The Effects of Utilitarian, Hedonic and Relational Factors on Intention: The Moderating Role of Website Anxiety

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The Effects of Utilitarian, Hedonic and Relational Factors on Intention: The Moderating Role of Website Anxiety

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ABSTRACT
It is well recognized that utilitarian and hedonic factors are both important in explaining customers’ consumption activities. Recent research has advocated the role of relational factors in affecting the adoption processes. However, no study has examined these three factors simultaneously in one study. We integrate the utilitarian and hedonic benefits of online shopping with the relational benefit by evaluating how they together contribute to user intention to return to a website. We also examine how these influence factors were moderated by website anxiety. The empirical results suggest that 1) perceived performance, enjoyment, and social presence increase customers’ intention, 2) website anxiety negatively moderates the relationship between perceived performance and intention, such that low website anxiety strengthens that relationship, and 3) website anxiety positively moderates the relationship between social presence and intention, such that high website anxiety strengthens that relationship. Implications for website designers and researchers are discussed.

Keywords
Performance, enjoyment, social presence, intention, website anxiety

INTRODUCTION
It has been recognized that online customers are increasingly driven by a need for the hedonic benefit, in addition to instrumental goals (e.g., Childers et al. 2001; Koufaris 2002; Overby and Lee 2006; Chitturi et al. 2008). While many traditional studies of IS adoption have focused on the cognitive and affective antecedents of adoption, more recent research has been advocating a relational view, with an increased focus on the relational factors affecting the adoption processes (Al-Natour et al. 2006). They suggest that we need to pay equal attention to the social and relational perceptions, as well as those that are cognitive in nature. Aligning with this trend, some researchers have explored how to manipulate the features of the Web interface to instill a feeling of social presence (e.g., Cyr et al. 2007; Hassanein and Head 2006, 2007), as a first step to build relationships with customers.

Surprisingly, no research has integrated utilitarian, hedonic and relational perspectives into one single study, thus the relative importance of these dimensions is unclear. Thus, the first objective of the paper is to investigate the effect of these three perspectives on user intention to return to a website, with perceived performance, perceived enjoyment and social presence as representations of the utilitarian, hedonic and relational perspectives.

In addition, we examine how website anxiety moderates the association between the three perspectives and intention. Consistent with the notion that it is meaningful to investigate the moderating effects of customer traits in the service environment (Dabholkar and Bagozzi 2002), we center our investigation on the moderating effect of website anxiety, and expect that the relative importance of the three dimensions (e.g., social presence) in forming the intention to return will vary for customers with various degrees of website anxiety.

THEORETICAL FOUNDATION AND LITERATURE REVIEW

Utilitarian and Hedonic Factors
Motivations to engage in retail shopping include both utilitarian and hedonic dimensions (Childers et al. 2001; Overby and Lee 2006). “Utilitarian benefits” refer to the functional, instrumental, and practical benefits of consumption offerings, while “hedonic benefits” to refer to their aesthetic, experiential, and enjoyment-related benefits (Chitturi et al. 2007, 2008; Dhar...
and Wertenbroch 2000). Given the hedonic aspects of the Internet and Web-based systems (e.g., Cyr et al. 2009; Koufaris 2002; Shang et al. 2005; Yi and Hwang 2003; Van der Heijden 2004), and as online shoppers are motivated by both utilitarian and hedonic values, a shopping experience should account for more than just functional value (Bloch et al. 2011).

Perceived enjoyment has been considered as an appropriate construct for capturing a hedonic perspective of service (Childers et al. 2001; Fiore et al. 2005). The construct of perceived enjoyment can also be derived from the flow theory (Csikszentmihaiyi 1975), which describes the flow as an affective state when individuals are involved in certain activities. In the context of computer-mediated environments, flow is used to represent a subjective psychological experience that characterizes human-computer interactions as playful and exploratory (Agarwal and Karalianna 2000, Trevino and Webster 1992; Webster et al. 1993). Hoffman and Novak (1996) have portrayed online flow experience as the state that consists of a seamless sequence of responses facilitated by human-computer interactivity. A common measure of flow is the level of intrinsic enjoyment of an activity (Koufaris 2002).

**Relational Factor- Social Presence**

Social presence theory (SPT) focuses on the degree to which communicating parties in a mediated environment perceive one another in terms of being a “real person” (Short et al. 1976; Williams 1977). Social presence is the extent to which a medium allows users to experience others as being psychologically present (Fulk et al. 1987). In the online shopping context, social presence has been employed to evaluate the relational aspects between users and the website (Gefen and Straub 2003; Hassanein and Head 2006; Qiu and Benbasat 2009). Creating a virtual shopping experience that will entice the masses must engage both the cognitive and social sides of the customers (Kumar and Benbasat, 2002). When a Website conveys a low social presence, it is transmitting a “cold-shoulder” message (Gefen and Straub 2004). Thus, achievement of social presence in the online service environment is a very important step to build social relationship with online shoppers and enhance their overall shopping experiences.

**Computer Anxiety**

The existence of computer anxiety is commonly recognized by researchers (e.g., Torkzadeh and Angulo, 1992; Tekinarslan 2008). Computer anxiety represents the affective responses of individuals toward using computers (Compeau et al. 1999), and specifically, the negative side of the affect - the feelings of apprehension or anxiety that one experiences when using technology. It refers to “fear about the implications of computer use such as the loss of important data or fear of other possible mistakes” (Sievert et al. 1988). Computer anxiety is the product of combinations of psychological variables such as neuroticism and locus of control (Marakas et al. 2000). Researchers have found that computer anxiety influences how individuals perceive and use information technology (Harrison and Rainer, 1992). A significant body of research in IS and psychology has called attention to the importance of computer anxiety by demonstrating its impact on key variables such as attitude, behavior, and performance (Venkatesh, 2000).

**HYPOTHESIS DEVELOPMENT**

We first propose that performance, enjoyment and social presence as representations of utilitarian, hedonic and relational factors would significantly influence user intention. Then we hypothesize the moderating effect of website anxiety. The entire research model is shown in Figure 1.

**The Effect of Performance, Enjoyment and Social Presence on Intention**

Studies on the use of computer technology have found performance or dependability of the options to be an important dimension for technology adoption (Davis et al., 1989; Bagozzi, 1990; Davis et al., 1992). Performance encompasses the capability of service technologies to perform the task accurately and reliably (Yen 2005). In using technology-based service, customers may be especially concerned about the reliability of new service delivery options based on technology because they may envision some performance risk in that these options may not work well (Evans and Brown, 1988).

The goal of utilitarian technologies is to achieve high performance (Sun and Zhang 2006; Park and El Sawy 2008). Perceived performance has been found in many empirical studies of Information Systems to be a robust determinant of behavior intention (Compeau and Higgins, 1995; Venkatesh et al., 2003). A marketing study also reported that ‘did its job’ was one source of customer satisfaction with service technologies (Meuter et al., 2000). As such, customer evaluation on performance of a service website is predicted to impact their intention.
Hypothesis 1: Perceived performance will positively affect intention to return to a website.

Flow is one of the key components for a compelling online shopping experience (Novak 2000), demonstrating that flow is pertinent in studying online customers' behaviour. Koufaris (2002) asserts that enjoyment is a common measure of flow. Enjoyment embodies the hedonic aspect of shopping (Childers et al. 2001; Fiore et al. 2005), and have gained interest from the IS community (e.g., Koufaris 2002; Shang et al. 2005; Yi and Hwang 2003; Van der Heijden 2004). In addition, marketing literature reveals that shopping and many other consumption activities provide both utilitarian and hedonic value through responses evoked during the experience (Babin et al. 1994; Bloch and Bruce 1984; Voss et al. 2003). Shopping enjoyment has been found to significantly affect user intentions to return to a Web site (Koufaris 2002; Kamis et al. 2008) and customer loyalty (Cyr et al. 2009). Thus, we posit the following:

Hypothesis 2: Perceived enjoyment will positively affect intention to return to a website.

Social presence is an important criterion for firms to build relationships with customers. It has been suggested that adding features (e.g., personal greeting) that increase the social presence of the website may result in an increased e-Consumer sense that the firm is trying to provide good customer relationship management and thus increase purchase intentions (Gefen and Straub 2003). The website attributes that display website a sense of personal, sociable, and sensitive human contact is clearly desirable for customer (Gefen and Straub 2003, 2004). In contrast, the lower levels of social presence in B2C may be more than a mere inconvenience for customers, and may actually prevent customers from purchasing such services (Gefen and Straub, 2003).

Hypothesis 3: Perceived social presence will positively affect intention to return to a website.

3.2. The moderating role of website anxiety

With more and more business are conducted online, it is important to explore the individual differences of customers to use website. By incorporating user characteristics, we can form a more complete picture of the dynamic nature of individual perceptions of websites (Venkatesh 2003). All vendors deal with a degree of customer heterogeneity and one of the key differences among customers is the degree of anxiety a given customer has about a website. Understanding how website anxiety moderates the effect of the three dimensions on intention will not only advance our theoretical understanding, but also help practitioners in minimizing the degree of its negative impact, in the selection of better remedial or even preventive treatments. Surprisingly, little research has explored the construct of website anxiety, although computer anxiety has been extensively discussed.

We apply the concept of computer anxiety to the context of online shopping, and we term it as “website anxiety”. Similar to computer anxiety, website anxiety is associated with negative attitudes toward the use of websites. We expect that the effect of perceived website performance on intention will be weaker for online customers with higher website anxiety. Although they might think highly of the website performance, they are less likely to return due to fear about the implications of online shopping such as personal information theft by hackers or mistaken orders. Thus, we posit the following:
Hypothesis 4: Customer website anxiety has a negative moderating effect on the association between perceived performance and intention.

Contrary to website anxiety (i.e. negative response), enjoyment represents the positive affective response of individuals toward using computers (Compeau et al. 1999). However, in the website context, website anxiety is a general affective response, while enjoyment is a dynamic, situation-specific affective response contingent upon which website customers visit. If customers with higher website anxiety perceive a website is enjoyable, their willingness to return to that website could be still be low given their global anxiety felt towards websites. On the contrary, customers with lower website anxiety will be more likely to return, as a website provides a hedonic benefit in addition to the utilitarian one. Thus, we propose the following:

Hypothesis 5: Customer website anxiety has a negative moderating effect on the association between perceived enjoyment and intention.

As mentioned earlier, website anxiety is derived from the psychological fear of using websites, as customers with high website anxiety have gotten used to the traditional ways of shopping (e.g. interact with a sales employee). Thus, if customers with higher computer anxiety perceive high social presence in the website, which allow them to experience others as being psychologically present, their intention to return to a website will be higher. On the contrary, for online customers with lower website anxiety, the effect of their feeling of social presence on intention will be weaker. It is therefore proposed that

Hypothesis 6: Customer website anxiety has a positive moderating effect on the association between perceived social presence and intention.

RESEARCH METHOD

Study Setting and Procedures

We tested the proposed model in a study involving 128 subjects recruited from a public university. Each subject was asked to shop a laptop computer from a fictitious website for a friend, whose product requirements were described to each participant in a written form. Prior to the study, the subjects were informed that they would each receive $10 for their participation. To motivate participants to view the experiment as a serious online shopping session and to increase their involvement, we offered the top 20 performers an extra amount ($25). Participants were required to complete a questionnaire in order to record their demographic and control variables. After the shopping task, the subjects answered questions related to the dependent variables.

Measurement Scales

The study adapted existing validated scales whenever possible. The perceived performance scale was adapted from leading service marketing studies (e.g., Dabholkar 1996; Yen 2005). Items for social presence and enjoyment were borrowed from the study by Gefen and Straub (2003). Items for Intention to return were based on those of Coyle and Thorson (2001). The items for website anxiety were adapted from the items of computer anxiety by Compeau et al (1999) and Venkatesh et al (2003).

DATA ANALYSIS

Measurement Validation

We analyzed the research model using partial least squares (PLS) structural equation modeling, a component-based approach (Lohmöller 1989). To support individual item reliability, we examined the loadings of the individual measurement items on their intended constructs and compared these to recommended tolerances of 0.70 (Barclay et al. 1995; Chin 1998). All the measurement items met this threshold. To support internal consistency of the constructs, we calculated composite reliability and Cronbach’s alpha for each construct. All met suggested tolerances (>0.70, Fornell and Larcker 1981) with results reported in Table 1.
Table 1. Internal consistency and discriminant validity of constructs

<table>
<thead>
<tr>
<th></th>
<th>Composite reliability</th>
<th>Cronbach’s alpha</th>
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</thead>
<tbody>
<tr>
<td>Performance (PER)</td>
<td>0.88</td>
<td>0.80</td>
</tr>
<tr>
<td>Enjoyment (EN)</td>
<td>0.95</td>
<td>0.92</td>
</tr>
<tr>
<td>Social Presence (SP)</td>
<td>0.93</td>
<td>0.91</td>
</tr>
<tr>
<td>Intention (INT)</td>
<td>0.98</td>
<td>0.96</td>
</tr>
<tr>
<td>Website anxiety (WA)</td>
<td>0.86</td>
<td>0.79</td>
</tr>
</tbody>
</table>

Note: Diagonal elements are the square root of AVE. These numbers should exceed the interconstruct correlations for adequate discriminant validity. This condition is satisfied for each construct.

Structural Model

We next analyzed the structural model to examine the significance and strength of relationships of each of our hypothesized effects. Results of the analysis, including standardized path coefficients, path significances, and variance explained ($R^2$) for each dependent variable, are presented in Figure 2 and Figure 3.

Examining the main effect of performance, enjoyment, and social presence on intention (Figure 2), we found that performance ($\beta=0.29; p<0.05$), enjoyment ($\beta=0.27; p<0.05$), and social presence ($\beta=0.34; p<0.001$) all had significant effects on intention. Thus, H1, H2, and H3 were supported. The moderating effects model (Figure 3) tested the extent to which website anxiety moderated the main effects hypothesized in H1 through H3. The interaction terms were modeled in PLS as products of each item belonging to the underlying scales, as recommended by Chin et al. (2003), and added to the main effects model in Figure 2. Examining individual paths in the moderating effects model, we found that website anxiety had a significant negative moderating effect on the association between perceived performance and intention ($\beta=-0.15; p<0.05$), in accordance with H4. Further, website anxiety positively moderated the effects of perceived social presence on intention ($\beta=0.17; p<0.05$) in accordance with H6. Contrary to our expectation, H5 was not supported, indicating that website anxiety did not moderate the association between perceived enjoyment and intention.

CONTRIBUTIONS AND CONCLUSIONS

This study accomplishes two theoretical objectives. First, the present study lends substantial support to the utilitarian and hedonic consumption literatures (Babin et al. 1994; Childers et al. 2001; Chitturi et al. 2008). Specifically, the utilitarian benefit—namely, perceived performance—is identified as an antecedent of intention to return toward a shopping website. If customers believe that a particular website can help them achieve their shopping goal (e.g., selecting a desirable laptop in our case), then they will be more likely to return to the website. Parallel to perceived performance, the hedonic benefit—
perceived enjoyment – also significantly influences users’ intention to return. The results also support the hypothesis that the relational benefit – social presence – contributes significantly to users’ intention to return. In fact, the path coefficients in PLS reveal that, compared to perceived performance and perceived enjoyment, social presence exhibits stronger influence. This finding further justifies that enhancing the service relational aspect should be targeted as an important consideration in website design (Grewal et al. 2008). Overall, to the best of our knowledge, this is the first study to theoretically integrate and empirically test the role of hedonic, utilitarian and relational dimensions.

Furthermore, we apply the concept of computer anxiety to the website context and contribute to the IS literature by theorizing the moderating role of website anxiety in customers’ evaluations of utilitarian, hedonic and relational benefits to determine their return intention. We explain how the antecedents of intention vary across individuals. Our findings suggest that perceived enjoyment is equally important for customers with either high or low website anxiety, perceived performance is more important for customers with low website anxiety, yet perceived social presence is more important for customers with high website anxiety.

Practitioners can also benefit from this investigation in several ways. First of all, we demonstrate that utilitarian, hedonic, and relational dimensions all play important roles in influencing user intention to return a website: sixty percent of the variance of intentions explained through these three aspects. Therefore, designers are encouraged to enhance all of these three aspects. In addition, as social presence has the most significant effect on intention, it implies that managing social presence should be at the forefront of website development and management, no less than the performance and enjoyment, as customers want to shop just like in a physical store environment.

Second, as these three dimensions have different effects for customers with various website anxiety, website designers need to consider the heterogeneous nature of the potential customers. Firms can benefit from knowing under what circumstances these three dimensions are likely to succeed or fail. As computer anxiety usually causes computer use avoidance (Chua et al. 1999), website anxiety may also be a barrier to shopping online. In addition to focus on selling superior service products, firms need to be increasingly oriented toward the customers of those products and the fulfillment of customer needs. Specifically, although enjoyment are equally effective for customer with low and high website anxiety, customers who have high website anxiety are influenced more by social presence, while those with low website anxiety are more likely to rely on website performance. Targeting a customer group with the wrong type of service attributes may be counterproductive. These results provide managers with useful insights into monitoring and improving user intention to return to a website, depending on the level of customer website anxiety.

REFERENCES


