Exploring gender differences in online shopping attitude

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**Abstract**

While attitude and gender are important factors that affect online shopping behavior, toward online shopping attitude remains a poorly understood construct. Moreover, very few studies, if any, have explicitly addressed gender differences in online shopping attitude. Using attitude as a multidimensional concept to include cognitive, affective, and behavioral components, the present study examines gender differences across the three attitudinal components. The results of empirical testing demonstrate three distinct components of online shopping attitude and significant gender differences in all three attitudinal components. The results also show that the largest gender difference is in the cognitive attitude, indicating that females value the utility of online shopping less than their male counterparts do.

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1. Introduction

The substantial growth and steady increase of online sales stimulate great interest in understanding what impacts people’s decisions to participate in or refrain from shopping online (Cho, 2004; Glassberg, Grover, & Teng, 2006; Kim, Williams, & Lee, 2003; Korzaan, 2003; Liao & Cheung, 2001; Pavlou & Fygenson, 2006; Sanchez-Franco, 2006; Wu, 2003). Accordingly, better understanding of online shopping attitude is critical for designing and managing effective websites that can help businesses attract and retain online customers.

Although the number of Internet users is equally divided among the genders, more men than women engage in online shopping and make online purchases (Rodgers & Harris, 2003). This gender gap in online shopping drew attention to the role of gender in online shopping and factors that affect men’s and women’s intention to buy online (Rodgers & Harris, 2003; Sanchez-Franco, 2006; Van Slyke, Comunale, & Belanger, 2002). Gender difference in online shopping have been examined from various perspectives such as perceived risk of online buying (Garbarino & Straehlivitz, 2004), website usability and design (Cyr & Bonanni, 2002), and technology acceptance (Chen, Gillenson, & Sherrell, 2002; Porter & Donthu, 2006; Sanchez-Franco, 2006).

While studies of online shopping attitude are widespread in the literature, studies of gender differences in online shopping attitude are scarce and reported findings are inconsistent (Cyr & Bonanni, 2005; Dittmar, Long, & Meek, 2004). An extensive review of online shopping literature by Chang, Cheung, and Lai (2005) shows that more men than women buying online in some studies and no significant gender differences in online shopping behavior between the genders in other studies. Likewise, a more recent review by Zhou, Dai, and Zhang (2007) demonstrates conflicting findings pertaining to the impact of gender on online shopping activities. Thus, gender differences in online shopping attitude deserve more attention and better understanding.

Dittmar et al. (2004) suggest that neglecting emotional and social aspects of online shopping may contribute to the mixed and inconsistent findings. While attitude represents a multidimensional variable with cognitive, affective, and behavioral components (Fishbein & Ajzen, 1975), most studies use attitude as a unifactor concept, focusing primarily on its affective aspect. Using attitude as a multidimensional concept can enhance understanding of gender differences in online shopping attitude. Accordingly, this study aims to fill this void and examine online shopping attitude as a multi-component concept and investigate gender difference in the cognitive, affective, and behavioral components of online shopping attitude.

2. Research background

2.1. Gender difference in computing

Studies of gender differences in various computer-related beliefs, attitudes, and behaviors are abundant in the literature. Table 1 presents a snapshot of studies focusing on gender difference in

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behaviors related to computer and technology settings. The summary in Table 1 shows that: (1) very few studies focused on gender differences in online shopping, and (2) even fewer studies, if any, examined gender differences in online shopping attitude.

Despite the widespread proliferation of Internet-based and online commercial applications, females and males harbor diverse perceptions and attitudes toward online shopping. In comparing conventional with online shopping, Dittmar et al. (2004) report that men’s attitude stay much the same in both shopping environments whereas women’s attitude change substantially and become less favorable toward online shopping. In addition, Cyr and Bonanni (2005) indicate that men spend more time and money on online purchases than do women.

Van Slyke et al. (2002) point out gender differences in other online shopping characteristics such as compatibility, complexity, result demonstrability, and relative advantage. In examining gender difference in online transaction security, website design, website trust, website satisfaction, and e-loyalty, Cyr and Bonanni (2005) show significant gender differences in beliefs regarding website design, website trust, website satisfaction, and e-loyalty, with men having more favorable perceptions than women.

With a few exceptions, explicit research studies to address gender differences in online shopping are scarce (Dittmar et al., 2004). As a result, little is known about males’ and females’ perceptions of online shopping and what impacts men’s and women’s decision to engage in or abstain from online shopping (Cyr & Bonanni, 2005). Furthermore, literature reviews of online shopping indicate that results concerning gender differences in online shopping environments are mixed and inconsistent (Chang et al., 2005; Zhou et al., 2007).

Zhou et al. (2007) suggest three explanations for gender differences in online shopping. First, women’s shopping orientation is different from that of men. While men prefer convenience over social interaction, women are more motivated by emotional and social interaction. Thus, the lack of face-to-face communication or social interaction offered by online shopping may deter more women than men from shopping online (Dittmar et al., 2004). Second, the types and characteristics of products that are available on online seem to favor males (Van Slyke et al., 2002). Products that are more associated with men such as computers and electronics are amply available and can be easily purchased online. Whereas products that are more associated with females such as food, home décor, and clothing may not be widely available online. Thus, women may view online shopping as less compatible and less accommodating than conventional shopping. Finally, women prefer and enjoy physical evaluation of products such as seeing and feeling the product before they buy it (Cho, 2004; Dittmar et al., 2004).

Although businesses can provide very clear images and animations of their products on their website, customers cannot touch or feel these products.

2.2. Attitude

Attitude is a key concept in the theory of reasoned action (TRA) (Ajzen and Fishbein, 1980). TRA provides theoretical framework to numerous studies of online shopping behavior (e.g. Cho, 2004; Korzaan, 2003; Pavlou & Fygenson, 2006). Attitude refers to a learned predisposition to respond in a consistently favorable or unfavorable manner to an object, event, or stimulus (Fishbein & Ajzen, 1975). This definition implies that attitudes develop over time as people gain experience with the object or receive knowledge about the object from other sources. Then, the formed attitude stimulates actions or behaviors toward the object and, based on their attitude, people perform positive or negative actions.

Attitude is a multidimensional construct with cognitive, affective, and behavioral components (Fishbein & Ajzen, 1975). The cognitive component refers to what a person knows about an object, e.g. knowing that online shopping is a convenient way for shopping. The affective component concerns the extent to which an individual likes or dislikes the object. Lastly, the behavioral component pertains to the behavioral intention, covert, or overt actions toward the object; what type of action a person will take regarding the given object (e.g. online shopping). A person’s knowledge (cognition) and liking (affect) of the object influence his/her behavioral attitude toward the object.

Attitude attracts considerable research attention and plays a significant role in other online applications such as e-banking (Ahn et al., 2007; Gao & Koufaris, 2006; Liao & Cheung, 2002; Lin, 2007; Pavlou & Fygenson, 2006). In most studies, attitude shows a positive relationship with online shopping (Chang et al., 2005). Furthermore, Chang et al. (2005) use online shopping attitude as the key dependent variable in the framework they developed to synthesize and map findings in online shopping research.

However, the extent of the relationship between attitude and online shopping is not collectively consistent across studies (Glassberg et al., 2006). For example, Zhou et al. (2007) indicate that the path coefficient between attitude and online shopping intention varies in strength from 0.77 in some studies to 0.35 in others. They attribute the fluctuation in the effect of attitude to the use of different definitions and conceptualizations of attitude. They point out that some studies focus on the cognitive component of attitude (i.e. pros and cons of online shopping) whereas other studies use the affective component of attitude (i.e. liking or feelings toward online behavior). Furthermore, Bruner and Kumar (2002) indicate that available scales for measuring web attitudes are not psychometrically equivalent and different conclusions can be drawn depending on which scale is used.

Some studies acknowledge that online shopping attitude is a multifactor construct. In the context of using technology acceptance model (TAM) examine the acceptance and use of web technologies, Glassberg et al. (2006) distinguish between cognitive and involvement attitudes. They maintain that incorporating a component of attitude in TAM enhances the explanatory power of the model. A factor analysis data collected from 198 university staff and students about intention to shop online for 17 different products reveals three underlying components of online shopping attitude (Sorce, Perotti, & Widrick, 2005). They identify these components as convenience, information, and shopping experience and find that the three factors explain more variance in predicting online buying. While these studies are among the first studies to acknowledge that online shopping attitude is a multidimensional construct and provide better insights into the impact of attitude.

Table 1

<table>
<thead>
<tr>
<th>Study</th>
<th>Examined belief/behavior</th>
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<tbody>
<tr>
<td>Cyr and Bonanni (2005)</td>
<td>Perceptions of website characteristics</td>
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<tr>
<td>Garbarino and Strahilevit (2004)</td>
<td>Risks of online shopping</td>
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<td>Gefen and Straub (1997)</td>
<td>Acceptance of an email system</td>
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<td>Hartzel (2003)</td>
<td>Computer self-efficacy and system usage</td>
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<tr>
<td>Ilie, Van Slyke, Green, and Lou (2005)</td>
<td>Acceptance of communication technologies</td>
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<tr>
<td>Kay (2006)</td>
<td>Computer ability, attitude, and use</td>
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<tr>
<td>Ong and Lai (2006)</td>
<td>E-learning acceptance</td>
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<tr>
<td>Sanchez-Franco (2006)</td>
<td>Perceptions of website usage</td>
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<td>Simon (2001)</td>
<td>Satisfaction with website design</td>
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<td>Teo and Lim (2000)</td>
<td>Patterns of Internet usage</td>
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<tr>
<td>Van Slyke et al. (2002)</td>
<td>Perceptions of online shopping</td>
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<td>Venkatesh and Morris (2000)</td>
<td>Technology use</td>
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<td>Young (2000)</td>
<td>Students’ computer attitude</td>
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on online shopping, they are exploratory in nature and do not examine gender difference in attitude or its components.

In studying attitude, Breckler (1984) recommends that a priori method is vital for classifying measures of cognition, affect, and behavior. He also suggests that confirmatory, rather than exploratory, approach is more appropriate to examine components of attitude. Accordingly, this study intends to address the aforementioned deficiencies and provide better insights into understanding online shopping attitude by: (1) recognizing online shopping attitude as a multifactor construct with three distinct and correlated components of cognition, affect, and behavior, and (2) explicitly examining gender differences in the three subcomponents of online shopping attitude.

3. Methodology

3.1. Experimental design

Data were collected from 80 students enrolled in an electronic commerce course at a Midwestern university. Of the 80 participants, 36 (45%) were females and 44 (55%) were males. The average age of participants is 22.54 years with a standard deviation of 1.73 years. All participants have majors within the college of business.

Participation in the study was voluntary and no credit was given in exchange for participation. Students were assured that the survey is anonymous and individual responses could not be identified. It was also made clear to participants that the aggregates of their responses would be used for data analysis purposes only. Finally, participants were assured that neither their participation in the study nor their responses bear any impact on their performance in the course.

For more accurate assessments of consumers’ beliefs about online shopping, Cyr and Bonanni (2005) recommend using less known websites to minimize the compounding effects of brand name and company reputation on examined relationships among variables and to ensure that attitude develops upon visiting the website (Bruner & Kumar, 2002). Thus, a careful search was done to identify a suitable website for the purpose of this study. To that end, a gender-neutral website that sells skating shoes/accessories was deemed appropriate and was selected for this study.

Prior to the experiment, students were asked whether they had visited or used the selected website before and they all indicated that the website was unfamiliar to them. Then participants were asked to go to a computer laboratory to navigate the given website and search for a kid’s skating shoe (with specific size and color). Once they find the product, participants were asked to perform the first few steps of placing an online shopping order (until they were required to provide personal or financial information) for the required products. After finishing the navigation and ordering tasks, participants completed the research questionnaire.

3.2. Measures

Based on the theoretical foundation of the attitude construct and empirical studies, nine statements were adapted and used to measure the underlying components of online shopping attitude. Three statements were used to measure the affective component: (1) I do not like to shop online (reversed), (2) Online shopping makes me feel happy, and (3) I feel excited when I shop online. The cognitive attitude was measured by the following statements: (1) Online shopping is a wise way to shop, (2) Online shopping is useful to people, and (3) Online shopping is an effective way to shop. The behavioral attitude was measured by three statements: (1) I plan to buy from this website in the future, (2) I intend to buy from this website in the future, and (3) I expect my purchases from this website to continue in the future. Response to all statements were measured by a seven-point scale ranging from (1) strongly disagree to (7) strongly agree.

4. Results

Table 2 presents the results of the confirmatory and reliability analyses. All items (in boldface), with the exception of one affect item, demonstrate high loading (>0.80) on their intended factor and low loading on other factors (<0.50). Cronbach was used to evaluate construct reliability. As Table 1 indicates, all constructs show high internal reliability (α > 0.80).

Table 3 presents the correlation estimates among the underlying components of attitude along with the means. The correlations among the three attitudinal components as are high and significant, with cognition having the strongest correlation with the other two components. All correlation estimates are below the 0.80 threshold to suspect the presence of multicollinearity (Bryman & Cramer, 1994). Furthermore, male’s means are noticeably higher than those of females in all three attitudinal components. Females’ cognitive attitude toward online shopping is the lowest and behavioral intention to shop online is high among males and females.

Gender differences in attitudinal components were tested using t-tests and Table 4 presents the results of the t-tests. All gender differences across the three attitudinal components are significant, with men’s demonstrating more favorable online shopping attitudes than women. The largest gender difference is in cognitive attitude and the lowest is in affective attitude.

5. Discussion

The present study distinguishes among the underlying components (cognition, affect, and behavior) of online shopping attitude...
and examines gender differences in the three attitudinal components. The results provide strong support for both objectives. Empirical results identify three distinct and valid components of online shopping attitude and reveal significant gender differences across the three attitudinal components.

Overall, men's cognitive, affective, and behavioral online shopping attitudes are higher than those of women, suggesting that online shopping may not be as attractive or appealing to women as it is to men. These results corroborate past studies which report similar findings. For instance, Dittmar et al. (2004) indicate that women have more positive attitude toward conventional than online shopping and men's attitudes do not differ significantly between conventional and online shopping.

Females' cognitive attitude toward online shopping is markedly lower than that of men. According to attitude theory, cognition of an object or stimulus plays a key role in affect and behavioral intention toward that object. Thus, women's low cognitive attitude may explain their low affection toward online shopping and their modest online shopping activities. Since cognitive attitude pertains to understanding pros and cons of an object (Zhou et al., 2007), this finding suggests that females are still unconvinced or skeptical about the benefits of online shopping. Similarly, this finding may suggest the females are still concerned and apprehensive about the risks and threats associated with online shopping (Garbarino & Straehilevitze, 2004). Thus, businesses aiming to attract more female online consumers need to focus their efforts on increasing females' awareness of the benefits associated with online shopping. Likewise, mitigating females' uneasiness about online shopping is pivotal to attracting and retaining female online shoppers. For instance, implementing online referral mechanism or offering discounts for first-time users or visitors may help consumers overcome their negative perceptions of and alleviate their doubts about online shopping.

Affective attitude of females is lower than that of males. This finding provides empirical support for Dittmar et al. (2004) study which reports that females place greater emphasis on the emotional and psychological experiences linked to online shopping. They maintain that women prefer conventional shopping over online shopping because of the lack of social and interpersonal interactions in online shopping whereas men prefer online shopping because of its functional benefits such as convenience, economy, and efficiency.

The affective attitude of females toward online shopping is not high as that of males. This is not surprising given that cognition represents a strong antecedent to affective attitude. Thus, in addition to attempts to enhance females' cognition of the utility of online shopping, additional efforts are needed to enhance females' liking of online shopping. For example, businesses can utilize online forums, chat rooms, and provide incentives for consumers to share their experiences with other online consumers to enhance social and interpersonal experiences in online shopping (Zhou et al., 2007). As Dittmar et al. (2004) suggest, while functional benefits of online shopping act as facilitators for women to shop online, social and emotional factors act as barriers. Thus, increased focus on the emotional aspects of online shopping such as providing dynamic or instant feedback or information on products may improve women's online social experiences and enhance their affection to online shopping.

Affect in online environments can be enhanced by careful design of websites (Zhang & Li, 2005). For example, Cober, Brown, Keeping, and Levy (2004) show that affective reactions to an employer website play a role on the extent to which a job seeker becomes attracted to an employer. They also suggest that affective feelings toward a website can be greatly enhanced by improved website design such as unity (consistency) and increasing users' sense of playfulness when interacting with the website. Organizational attempts to enhance website design and make it more attractive and appealing to its target audience may foster more affective feelings and enhance attitude toward website.

Men demonstrate higher behavioral intention to shop online than women. Attitude theory presents the behavioral component of attitude as a function of the cognition and affect components. Since females show lower cognitive and affective attitudes than males, their behavioral intention to shop online is lower. This finding is consistent with the suggestion that attitude plays a stronger role in women's online shopping behavior than in men's (Sanchez-Franco, 2006). Accordingly, greater understanding the value of online shopping (cognition) or improvements in social and emotional experiences in online shopping (affection) are likely to boost online shopping behavior among consumers. Finally, the results of this study provide empirical support for classifying motives for online shopping into goal-oriented (cognition) and fun (liking) factors (Sorce et al., 2005).

For research, this study attempts to fill avoid in the literature by addressing an issue that has received very little or no attention in past research. For instance, Glassberg et al. (2006) maintain that attitude is not adequately examined in past studies and much less attention investigates its underlying dimensions. On the contrary, most past studies in information system literature focus on the cognitive aspect of attitude and studies in online shopping literature focus on the affective and behavioral aspects attitudes. Furthermore, Fishbein and Ajzen (1975) suggest that complete description of attitude requires that all three components of attitude be evaluated for a fair test of the relationship between attitude and behavior. Consistent with these recommendations, this study recognizes and empirically tests the three attitudinal components.

The present study reveals that the three components of online shopping attitude are conceptually and empirically distinguishable and extends past studies of attitude into online shopping behavior. Glassberg et al. (2006) assert that the power of online attitude to predict behavioral intention can be greatly enhanced by expanding the attitude construct to include cognitive and involvement attitudes. Furthermore, the results of the current study provide additional empirical support for the three components of attitude (Breckler, 1984). Thus, this study makes theoretical and empirical contributions to enhance understanding of online shopping attitude.

6. Limitations and future research

This study has a few limitations that need to be pointed out and recognized when interpreting the results. One obvious limitation is the use of students as a proxy for online consumers. However, the use of student samples and educational settings is widespread in e-commerce and online behavior research (e.g. Cyr & Bonanni, 2005; Dittmar et al., 2004; Gao & Koufaris, 2006; Glassberg et al., 2006; McElroy, Hendrickson, Townsend, & DeMarie, 2007; Zhang & Li, 2005) and the patterns of findings in online shopping behavior are similar among student and non-student samples (Ahuja, Gupta, & Raman 2003). More recently, Zahedi and Song (2009) used student participants to study the impact of website design on beliefs in e-commerce.

Another potential limitation is the use of behavioral intention to measure the behavioral component of attitude (Chang & Cheung, 2001). While numerous studies show strong positive relationship between intention and actual online buying behavior (e.g., So, Wong, & Sculli, 2005), future studies need to employ covert and overt online shopping behaviors such as the number of online purchases. Using data about one website which sells one type of products may present another limitation of the results. Past research suggests that product characteristics impact consumers’ acceptance of online shopping (Lian & Lin, 2008; Shih, 2004). Thus, future studies should consider using other websites and different types of products.
In addition to research addressing the limitations pointed out above, several worthwhile areas for future research emerge from this study. First, future research may investigate which component of online shopping attitude has the strongest impact on online shopping behavior and under what conditions. For instance, Fazio and Zanna (1981) argue that the impact of the affective component of attitude on behavior will be stronger in situations in which attitude develops through direct personal experience. Thus, a valuable area for future research is to examine conditions under which the three components of attitude will exert the greatest impact on behavior. This line of research helps businesses to better allocate resources and focus their efforts on the attitudinal component that is more relevant to their environment in order to yield better returns and increase online sales.

Other demographic characteristics such as age, education, and income (Porter & Donthu, 2006) and personal characteristics such as consumer life style and shopping preferences (Wu, 2003) have significant effects on Internet usage. Thus, future research can consider these examine the impact of other demographic characteristics and examine their impact on online shopping attitude to help businesses develop more accurate profiles of their intended consumer base.

Finally, each attitudinal component has unique antecedents (Breckler, 1984). Therefore, identifying antecedents of online shopping attitudinal components is a worthwhile effort. Attitude toward online shopping is a prevalent construct in electronic commerce (Bruner & Kumar, 2002) and several reviews of factors affecting online shopping attitude are available in the literature (e.g., Chang et al., 2005). Such reviews and summaries provide a solid foundation on which to build future studies.

References


