

The Determination of Perceived Value for Usability on Customer Satisfaction and Attitudinal Intention

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Abstract *This study aimed to improve the quality of online travel agencies in terms of usability as seen from the customers' perception. Specifically, the two main study objectives were (a) to examine the usability factors that determine the user's satisfaction, and (b) to discern the level of satisfaction and attitudinal intention in terms of usability toward an online travel agency. The effect of usability on customer satisfaction and attitudinal intention in an online travel agency was analyzed. Understanding the perceived value of consumers, as well as the factors influencing their satisfaction and attitudinal intention, will help businesses develop for their online travel agency websites. The modified items for the three constructs (i.e., perceived value for usability, customer satisfaction, and attitudinal intention) were used in the conceptual model. Items were specified that can improve websites and provide beneficial information for the management of online travel agencies. The customers' desires and needs were precisely determined and the usability was specified according to the important items based on their views.*

Keywords: *Perceived Value for Usability, Customer Satisfaction, Attitudinal Intention, Online Travel Agency (OTA)*

INTRODUCTION

The advent of the Internet easily enables consumers to obtain a number of information from a website (Lynch & Rose, 1993). Alba et al. (1997) noted that the Internet gives users an opportunity to compare products and services to other relevant goods. Currently, a company's website is a crucial marketing tool, serving as a way to present important information and convey the company's purpose to the user (Zhang, Keeling & Pavur, 2000). Therefore, website development and design are essential to sustain a company's online presence and competitiveness in the marketplace (Dianat et al., 2019; Tandon, Kiran & Sah, 2018; Zafiroopoulos & Vrana, 2006).

Haas (2002) claimed that once a company attracts a consumer to its website, the next step must be to provide cost-effective pricing and a content-rich experience in order to make the consumer a repeat visitor generating a high volume of sales. Many factors can influence a website's success such as design, user interface, and usability (Lee

& Koubek, 2010; Susser & Ariga, 2006; Tandon, Kiran, & Sah, 2016). Because the design of a website is an important determinant for visitors when making purchases online, it can determine whether the consumer intends to revisit the site (Dianat et al., 2019; Hill, 2001). Usability are terms used to examine the measurement of a customer's judgment about an entity's overall excellence and superiority (Zeithaml & Bitner, 2000). The experience that consumers have with a website is important topic for both academia (Agarwal & Karahanna, 2000; Novak, Hoffman & Yung, 2000) and industry. Moreover, the usefulness of the website will affect the user's experience before a consumer has committed to using a website. Prior studies in the hospitality and tourism businesses have mainly concentrated on investigating the functionality of such sites. Little has been done on websites' usability.

Therefore, this study analyzed the effect of perceived value of usability on customer satisfaction and attitudinal intention. This study's goal is to improve the quality of online travel agencies in terms of usability as seen by the

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customers' perception. This study identified commonalities in existing website evaluations, thus revealing further needed research. Specifically, the main objectives of this study are as follows: (a) to examine usability factors determine the user's satisfaction; and, (b) to discern the level of satisfaction and attitudinal intention in terms of usability toward an online travel agency. This study will help business develop their online travel agency website. In addition, the research provides items that can improve websites and provide beneficial information for the management of the online travel agency.

LITERATURE REVIEW

Perceived value is the fundamental outcome of a company's marketing activities and is a "first-order" factor in relationship marketing (Oh, 2003; Dumond, 2000; Peterson, 1995; Ravalad & Gronroos, 1996). It is configured as a construct of two parts. The first construct provides benefits, such as economic, social, and relational. The second construct is formed by sacrifices, such as time, effort, risk, convenience, and price (Cronin, Brady & Hult, 2000; Bigne, Moliner & Callarisa, 2001). In the hospitality and tourism industry, customers have not only an overall post-purchase evaluation of online travel agencies but also the purchased product. For that reason, when the operator of a website correctly understands perceived value, the concept can critically contribute value to the online travel agency regarding the process of decision-making. Petrick (2002) suggested five dimensions that determine perceived value: quality, emotional response, monetary price, behavioral price, and reputation.

Usability refers to the perceived ease of navigating the website. Usability also means that the online user can manage the basic system functions and use the components of the site effectively avoiding any error (Lynch & Horton, 2001; Bevan, 2001; Flavian, Guinaliu & Gurrea, 2006). Therefore, website quality is defined as how effectively the website users achieve their objectives and how well the website quickly responds to user requirements. Even though many researchers and practitioners have attempted to develop a list of essential dimensions to evaluate a website, generally, usability has been presented as a key dimension when online users manage their products and use services from online organizations in the Internet environment (Dianat et al., 2019; Flavian, Guinaliu & Gurrea, 2006). Udo and Marquis (2002) concluded that there are important usability properties of commercial websites, such as navigation, graphics, and interactivity. These aspects were found to be significantly related to website quality. The concept of usability can be considered as the following concepts in general terms: a) ease of understanding the structure: interface, function, and contents; b) information: finding the user's desired item; c)

navigation: related to time necessary to obtain the desired results; and d) ability of the user to control: customer management of the website (Flavian, Guinaliu & Gurrea, 2006).

Based on previous studies, perceived usability in the new competitive environment is a crucial part of the website's image and can have an effect on customer behavior (Dianat et al., 2019; Lee & Koubek, 2010; Tandon et al., 2016). This study shows a detailed approach for the usability of online travel agencies in the U.S. Based on the researches, the researcher proposes that the usability of an online travel agency should include 3 dimensions: 1) language, 2) layout and graphics, and 3) navigation and interface.

Customer satisfaction refers to an affirmative experience toward a company (Anderson & Narus, 1984). It is also defined as the customer's feelings being met or exceeding his or her expectations regarding the product and service (Roberts-Lombard, 2010). Previous studies have demonstrated that service quality of websites significantly influences customer satisfaction (Lee & Koubek, 2010; Loiacono et al. 2000; Voss, 2000). The study of consumer behavior explains that customer satisfaction is the essence of the post-purchase period (Westbrook, 1987). Zeithaml et al. (1996) concluded that after consumers receive services, they will configure and rearrange their perception for the service quality based on the actual experience.

Overall customer satisfaction has been relationship focused (Bitner & Hubbert, 1994; Oliver, 1997; Rust & Oliver, 1994). On the other hands, there are two dimensions for customer loyalty. One is the behavior dimension, and other is the attitude dimension (Assael, 1987; Bloemer & Kasper, 1995). The behavior dimension is defined as the customer's behaviors in reference to repeat purchases and preference toward specific brands, products, and services (Bigne et al., 2002; Zins, 2001). Whereas, the attitude dimension is defined as the customer's intention to purchase the product or service based on repeat intention and recommendation to others (Ribbink et al., 2004; Roberts-Lombard, 2010). Levels of service loyalty can be assessed by attitudinal measures, such as intentions to re-patronize a service provider. In the hospitality and tourism industry, customers share information and their positive travel about their experiences because the information relates to their feeling associated with the service. In order to avoid negative experiences, it is important for the website operator to understand how users form satisfaction judgments regarding online reservation system services. The perceived value of the product and service affect post-usage perception of future performance and user's satisfaction and intention. Therefore, this study focused on attitudinal intention rather than behavioral intention because attitudinal intention is associated with attachment and commitment toward an organization.

METHODOLOGY

The survey instrument utilized in the study consisted of three parts. The first part asked about the respondents' online purchase experiences regarding travel-related products with respondents' demographic questions. The second section of the survey included attributes regarding the website's usability in the aspects of respondent's perceived value toward the online travel agency. Those attributes came from the Law and Ngai (2005) study accessing the usability and functionality of travel websites. As for a series of questions related to satisfaction and attitudinal intention toward the online travel agency, those items were adopted from Ho and Lee (2007) and Kim et al. (2007). Eventually, the measurement items of the study were induced and adapted from previous researches. Additionally, the questionnaire was developed and modified to make sure adequateness regarding the determination of perceived value for usability on customer satisfaction and attitudinal intention. The data collection was conducted through using Qualtrics. The questionnaires were distributed in the Southeastern in the U.S. Although the questionnaire was completed by 475 respondents, only 284 respondents were qualified. Finally, 215 subjects were analyzed.

RESULTS

Table 1 shows respondents' socio-demographic profile. A majority of the respondents were aged 21-25 (47.0%), or more than 30 years old (21.8%). The mean age of respondents was 26.6 years old. Approximately 66% of participants ($n = 141$) have used an online travel agency 1-2 times. About 21.4% of respondents ($n = 46$) used an online travel agency 3-4 times within the past 12 months.

As for reasons for choosing an online travel agency, there were multiple responses. Price (57.7%, $n = 124$) was reported as the most important reason to choose an online travel agency followed by Recommendation of friend/family (31.2%, $n = 67$), Previous Positive Experience (25.6%, $n = 55$), and Preferred Brand (16.7%, $n = 36$).

Table 1: Demographic Characteristics for Reasons to Choose an OTA ($n = 215$)

Variables	Frequency	%
Age		
Less than 20 years old	30	14.0
21 – 25 years old	101	47.0
26 – 30 years old	37	17.2
More than 30 years old	47	21.8

Variables	Frequency	%
Frequency of Purchase		
1 - 2	141	65.6
3 – 4	46	21.4
5 – 6	18	8.4
7 – 8	6	2.7
More than 9	3	1.4
Missing	1	0.5
Reason to Choose an Online Travel Agency		
Price	124	57.7
Preferred brand	36	16.7
Recommendation of friend/family	67	31.2
Response to a promotion/advertisement	29	13.5
Variety of travel products/services	34	15.8
Previous positive experience	55	25.6
Other	12	5.6

Note (1) multiple responses allowed for reason to choose an online travel agency.

The composite reliabilities of the constructs all exceeded the cutoff value of .70, showcasing adequate internal consistency (Hair, Anderson, Tatham & Black, 1998). The Cronbach's alpha estimates ranged from .81 to .87 for the 3 constructs: "Perceived Value of Usability" ($M = 3.99$, $SD = .483$), "Satisfaction" ($M = 4.03$, $SD = .572$), and "Attitudinal Intentions" ($M = 4.09$, $SD = .757$). Therefore, usability, satisfaction, and attitudinal intentions were unique constructs.

As for the usability construct. The level of internal consistency in each construct was acceptable with Cronbach's alpha estimates ranging from .716 to .766: "Language" ($M = 4.07$, $SD = .595$), "Layout and Graphics" ($M = 3.88$, $SD = .552$), and "Navigation and Interface" ($M = 4.07$, $SD = .550$).

To examine the level of experience of perceived value for usability regarding online travel agencies leading to online user's satisfaction, multiple regression analysis was conducted. Table 2 shows the results of the regression analysis between the user's satisfaction and the three predictors, Perceived Value of Language (PL), Perceived Value of Layout and Graphics (PLG), and Perceived Value of Navigation and Interface (PNI). The R^2 value of .230 in the model indicated that 23% of the variance in online user's satisfaction was explained by perceived value of usability attributes. F and its corresponding p -value ($F = 20.992$, $p < 0.001$) confirmed the model was significant.

Based on the magnitude of standardized coefficients, PL ($\beta = .222$, $p < 0.01$) and PNI ($\beta = .306$, $p < 0.001$) emerged as the most important contributors to satisfaction. PNI was the most significant construct to influence online user's satisfaction.

Table 2: Results of the Relationship between OTA Satisfaction and Usability

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	β		
(Constant)	1.817	.290		6.273	.000***
PL	.213	.074	.222	2.878	.004**
PLG	.012	.085	.011	.138	.890
PNI	.319	.089	.306	3.587	.000***

* Notes: (1) $F(3,211) = 20.992^{***}$, $R^2 = .230$, Adjusted $R^2 = .219$

(2) * $p < 0.05$, ** $p < 0.01$, *** $p < .001$

(3) PL: Perceived Value of Language, PLG: Perceived Value of Layout & Graphics,

PNI: Perceived Value of Navigation & Interface.

Table 3 shows the results of the regression analysis between the user's attitudinal intentions and the independent variables (PL, PLG, and PNI). The R^2 value of .179 in the model indicated that almost 18% of the variance in online user's attitudinal intentions was explained by perceived value of usability. F and its corresponding p -value ($F = 15.380$, $p < 0.001$) confirmed the model was significant. Based on the magnitude of standardized coefficients, Perceived Value of Navigation and Interface ($\beta = .347$, $p < 0.001$) emerged as the significant contributor to online user's attitudinal intentions.

Table 3: Results of the Relationship between OTA Attitudinal Intentions and Usability

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	β		
(Constant)	1.585	.395		4.009	.000***
PL	-.002	.101	-.002	-.002	.982
PLG	.146	.115	.107	1.267	.207
PNI	.478	.121	.347	3.942	.000***

* Notes: (1) $F(3,211) = 15.380^{***}$, $R^2 = .179$, Adjusted $R^2 = .168$

(2) * $p < 0.05$, ** $p < 0.01$, *** $p < .001$

CONCLUSION AND DISCUSSION

Among the three dimensions in usability, language, navigation, and interface were the most problematic, followed by layout and graphics. This agrees with the findings of Au Yeung and Law (2006). This study also found that online users still do not have complete trust regarding online transactions. As a result, personal information security and

overall website security should be given priority by online travel agencies. This research has confirmed that perceived usability has a direct and positive relationship toward the degree of consumer satisfaction and attitudinal intention. This research has added to a growing body of literature on the evaluation of online travel agencies by examining usability in a web-based context. The measurement items of this study may become an effective checklist when examining the efficiency of the online operation. In addition, the result of this study may provide to develop the guideline and recommendation for website design regarding online travel agency. The findings from this study may also assist online travel agency managers and designers in better understanding the usability of websites by item analysis. Eventually, this study proposes what exactly customers want, what they need, and which usability was recognized as important items based on their views through investigated the relationship regarding the perceived value for usability on customer satisfaction and attitudinal intention to make sure user-centred web design.

Regarding for the limitations, the results are not applicable to other countries. Therefore, geographical scope makes generalizability difficult. A larger sample size and a variety of online travel agency products and services may provide better generalization. Additionally, if a customer is dissatisfied with their purchased products or services, he/she may complain about their bad experience on a website or social community to inform or share their experience with others. However, this study mainly concentrated on the positive actual experiences, although negative actual experience can have an affect on further attitudinal intention. Therefore, further research is needed to investigate how negative actual experiences influence attitudinal and/or behavioral intentions.

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