Emotions in Online Shopping: Fulfilling Customer's Needs through Providing Emotional Features and Customizing Website Features

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EMOTIONS IN ONLINE SHOPPING: FULFILLING CUSTOMER’S NEEDS THROUGH PROVIDING EMOTIONAL FEATURES AND CUSTOMIZING WEBSITE FEATURES

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Abstract

The role of emotions is an important subject of study in marketing and consumer behavior. Electronic commerce, being one of the very effective channels of marketing, should pay attention to the issue of emotions. However, Information Systems research on electronic commerce has rarely investigated the effect of fulfilling customers’ emotional needs. This research opens a new area of enquiry: that fulfilling customers’ emotional needs can be an important aspect in Internet shopping. Our findings suggest that people who have certain values desire certain features that match their values. Presumably these features can fulfill their emotional needs. Practical implications for the findings are discussed.

Keywords: Emotions, Website features, fulfilling customers’ needs, customization, personalization

Introduction

The role of emotions or affect is an important subject of study in consumer behavior (for a review, see Cohen and Areni 1991; see aksi Bagozzi et al. 1999; Erevelles 1998; Richins 1997). There has been an increasing number of studies concerning customer satisfaction that result from emotions (e.g., Mano and Oliver 1993; Westbrook 1987; Westbrook and Oliver 1991). Other research points out that store atmosphere, such as decoration, colors, lighting, or music, can lead to emotional satisfaction of customers, which in turn could increase frequency of browsing, purchase intentions, and consumption behavior (e.g., Donovan and Rossiter 1982; Yoo et al. 1998).

Real life examples also suggest that emotion is a crucial element in traditional shopping, regardless of product or service adoption. When customers look for a product, such as clothing, their emotional needs are more likely to be fulfilled by a spacious boutique and a professional and friendly salesperson. As for consuming a service, such as adopting a prestigious service in a bank, customers may expect bank staff to provide them with privileged services or exclusive benefits to show their social status. They may be emotionally pleased if they can get access to and conduct financial transactions in a specially designed room with quality service and luxurious decoration. When customers are emotionally satisfied, they may use more services from the bank or buy more clothes from the boutique. This shows that emotion plays a vital role in increasing customers’ satisfaction and product or service adoption in traditional shopping.

In the 21st century, online shopping is developing a new channel for retailing and extending the traditional way of shopping. There is little doubt that Internet shopping satisfies online shoppers in many ways. For example, distance and time are compressed because online shoppers can speed up their shopping process with just a few clicks. They can also have more control over the information they seek and the Websites they visit (Alba et al. 1997). However, everything has pros and cons; online customers can be greatly dissatisfied in terms of emotions. For example, they can no longer experience the warm and cordial service of
salespeople. Moreover, due to the restriction of the window-of-sight (i.e., the computer monitor) (Alba et al. 1997), they can rarely enjoy the spacious area with appealing decoration and lighting. By interacting with such an indifferent online system, customers can hardly experience the salesperson’s sincere service, nor can their emotional needs be fulfilled as in the traditional shops. Online shopping by itself detaches customers from emotional engagement. Therefore, compared to traditional environment, it should be more important to fulfill customers’ emotional needs in the online-shopping environment.

The importance of fulfilling customers’ emotional needs in the online retail environment led to technological innovations such as streaming audio/video. However, IS research has barely investigated the area of fulfilling customers’ emotional needs. Rather, some IS research (e.g., Centfetelli and Benbasat 2003; Liang and Lai 2002) encourages Websites to include features that enable strong IT-enabled functionalities such as accomplishing tasks and facilitating rational decision making. We name these features as functional features. It is necessary to point out that our intention is not to suggest that emotions are the only means for promoting customer satisfaction, purchase intention, and adoption behavior. We fully acknowledge the value of providing functional features such as search engines and ordering applications, and that functional features are necessary and basic features for a Website. However, we believe and argue that by providing emotional features that match the emotional needs of different customers, a Website can better fulfill customers’ emotional needs and may perhaps boost their business. Overall, one of the objectives of this research is to open up a new investigation area that, apart from functional features, it is also important for Website designers to provide emotional features so as to fulfill customers’ emotional needs.

Since each person has different emotional needs, each of them should be served differently. Customers are less pleased with standardized service, but they are more satisfied with being treated as a unique person, whose individual needs are addressed (Surprenant and Solomon 1987). That is why the concept of personalization has a long history in marketing research. Much of the literature and trade magazines voice the benefits of adopting personalization as a strategy to promote customer satisfaction, to encourage online adoption, and to increase company profits (e.g., Coner 2003; Ouellette 1999; Postma and Brokke 2001).

To customize Web contents for customers, practitioners and technical experts have developed a number of tactics (Ouellette 1999). For example, Websites use cookie technology to greet customers by name, so that a personal relationship between the Websites and customers can be built. Moreover, Websites collect personal information from customers and then provide personalized Web contents to match their information. There is little doubt that the above tactics help accomplish personalization. For instance, a Website may provide personalized Web contents by segmenting customers according to their personal information (e.g., age, gender, occupation, and interest). However, this level of personalization may not be able to fully satisfy customers because customers with the same age, gender, occupation, and interest may have different needs. Even with the same characteristics, some customers may need more privacy protection, and some may prefer to have more entertainment. Therefore, demographic data and interests may not be sufficient to indicate an individual’s needs. Apart from this, the above tactics appear to have little basis on theoretical grounds and have not gone through systematic empirical testing. Therefore, we propose a more systematic research with empirical support to expand the existing tactics. Prior research suggests that human values (values) is a good indicator of customers’ needs (Rokeach 1973; Schwartz 1992) That is, people who have the same values tend to have similar emotional needs while people who have different values have different emotional needs. This research attempts to segment customers by their values, so that we can understand their individual needs. According to the values and needs, Website designers can suggest personalized Website features to an individual customer so as to better fulfill his/her needs. Overall, the second objective of this research is to identify a match between values and Website features so that designers can design customized features to fulfill the individual customer’s emotional needs.

Theory Background

The Important Role of Emotions in Traditional Shopping

Many marketing professionals share the same viewpoint that emotions are an important aspect in marketing and consumer behavior (for a review, see Cohen and Areni 1991; see also Bagozzi et al. 1999, Erevelles 1998; Richins 1997). Because of their importance, marketing research has borrowed and adapted several theories of emotions from the psychology discipline (e.g., Izard 1977; Mehrabian and Russell 1974; Plutchik 1980; Watson and Tellegen 1985) to study the relation between emotions and marketing success. Many studies propose that positive emotions such as pleasantness and arousal will result in customer satisfaction (e.g., Mano and Oliver 1993; Westbrook 1987; Westbrook and Oliver 1991). Other research claims that store atmosphere, such as decoration, colors, lighting, or music, would fulfill customers’ emotional needs (e.g., Donovan and Rossiter 1982; Yoo et al. 1998).
Marketing researchers also incorporate the characteristics of emotions and develop instruments for empirically measuring emotions in the context of marketing or consumer behavior. Among all the measures for emotions, Holbrook and Batra’s (1987b) multi-item emotional indices are among the most widely cited instruments. The list of emotion types in their instrument is identified based on an exhaustive review of more than 30 research works. Because of the strength of the instrument, it is used as a base for this study.

The Important Role of Emotions in Online Shopping

Since the role of emotions or affect is such an important subject of study in marketing and consumer behavior, electronic commerce, which is an effective channel of marketing nowadays, should not overlook the importance of fulfilling customers’ emotional needs. Website design is potentially one of the most effective ways for satisfying customers (Ranganathan and Ganapathy 2002), but to date, IS research has rarely examined how Website features can fulfill customers’ emotional needs. Therefore, one of the aims of this research is to investigate ways to fulfill customers’ emotional needs through the provision of emotional Website features.

To fulfill online customers’ emotional needs, this study suggests that Website designers include Website features that will appeal to customers’ emotions (emotional features). For example, in the case of e-banking services, emotional features, such as exclusive access to a VIP zone or prestigious rights and benefits, can be offered to customers who want to be treated differently and wish to show their social status. In the above example, only a few emotional features (i.e., VIP zone, rights, and benefits) are shown to fulfill the emotional needs of those people who pursue power and status. But different types of people have different emotional needs, so there is a need for a more comprehensive and systematic analysis of emotional features to better fulfill the different needs of different people.

Emotional Features

A substantial body of marketing literature suggests that consumers’ emotional responses toward an object cause their satisfaction with the object (e.g., Edell and Burke 1987; Holbrook and Batra 1987a, 1987b; Mano and Oliver 1993). Therefore, a consumer’s overall emotional response toward a store is his/her aggregate emotional response toward all the elements of the store, such as the lighting, the color, decoration, and service of the salespeople. The higher the aggregate emotional response, the more satisfied the customer. This argument can be extended to online stores. The more each of the Website features can fulfill a customer’s emotional needs, the higher the customer satisfaction level. We believe that online consumers’ emotional responses affect their desire for a Website feature and their overall satisfaction with the online store. Based on Holbrook and Batra’s (1987b) concept of emotions, we classify online features that bring various kinds of emotions to customers. A list of emotional features and some of their associated examples are shown in Table 1.

<table>
<thead>
<tr>
<th>Definition of Emotional Features</th>
<th>Examples</th>
</tr>
</thead>
</table>
| Activation: Emotional features that make customers feel aroused, stimulated, and excited. | • Attractive color use  
• Vivid animation |
| Affection: Emotional features that make customers feel that the Website is sympathetic, empathetic toward other people, the society, and the environment. | • Affiliation with environment-friendly organization  
• Donation to charity logo |
| Confidence: Emotional features that make customers feel confident with the Website and convey the message that the Website is competent. | • Success stories  
• Customer endorsement |
| Serenity: Emotional features that give customers feelings of harmony, peace and relaxation. | • Soft color combination  
• Peaceful background music |
| Superiority: Emotional features that make customers feel superior to other people. | • VIP zone  
• Privileged club |
| Surgency: Emotional features that make customers feel the Website is enjoyable, entertaining, and fun. | • Wallpaper or screen saver download  
• Online games |

*Surgency, as mentioned in Holbrook and Batra (1987a), includes attributes like entertainment, fun, enjoyment. etc.*
Conceptually, there is some interrelationship between activation features and surgency features. Usually, features that make customers feel **excited** are also **enjoyable** and **entertaining**. For example, consider an animated introductory page to an airline’s Website that simulates a flight taking off on a runway. This animation is both exciting and entertaining. In general, activation and surgency features share some similarities. Therefore, in our study, they are grouped together as interrelated features.

Similarly, affection and serenity features are also interrelated. Most of the time, features that convey the message of **environmental friendliness** also convey the message of **peace and harmony**, such as environmental-friendly logo that emphasizes the peaceful and harmonious coexistence of nature and humans. Therefore, affection and serenity features are generally interrelated with each other and they form another interrelated feature in our study.

Other than emotional features, Website features also include functional features. Functional features are those features that fit customers’ functional requirements such as searching for information and tackling product-usage problems. Since examining functional features is not the main focus of this research, we pay relatively less attention to it. We will investigate two types of functional features that are commonly: specifying features and training features (Cenfetelli and Benbasat 2003). Specifying features help customers to specify the attributes of a product or a service that meets their requirements, and offers a list of possible alternatives from which to select. Training features help customers to learn about and use the product or the service to its full extent.

In this study, we assume that emotional features and functional features are exclusive in nature. In some situations, some functional features could generate positive or negative emotions. For example, a poorly designed product comparison function may cause bad emotions. However, in this exploratory stage of our study, we do not focus on these complicated cases. Future research needs to investigate this issue at greater depth.

**Personalization of Website Features to Fit Customer Values**

Because of individual differences, each customer needs different emotional features. Therefore, a general strategy for promoting products or services is necessary, but insufficient. This is why the issue of personalization is so important. Bringing the growing importance of the concept of personalization to the online context, customizing Web contents to suit customer needs also becomes important to both academics and practitioners.

In their pioneering works, Rokeach (1973) and Schwartz (1992) theorize that values are good indicators of needs. That is, an understanding of a customer’s values implies an understanding of his/her needs. Following this argument, we believe that a provision of Web features that meets a customer’s values is likely to fulfill his/her needs. Therefore, drawing from the literature on values, this research proposes that values could be a good tool for segmenting customers. Segmenting customers by values might be a useful strategy to understand what Website features should be provided to fulfill customer needs.

Since the early 1950s, values have been studied by a number of researchers (e.g., Kluckhohn 1951; Pepper 1958; Rokeach 1973; Scott 1965; Williams 1968). Schwartz and Sagiv (1995) synthesize the definition of values from the above research and define values as desirable goals, varying in importance that serve as guiding principles in people’s lives. Since this definition has synthesized a large body of values research, we adopt it in this paper.

Primarily based on Schwartz’s (1992) research, and other research works from Babin et al. (1994) and Venkatesh and Brown (2001), five higher-order value types are identified: **utilitarianism**, **hedonism**, **power**, **self-transcendence**, and **conservation**. Each higher-order value type has its own central goals or motivational concerns. With reference to Schwartz, some of the motivational concerns of each higher-order value type are presented as follows: **Utilitarian people** (i.e., people who attach high importance to utilitarianism values) attach high importance to personal success, rational thinking, task accomplishment, and independence. Hedonic people pursue pleasure, enjoyment, excitement, and stimulation. Power people are motivated by social status, prestige, and control over others. Self-transcendent people take care of the welfare of others and of nature. Conservative people resist change; they are not likely to be early adopters of innovations and new ideas, instead following the opinion or behavior of experienced others before adoption. They attach high importance to safety and uncertainty avoidance (see Table 2 for a full list of central goals).

A person’s value system is complex, individuals may attach high importance to one or more value types (Schwartz 2003). Therefore, identifying the relatively more-important higher-order value types for individuals is essential in this research. Websites can use customers’ relatively more-important higher-order value types as a basis for segmenting customers into different groups, for whom it is then possible to design customized Website features that suit their values. When customers log in, they can see a dynamic display of their customized features. In other words, a fit between features and customers’ values is important.
Table 2. Central Goals of Higher-Order Value Types

<table>
<thead>
<tr>
<th>Utilitarianism</th>
<th>Personal success, independent thought and action, rational and logical thinking, task accomplishment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hedonism</td>
<td>Pleasure, sensuous gratification for oneself, enjoyment, excitement, novelty, stimulation and challenge in life.</td>
</tr>
<tr>
<td>Power</td>
<td>Social status, social power, prestige, control over others, exclusive rights and benefits.</td>
</tr>
<tr>
<td>Conservation</td>
<td>Safety, security, follow opinions or behavior of experienced others, avoidance of violating social norms, resist change, preserve traditions.</td>
</tr>
<tr>
<td>Self-transcendence</td>
<td>Appreciation and protection for the welfare of people in frequent personal contact, of all people, and for nature. Harmony and peace.</td>
</tr>
</tbody>
</table>

Summarized Theoretical Arguments of this Paper

In this paper, we first argue that it is important for Website designers to provide emotional features to fulfill their emotional needs. Our second argument is that a fit between values and features is vital. In other words, the customer’s personal values, which reflect his/her needs, including emotional needs, determine his/her desirability for different Website features. Therefore, if a Website provides customized features that match the customers’ values, the customers emotional needs would be better fulfilled.

We tested our arguments with a survey study (to be described below). Specific hypotheses are developed next.

Hypotheses

In traditional shopping, the role of emotions or affect is an important subject of study in consumer behavior (for a review, see Cohen and Areni 1991; see also Bagozzi et al. 1999; Erevelles 1998; Richins 1997). More specifically, customer satisfaction can be a result of whether or not the customer’s emotional needs have been fulfilled (Mano and Oliver 1993; Westbrook 1987; Westbrook and Oliver 1991). For example, in the case of traditional banking service, some customers may desire privileged services or may wish to enjoy exclusive benefits so that they can feel their prestige and status. When their pride is satisfied, they tend to be more willing to adopt services from the bank. Bringing the ideas from the literature and the example to the online context, we propose that emotional needs also play an important role in affecting online shoppers’ desirability toward Website features. For example, with the provision of a VIP zone, where only privileged club members can get access to or enjoy exclusive rights and benefits, some online customers’ emotional needs (i.e., a feeling of superiority) would be fulfilled. Therefore, we believe that emotions are a crucial element not only in traditional shopping, but also in online shopping.

Since emotions are of interest in this study, we test the effectiveness of emotional features on individuals with different value types. As mentioned, four emotional features are interrelated, so we group them into two interrelated features. One of them is the activation and surgency feature, and the other is the affection and serenity feature. Overall, these two features plus another two isolated features form the four base hypotheses in our research. These four base hypotheses test whether or not individuals with certain higher-order value types will desire certain emotional features that fit their value type. To ensure the validity of our results, we also provide some features, different from the emotional features, and test people’s reaction to them. Since functional features are different from emotional features, we develop an additional set of four hypotheses that test whether or not individuals with certain higher-order value types will desire certain functional features (i.e., specifying and training features) that do not fit their value type.

Activation features, such as use of attractive color and vivid animation, are designed to make customers feel excited, stimulated, and aroused, whereas surgency features, such as lucky draw and game, make customers feel pleased, that the site was entertaining, enjoyable, and fun. These features are expected to appeal to hedonistic individuals who seek excitement, novelty, enjoyment, and entertainment (Bentham 1996; Pearsall 1996; Schwartz 1992). Thus, activation features and surgency features might fulfill the needs of hedonistic individuals. Therefore,

H1: Hedonistic individuals will desire activation and surgency features.
Activation and surgency features are emotional features. In other words, H1 suggests that hedonistic individuals will desire the emotional features that match their value type. Contrary to emotional features, if functional features such as specifying and training are provided to hedonistic individuals, we expect that the individuals will have low desirability for these functional features. Therefore,

**H1a:** Hedonistic individuals will have low desire for specifying and training features.

Superiority features, such as VIP zones and privileged clubs, stress offering exclusive rights and benefits so as to make customers feel superior to others, whereas power individuals emphasize status differentiation and prestige (Schwartz 1992). The superiority features differentiate the status of the prestigious customers from ordinary customers. By giving power individuals a feeling of status, differentiation, and prestige, they may desire superiority features, because these features fulfill their emotional needs. Therefore,

**H2:** Power individuals will desire superiority features.

Superiority features are emotional features. In other words, H2 suggests that power individuals will desire the emotional features that match their value type. Contrary to emotional features, if functional features such as specifying and training are provided to power individuals, we expect that the individuals will have low desirability toward these functional features. Therefore,

**H2a:** Power individuals will have low desire for specifying and training features.

Affection features, such as affiliation with an environmental-friendly organization or donation to an environmental-friendly organization, not only promote the protection of the natural environment, but also take care of the welfare of the human. Moreover, serenity features, such as soft color combinations and a peaceful background, provide customers with a feeling of peace and harmony. While self-transcendent individuals focus on protecting the welfare of others, they are likely to be keen on preserving the environment for the sake of the human, and on maintaining a harmonious and peaceful relationship with others (Schwartz 1992). The emphasis of affection and serenity features appears to be consistent with the motivational goals of self-transcendent individuals. Therefore,

**H3:** Self-transcendent individuals will desire affection and serenity features.

Affection and serenity features are emotional features. In other words, H3 suggests that self-transcendent individuals will desire the emotional features that match their value type. Contrary to emotional features, if functional features such as specifying and training are provided to self-transcendent individuals, we expect that the individuals will have low desirability toward these functional features. Therefore,

**H3a:** Self-transcendent individuals will have low desire for specifying and training features.

Conservative individuals resist change and follow the opinion or behavior of experienced others. They attach high importance to safety and uncertainty-avoidance (Schwartz 1992). To overcome their difficulties, confidence features (such as displaying success stories of experienced customers or the opinion of experienced others, authorities, and/or celebrities) may help, because the features reassure customers that the Website is competent. With the new online shopping mode, conservative individuals need high reassurance from authorities or other people to show that online shopping is safe and has little uncertainty. Conservative customers may want to see some confidence features that show them positive feedback about the Website, which would make them feel safer transacting with the Website. However, since conservative individuals are late adopters of new innovations, we expect that these added confidence features will have, at best, weak effect on their desirability to adopt online shopping. Therefore, the relation predicted in H4 is expected to be a weak one.

**H4:** Conservative individuals will desire confidence features.

Confidence features are emotional features. In other words, H4 suggests that conservative individuals will desire the emotional features that match their value type. Contrary to emotional features, if functional features such as specifying and training are provided to conservative individuals, we expect that they will have low desirability for these functional features. Therefore,

**H4a:** Conservative individuals will have low desire for specifying and training features.
Methodology

The hypotheses were tested by a survey study that quantitatively explored how individuals with different values preferred different features. A paper-based questionnaire that consisted of two sections was administered. In section 1, a list of Website benefits for privileged members only were given, and subjects were asked to rank order them based on their desirability level toward the features. In section 2, the importance level of values was asked. A number of demographic items were also included.

Measurement

Whenever possible, we adopted existing instruments from prior research.

(1) Values: Lam et al.’s (2003) version of value survey was used in this study. This survey is based on surveys by Morris et al. (1998) and by Schwartz (1992) and is adapted to the context of electronic commerce. Moore and Benbasat’s (1991) card sorting procedure was performed on the items, and the placement accuracy score was 83 percent.

(2) Website Features: We applied Holbrook and Batra’s (1987b) definitions of different positive emotions to the context of designing Website features. Using their definitions as a basis, an instrument that represents the emotional features was developed. For instance, VIP zones and privileged clubs are examples of superiority features, while success stories and customer endorsements are examples that represent confidence features. Moore and Benbasat’s card sorting procedure was performed, and the placement accuracy score was 93 percent.

Sample

The sample size was 340 students, including 63 percent undergraduates and 37 percent postgraduates from a large public university. The majority of participants (65 percent) were male. Participants had an average of 6 years experience in using the Internet. Student respondents are acceptable because they are a major group of Internet shoppers as a recent study reports that more than 70 percent of Internet shoppers fall within the 15 to 34 age group.

To further improve the validity of our findings, we involved both undergraduate and postgraduate students, who have full-time employment. Participation in the study was voluntary. Subjects were provided with an incentive of winning a lucky draw with an approximate US$400 worth of gift vouchers.

Results

Before testing our research hypotheses, value raw data was checked for possible violation of statistical distribution assumptions, relatively more-important value types were identified, and value importance was categorized. These procedures will be described in detail in the following paragraphs.

First, we transformed the values raw data into five higher-order value type scores. The scores represent the degree of importance an individual attaches to that value. Among the five higher-order value types, a person may attach high importance to one or more higher-order value types. Therefore, a way for identifying the relatively more-important higher-order value types is needed. Schwartz (2003) suggested a way to fulfill such purpose. It involves comparing the respondent’s higher-order value type scores to those in the reference group.

In addition to identifying the relatively more-important higher-order value types, Schwartz (2003) also categorizes the value types according to their relative importance to an individual. In this study, we categorized the importance level of values to an individual by high, medium, and low. If one’s value type score is above or equal to the top 33 percent of the total value type score


2Following the studies of Schwartz (1992), Morris et al. (1998), and Feather (1995), the value raw data was first transformed into 10 value type scores for each participant. The value type score of a particular value was obtained by averaging the scores of the value items representing that particular value type. Subsequently, we transform the 10 value type scores into 5 higher-order value type scores.
of all respondents for a particular value type, one is considered to attach high importance to that value type. However, if one is below or equal to the bottom 33 percent of the total value type score of all respondents for a particular value type, he/she is considered to attach low importance on that value type. If the value type score of a person neither falls in the top 33 percent category nor the bottom 33 percent category, he/she is considered to attach medium importance to that value type.

Consistent with the categorization scheme of values, customers’ level of desire toward each feature was also categorized into high, medium, and low. Therefore, a three-by-three model, which crossed three importance levels of values (high, medium and low) with three levels of desire toward features (high, medium, and low), was ready for analysis.

**Hypotheses Testing**

Chi-square tests were used to test whether or not individuals who are high in a particular value type are also significantly high in the level of desire toward a particular feature that matches their value type. Since we have a total of eight hypotheses, we decided to adopt a more conservative test criterion by dividing the standard significance p-value of 0.05 by the number of hypotheses (i.e., eight) and set the significance level at 0.00625. The results of the fits and misfits between values and features are presented in Table 3.

The results are largely consistent with our predictions. There is evidence to support that the provision of emotional features that fit customers’ values increases their desirability toward the features. As shown in Table 3, H1, H2, and H3 are significantly supported, which shows a fit between values and emotional features. A person who has a certain value type desires certain emotional features that match his/her value type. Also consistent with our expectation, the insignificant results of H1a, H2a, H3a, and H4a show that customers have a lower desirability toward the features when there is a misfit between values and features. H4 was not supported (p = 0.034), although the result approached to the significance level of acceptance.

**Table 3. Results of Hypotheses**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Posited Relationships about Fit and Misfit between Values and Features</th>
<th>Somer’s d p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Hedonism values → activation and surgency features.</td>
<td>***</td>
</tr>
<tr>
<td>H1a</td>
<td>Hedonism values → specifying and training features.</td>
<td></td>
</tr>
<tr>
<td>H2</td>
<td>Power values → superiority features.</td>
<td>***</td>
</tr>
<tr>
<td>H2a</td>
<td>Power values → specifying and training features.</td>
<td></td>
</tr>
<tr>
<td>H3</td>
<td>Self-transcendence values → affection and serenity features.</td>
<td>***</td>
</tr>
<tr>
<td>H3a</td>
<td>Self-transcendence values → specifying and training features.</td>
<td></td>
</tr>
<tr>
<td>H4</td>
<td>Conservation values → confidence features.</td>
<td></td>
</tr>
<tr>
<td>H4a</td>
<td>Conservation values → specifying and training features.</td>
<td></td>
</tr>
</tbody>
</table>

“_____ values → _____ features” depicts that individuals with certain values will desire certain emotional features.

“_____ values → _____ features” = A fit

“_____ values → _____ features” = A misfit

*** denotes significant at 0.00625 level (0.00625 is a quotient of 0.05/8)

**Discussions**

Based on the results of H1, H2, and H3, we understand that people desire Website features that match their value types, and that people have a low desire for the Website features that mismatch their value types. Presumably this is because these features can better fulfill their needs. If Website designers could strategically design Website features to suit customers’ values, their emotional needs could be better fulfilled. Arguably, they may also be more satisfied with the Website containing the feature.
Overall, the results point to the need for Website designers to provide Website features that match online shoppers’ values. A fit usually leads to higher desirability toward the features than a misfit. In the following paragraphs, we discuss the significant results observed and their implications for Website design.

- **Hedonistic individuals desire activation and surgency features.** The result of H1 suggests that hedonistic individuals desire activation and surgency features presumably because the features fit their values. As an example, e-portals could apply attractive color match and flashy animation (activation features) in their Websites. Online sport stores could place an online game (surgency feature) on their Websites to promote sport shoes. The online game could simulate an athlete wearing a pair of sport shoes and kick a football into a goal.

- **Power individuals desire superiority features.** The data of H2 suggests that power individuals desire superiority features presumably because the features fit their values. As an example, to appeal to power customers, online airline companies could introduce a VIP membership scheme (superiority feature) that offers exclusive rights and benefits to its prestigious power customers.

- **Self-transcendent individuals desire affection and serenity features.** The result of H3 shows that self-transcendent individuals desire affection and serenity features presumably because the features fit their values. As an example, to fulfill self-transcendent customers’ needs for caring about others and nature, online fast-food shops may display a logo in their Websites showing that part of the profit will be donated to an environmental-friendly organization (affection feature). Another example is to place a friend’s wish list (serenity feature) in an online bookstore. The wish list allows customers to buy their friends a gift on their list. With this, the customers can show care to the friend and build a harmonious relationship with them.

- **Conservative individuals do not desire confidence features.** H4 was not supported, although the p-value of the relationship between conservation values and confidence features is close to significant (p = 0.034). Perhaps the confidence features we provided were not strong enough to convince the conservative customers that the Website is competent. In future research, we could strengthen the design of confidence features. However, this weak effect between conservation values and confidence features is indeed predicted. While we expect that the relationship between conservative individuals and confidence features is, at best, a weak one, the empirical result of H4 actually shows that the provision of confidence features has a weak effect on increasing conservative individuals’ desirability toward the confidence features. This could be because of the fact that conservative individuals resist change and are likely to be late adopters of innovative online shopping. Given that they have a low intention to adopt online shopping in the first place, they may not desire the added confidence features.

- **Customers have low desire toward features that misfit their values.** Comparing the results of H1 and H1a, H2 and H2a, and H3 and H3a, we suggest that a fit between values and features is more desirable than a misfit. The provision of features that match the customers’ value type is generally more effective than the provision of mismatching features. Therefore, Website designers should provide features according to the values so that customers’ needs can be fulfilled.

- **Specifying and Training Features as a Representation of Functional Features.** By theory, people with utilitarian values will desire functional features because functional features better fit their functional needs and requirements. Following the above argument, if the specifying features and the training features are representative of the functional features, utilitarian individuals should significantly desire the specifying and the training features. Therefore, to ensure that the specifying and training features are representative of the functional features, we test the relationship between utilitarian values and specifying and training features. Results show that people with utilitarian values significantly desire specifying and training features (p < 0.01). This suggests that specifying and training features are representative of the functional features.

**Limitations**

As with most empirical research, this research has several limitations. Therefore, care must be taken when interpreting the results. First, 63 percent of the subjects are final-year university students who are between 18 and 22 years old. The extent to which the results can be generalized across different sectors and different age groups of the Internet user population could be limited. Nevertheless, we attempt to alleviate this problem and enhance the generalizability of the results by including postgraduate students. The postgraduate students represent 36 percent of the subjects. They have a variety of full-time jobs, and are diversified in age, income, and educational background. After adding the postgraduate sample, the age range of the entire sample is enlarged...
to 23 to 50. The subjects should be representative of the Internet user population because the 20 to 50 age group forms over half of the Internet users in the United States.5

Second, in practice, it is quite infeasible to ask online customers to fill in the 44-item value survey because it is too cognitively taxing for customers to do so. We do not propose nor suggest using the 44-item value survey to profile or segment online consumers. Rather, this study attempts to establish the validity and usefulness of using values as a way to segment customers. Now that we have found that values is indeed useful, future research could develop and test a simpler measurement of values by refining the existing value scales or inventing new measurements of values. Websites could also start the long process of collecting customers’ value information. Over time, Websites can track customers’ shopping behavior, analyze their shopping pattern, and request that they provide some personal information. By combining these small pieces of information, Websites can better understand customers’ values as a whole. Overall, we believe that collecting customers’ value information is a long-term process, but this process is worth conducting because it gives us ways to better fulfill customers’ needs and perhaps increase their overall satisfaction level.

Conclusions

Building on the traditional idea that emotions play an important role in brick-and-mortar shopping, this research brings the idea to the online context and has opened up a new area of investigation. With the empirical evidence, the provision of emotional features for fulfilling online shoppers’ emotional needs is found to be crucial in online shopping.

In addition, an understanding of customer values might be vital in designing Website features to fulfill customer needs. Results from this research suggest that values play an important role in determining one’s level of desire toward Website features. Website designers could rely on the areas of fit identified in this research to strategically provide Website features that better fulfill customers’ desirability needs. This research not only contributes theoretically to the academic arena, but also gives some useful guidelines to practitioners.

Theoretical Contributions

Marketing research has long recognized that emotions are an important aspect in shopping. Appealing to customers’ emotions is a well-established strategy for promoting customer satisfaction and consumption behavior. However, the important role of emotions has not yet been widely examined by IS research. To fill this gap, this research primarily applies the theoretical understanding of emotions from the psychology and marketing disciplines to the context of electronic commerce in IS research. The concept of emotions is found to be vital in electronic commerce because online customers have great emotional needs in such an emotionally detached online shopping environment.

In addition, a substantial body of IS research has investigated various methods for improving personalization and enhancing customer satisfaction in the context of electronic commerce. Although many methods for achieving personalization have been investigated, these methods usually lack either theoretical bases or systematic empirical support. This research has put forward a systematic way of achieving personalization. Our results suggest that people who have certain values desire certain Website features that match their values. Presumably this is because the features better fulfill their needs. This serves as a starting point for future research.

Practical Contributions

Other than security concerns, the second most widely cited reason for not shopping online is the unsatisfactory online experience. Therefore, increasing user’s desirability toward features is imperative in improving online sales.

To raise customer satisfaction, many online stores focus their resources on enabling an effective and efficient online shopping process. They develop powerful applications and systems that help customers fulfill many functional purposes. Without doubt, these functional systems are important and necessary, but they cannot completely fulfill customers’ needs, especially their

emotional needs. The results of this study suggest that apart from the necessary functional features, emotional features are an inevitable component in Website design.

Our results also suggest that providing Website features that match users’ values may be a potential way to increase online shoppers’ satisfaction. In practice, Website designers can provide features to customize consumers’ values.

Apart from encouraging shopping in the commerce sectors, provision of emotional features and adopting personalized Website designs may also promote adoption in other areas such as government bodies, educational organizations, and charities. These organizations can also apply the findings from this research to encourage online adoption of their products and services.

**Overall Conclusion**

This research expands the current understanding of Website design. Website design is no longer limited to the provision of powerful functional features for customers to accomplish their online tasks in an effective and efficient way. This research brings emotions, which are a crucial but unattended element, into consideration in the online context. Emotional satisfaction of customers is important for increasing browsing frequency, purchasing intention, and adoption. Our findings are encouraging; they support our belief that emotional Website features play an important role in the context of electronic commerce. Our findings also confirm our belief that human values are a fruitful theoretical concept, useful in investigating online shopping. Overall, this study not only brings two important concepts, emotions and values, into the study of electronic commerce, but also provides a solid theoretical framework for future studies investigating online customer profiling and segmentation.

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