerce activity; however, more
research is needed to identify additional influencing factors such as personality
traits, etc. It is hoped that this study will stimulate further scholarly discussion
on consumer (traveller) in travel web sites. The comparative analysis of online
purchasers and non-purchasers is another challenging research area in the
future. Future studies can take note these shortcomings in planning future
research work by, for example, specifying to some different models of
technology acceptance.

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Predicting the Influence of Travel Web Site Effectiveness Characteristics


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