What Content of Information Customers Want from aTourism Website? An Empirical Study for Latent Factors Identification

Kaushik Mandal and Monami Dasgupta Banerjee
Department of Management Studies, National Institute of Technology, Durgapur, India
Email: kaushikmandal.nit@gmail.com; monami.dasgupta.banerjee@gmail.com

***Abstract*—Now a day's website is performing the role of an instrument for achieving competitive excellence through disseminating information as per requirement of customer. This research carries out an empirical study to understand the latent factors which are essential for tourism customer need and thus helpful for developing the content of the websites. Further we measure the stability of these latent factors across the socio demographic of tourism customer. Result founds a stable result and thus provides a good model for website development for tourism marketer.**

***Index Terms*—website, tourism-customer, competitive excellence, latent factors and socio demographic.**

I. INTRODUCTION

The internet has given birth to entirely new business models and opened completely novel opportunities for global marketing. It offers organizations inexpensive and sophisticated tools for advertising, taking and placing orders, promoting their philosophies, and communicating with their customers all over the world [1]. It has been predicted that the internet is fast becoming an important channel for commerce in a range of business [2]. Businesses, including retailers and information-intensive service providing organizations, have embraced online presence to achieve their strategic goals. Today almost all business firms use the internet to provide information about the firm, their products or services on the offering, and market and sell their products and services. Internet provides significant economic value and benefits to both the customers and businesses alike. In the virtual world, web sites are the sources for information to customers, and influence customers' perceived image of the company. The number of customers engaging in information searching and online shopping is growing at a rapid rate. More and more people are using the internet for shopping because of time saving, and compelling online content.

Manuscript received June 25, 2014; revised September 20, 2014.

The rapid adoption of the Internet has dramatically changed the tourism *industry* [3]. The travel and tourism industry is an information-oriented business, and the web sites can provide these businesses with an arena to construct a rich and dynamic platform for information dissemination [4].Tourism can be categorised as a form of hedonic consumption, where the experience is an end in itself [5]-[7]. Therefore it can be stated that the information content presented in the tourism web sites are an important means of projecting the rich tourism experience that visitors can expect at the destination. Web page content is found to affect customers' decision to engage in purchase or avail service online. It has been found that home page presentation is a major antecedent of customer satisfaction [8]. A research study had concluded that store traffic and sales revenue as a function of web site features [9]. Destination decisions may be based on the content of the tourism web pages. In case of a service based industry like travel and tourism, where services are consumed at the very moment they are produced, information dissemination is the only means that assist customers in the decision making process. Tourism websites play a very important role in people's travelling decision-making before their departure [10]. Crucial decisions are made by travellers' at the beginning of travel planning and usually difficult to change [11], [12]. The impact of visiting tourism web pages can influence customers through the creation of expectations, and the desire for matching the web content with the reality. In spite of a robust technical architecture, a B2C web site will not be effective if it fails to meet customer expectations in terms of design and content. The key characteristics of a web site could be categorized on the basis of its content and design [13]. Customer satisfaction as an important criterion in evaluating websites has prompted the research community to explore what information content users look for in web sites. Information is a fundamental aspect of the tourism industry, and the use of web site has been at the core of the way it has been structured in the last few years [14]. With an increasing number of travel companies having web presence coupled with the fact that competition has

doi: 10.12720/lnit.2.3.283-288

become more intense, it becomes critical to understand what customers look for in travel service web sites. The exploration of travel information presented on the websites meeting the needs and expectations of users is thus an indispensable part of the literature in this domain.

II. Literature Review

A number of past research work have focused on evaluations of web site features. Web site evaluation facilitates continuous improvements and comparison of site *performance* against competitors and industry peers [15]. A past research study has identified 32 features from 36 hotel web sites that provide on-line reservations, and divided those features into four categories: promotion and marketing, service and information, interactivity and technology and management [16]. It has been proposed that a website functionality evaluation framework consists of six categories, namely, company information, the product and service information and promotion, transaction processing, customer services, ease of use and the last one is innovation in services and technology [17]. A good web content includes highly personalised content, facilitates customer self-service, and boosts satisfaction and loyalty [18].

A literature search on information content of tourism web sites shows *that* research done in this field is generally concerned with the general features of B2C web sites. A research study has proposed a communication concept for the design and management of websites for tourism websites developed in Scotland [19]. Another study has analysed the functionality of the travel agencies' websites in Australia, and investigated the types of information provided by these websites [20]. One study in this domain characterized online tourism services into seven functions, namely, general tourism service information publicity, advertising tourism product/service, advertising tourism product/service with price information, email enquiry for tourism information and service, online booking for tourism product and service, on-line payment, tourism website registration with user ID [21]. In one study the authors tested a framework to evaluate the information quality of experimental hotel sites specifically developed for that purpose, and concluded that information attributes such as timeliness, relevance and accuracy represent key determinants of customers' online behaviour [22]. One study conducted in Taiwan, evaluated the web sites of international tourist hotels and tour wholesalers in Taiwan, taking into consideration three criteria, namely, user interface, variety of information and online reservation. Results revealed that user interface was rated highest among the three categories [23]. The authors in one study employed a web content extraction and analysis to investigate the effectiveness of tourism web sites. They concluded that the important dimensions are ease of navigation, reservation and booking features, volume of textual and graphical information, number of available languages, and the textual diversity of documents [24]. A list of attributes has been identified for measuring e-travel service and grouped them into 5 dimensions, namely, information quality, security, website functionality, customer relationships, and responsiveness [4].

A number of frameworks and guidelines have been proposed by researchers and experts in relation to building, designing *and* content analysis of web sites in the service sector considering the general features of web sites. Reviewing the literature it is identified that there may be few researches carry fragmented effort to understand tourism customer 'information need' in a tourism website but comprehensively no studies have been conducted on exploring facets of information related to destination decision making of the tourist for the purpose of website featuring. Thus website maker do not understand the right information specific to tourism for uploading in the website. The present research is intended to address this gap and thus to provide empirically tested model for fulfilling that said gap.

III. Research Problem Defined

The objective of the study is to identify the important latent factors specific to tourism web sites and for the purpose present a model which is stable across the key demographics likes age, income and occupation.

IV. Research Methodology

To conduct an empirical investigation, a survey is conducted, using a questionnaire. The measurement instrument contains 8 items representing travel information presented on the tourism websites. These 8 items have been considered in consultation with experts and digging the existing literature. This study focused on the most prominent and specific set of information related features. For the present study the authors have opted for purposive sampling, also called as judgmental sampling. Purposive or judgmental sample is one that is selected based on the knowledge of a population and the purpose of the study. The samples consisted of internet users who are 18 years of age and above, of both sexes, either earning or with access to expendable income, have high information requirements and visited one or more than one tourism websites, at least once, to collect information for travelling purpose. Therefore they could act as a fair source for the required data. A total of 150 complete responses are obtained. Data analysis is done using SPSS 15.

V. Findings & Analysis

In this study factor analysis is used for model building. Factor Analysis is a commonly used

variable reduction and latent factors identification technique. Factor Analysis is generally used to find inter-correlation among several variables. The objective is usually for underlying constructs or factors that each explains the variation among several variables.

The KMO measures the sampling adequacy which should be greater than 0.5 for a satisfactory factor analysis to proceed [25]. Kaiser-Meyer-Olkin Measure of Sampling Adequacy is 0.606 indicating that the factor analysis is appropriate for this data. It can also be observed that the Bartlett's *test* of sphericity is significant. That is, its associated probability is less than 0.05. In fact, it is actually 0.000. This means that variables consider for study are having sufficient inter-correlation. This proves the requirement of conducting orthogonal factor analysis.

The next item output is the communalities which show how much of the variance in the variables has been accounted for by the *extracted* factors. It shows that all the eight variables have extracted moderately to the all latent factors.

The next output shows all the factors extractable from the analysis along with their Eigen values, the percent of variance attributable to each factor, and the cumulative variance of the factor and the previous factors. The first factor accounts for 29.780% of the variance, the second 17.811% and the *third* 16.771%. The percentage of total variance is used as an index to determine how well the total factor solution accounts for what the variables together represent. The index for the present study accounts for 64.362% of the total variance i.e. is only 35.638% is unexplained.

The next output shows the Rotated Component Matrix which is a matrix of factor loadings for each variable onto each factor. The idea of rotation is to reduce the number *factors* on which the variables under investigation have maximum loadings. The three factors obtained through factor analysis can be named as Information for understanding actual destination (Factor_1), Destination specific information (Factor_2), and Travel agency related information (Factor_3).

Naming of the factor is easily understandable from the variables under it. Factor 1 covers lively information of the tourist spot and accommodation within destination. Factor 2 comprises 5 written information specific to destination which help website user to plan for destination. Factor 3 holds information in relation to travel agencies and their tour packages. The details of the rotated component matrix are given in Table I.

TABLE I. ROTATED COMPONENT MATRIX

Rotated Component Matrix(a)			
	Component		
	Information for understanding actual destination (Factor_1)	Destination specific information (Factor_2)	Travel agency related information (Factor_3)
Uploaded video about local tourist sites at the destination	0.828		
Uploaded video about tourist destinations	0.798		
Uploaded video on hotels at the destination	0.772		
Written information about local tourist sites at the destination		0.759	
Written information on hotels at the destination		0.739	
Destination planning on request		0.652	
Written information about travel agencies			0.841
Written information about tour packages			0.832
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			

For determining the stability of the model of tourism information facets as extracted from exploratory factor analysis, independent-Samples t-test is conducted between genders, various age and occupation groups corresponding to the *three* factors identified. Factor scores are obtained by method of regression employing their item scores as independent variables. The independent-samples t-test compares the means between two independent groups whereas Levene's test compares the difference between variances

A. Independent-Samplest-Test for Gender

Levene's Test for Equality of Variances determines whether statistically significant difference between studied groups *exists* or not. In case of Information for understanding actual destination, the Levene's Test for Equal variances yields a p-value of 0.691($p>0.05$). This means that the difference between the variances is statistically insignificant. The corresponding p-value in t-test for Equality of Means is .20 ($p<0.05$) which indicates that there is no *significant* difference between male and female in relation to the first factor identified in the study. As evident from the table, there is no statistically significant difference between male and female in relation to standard deviations of Destination specific information ($p=0.965$), and Travel agency related information ($p=0.518$). It is also appeared from the table, there is no statistically significant difference

between male and female in relation to means of Destination specific information (p=0.617), and Travel agency related information (p=0.566).

B. Independent-Samples t-test for Various Age Groups

There is no statistically significant difference between the age groups 18-20 and 21-30 in relation to Information for understanding actual *destination* (p=0.179), Destination specific information (p=0.731), and Travel agency related information (p=0.420).

There is no statistically significant difference between the age groups 18-20 and 31-40 in relation to Information for understanding *actual* destination (p=0.858), Destination specific information (p=0.236), and Travel agency related information (p=0.779).

The t-test failed to reveal statistically significant difference at 5% level between the age groups 21-30 and 31-40 in relation to Destination specific information (p=0. 0.080), and Travel *agency* related information (p=0.443). There exist a significant difference between the age groups 21-30 and 31-40 in relation to Information for understanding actual destination (p=0.016).

There is no statistically significant difference between the age groups 18-20 and 41-50 in relation to Information for understanding *actual* destination (p=0.431), Destination specific information (p=0.113), and Travel agency related information (p=0.780).

There is no statistically significant difference between the age groups 21-30 and 41-50 in relation to Information for understanding actual destination (p=0.695), Destination specific information (p=0.069), and Travel agency related information (p=0.233).

There is no statistically significant difference between the age groups 31-30 and 41-50 in relation to Information for understanding actual destination (p=0.196), Destination specific information (p=0.*336*), and Travel agency related information (p=0.509).

C. Independent-Samples t-Test for Various Occupation Groups

There is no statistically significant difference at 5% level between students and those doing services, in relation to Information for understanding actual destination (p=0.189), Destination specific information(p=0.261), and Travel agency related information (p=0.055).

There is no statistically significant difference between students and those doing services, in relation to Information for understanding actual destination (p=0.494), *Destination* specific information (p=0.924). The t-test reveal statistically significant difference between students and those doing services, in relation to Travel agency related information (p=0.008).

There is no statistically significant difference between students and *those* doing services, in relation to Information for understanding actual destination (p=0.960), Destination specific information (p=0.504), and Travel agency related information (p=0.060).

We have also calculated factor mean by calculating mean of the items under said factor. Our objective to calculate factor mean is for estimating the importance of all three factors. For estimating the importance of each of the factor, we have divided factor mean by sum total of means of all factors. Further to get importance in percentage it has been multiplied with hundred. It is also observed that Factor means are almost similar in value. Thus all *three* factors are equally important to tourism website user. As evident from Table II, out of the eight items related to tourism web site information content the mean is highest for written information on hotels at the destination (3.90), followed by written information about local tourist sites at the destination (3.82). The mean is least for the item uploaded video about local tourist sites at the destination (3.4067). Range of mean item is very less and that proves the model stability further.

TABLE II. MEAN SCORE RELATED TO TOURISM WEB SITE INFORMATION CONTENT

Factor mean and its importance*{(Factor mean/Sum of factor means)*100}*				
Factors	Items	Item mean	Factor Mean	Factor importance in %
Information for understanding actual destination	Uploaded video about local tourist sites at the destination	3.4067	3.5133	32.2061
	Uploaded video about tourist destinations	3.5200		
	Uploaded video on hotels at the destination	3.6133		
Destination planning specific information	Written information about local tourist sites at the destination	3.8200	3.7555	34.4263
	Written information on hotels at the destination	3.9000		
	Destination planning on request	3.5467		
Travel agency related information	Written information about travel agencies	3.6200	3.6400	33.3676
	Written information about tour packages	3.6600		

VI. CONCLUSION

In the present research we have developed a model comprises three facets of tourism information which is required by tourism website user. This model helps tourism marketer, tourism entrepreneur and tourism website maker for developing the tourism website in terms of supply of information. This research identifies required types of information vis-à-vis tourist destination for the purpose of decision making of a tourist and *thus* helps website maker to upload these various information facets for enabling focused marketing activities for the tourism business. In fact present model highlights the uploading of information in relation to ~

- Understand the actual destination
- Destination planning
- Available Travel agencies and their packages.

Seeking for these types of information is very much logical in the sense that these are necessitating the expectation of a tourist before he/she starts actual touring. Right *information* can shape his/her expectation deviated less from the reality and create tourist (customer) satisfaction. Hence purpose of building website would not only be confined within awareness building but also to proper management of expectation. Moreover, these information features of tourism web sites have not been explored in the past research works and hence missing in the existing literature. This study shall provide valuable inputs to managers and owners of tour and travel businesses having virtual present by making them focus on these attributes of information so that they can provide detailed and reliable information on these attributes in the web sites.

REFERENCES

[1] F. Palumbo and P. Herbig, "International marketing tool," *Industrial Management & Data Systems*, vol. 98, no. 6, pp. 253-261, 1998.

[2] S. Ghose, "Making business sense of the internet," *Harvard* Business *Review*, pp. 126-135, March 1998.

[3] C. I. Ho, Y. L. Lee, and Y. L, "The development of an e-travel service quality scale," *Tourism Management*, vol. 28, no.6, pp. 1434–1449, 2007.

[4] Y. L. Yuan, U. Gretzel, and D. R. Fesenmaier, "Internet technology use by American convention and visitors bureaus," *Journal of Travel Research*, vol. 41, no. 3, pp. 240-255, 2003.

[5] E. C. Hirschman and M. B. Holbrook, "Hedonic consumption: Emerging concepts, methods and propositions," *Journal of Marketing*, vol. 46, no. 3, pp. 92-101, 1982.

[6] H. Leemans, *The Multiform Book: Using Information in Purchasing Hedonic Products*, Delft: Eburon, 1994, pp. 214.

[7] C. A. Vogt and D. R. Fesenmaier, "Expanding the functional tourism information search model: Incorporating aesthetic, hedonic, innovation, and sign dimensions," *Annals of Tourism Research*, vol. 25, no. 3, pp. 551-578, 1998.

[8] C. Ho and W. Wu, "Antecedents of consumer satisfaction on the internet: An empirical study of online shopping," in *Proc. 32nd Hawaii International Conference on System Sciences*, 1999.

[9] G. L. Lohse and P. Spiller, "Internet retail store design: How the user interface influences traffic and sales," *Journal of Computer Mediated Communications*, vol. 5, no. 2, 1998

[10] Q. Zhou and R. DeSantis, "Usability issues in city tourism website design: A content analysis," in *Proc. IEEE International Professional Communication Conference*, 2005, pp. 789-796.

[11] D. R. Fesenmaier and J. Jeng, "Assessing structure in the pleasure trip planning process," *Tourism Analysis*, vol. 5, no. 1, pp. 13-29, 2000.

[12] B. Pan, "Travel information search on the internet: An exploratory study," Dissertation, University of Illinois at Urbana-Champaign, 2003.

[13] E. K. R. E. Huizingh, "The content and design of web sites: An empirical study," *Journal of Information and Management*, vol. 37, pp. 123-134, 2000.

[14] M. A. Rastrollo and P. Alarcon, "The competitiveness of traditional tourist destinations in the information economy," in *Proc. International Conference on Information and Communication Technologies in Tourism*, New York: Springer-Verlag, 2000, pp. 209-217.

[15] A. M. Morrison, S. Taylor, A. J. Morrison, and A. D. Morrison, "Marketing small hotels on the world wide web," *Journal of Information Technology & Tourism*, vol. 2, no. 2, pp. 97-113, 1999.

[16] J. Murphy, E. J. Forrest, C. E. Wotring, and R. A. Brymer, "Hotel management and marketing on the internet," *The Cornell Hotel and Restaurant Administration Quarterly*, vol. 37, no. 3, pp. 70–82, 1996.

[17] S. R. Elliot, "Towards a framework for evaluation of commercial web sites. Electronic commerce: The end of the Beginning," in *Proc. 13th International Bled Electronic Commerce Conference*, 2000, pp. 69-86.

[18] K. West, R. Huff, and P. Turocy, "Managing contents on the web," *Network Computing*, vol. 11, no. 21, pp. 50-55, 2000.

[19] P. V. Cano and R. Prentice, "Opportunities for endearment to place through electronic visiting-www homepages and the tourism promotion of Scotland," *Tourism Management*, vol. 19, no. 1, pp. 67-73.

[20] C. Standing and T. Vasudavant, "Diffusion of internet technologies in travel agencies in Australia," in *Proc. 8th European Conference on Information Systems*, 2000, pp. 1112-1119.

[21] J. Lu, S. Tang, and G. Mccullough, "An assessment for internet-based electronic commerce development in businesses of New Zealand," *Electronic* Markets*: International Journal of Electronic Commerce and Business Media*, vol. 11, no. 2, pp.107-115, 2001.

[22] M. Jeong and C. U. Lambert, "Adaptation of an information quality framework to measure customers' behavioural intentions to use lodging websites," *Hospitality Management*, vol. 20, pp. 129-146, 2001.

[23] C. S. Wan, "The websites of international tourist hotels and tour wholesalers in Taiwan," *Tourism Management*, vol. 23, no. 2, pp. 155–160, 2002.

[24] A. Scharl, K. L. Wober, and C. Bauer, "AN integrated approach to measure website effectiveness in the European hotel industry," *Information Technology & Tourism*, vol. 6, pp. 257–271, 2004.

[25] H. F. Kaiser, "An index of factorial simplicity," *Psychometrica*, vol. 39, pp. 31-36, 1974.

Dr. Kaushik Mandal has been serving National Institute of Technology, Durgapur an institute of national importance as a capacity of Assistant Professor in the Department of Management Studies since October, 2007. Dr. Mandal has earned his master and doctoral degrees both in business administration from the Department of Business Administration, The University of Burdwan. His areas of research interests include various domains of Marketing management, Business environment and Public Policy. He is credited with more than twenty peer reviewed research publications in national and international journal of repute. He has presented research papers in more than 25 national and

international conferences. He is associated with number of academic and research societies of national and international stature as a reviewer and a member.

Monami Dasgupta Banerjee is part time PhD scholar in Department of Management Studies, National Institute of Technology, Durgapur, India. Her research focus is in the domain of E-commerce. Her research paper has been published in international journal and presented in international conference.