

# A STUDY ON INFLUENCES OF GENDER DIFFERENCES ON SOCIAL PRESENCE FEATURES

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## ABSTRACT

With the increase in Internet-based sales, attracting and retaining online customers has become the most important part of running a successful business. In order to maintain customer loyalty, website designers should consider providing gender sensitized user experience as men and women have been known to have different perceptions of online shopping. Women tend to prefer shopping experience that creates connection with other humans. Online shopping experience, in general, can be perceived as lacking human warmth and sociability as it is devoid of interactions with other humans. However, to date, influence of social presence (interpreting human warmth and contact electronically) on e-Loyalty across genders has been relatively underexplored. In this research-in-progress paper, we present a research model to study the effects of gender differences on social presence cues in retail websites. As a part of future work, we plan to use survey methodology to analyze and validate the research model.

## Keywords

Gender, social presence, design, website, e-Loyalty, online shopping, e-Tailing

## INTRODUCTION

Online shopping is one of the prominent Internet-based activity due to availability of ever increasing number of diverse consumer products through retail websites. According to Forrester Research report, US online retail sales will reach \$334 billion by end of year 2015 and it is projected to grow to \$480 billion by 2019 (Mulpuru et al. 2015). Report also indicates that 69% of US population with Internet connectivity regularly buys products online. Clothing, consumer electronics, and computers product categories generate about a third of all US online sales. Product categories like furniture and auto parts that are trailing behind in online sales are expected to surge in next five years as shoppers become more comfortable researching and buying these products online. This prospective growth presents opportunities and challenges for retail website designers as they need to balance usability and performance aspects with satisfying user experience for shoppers.

Online retail (e-Tailing) is advantageous for both businesses and customers. Businesses can reach customers at any location for nominal cost without incurring expense on maintaining multiple stores and managing store employees. Similarly, customers can purchase products of their interests conveniently online without visiting a physical store. However, e-Tailing also presents some disadvantages for both businesses and customers. In regards to customers, one of the major disadvantage of online shopping is the lack of human connection. In comparison to in-person shopping experience, online shopping seems to be more impersonal, anonymous, and an automated activity (Cyr et al. 2007). Shopping is an enjoyable experience and shopping malls have become entertainment centers (Kumar and Benbasat 2002). Businesses face harder challenge of creating similar socially-rich experience in online environment. Hence, retail website designers should include design features that not only provides a better user experience but also creates human warmth for their customers.

Designers can counterbalance the lack of human warmth by including social cues in websites. Illusion of a human presence created by these social cue features is called social presence. Social presence can be described as the sense of being with another in networked environments (Biocca et al. 2003). The sense of another can be created by using mediated representation of humans via texts, images, and animated avatars or using interactions with virtual agents like remote human agents and automated customer service assistants. Social presence features can be used to provide customized and enhanced user experience for consumers. Studies have shown that social presence features can create significant difference in satisfactory levels of user experience among genders (Bracken 2005; Cyr et al. 2007).

In the retail context, gender differences play a crucial role in providing satisfactory user experience (Cho and Jialin 2008). Brick and mortar stores can customize shopping experience based on gender preferences. For example, sales associates can be trained to engage with a shopper to provide gender sensitized information and store's interior can be designed to reflect gender preferred atmosphere (Bäckström and Johansson 2006; Bui et al. 2012). Studies have shown that women tend to browse more, enjoy higher level of uniqueness, and value quality interactions with sales associates. Men tend to have 'get in and get out' mentality, thus prefer stores that provide relevant product information and efficient shopping experience (Bui et al. 2012). When it comes to online shopping, gender-based user experiences are not clearly delineated. Prior research in e-Tailing context has indicated that gender differences play an influential role on profits as women are less likely to make a purchase when they are less satisfied with online shopping experience (Garbarino and Strahilevitz 2004).

Apart from shopping experience, gender differences also play a significant role in developing customer loyalty (Cho and Jialin 2008). Success of a business is measured by its profits. To generate profits, e-Tailing business rely on number of sales made through their websites. Customer loyalty has a large impact on business financials as even a small increase in loyal customers can result in elevated profits (Reichheld and Schefter 2000). Acquiring new customers is always more expensive than retaining existing customers (Reichheld and Schefter 2000). Thus, e-Tailing businesses need to focus on retaining loyalty of existing customers to ensure they will visit the website for their next purchase (Pullman and Gross 2004). Prior research indicates that women tend to be loyal to individual service providers (like sales associates) as they value social interactions whereas men tend to be more loyal to the business (Melnyk et al. 2009). Thus, creating gender sensitized shopping experience in retail websites is key for attracting and retaining customers.

In this research, we aim to further our understanding of customer loyalty among genders within the e-Tailing context, with an emphasis on two under-explored factors: social presence features and user experience. While there have been some research on impact of social presence on shopping behavior and generating trust among customers (Cyr et al. 2007; Gefen and Straub 1997), gender based loyalty within the context of social presence and subsequent user experience needs further examination. Conducting research on gender differences is important as information systems researchers need to understand effects of lack of social presence in websites on user experience. This research is important for designers as they need to understand how to satisfy customers of different genders and retain their loyalty. Gender specific product retailers like Victoria Secret may cater largely to women but also depend on male customers to make gift purchases. Hence, website designers would need to balance their need to deliver better experience without alienating opposing gender preferences. In this research-in-progress paper, we propose a research model to study influences of gender differences on social presence and user experience, and its subsequent impact on customer loyalty in the context of online retail.

## RESEARCH MODEL

There has been little research into the influence of social presence features in websites and gender differences in the e-Tailing context. Since providing a better online shopping experience is critical for e-Tailing websites, the primary objective of this research is to examine whether there are differences among genders in regards to user experience and online customer loyalty (e-Loyalty) when social presence features used in the e-Tailing websites. Figure 1 shows the research model that will be used for this examination.

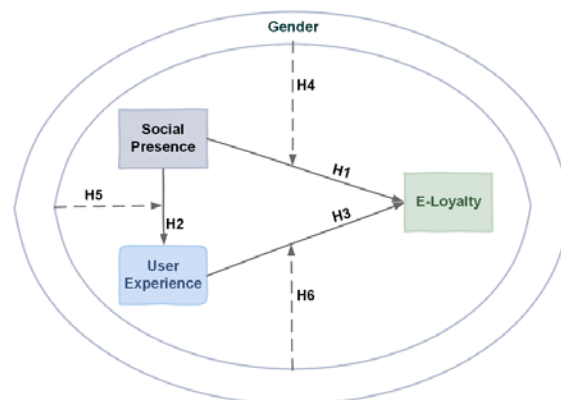


Figure 1. Research Model

### Social Presence and e-Loyalty

As mentioned in the introduction, lack of human warmth and presence in websites can be addressed to some degree by including social cues in the webpages. Social presence features establish a psychological connection with the user who perceives the

website as warm, personal, sociable, thus creating a feeling of human contact (Yoo and Alavi 2001). Examples of features that establish social presence are personalized greeting, socially rich content like images (Gefen and Straub 1997), and videos (Kumar and Benbasat 2002). Social presence has been found to be helpful in reducing ambiguity, increasing trust, and encouraging users to purchase with lower levels of dissonance (Simon 2000). Furthermore, it has been shown that social presence is strongly related to purchase intentions and attitude towards a website (Gefen and Straub 2003). The study by Simon (2000) indicates that information rich websites that contain social presence cues are more likely to encourage purchases than those that do not. Information rich websites use short information text to provide clear message to online consumers. In an online retail store, visual display of products could influence the user's purchase intention and eventually increase the company's sales (Then and DeLong 1999) which in turn would lead to development of e-Loyalty. Visual displays of products including images of the product as being used by other humans and three dimensional view of the product are known to increase purchase intention of online consumers (Then and DeLong 1999). Hassanein and Head's (2007) study indicates higher the user perception of social presence, higher the levels of trust with the online retail company. Thus, if the site displays the product in a visually appealing format as other humans using it and provides relevant textual descriptions, the process of shopping would be efficient thus leading to the development of e-Loyalty among customers. Accordingly, we expect customer's perception of social presence will affect their intention to revisit or make a purchase from an e-Tailing website. Hence we hypothesize that:

H1: Usage of social presence features (text and images) in the e-Tailing website will positively impact e-Loyalty.

### **Social Presence and User Experience**

In contrast with traditional brick and mortar store, e-tailing customers typically do not interact with sales associates or other humans while shopping. Instead, they interact with an online store through a user interface that enables them to initiate the desired transactions themselves. Social presence features are essentially an approximation of face-to-face communications (Cyr et al. 2007). We, therefore, argue that usage of social presence features in e-Tailing websites will not only be purposeful but pleasurable for site visitors as it would be an approximation of interaction with other humans. Thus, social presence can create satisfying user experience that will make consumers more likely to return to a specific e-Tailing website. Hence we hypothesize that:

H2: Usage of social presence features (text and images) in the e-Tailing website will positively influence perceived user experience.

### **User Experience and e-Loyalty**

Attracting and retaining customers has become the most important part of running a successful business. Thus, understanding how to create e-Loyalty by retaining existing customers in online environments is a complex process. In order to maintain e-Loyalty, e-Tailing sites should provide customized user experience. Online consumers want both information and entertainment aspects of shopping experience to be satisfied (O'Brien and Toms 2008). Website quality characteristics such as novelty (Toms 2000), aesthetics (Lavie and Tractinsky 2004), as well as feedback, navigability, user control, and interactivity (Huang 2003) have been demonstrated to impact user's shopping experience. Poor website design and usability can create barriers to engaging shopping experience (O'Brien and Toms 2008). For instance, when the pleasure of online shopping is hampered by a website's poor navigational structure, users feel that they lack control over the interaction with the online store, thus, users are left feeling distraught and unsatisfied.

A good website design engages and attracts online consumers (Agarwal and Venkatesh 2002). Studies suggest that e-tailing websites should be designed for a targeted customer segment (Gommans et al. 2001). Further studies shed light on visual appeal of the website, that the modes of information presented and the quality of graphics have a significant impact on user experience (Chau et al. 2000). Websites with high visitor traffic are known for its ease-of-use interface, enhancing the users' skills, and establishing long term relationship with buyers and sellers (Chen et al. 2007) as well as acting as a success predictor of the online business (Tarafdar and Zhang 2007). Customers are more likely to visit and make a purchase from websites that exhibit highly desirable qualities. For example, Amazon's 1-click checkout is a website attribute designed to create smoother and faster purchasing process. This creates a perception of good performance and fast service provided by the company's online store. Amazon.com has built their user experience around trying to increase the likelihood of visitors making online purchases. This can be noted from their homepage which is designed to provide customized shopping experience i.e. the main content on the homepage is based on how the user has interacted with the product search feature in the past. To effectively engage the user, elements of website quality come into play that contribute positively to the user experience. Since website is constructed based on website attributes, scrutinizing website attributes and its role in contributing to quality of overall site can help researchers to determine critical website attributes influencing website quality and e-Loyalty. Therefore, we expect that customer's user experience with the site will affect their intentions to remain loyal and revisit the site with an intention to make a purchase. Hence, we hypothesize that:

H3: Satisfactory user experience with the e-Tailing website will positively impact e-Loyalty.

#### **Moderating Effects of Gender Differences**

Sociolinguists suggest that online purchase and communication, including e-commerce, should be investigated with gender as a central social aspect, since male communication pattern is in the form of social hierarchy, while female pattern is more network oriented (Tannen 2007). Previous researches have shown that male and female judge e-commerce capabilities differently, women focusing more on trustworthiness and the ability to share opinions and ideas whereas men focusing more on value gained through the purchase (Awad and Ragowsky 2008; Cho and Jialin 2008; Rodgers and Harris 2003). Furthermore, females more often seek information cues than males before making decisions to purchase a product while males use the recommendation of experts when making a purchasing decision (Cleveland et al. 2003). Based on findings of above studies, we can assert that there is a link between gender differences and online shopping behavior, but the exact cause and nature of the influence will be based on a multitude of factors. In the context of our study, we believe that gender differences has significant influence on links among social presence, user experience, and e-Loyalty constructs.

Several studies in the past have concluded that males and females differ in their processing of information (Holbrook 1986); and that males and females respond differently to tasks and stimuli (e.g. pictures versus text) (Meyers-Levy 1988). The studies revealed that females respond to non-verbal cues by evoking more associative, imagery-laced interpretations, and elaborate descriptions than males (Gilligan 1993). While making a judgement, females are also more sensitive to relevant information presented online than males (Meyers-Levy 1988). A study on perceived intimacy (i.e., social presence) and posting behaviors in social networking sites indicates that gender plays an influencing role (Rau et al. 2008). Most online postings are opinionated and aggressive which can be seen as inhospitable environment. Their findings indicated that prevalence male oriented communication style in social networking sites had negative affect on perceived intimacy for females (Rau et al. 2008). Thus, communication style portrayed in the product display and information presented in the website will play an influencing role on gender perceptions. Therefore, we expect that the gender differences may moderate relationship between social cues presented via social presence features and a consumer's purchase intention (therefore, e-Loyalty). Hence, we hypothesize that:

H4: Gender differences on perceived social presence will moderate relationship between social presence and e-Loyalty.

Following above arguments, communication style used within social presence features can potentially have varying impacts on perceived user experience depending upon one's gender perceptions. In a study on gender differences on motivations towards online games indicates that, regardless to gender differences, all players socialized while playing online games and were interested in collaborating with other players (Yee 2006). However, findings revealed that gender differences played an influential role on expectations towards socialization. Female players more so than male players had greater appreciation of community, social structure, and interpersonal pleasure (Yee 2006). If we extrapolate their findings to online shopping environment, we can expect gender difference on satisfactory user experience resulting from information presented in the social presence features used in the e-Tailing websites. Thus, we expect that gender differences may moderate relationship between social presence features and satisfactory user experience. Hence, we hypothesize that:

H5: Gender differences on perceived social presence will moderate relationship between social presence and user experience.

Although many studies have revealed that user experience is a precursor to e-Loyalty (Cyr and Bonanni 2005), moderating role of gender on relationship between user experience and e-Loyalty has been rarely examined. Positive emotions towards the website can prompt consumers to return to the site with intention to make a purchase, which can be considered as e-Loyalty (Rodgers and Harris 2003). Studies with some mixed results indicate that gender could play a role as predictor of dissatisfaction (negative emotions) with online shopping (Cyr et al. 2007; Rodgers and Harris 2003). Website design is an important differentiator in regards to gender differences on perceived online shopping experience (Cyr and Bonanni 2005). In particular, women more than men tend to expect higher level of product information cues, organized site navigation, visual appeal of the site, and degree of interaction with the site (Cyr and Bonanni 2005). Therefore, we expect gender difference to play a moderating role on relationship between user experience and e-Loyalty. Hence, we hypothesize that:

H6: Gender differences on perceived user experience will moderate relationship between user experience and e-Loyalty.

#### **RESEARCH METHODOLOGY**

In order to test the research model and hypotheses developed, we will be employing survey methodology with online shoppers. This research will progress in three phases. First phase will involve development of fictional e-Tailing websites, survey instrument, and validating experimental setup including instrument. Tasks for the experiment will involve browsing an online product catalog and placing an order for a product. After completing the task, participants will be asked to complete an online questionnaire. The experiment will be designed as one-factorial study with five independent groups. We will be developing five versions of a fictional e-Tailing website manipulating different levels of social presence. First version will be the basic

version of the site which contain only text based product descriptions. Second version will be built on top of first version with inclusion of product display photos. Third version will include relevant product videos to the first version. Fourth version will include product reviews from other online shoppers to the first version. Fifth version will include all options. Creation of five different website versions will ensure there is sufficient variations in participants' perception of social presence, which in turn adds to rigor of the research model validation. We will be conducting extensive analysis of literature to develop constructs for the survey. Whenever possible existing survey items will be used with appropriate modifications for e-Tailing context. The survey will consist of four sections – demographic, social presence, user experience, e-Loyalty, and open-ended questions. Survey items for social presence will be adapted from Gefen and Straub (2003), items for user experience will be adapted from Hassanein and Head (2007) and Cyr et al. (2007), and items for e-Loyalty will be adapted from Cyr and Bonanni (2005) and Cyr et al. (2007). Participants will be asked to respond to each survey items on a 7-point Likert scale ranging from 'very strongly disagree' to 'very strongly agree'. We will be validating the survey instrument and experimental task instructions using Delphi method with at minimum five online shoppers to ensure wordings are clear, concise, and comprehensible. Second phase will involve conducting pilot test of the experimental task and instrument, and full launch of the study with random online shoppers. During the pilot, we will be testing the psychometric properties of the questionnaire as well as identifying and resolving any potential technical errors that could impede data collection. After the pilot, we will be obtaining permission from institutional review board to conduct the study. We will be utilizing snowball sampling approach to obtain online shoppers with social network sites such as Facebook and LinkedIn as starting nodes. Third phase will involve evaluation of the research model using structural equation modeling technique such as Partial Least Square (PLS) method.

## CONCLUSION

Men and women have been known to have different perception of online shopping. Women tend to be less satisfied online shopping environment due to lack of human connection. Website designers can use social presence features to create a sense of connection with other humans electronically. Influences of social presence features on e-Loyalty and adoption of e-Tailing across genders has been relatively underexplored. Cyr et al. (2007) study is only one which have extensively investigated influence of gender differences and social presence on e-Loyalty. Cyr et al. (2007) study focused only main effects of relationship between social presence and e-Loyalty, whereas we will be focusing on both main and interaction effects. Along with gender difference as moderator, we will study interactions with other potential moderators such as age, years of experience with using Web, weekly usage of Web, education background, and ethnic/cultural background. Studying these interactions will help us in determining whether strength in relationship between our constructs of interest is influenced more by gender differences or by some other individual level or contextual moderator. A research on influence of gender towards social presence features in e-Tailing websites could contribute to our understanding of gender preferences in online environments, allowing researchers to predict and measure differences among user interfaces, and guide the design of customized interfaces tailored for gender sensitive e-Tailing websites.

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