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## THE IMPACT OF SOCIAL PRESENCE AND USER EXPEREINCE ON GENDER SENSITIVE E-TAILING WEBSITES

by

Dishi Shrivastava

A thesis submitted to the School of Computing in partial fulfillment of the requirements for the degree of

Master of Science in Computing and Information Sciences

## UNIVERSITY OF NORTH FLORIDA SCHOOL OF COMPUTING

December, 2017

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## ABSTRACT

Internet has come afar, from connecting computers to connecting people. Since its early days, the use of Internet has evolved tremendously. People use the Internet today in a variety of different ways, including communicating with friends, family, co-workers and performing activities like paying bills and shopping. With the increase in electronic retailing (e-Tailing), attracting and retaining customers has become the most important part of running a successful business. However, the online shopping experience may be viewed as lacking human warmth and sociability as it is more impersonal, anonymous, automated and generally devoid of face-to face interactions. Thus, understanding how to create electronic loyalty (e-Loyalty) by retaining existing customers in online environments is a complex process. To maintain e-Loyalty, e-Tailing sites should provide customized user experience. Men and women have been known to have different perception of online shopping. Women tend to be less satisfied because of lack of human connection in online shopping environment. To date, how social presence (interpreting human warmth and human presence electronically) affects e-Loyalty and adoption of e-Tailing across genders has been relatively underexplored. 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 customized for gender sensitive e-Tailing websites.

In this research, we developed a research model based on extensive literature review. We developed a survey instrument to measure predictability of the model and used t-tests, principal component analysis and linear and multiple regression analysis to analyze and validate the model. We conducted an extensive survey of social presence and user experience design features, and synthesized survey response with the above methodologies using SPSS. The study revealed social presence and user experience factors that positively affect gender experience in development of e-Loyalty. Based on the analysis of survey responses, we conclude that gender plays an important role in determining the state of social presence and user experience and user experience for e-Tailing websites to create e-Loyalty among customers.

#### Chapter 1

#### INTRODUCTION

In the last two decades, online shopping has witnessed an ever-increasing number of consumer purchases and availability of diverse consumer products. Since attracting new customers and retaining them is a critical factor for success of a business, there has been widespread attention on customer loyalty and acceptance.

Online shopping is one of the most prominent services available through the Internet today. According to statisca.com, the projected estimated growth of online retail shopping is the U.S. was \$236 billion dollars by the end of 2015 (Online shopping, 2015) and \$443 billion by the end of 2017, based on Census Bureau data (Intelligence, 2017). Online shopping has been widely accepted as means to sell their products in retail industry. The businesses have been able to reach more customers at nominal cost as compared to physical brick and mortar structure. Businesses do not need to pay for expensive shop premises, store maintenance costs (electric bills, insurance), and store employees. They can also target new customers in remote locations that don't have access to physical stores. Products can be sold to customers all over the country/world and not just in the area where the shop is located.

Online shopping has many advantages for customers as well. They can shop from any place and don't need to travel to a physical store. The choices of products in a physical retail store are limited due to limited amount of space. However, in the online world, customers have several websites to learn and compare existing products. But one of the major disadvantages of this model is the lack of human connection since it is more impersonal, anonymous and automated compared to in-person shopping experience (Head, Yuan, & Archer, 2001). Kumar and Benbasat (2002) stress that in this era of new retail, "shoppers have become guests, shopping has become an experience and malls have become entertainment centers with communities". Hence, the online shopping environment should include design features that create human warmth experience for their customers.

The social aspect of shopping has been proven to be associated with positive emotions that have been linked to increase in intention to make a purchase and increase in time spent at the store. (Jones, 1999). Hence, businesses face a major challenge to make their website socially-rich (Kumar & Benbasat, 2002).

To compensate for the lack of human warmth, social cues can be added to a website. Examples of social cue features could include video clips, photographs, picture of a sales person and interactive live chats. Social cue features create an illusion of a human presence which is referred to as social presence (Lombard & Ditton, 1997).

Social presence is defined as the experience of 'being with another' in networked environments (Frank Biocca, 2003). A network communication can be described essentially as a person using a medium to be with another. The 'another' in this case can be a technology mediated representation of humans in form of texts and images or interactions with virtual agents like animated avatar and automated customer service assistants. For example, the sense of 'being with another' using a representation of human form could be created by using a set of pixels shaped into emoji. Example of interaction with virtual agent would be voice from the speaker or customized greeting. Techniques of designing representations of others to evoke social presence have a long history going back to the first stone sculpture to evoke a sense of some other being in the mind of an ancestral observer (Frank Biocca, 2003).

Gender perception and differences play an important role in defining overall satisfaction and developing loyalty (Cho & Jialin, 2008). In a brick and mortar store, preferences of men and women can be easily targeted to create a better shopping experience. For both genders, goals of a business would be to customize shopper experience and improve customer loyalty. For example, for women, sales associates are trained to be helpful and friendly, and store's interior design reflects gender preferences. For men, the store would display a large variety of product selection and relevant information (Keng Kau, Tang, & Ghose, 2003). When it comes to online shopping the differences are not clearly defined. For women, website designer can probably reduce the amount of text information; add graphics, social networking links, coupons and customer service availability. For men, businesses would consider offering new products regularly, increase the product information and make it more detailed.

Hence the gender preference problem can be tackled by leveraging knowledge and information of impact of social cues to deliver a better experience for target customers. The most important factor used for measuring success of a business is profits. For generating profits, e-Tailing businesses heavily rely on number of sales made through their websites. E- Tailing businesses need to retain existing customer loyalty to make sure they will always come back to the website for their next purchase. (Pullman & M.A.Gross, 2004). It is always more expensive to acquire new customers than to retain existing customers (Griffin, 2010). Customer loyalty has a large impact on a firm's financials. (Reichheld & Schefter, 2000). Even a small increase in loyal customers can result in elevated profits and value to a firm. (Heskett, Sasser, & Schlesinger, 1997).

To make up for the lack of human connection, social cues can be helpful in improving user experience and maintaining customer loyalty. Social presence can be used to customize and enhance user experience based on gender preferences. Examples may include audio, video, personalized greeting and pictures. In this study, social presence refers to perceptions of the user that the website has human contact, and is personal, sociable, warm, and sensitive.

#### 1.1 Problem Statement

The need for a well-explicated research arises because previous research in which gender related attitude and experience have been examined suggest that women are less likely to make a purchase online because they are less satisfied with online experience. (Garbarino & Strahilevitz, 2004) Also, it has been suggested that men and women perceive website elements differently; women prefer more emotive elements as compared to men, which can be a reason for lack of satisfaction with online shopping among women (Rogers & Harris, 2003).

This thesis is aimed to further expand the understanding of e-Loyalty among gender within an e-Tailing context, with emphasis on two under-explored elements: (1) social presence, and (2) user experience elements. Some researchers have explored the impact of social presence on shopping behavior or generating trust among customers (Gefen & Straub, 1997). However, gender based loyalty has not been examined within the context of social presence and user experience design elements. This is important not only because researchers need to understand the existing lack of human presence and warmth in computer interaction, but also conduct research on how customers of different genders can be satisfied by establishing e-Loyalty with manipulation of social cues and user experience design features of an e-Tailing websites. If we can understand what the customers (with different genders) expect out of a website to maintain their loyalty, the web designers and marketing experts could use that knowledge to attract and retain more customers with higher levels of satisfaction and personalization. We tested gender differences that might relate to perceived social presence, user experience design elements, and development of e-Loyalty through a sample of 160 female and male responses collected via a survey instrument.

#### Chapter 2

#### BACKGROUND AND LITERATURE REVIEW

#### 2.1 e-Loyalty

The Internet remains a critical channel for selling goods and services. Companies like Amazon and Yahoo distribute their products and services only through web channels. More and more retail stores these days have established a web presence offering an online channel to purchase their products. Generating revenue through an online store is one of the key priorities for e-Tailing businesses. Customer loyalty is considered important because of its effect on long-term profitability. Jill Griffin (2002) stresses that, the longer a company retains a loyal customer, the more profit it can generate. A company can boost profits by 25-85 percent through increasing retention by as little as 5 percent. Increased loyalty can bring cost savings to a company in at least six areas: (1) reduced marketing costs; (2) lower transaction costs, such as negotiation and order processing; (3) reduced customer turnover expenses (fewer lost customers to replace); (4) increased cross-selling success, leading to larger share of customer; (5) more positive word-of-mouth; (6) and, assuming loyal customers are also satisfied, reduced failure costs (reduction in rework, warranty claims and so forth) (Griffin, 2002). But the benefits of loyalty and its effect on profitability go well beyond cost savings. As usage increases, so does profit margin. The high costs of acquiring new online customers can lead to unprofitable customer relationships for up to three years (Reichheld & Schefter, 2000) (Reichheld, Jr., & C.Hopton, 2000). Therefore, it is crucial for online companies to

create a loyal customer base. However, few companies seem to succeed in creating electronic-loyalty (e-Loyalty), and little is known about the mechanisms involved in generating customer loyalty on the Internet.

Customer loyalty was defined by Oliver as "a deeply held commitment to rebuy or patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing effort having the potential to cause switching behavior" (Oliver, 1999). This definition would apply to e-Loyalty as well. Another study defined e-Loyalty as "the customer's favorable attitude toward and electronic business, resulting in repeat purchasing behavior" (Anderson & Srinivasan, 2003). Not only do loyal customers increase sales and profits of the business, they also enable it to reduce costs associated with attracting new customers. Since the competition is just a mouse click away, e-Loyalty appears to be essential for e-Tailing websites both in an economic as well as a competitive sense (Semeijn, Riel, M.J.H.Birgelen, & S.Strevkens, 2005).

## 2.1.1 Phases of E-Loyalty

Many studies have attempted to define loyalty and factors affecting e-Loyalty. Literature reveals three approaches that measure loyalty in different aspects. These are behavioral, attitudinal and composite approaches (Jacoby & Chestnut, 1978). According to behavioral approach, loyalty is defined as a routine buying behavior of same brand, in other words, buying products/services from the same store on a regular basis. On the other hand, the

attitudinal approach focuses on not only the outcomes of behavior but also on the factors generating loyalty (Odin, Odin, & Valette-Florence, 2001). To further explain the concept, a customer who shops at the same place regularly is "behaviorally" loyal, while a customer who tells others how great a product is, or has a positive impression about the business internally, is "attitudinally" loyal. Behavioral loyalty is important because it means a customer is purchasing products and thus increasing sales. However, an unhappy customer can be easily enticed to shop elsewhere, either by existing or future competitors.

Cunningham (1961) and East et.al (1995) state that repeat visiting of a store is not adequate to understand all aspects of customer loyalty. For that reason, to identify the entire scope of customer loyalty, attitudinal approach must be taken into consideration. Oliver (1999) developed a four-stage e-Loyalty model to measure attitudinal loyalty, which classifies four different dimensions of loyalty including cognitive, affective, conative, and action loyalty. Oliver implied that different aspects of loyalty do not emerge simultaneously, but rather consecutively over time. e-Loyalty will be developed when a customer has a preference (cognitive stage) to the website, developing a positive attitude (affective stage) towards the website, has the intention to revisit the website or intention to make a purchase (conative stage) but not necessarily engage in purchasing behavior, and finally revisits the website and purchases the products (action stage). It should be noted that a customer achieves the four stages of the model in a linear order, i.e., a customer can achieve conative stage only after achieving cognitive and affective stages correspondingly. For this study, we are interested in Conative e-Loyalty which focusses on customer's intention to revisit the website or intention to make a purchase.

Phases of e-Loyalty	Identification and example	
Cognitive	Loyalty towards information about the website like prices, brand, features etc.	
Affective	Loyalty to a personal opinion of liking towards a website for reasons including satisfaction, personal choice, attraction towards brand image.	
Conative	Loyalty to an intention of revisiting the website for reasons like promotions, marketing strategies, website performance and satisfaction	
Action	Loyalty to action of making a purchase on the website for personal reasons like personal needs, established brand preference, enhanced liking, product superiority and satisfaction.	

Table 1.Summary of phases of e-Loyalty

## 2.1.1.1 Cognitive Loyalty

At this stage, consumer loyalty is determined by information relating to the offering, such as price, quality, and so forth. Cognition can be based on prior knowledge or on recent experience-based information. It is the weakest type of loyalty, since it is directed at costs and benefits of an offering and not at the brand itself (Oliver, 1999).

## 2.1.1.2 Affective e-Loyalty

At the second stage of loyalty development, a liking or attitude toward the brand has developed based on cumulatively satisfying usage occasions. It can be based on many reasons including satisfaction, personal choice, and attraction towards brand image. Similar to cognitive loyalty, affective loyalty is also subject to deterioration, caused primarily by an increased attractiveness of competitive offerings (Oliver, 1999).

#### 2.1.1.3 Conative e-Loyalty

Connation implies brand specific commitment to re-purchase (Oliver, 1999). Conative loyalty is the intention to revisit a website for any number of reasons. Conative loyalty implies that attitudinal loyalty must be accompanied by a desire to intend an action, for example revisiting the website to make a repeat purchase. It is stronger than affective loyalty, but has vulnerabilities as well. Customers are more likely to try alternative offerings if they experience lack of satisfaction (Oliver, 1999).

Applying Oliver's loyalty framework to this study, conative e-Loyalty refers to e-Loyalty towards the attributes or features provided by a website which in turn leads to a customer's intention to make a purchase or revisit the website in the future. In this study, perceived social presence and user experience are considered the determinants of conative e-Loyalty towards an e-Tailing website.

## 2.1.1.4 Action e-Loyalty

The study of the mechanism by which intentions are converted to actions is referred to as "action control" (Kuhl & Beckmann, 1985). In this stage, the motivated intention in the conative loyalty state is transformed into readiness to act. By this stage, the customer has developed an enhanced liking, or even an established preference, for the e-Tailing website because of the quality (information) and continued ability to satisfy.

## 2.2 Perceived social presence

Social presence can be defined as the "degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships" (Short, Williams, & Christie, 1976). It is a subjective quality of communication medium. This means the degree to which a person is perceived as a "real person" in mediated communication. Short, Williams, & Christie (1976) define social presence as a quality of the medium itself and hypothesize that communications media vary in their degree of social presence, and that these variations are important in determining the way individuals interact. The capacity of the medium to transmit information about facial expression, direction of looking, posture, dress and nonverbal cues, all contribute to the degree of social presence of a communications medium. They observed that the use of television rather than audio-only communication makes for greater intimacy, other things being equal. Two main social psychology concepts associated with social presence are intimacy and immediacy. Intimacy is dependent on nonverbal factors like physical distance, eye contact, smiling and personal conversation topics whereas immediacy is a "measure of the psychological distance that a communicator puts between himself or herself and the object of his/her communication" (Gunawardena & Zittle, 1997). A person making a telephone call may choose to speak in such a manner as to give an impression of aloofness and "distance" (non-immediacy) or he or she may choose to adopt an attitude of informality and comradeship (immediacy). Thus, social presence can be expressed through verbal cues, for example tone of voice, and can also be conveyed with non-verbal cues for example posture, dress or facial expression immediacy. Based on this

theory, communication media such as face-to-face meetings, which can convey nonverbal and social context cues, are considered to have higher social presence than computermediated communication media and written documents because they lack nonverbal feedback cues (King & Xia, 1999). Presumably, the higher intimacy and immediacy the medium has, the higher the social presence (Trevino, Webster, & E.W.Stein, 2000).

St. Jude Medical' website, as shown in figure 1, is an example of a business utilizing effective social cues to create a sense of warmth and personalization for its customers. The website has a clean, uncluttered interface with webpages featuring photography of patients along with a quote on how the company helped them. This approach helps humanize an organization that may otherwise be considered scientific and cold (Hamilton, 2012).



Figure 1. Use of social presence cues in a website.

## 2.2.1 Using modern technologies to induce social presence

Most of the modern-day communication and interface technology is designed to increase social communication. Examples of evolving social presence technologies were researched by Frank Biocca (2003) which includes collaborative work environments, mobile or wireless tele communications, and tele conferencing which are interactions that are a substitute of face-to-face interaction. Another example would be artificial intelligence beings such as intelligent agents that act as virtual customer service agents, office assistants, characters in social 3D virtual environments, and team members or opponents in computer games (Frank Biocca, 2003).

"Ask Jenn" feature in figure 2, on Alaska Airline's website is an example of using a virtual sales assistant used to create a sense of warmth and personalization for its customers. The interface features a photograph of a real human being, reading text and uses causal text for conversation to induce human presence.



Figure 2. Use of avatar as a virtual customer service agent

## 2.2.2 Social presence determining e-Loyalty

Consumers' perception of social presence can be enhanced through website interface elements that provide personal interaction with other humans. Hassanein and Head (2007) categorized these features into two categories of website features that can have potential impacts on perceived social presence:

 Features providing means for actual interaction with other humans, including online communities, message boards, online chat, e-mail after-sales support and human web assistants. Example: Web-based consumer opinion platforms and social media integration.

 Features stimulating imaginary interaction with other humans, including socially rich text and picture content, personalized greetings, human audio and video. Example: Media interactivity.

#### 2.2.2.1 Web based consumer opinion

Product and service reviews provide an opportunity to read other consumer's opinions and experiences. Customers can share their personal interests and result in a feeling of ownership hence improving the company's reputation by sharing that information. This has been proven to promote a trusting relationship between customer and business (Hennig-Thurau, K.P.Gwinner, G.Walsh, & D.D.Gremler, 2004). Another study suggests that a rate and review technique can be used to help customers in the decision-making process customized by their individual interests and needs (Kim & Shrivastava, 2007). The recommendation system could be considered as an advisor in helping consumers make a smart and informed decision.

In the figure 3 below, Yelp offers a consumer opinion portal with rate and review techniques. Customers also have the option to upload pictures, comment on food, and rate the overall service, affordability and share on popular social media websites.



Figure 3. Example of consumer opinion/rate and review website.

## 2.2.2.2 Social Media Integration

E-Tailing websites can incorporate social media into their website by linking social networking websites like Facebook and Twitter to their websites so customers can write and read reviews and share with their friends and family before making a purchase. According to Smith (2010), it was revealed that more than 40% of customers check reviews and customer feedbacks on a particular product online before making a purchase and out of which 60% of them will visit a social networking website to do so. Also, 23% of customer who check reviews on social media expected the seller company to respond to comments posted on social networking sites. This calls for social media integration to keep up with the consumer demand and questions (Smith, 2010).

In the below example in figure 4, www.Shopify.com, a popular software company, selling online web store is offering collaboration with Facebook to sell online products on this famous social media website. This feature can help webstore owner to increase the number of customers and word of mouth marketing by targeting specific customers on a social media website.

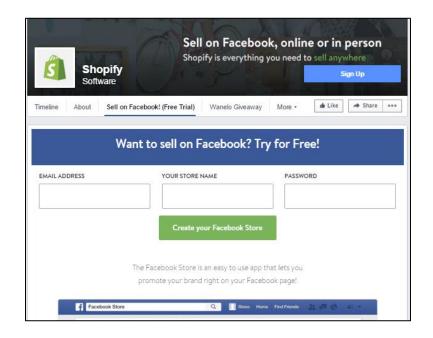


Figure 4. Example of incorporating social media in an online store.

## 2.2.2.3 Media interactivity

E-Tailing websites can induce social presence with pictures, graphics, animations, personalized texts, etc. to generate a positive emotion. Hassanein and Head (2007) suggest that interactive media such as pictures and content richness can create a social presence similar to personal pictures and letters. Use of natural and informal language can be

interpreted as psychological warmth and closeness. Customers showed an interest towards online products when there were emotive descriptions of touch properties and social-rich context such as an example in description of towel: "its soft looped design feels smooth and comfortable against your skin", was more appealing to customers than the same towel described as: "100% Egyptian cotton, white, 30cm x 54cm" (Hassanein & Head, 2007). In the below example in figure 5, www.o2.co.uk effectively uses social media cues like pictures and playful casual text to induce a sense of human presence in their online customer service feature to personalize their services.



Figure 5. Example of using media (text and image) to induce social presence.

In this thesis study, we focus on social cues and user experience, thus we will be using "interactivity of media" as a factor in our research. By helping online shoppers evoke the imagination of interacting with other humans, socially rich text and picture have been

empirically shown to be an effective way of increasing online shoppers perceived social presence (Hassanein & Head, 2007).

Furthermore, compared with its counterparts like human audio and video, socially rich text and picture (if given proper size and resolution) are easy to access on Internet because they do not require much bandwidth. The above factors are summarized in Table 2.

Factors	Examples	Author
Web-based consumer opinion	Eopinions.com, acop.com, consumerreview.com	(Hennig-Thurau, K.P.Gwinner, G.Walsh, & D.D.Gremler, 2004)
platform	Amazon.com rate and review feature, eBay reviews, YouTube video reviews.	(Kim & Shrivastava, 2007)
Interactivity of Media	Human audio and video, socially-rich photograph, socially-rich text content, natural- informal language, emotive description.	(Hassanein & Head, 2007)
Social media integration	Facebook, Twitter, YouTube, LinkedIn	(Smith, 2010)

Table 2. Summary of Social Presence factors that determine e-Loyalty.

## 2.3 Online User Experience

The online user experience is defined as the perceived functional (Zeithaml, Parasuraman, & A.Malhotra, 2002) and graphical (Wang & H.Emurian, 2005) experience of an e-commerce platform by an individual.

In contrast with traditional brick and mortar store, e-Tailing customers typically do not interact with individuals. Instead, they interact with an online store through a user interface that enables them to initiate the desired transactions themselves. Thus, customers are more likely to visit and make a purchase from websites that exhibit highly desirable qualities and improve their overall experience. For example, Amazon's 1-click checkout is a website attribute that can be considered while shopping online by customers who prefer smoother and faster purchasing process. This creates a perception of good performance and fast service provided by the company's online store. To effectively engage the user, elements of website come into play that contribute positively to the user experience. Since website is constructed based on website attributes, scrutinizing website attributes and their role in contributing to overall user experience of a site can help researchers determine critical website attributes influencing user experience and e-Loyalty.

A desirable user experience can be achieved by focusing on website design attributes like appearance (graphical), navigation, ease of use and ease of access (functional) (Lee & S.Lee, 2003). The goal of an appealing website in an e-Tailing business is to encourage customers to return.

We investigate e-Tailing website design from a user's perspective. A number of features necessary for developing a positive user experience of an e-Tailing website are reviewed below.

## 2.3.1 Graphical Experience

The graphical dimension refers to the platform's visual design factors, which gives the customer a first impression of the website (Wang & H.Emurian, 2005). Visual or graphical design is the overall appearance or presentation of a website (Ellahi & Bokhari, 2012) . Appearance refers to a website's presentation, which should rely on a variety of visual design elements, such as text size, color, page layout and font to enhance visual attractive-ness (Lee & S.Lee, 2003). Visual design of a website includes graphical aesthetics design elements which are used to present an overall appealing look. Such design elements play important roles in enhancing both usage and perceived enjoyment of e-Tailing websites, and thus, improving website quality and user experience (Cyr, Kindra, & Dash, Website design, trust, satisfaction, and eloyalty: The Indian experience. , 773-790., 2008). Since visual design is associated with the graphical experience of the website, the attributes such as graphics, colors, fonts, logos, animations, and page layout should direct a customer's attention to specific visual design elements onscreen (Demangeot & J.Broderick, 2006)

Apple.Inc has a popular online store which displays an uncluttered design with high resolution pictures and informal text as seen in figure 6. Apple's homepage simply displays their most recent work and provides a few easily understood categories to help you get to the information you want to see (Johnson, 2010).



Figure 6. Example of an effective graphical design

## 2.3.2 Functional Experience

The functional dimension refers to an online platform's over all organization, ease of accessibility of displayed information (Wang & H.Emurian, 2005) and perceived ease of use (Zeithaml, Parasuraman, & Malhotra, 2002) by a customer.

## 2.3.2.1 Perceived Ease of Access

Perceived ease of access is the ease and speed of accessing while using the website (Parasuraman, Zeithaml, & Malhorta, 2005). Quick access and quick searching can be defined as the efficiency factors of a website. The quick access of web pages and quick searching functions available on a website enables the website users to use the site easily;

thus, the users perceive that the website has a good quality (Ellahi & Bokhari, 2012). Efficiency website attributes are the appropriate structure and simple use of a website that enables the users to input the minimum information while using a website (Parasuraman, Sheridan, & Wickens, 2000).

Amazon.com has built their user experience around trying to increase the likelihood of visitors making online purchases. On the homepage, specific elements make this achievable, such as the search bar as well as the ability to shop by department. Also, to note how the shopping experience is customized to the individual's preferences i.e. the main content on the homepage is based on how the user has interacted with the product search feature in the past (Hamilton, 2012).

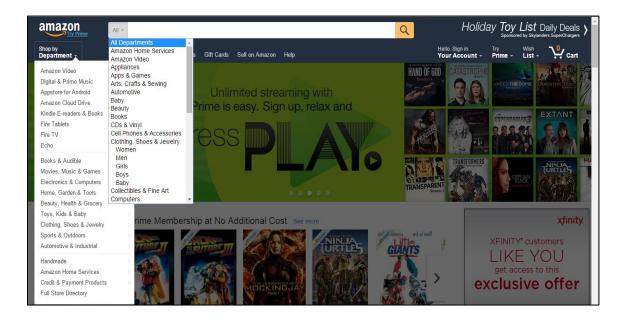


Figure 7. Example of well-designed website with perceived ease of access.

#### 2.3.2.2 Perceived Ease of Use

It is the ability of a website to be used easily by users (Hong, 2003). Ease of use refers to people's perception that it will be effortless to use new technologies (Monsuwe, Dellaert, & Ruyter, 2004). User friendliness of a website can be measured with the ease of use for its users, which means using an e-Tailing website involving minimum effort. Ease of use is considered as one of the key factors that influence people's behavior intention to adopt new technologies because people will be more willing to use a technology if it is easy to use (Monsuwe, Dellaert, & Ruyter, 2004). Therefore, website users are more likely to return to a website which is easy to use. In contrast, if a website is not easy to use, the users are more likely to have negative perceptions, decreasing their revisit intention to the website in the future (Rose & Straub, 2001).

As seen in figure 8, Starbucks utilizes an interactive slideshow of videos to market their latest products and social efforts. It actively engages in social media efforts and links to Starbucks website are easily accessed on the social media homepage (Hamilton, 2012). The navigation design of their check out cart is simple and displays all the steps necessary to complete a transaction.

STARBUCK COFFEE		Sign In 💻 - RIPTION GIFTS & MORE Enter Keyword or Item # 🔍 î My Bag - \$149.00
Item In Ste	ove Save for Later	1. Choose a Checkout Method SIGN IN/CREATE ACCOUNT CONTINUE AS GUEST
One	resso Roast Espresso Verismo® Pods Free Box of Verismo™ Pods with your Purchase of a Verismo® Brewer No:011023633 Price: Quantity: Item Tota \$11.95 1 \$11.95 -\$11.95 \$0.00	2. Shipping 3. Payment
	Subscribe to item (5% off) Enter a Promo Code: APPLY	4. Confirm Order

Figure 8. Example of a good design with perceived ease of use.

Below is Table 3, listing the main variables and its attributes that we will be using in this thesis research paper which lead to the development of Conative e-Loyalty in e-Tailing customers.

Features	Attributes	Author	
Social Presence	Text and images	(Hassanein & Head, 2007).	
User Experience	Perceived ease of use and access	(Rose & Straub, 2001) (Ellahi & Bokhari, 2012)	
Conative e-Loyalty	Intention to revisit or make a purchase.	(Oliver, 1999)	
Gender differences	Individual's perception	(Rogers & Harris, 2003)	

Table 3. Summary of website design features determining e-Loyalty

# 2.4 Gender sensitivity in e-Tailing websites

Hofstede studied the cultural dimensions and differences offering a great deal of insight into the thinking and behavioral differences in gender. The work stresses that gender differences are one of the key cultural differences that exist between human beings (Hofstede, 1980).

Researchers argue that men and women have different norms for conversation interaction thus sometimes causing communication miss-understanding (Coates, 1986) (Gefen & Straub, 1997). For males, communication is based on social hierarchy whereas females tend to be network-oriented (Tannen, 1990). Gefen and Ridings found that women generally go to virtual communities to give and receive social support. In addition, they found that women more favorably assess the capability of others in the virtual community, and the overall quality of the online conversation, in both single-gender communities and mixed-gender communities (Gefen & Ridings, 2005).

Men and women react differently to website designs. They value different capabilities in ecommerce, with women focusing more on trustworthiness and assurance issues and the ability to share opinions and ideas and men focusing more on the value gained though the purchase (Awad & Ragowsky, 2008) (Cho & Jialin, 2008) (Rogers & Harris, 2003). Prior studies found that enjoyment affected e-Loyalty for women, but not for men; and that perceived social presence had a direct effect on e-Loyalty for women, but not for men. Consequently, online shopping may be perceived less favorably by women due to the reduced social interaction as compared to the physical store. Most e-commerce sites are designed to be more aligned with male preferences, and, hence are less attractive to women (Moss, Gunn, & Kubacki, 2006). For this study, we will focus on the gender perception of an e-Tailing website while manipulating elements of social presence cues and website design features including visual design, navigation design, perceived ease of access and perceived ease of use which leads to the development of e-loyalty in customers of gender sensitive e-Tailing websites.

#### 2.5 History of gender difference in shopping behavior

In the olden days, women were typically in charge of household shopping and held more positive attitudes towards the traditional store and catalogue shopping than their male counterparts. Therefore, shopping was an activity more favored by women (Alreck & Settle, 2002). With the evolvement of e-commerce and online shopping, men were found to make more purchases and spend more money online as compared to women (Susskind, 2004). Men's perceptions of online shopping were approximately the same as (Alreck & Settle, 2002) or even more favorable than females (Slyke, Comunale, & Belanger, 2002). This particular change of shopping patterns in online environment among gender has been explained using different factors, including shopping orientation (Rogers & Harris, 2003) (Swaminathan, Lepkowska-White, & Rao, 1999) information technology acceptance and resistance (Rogers & Harris, 2003) (Susskind, 2004) product involvement (Slyke, Comunale, & Belanger, 2002) and product properties (Citrin, Stemb, Spangenberg, & Clark, 2003).

In the past, shopping orientation of men and women were studied which concluded that men were more convenience-oriented and less motivated by social interaction, while women were just the opposite (Swaminathan, Lepkowska-White, & Rao, 1999). The function of shopping online as a social activity is weak compared with shopping in traditional stores. This is due to the lack of face-to-face interaction with sales associates online. Women did not find online shopping "as practical and convenient as their male counterparts" (Rogers & Harris, 2003). Women being more skeptical about e-business than their male counterparts; women were emotionally less satisfied with online shopping and made fewer online purchases than men (Rogers & Harris, 2003).

In the early stage of e-commerce, the types of products available online used to be maleoriented (Slyke, Comunale, & Belanger, 2002). For example, male consumers were more interested in hardware, software, and electronics, while females are more interested in food, beverages, and clothing. Women did not shop online because they could not find products that interested them. (Slyke, Comunale, & Belanger, 2002). Women also demonstrated a stronger need for sense of touch in product evaluation than men (Citrin, Stemb, Spangenberg, & Clark, 2003). The inability to touch or try on products also resulted in fewer female online shoppers. This characteristic affects online purchase negatively, particularly for those products that require more physical contact for their evaluation (for example: shoes) (Citrin, Stemb, Spangenberg, & Clark, 2003). An infographic by Khalid Saleh in figure 9, CEO of Invesp, impressively displays the differences in gender perception and reasoning behind developing a dislike towards online shopping as compared to traditional shopping (Saleh, 2012).

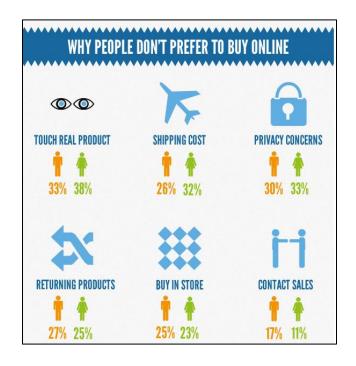


Figure 9. Statistics on gender differences towards online shopping

## 2.6 The need for targeting female customers

According to U.S. Department of commerce, e-Retail market will reach \$279 Billion at the end of 2015 (Commerce, 2015). According to Kit Barmann, women represent the largest market opportunity in the world, controlling \$20 trillion in annual consumer spending globally (Barmann, 2014). Women are responsible for \$7 trillion in consumer and business spending in the United States, and over the next decade, they will control two thirds of consumer wealth (Walter, 2012). Women make or influence 85% of all purchasing decisions,

and purchase over 50% of traditional male products, including automobiles, home improvement products and consumer electronics (Walter, 2012). Therefore, improving online shopping environments to attract female consumers should be a top priority for online retailers. Specific marketing strategies targeting female consumers should be carefully designed to achieve this goal.

2.7 Developing e-Loyalty towards gender sensitive e-Tailing website.

Considering the statistics in the former sections, it become very important for marketing experts, website designers and researchers to understand and create a better and more satisfying experience for both genders to create long term relationships and develop e-Loyalty towards e-Tailing websites. Nielsen research found that women remember more information and in a different pattern as compared to men, hence emotional decision-making opportunities with rational information will increase purchase intent and will have stronger chances of repeat visits to the website (Nielsen, 2013).

# Chapter 3

# RESEARCH MODEL AND HYPOTHESIS DEVELOPEMENT

Past studies imply that gender is an important factor that influences online shopping behavior and loyalty. However, there has been little research into the influence of gender on social presence and user experience in the e-Tailing context. Since providing a better online shopping experience is critical in gender sensitive e-Tailing websites, the primary objective of this research is to examine gender differences in perception towards an e-Tailing website and to determine if conative e-Loyalty can be developed among customers with manipulation of social presence cues and user experience.

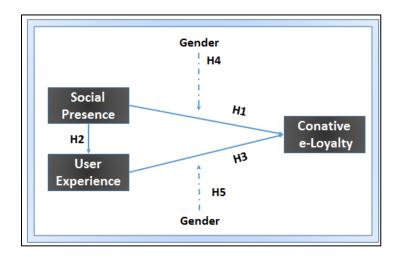


Figure 10. Research Model

#### 3.1 E-Loyalty

As discussed earlier, e-Loyalty can be defined as customer's favorable attitude towards a business resulting in a repeat purchase behavior (Anderson & Srinivasan, 2003). In a brick and mortar setting, customer's favorability can be achieved by friendly attitude of the sales staff, customer service, etc. But in an online setting this becomes a major challenge for the company. Rosen and Puinton's research stated that if a customer likes the design and capabilities of a particular website, they are more likely to revisit the website (Rosen & Puinton, 2004). We must take into consideration that visiting a website might not lead to a purchase. It has been observed that customers would want to access the information online but make a purchase in a physical store. (Wind, Mahajan, & Gunther, 2002). Therefore, for the purpose of this study we will be using "Perceived e-Loyalty" defined by Cry as an intention to revisit the website or make a purchase in the future (Cyr, Kindra, & Dash, 2008).

#### 3.2 Social Presence

As noted in the introduction, lack of human warmth and presence can be manipulated to some extent by adding social cues and content. Social presence creates a psychological connection with the user, who perceives the website as "warm", personal, sociable, thus creating a feeling of human contact (Yoo & M.Alavi, 2004). Examples of features that establish social presence are personalized greeting, socially rich content like images (Gefen & Straub, 1997), and human video (Kumar & Benbasat, 2002). Social presence of websites has been found to help reduce ambiguity, increase trust, and encourage users to purchase

with lower levels of dissonance (Simon, 2001). Similar results were also found in the work of Hassanein and Head (2007) whereas higher user perceptions of social presence on website selling apparel result in higher levels of trust in the online vendor. Accordingly, we expect customer's perception of social presence will affect their intention to revisit or make a purchase (conative e-Loyalty) from an e-Tailing website. Hence, we hypothesize that: H1: Usage of social presence cues will positively influence Conative e-Loyalty.

For the purpose of this study, we refer to social presence as the perception of the user that the website simulates human connection, warmth and emotions which in turn leads to formation of loyalty. In a study by S. J. Simon, he concluded that information rich websites which contains social presence cues are more likely to encourage user purchases on a website than those that do not (Simon, 2001). The text on website always must be short (Nielsen J. , 1999) and informative to ensure that a clear message is delivered to the customers. Furthermore, it has been shown that social presence is strongly related to purchase intentions (conative e-Loyalty) and attitude towards a website (Gefen & Straub, 2003). Thus, we predict that if social presence elements are added to the product to give it a visually appealing format, the process of shopping would be faster thus leading to the development of conative e-Loyalty among customers. Hence, we hypothesize that:

H1a: Consumers' perception of social presence is a significant predicator of online purchase intention (Conative e-Loyalty).

# 3.3 Online User Experience

Prior research stresses on user experience, suggesting that graphical appeal, and functional appeal of how information is presented on the Internet, and the quality of graphics have a significant impact on user experience (Chau, Au, & K.Y.Tam, 2002) . A well-established website will be visually attractive, easy to use, and easy to access which helps develop a long-term relationship between the buyers and sellers (Chen, Zhang, & Huang, 2007) which in turn would lead to development of e-Loyalty.

A good website design will be engaging and attractive to its online consumers (Agrawal & Venkatesh, 2002). Studies also suggest that a website should be designed and customized for targeted customer segment (Gommans, Krishan, & Scheddold, 2001). Hassanein and Head (2007) suggest that interactive media such as pictures and content richness can create a social presence similar to personal pictures and letters. Use of natural and informal language can be interpreted as psychological warmth and closeness. Customers showed an interest towards online products when there were emotive descriptions of touch properties and social-rich context. According to Ellahi and Bokhari (2012), the key factors affecting user's perception of a website include user friendliness, ease of access, navigation, efficiency and, website appearance. In an online retail store, visual appearance of a website could influence the user's purchase intention and thus lead to an increase in company sales (Then & Delong, 1999) (Cristobal, 2006) which in turn would lead to development of e-Loyalty. Therefore, it seems reasonable to assume that the correct use of social presence elements could lead a customer to develop a positive perception towards user experience. Hence, we hypothesize that:

H2: Usage of social presence cues will positively influence user experience.

Research showed that the quality of the decision and the users' attention improve in those websites with high levels of interactivity (Ariely, 2000) (Klein, 1998). Similarly, from the perspective of a customer, a good website structure is clear, easy, effective, and quick to access the needed information (Kim, Shaw, & Schneider, 2003). An easy and simple website layout can facilitate the accessibility of information (Griffith 2005) and attracts more online consumers to search the website. Keeping a user-friendly website layout encourages and maintains the consumers to continue making a purchase (Cox and Dale 2001). A good displayed website structure online user is clear, easy, effective, and quick to access the needed information (Kim et al., 2003). In an e-Tailing environment, user experience could influence the user's purchase intention and thus lead to an increase in sales or purchase intentions (conative e-Loyalty) (Cristobal, 2006). In order to test these factors, we hypothesize that:

H3: Satisfactory user experience will positively influence conative e-Loyalty.

#### 3.4 Gender Sensitivity in e-Tailing websites

Sociolinguists suggest that online purchase and communication, including e-commerce, should be investigated with gender as a central social aspect (Tannen, 1990). Tannen (1990) suggests that male communication pattern is more based on the notion of social hierarchy, while female patterns is more network oriented. Previous researches have shown that male and female assess different capabilities in e-commerce, where women focus more on trust-

worthiness and the ability to share opinions and ideas; and men focus more on value gained through the purchase (Awad & Ragowsky, 2008) (Cho & Jialin, 2008) (Rogers & Harris, 2003). A study indicate that females need more information cues than males before making decisions to purchase a product while males use the recommendation of experts when making a purchasing decision (Cleveland, Babin, Laroche, Ward, & Bergeron, 2006). Based on those factors, there will be a link between gender and online shopping behavior, but the exact cause and nature of the influence will be based on a multitude of factors. The primary constructs that we believe will have a gender difference are social presence cues such as use of text and image, user experience such as graphical (visual design), and functional (ease of access and ease of use) of an e-Tailing website. We will further discuss our research and derive our hypothesis in the proceeding sections. We presume that if customers perceive the e-Tailing website positively, they will be more likely to develop e-Loyalty.

#### 3.4.1 Relationship between gender and perceived social presence.

Several studies in the past have proved that males and females differ in their processing of information (Holbrook, 1986); males and females respond differently to tasks and stimuli (e.g. pictures versus text) (Meyer-Levy, 1989). The studies reveal that females respond to non-verbal cues by evoking more associative, imagery-laced interpretations and more elaborate descriptions than males (Gilligan, 1982). While making a judgement, females are also sensitive to relevant information online as compared to males (Meyer-Levy, 1989). This suggests that the gender differences may contribute to the moderating role for attitudes and online purchase intentions (conative e-Loyalty). Hence, we hypothesize that:

-36-

H4: Individual's gender will moderate the influence of social presence cues on conative e-Loyalty.

# 3.4.2 Relationship between gender and user experience

In previous studies, it was discovered that the influence of perceived ease of use (functional user experience) on intentions to utilize IT is stronger for females than for males, (Morris & Venkatesh, 2000) suggesting a greater impact of perceived ease of purchasing on both attitudes and online purchase intentions for females than for males. A lower computer aptitude among females (Morris & Venkatesh, 2000) may make the influences of perceived ease of use on attitudes and online purchase intentions more salient. Females potentially have higher levels of computer anxiety (Igbaria & Chakrabarti, 1990) and consequently rate the handiness of service and physical environment more highly than males (Hofstede, 1980), implying that the influence of perceived ease of use on IT usage may be moderated by gender, in which it may be stronger for females than for males (David & Venkatesh, 1996). Compared to females in general, a strong pattern is found of men rating practical advancement highly (Hofstede, 1980) by efficiently completing tasks of online purchases, indicating that usefulness.

Online purchase intentions reflecting a practical sense is more influential during the formation of online purchase intentions specifically for male consumers. This phenomenon suggests that the influence of perceived usefulness on online purchase intentions may be moderated by gender, and the influence is stronger for males than for females. Due to the out

dated research on gender differences and lack of research on gender perception of online user experience, we hypothesize the following:

H5: Individual's gender will moderate the perception of user experience towards conative e-Loyalty.

# 3.5 Instrument Development

An initial structured questionnaire was developed based on a review of existing literature. The survey asked respondents several sets of seven-point Likert-scaled questions regarding social presence, user experience and conative e-Loyalty. The survey is referenced in Appendix C .

## Chapter 4

# RESEARCH METHODOLOGY

## 4.1 Survey development

A survey instrument was constructed to test user reactions to a website task. Survey categories as presented in Table 5 include: Social presence, user experience, and conative e-Loyalty. Items on social presence were adapted from (Gefen & Straub, 1997), items on user experience are in categories of graphical and functional user experience as identified by (Ellahi & Bokhari, 2012), (Sanchez-Franco & F.J.Rondan-Cataluna, 2010) and outlined in the previous section. Items on conative e-Loyalty are drawn from (D.X. Ding, P.J.I. Hu, & Sheng, 2010), (Sahadev & K. Purani, 2008), and (J. Shen, 2012), (E.J. Lee & J.W. Overby, 2004). All items are constructed as strongly agree to strongly disagree statements on a 7-point Likert scale. The survey items appear in Appendix C.

Categories	# of Questions	Source		
Demographics	4	General		
Social Presence	5	Gefen & Straub, 1997)		
User	24	(Ellahi & Bokhari, 2012), (Sanchez-Franco & F.J.Rondan-Cataluna,		
Experience	24	2010)		
E-Loyalty	8	(Ding, Hu, & Sheng, 2010), (Eun-Ju & Overby, 2004), (Shen, 2012)		

Table 4. Survey categories and sources

# 4.2 Task and procedure

The goal of this study was to enroll at least 300 participants to take part in the survey; however, we only received 178 responses. The participant population consisted of UNF students, faculty, staff, and their friends. Study participant enrollment was conducted in two phases. In the first phase, UNF faculty from School of Computing and Coggins college of Business were contacted via email to participate in the study and post the request in their respective course management systems. In the second phase, only those who completed the study from the first phase were requested to post the study information in their social networking websites - LinkedIn and Facebook. Participants were requested to take part in the study voluntarily. All interested volunteers who are 18 years or older were accepted regardless of their gender, race, or other demographic aspects. However, for accurate calculations, survey responses were only analyzed if the participants completed the survey by answering all the 37 survey questions. Therefore, out of 178 responses, 160 responses are used for further analysis in this study.

Participants were requested to complete product browsing task in an experimental website and complete an online survey. Survey was appropriate way to gather information about perceived user experience and e-Loyalty, as there is no reasonable alternative way to obtain this information other than directly seeking from the users. Survey contained questions for following categories: social presence cues, perceived user experience, and e-Loyalty. Online survey was created using Qualtrics. The survey was designed as an experiment manipulating three levels of variation of social presence and user experience design elements: high website, medium website, and low website (Cyr, Kindra, & Dash, Website design, trust, satisfaction, and eloyalty: The Indian experience. , 773-790., 2008). All subjects were randomly assigned to one of the three websites. The corresponding task and survey questions were the same for all participants.

# 4.3 Experimental website

Three experimental websites were designed to manipulate social presence and user experience elements. The condition types were adapted from Burke (2002) who determined what it is that consumers value regarding online shopping features. This included: product information (i.e. text), product photographs, brand comparisons and expert ratings. Screenprints of the three websites can be referenced in Appendix A. The detailed list of elements that were used to create a distinct separation between the elements is presented in Table 6 below. Website 1 had high manipulation of social presence and user experience elements (referred to as High website), Website 2 had medium level manipulation of social presence (referred to as Medium website), and user experience elements and website 3 had a low level of manipulation of social presence and user experience elements (referred to as Low website). The purpose of creating the three website conditions for this study was to add sufficient variability in the variables (Gilbert, Fiske, & D.A, 1998). If only one condition or website version was used in this study, there was a risk that the variable will not exhibit adequate variability among the participants, thus weakening the analysis. Another reason for creating the three websites for this study was to explore any gender preferences among the variables. The manipulations are presented in Table 6.

Factors	Levels of Manipulation				
	Low Website	Medium Website	High Website		
	Only 1 product image is provided	2 product image is provided	3-5 product images are provided		
	Generic statement about the product	Customized statement about the product	Customized detailed paragraph about the product		
Social Presence	Technical specifications are minimal	Technical specifications are minimal	Technical specifications are highlighted		
	No reviews are provided	Short reviews with limited information are provided	Long reviews with customer images, name, location and date posted. are provided		
	No social media access or integration	No social media access or integration	Social media buttons to interact with products and reviewers.		
	No categories of products on the store page	Categories of products on the store page	Categories of products on the store page		
	No media interactivity	Automatic slides of images from customer reviews	Automatic slides of images from customer reviews, product images		
User Experience	No help or contact option on product pages	Help form box on every product page	Help form box on every product page		
	2-3 navigational errors	1 navigational errors	No navigational errors		
	2 broken link on the home page	1 broken link on the home page	No broken link on the home page		

 Table 5.
 Experimental website manipulations

# 4.4 Subjects

In this study, 178 subjects volunteered to participate. The ratio of women-to-men is approximately 2:3, with 71 female respondents, 102 male respondents and 5 respondents chose not to disclose their gender. To accurately analyze the survey responses, we needed each participant to respond to every survey question, hence out of 178 responses we had gathered 160 usable responses where the participants responded to each of the 37 questions presented to them.

Gender	High	Medium	Low
Male	48	29	25
Female	39	15	17
Other	0	0	0
Rather Not Say	3	0	2
Total	90	44	44

 Table 6.
 Responses based on demographics (Gender)

## 4.5 Instrument Validity and Reliability

Content validity is the extent to which the elements within a measurement procedure are relevant and representative of the construct that they will be used to measure (Haynes, 1995). Establishing content validity is a necessarily initial task in the construction of a new measurement procedure or revision of an existing one. Scales validated in previous studies were adapted to the context of the study and used to measure the respective constructs. Additionally, a confirmatory factor analysis was used to assess construct measurement. Inspection of the loading of items on their respective constructs revealed a high degree of individual item reliability, as all items have loadings of greater 0.50 on their respective construct in this study. A substantial degree of internal consistency is revealed, as all values of Cronbach's alpha exceed the 0.60 guideline suggested by Fornell and Larcker (1981).

## 4.5.1 Pre-Test

To further ensure that all the items of the survey as well as task instructions were well written and understandable, a pretest was conducted prior to sending out the final survey. The purpose of the pretest was to identify any communication and problems with task instruction interpretation. A group of 18 people reviewed the survey items and instructions which included colleagues, family and friends who participated in the pre-test, and were asked to report any problems that they could perceive in terms of responding to the task and survey questions. Survey items and task instructions were slightly modified based on the feedback received from the reviewers such as the order of questions was rearranged and task wordings were simplified.

### 4.5.2 Research Model Validation

The abstract, research model, methodology and survey questions in this study were presented in Southern Association of Information systems (SAIS) conference (2016) in St. Augustine and Statewide Research Symposium (2016) at University of Florida, Gainesville, to validate the study and because of the feedback some minor revisions were made to the instrument.

# 4.5.3 Ethical Consideration

Ethical issues were considered throughout the entire process to make sure that the results and the result of this study truly represent all the data and relevant conditions. The research was conducted per the research ethics framework of University of North Florida. The questionnaire was designed per ethical guidelines. The survey contained a cover letter explaining the purpose of the study, indicating that participation was voluntary and that responses would be treated confidentially. Also, participants were free to withdraw at any time and the contact details of the researcher and supervisor were given in the letter should respondents have any ethical concerns. Prior to the distribution of the questionnaire to the participants, the study received ethical approval from University of North Florida Institutional Review Board (IRB# 968583-1). The approval letter, study participation request and questionnaire can be referenced in Appendix C.

### Chapter 5

#### EVALUATION AND DISCUSSION

The Statistical Package for Social Science (SPSS) was used in this study to conduct multiple statistical analyses to test the hypotheses relating to gender and its impacts on social presence, user experience, and conative e-Loyalty. Frequency distribution, descriptive statistics, reliability test, factor analysis, and multiple regression statistical methods were used for analyzing data in this study.

# 5.1 Descriptive Statistics

There was a total of 160 survey responses analyzed in this study. The survey was distributed to three groups of participants that were randomly assigned to either high, medium or low website. From the data summarized in Table 8, we can see that overall, on an average 59% were male and 39% were female respondents. 2% of the participants did not reveal their gender. The highest numbers of participant, 44%, were between 26-35 years of age. A total of 60% of respondents had a bachelor's degree or higher. Table 8 provides descriptive statistics for demographic data gathered from the 160 responses.

ANOVA tests found no significant differences for subjects in the three groups in terms of age, education or gender. Therefore, randomization of assignment across groups was successful in terms of subject characteristics.

Variable	High	Med	Low
Gender			
Male	53.33%	65.91%	56.82%
Female	43.33%	34.09%	38.64%
Other	0.00%	0.00%	0.00%
Rather not say	3.33%	0.00%	4.55%
Age			
18-25	47.19%	29.55%	38.64%
26-35	41.57%	45.45%	47.73%
36-45	6.74%	22.73%	9.09%
46-55	3.37%	2.27%	2.27%
56-65	0.00%	0.00%	0.00%
65 and above	1.12%	0.00%	2.27%
Education Level			
Less than high school degree	1.11%	0.00%	4.55%
High school graduate	7.78%	20.45%	25.00%
Some college but no degree	17.78%	29.55%	15.91%
Associate degree in college (2-year)	24.44%	15.91%	13.64%
Bachelor's degree in college (4-year)	35.56%	15.91%	27.27%
Master's degree	10.00%	13.64%	11.36%
Doctoral degree	1.11%	0.00%	2.27%
Professional degree (JD, MD)	2.22%	4.55%	0.00%
Ethnicity			
White	67.05%	34.09%	63.64%
Black or African American	13.64%	34.09%	20.45%
American Indian or Alaska Native	2.27%	4.55%	0.00%
Asian	10.23%	27.27%	13.64%
Native Hawaiian or Pacific Islander	1.14%	0.00%	0.00%
Other	9.09%	0.00%	2.27%

 Table 7.
 Descriptive statistics for demographics

Furthermore, Table 9 represents the mean responses for each category based on the 7- point Likert scale ranging from 1=Strongly agree, 2=Agree, 3=Somewhat agree, 4=Neither agree nor disagree, 5=Somewhat disagree, 6=Disagree, 7=Strongly disagree. For this study, scale value from 1-3 is considered positive consisting of strongly agree, agree somewhat agree. Scale value of 4 consisting of neither agree nor disagree is considered neutral and scale value from 5-7 consisting of somewhat disagree, disagree, strongly disagree is considered negative.

In high website, 80% of the overall responses indicated a positive response for social presence category and 83% of the overall responses indicated a positive response for user experience category. In medium website, 55% of the overall responses indicated a positive response for social presence category and 58% of the overall responses indicated a positive response for user experience category. In low website, 39% of the overall responses indicated a positive response for social presence category and 40% of the overall responses indicated a positive response for user experience category. Overall, the response indicates a favorable result for high website.

Website	Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
High Website							
Social Presence	19%	36%	25%	9%	5%	5%	1%
User Experience	24%	42%	17%	7%	6%	4%	1%
Medium Website							
Social Presence	5%	18%	33%	29%	14%	1%	0%
User Experience	7%	19%	32%	20%	12%	8%	1%
Low Website							
Social Presence	4%	12%	23%	13%	18%	21%	10%
User							
Experience	5%	10%	24%	23%	17%	14%	7%
1=Strongly agree, 2=Agree, 3=Somewhat agree, 4=Neither agree nor disagree, 5=Somewhat disagree, 6=Disagree, 7=Strongly disagree							

\*Highlighted cells indicate the highest percentage of responses on the Likert scale.

Table 8.Average response to survey questions on 7 point Likert Scale

## 5.2 t-tests

To examine whether there is a significant difference between responses based on manipulation of social presence and user experience elements, the data was divided into three independent samples; one sample for high website, one for medium and one for low website. t-tests were used to identify the differences in the mean between the three samples. A p-value < 0.05 suggests a significant difference between the means of our sample population (Cyr, Kindra, & Dash, Website design, trust, satisfaction, and eloyalty: The Indian experience., 773-790., 2008). As shown in Table 10, significant differences were found between the three samples. The differences were found in social presence for website 1 (High: Mean = 2.658, p = Significant), website 2 (Medium: Mean = 3.346, p = Significant), website 3 (Low: Mean = 4.302, p = Significant); user experience for website 1 (High : Mean = 2.30, p = Significant), website 2 (Medium: Mean = 3.40, p = Significant), website 3 (Low: Mean = 4.03, p = Significant); and conative e- Loyalty for website 1 (High : Mean = 3.80, p = Significant), website 2 (Medium: Mean = 3.58, p = Significant), Website 3 (Low : Mean = 4.512, p = Significant). Therefore, we can conclude that there is a significant difference between the three-experimental website.

		Sample			
Variable	Statistic Result	Website 1 (High)	Website 2 (Medium)	Website 3 (Low)	
	Ν	73	43	44	
	Mean	2.658	3.346	4.302	
Social Presence	t Stat	16.223	20.084	16.976	
	Sig (2 Tailed)	Significant	Significant	Significant	
	Ν	73	43	44	
	Mean	2.30	3.40	4.03	
User Experience	t Stat	17.04	16.143	16.571	
	Sig (2 Tailed)	Significant	Significant	Significant	
	Ν	73	43	44	
	Mean	3.80	3.58	4.512	
Conative e-Loyalty	t Stat	16.996	17.637	16.73	
	Sig (2 Tailed)	Significant	Significant	Significant	
1=Strongly agree, 2=Agree, 3=Somewhat agree, 4=Neither agree nor disagree, 5=Somewhat disagree, 6=Disagree, 7=Strongly disagree					

Table 9.t-test result of the experimental websites

# 5.3 Reliability Analysis

Reliability analysis is conducted to study the properties of measurement scales and the items that compose the scales. Cronbach's alpha was used to measure internal consistency. This method is most commonly used when there are multiple Likert questions in a survey/questionnaire that form a scale and the goal is to determine if the scale is reliable. The value ranges between 0 and 1 and a score higher than 0.7 is widely considered an accepted reliability coefficient (Cronbach, 1951).

Cronbach's alpha values for social presence, user experience and conative e-Loyalty are presented in Table 11. A total of 5 items for social presence were measured, resulting in a

score of 0.928. A total of 24 items for user experience were measured, resulting in a score of 0.957. A total of 8 items for conative e-Loyalty were measured, resulting in a score of 0.975.

Since the values for social presence, user experience and conative e-Loyalty are higher than the above-mentioned threshold of 0.7, therefore, our scale is considered reliable.

Items	Cronbach's Alpha	No. of Items
Social Presence	0.928	5
User Experience	0.957	24
Conative e-Loyalty	0.975	8
*Value > 0.7 is acceptable		

# Table 10. Reliability Analysis: Cronbach's Alpha

# 5.4 Factor Analysis

Factor analysis is a statistical technique used to describe variability among multiple items. Factor analysis was conducted since the dimensions used to measure social presence, user experience, and conative e-Loyalty were a culmination of previous studies. Factor analysis method is used to reduce large set of items to a smaller number of components. This technique is mostly used when designing a questionnaire to see the relationship between the items in the questionnaire and their underlying dimensions (Lah, Hussin, & Dahlan, 2013). For this study, factor analysis is used to find underlying proposed factors and to group each component based on their relationships.

## 5.4.1 Kaiser-Meyer-Olkin (KMO) test

Kaiser-Meyer-Olkin (KMO) test is a measure of how suited data is for Factor Analysis. The test measures sampling adequacy for each variable in the model and for the complete model. KMO values between 0.8 and 1 indicate the sampling is adequate (Cerny & Kaiser, 1977) (Lah, Hussin, & Dahlan, 2013).

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.946		
Bartlett's Test of Sphericity			
Df	666		
Sig	Significant		
*Value $> 0.8 < 1.0$ is reliable			

Table 11. Factor analysis: KMO and Bartlett's Test

The above output in Table 12 provides the Kaiser-Meyer- Oklin measure of sampling adequacy and Bartlett's test. As per the SPSS output, the KMO value is 0.946 which is greater than 0.5 and proves that the sample data is suitable for further analysis.

## 5.4.2 Principal Component Analysis

Principal Component Analysis (PCA) was conducted by using a total of 37 items for further investigation in this study. PCA with Varimax rotations was used and revealed three distinct underlying factors: social presence, user experience and conative e-Loyalty. A factor matrix summary in table 13 represents coefficients that express the relationships between the items and the underlying factors. The items in the factor matrix are referred to as factor loadings.

The higher loading factors produce higher values. The items load highly if its loading coefficient is above 0.6 and does not load highly if the coefficient is below 0.4. Also, factors that produce eigenvalues (E.V) greater than 1.0 are considered significant (Hotelling, 1933).

A total of 5 items loaded highly (>0.6) into the dimension of social presence with a reliability score (Cronbach's alpha) of 0.928, 24 items loaded highly for user experience with a reliability score of 0.957 and, 8 items of conative e-Loyalty loaded highly with a reliability score of 0.975.

It should be noted that 8 questions from user experience (The screen design is attractive, this site has a visually appealing design, this site looks professional, the degree of interaction offered by this site is sufficient, the screen design is attractive, this site allowed me to efficiently tailor the information for my specific needs, the website animations are meaningful, all links in this site are active) had a low factor loading (below 0.7) as compared to the rest. Hair (1988) gives rules of thumb for assessing the practical significance of standardized factor loading of 0.45- 0.40 is adequate. Comrey and Lee (1992) suggested using more stringent cut-offs going from 0.32 (poor), 0.45 (fair), 0.55 (good), 0.63 (very good) or 0.71 (excellent). Since the factor loading score for each of the 8 questions is between 0.571 and 0.649, and a sample size of 160, they were included in the analysis. Therefore, all our constructs passed the test of construct reliability (Hotelling, 1933). All factors show good internal consistency and factor analysis results are summarized in Table 13.

Factor	Scale Items	F.L.*	E.V.*	α*
	There is a sense of human contact in the website.	.809		
G . 1	There is a sense of personness in the website.	.782		
Social	There is a sense of sociability in the website.	.845	4.83%	.928
Presence	There is a sense of human warmth in the website.	.887		
	There is a sense of human sensitivity in the website.	.843		
	The screen design is attractive.	.632		
	This site has a visually appealing design.	.631		
	This site looks professional.	.649		
	The degree of interaction (video, demos) offered by this site is sufficient	.594		
	The screen design (i.e., colors, images, layout, etc.) is attractive.	.571		
	This site allowed me to efficiently tailor the information for my specific needs	.601		
	The website animations are meaningful	.651		
	All links in this site are active.	.631		
	It is easy to go back and forth while browsing this site.	.705		
	I feel in control of what I do while navigating this site.	.771		.957
	It is easy to move within this site.	.835		
User	I find no navigation error in this site.	.800		
Experience	I can easily navigate this site	.793	60.318%	
Experience	I find this website easy to use.	.843		
	This site provides good navigation facilities to information content.	.733		
	This site loads its pages quickly.	.850		
	The searching function in this site is quick.	.726		
	This site makes it easy to find what I want.	.820		
	This site is well-organized.	.789		
	This site is well-organized. This site enables me to get on to it quickly.	.830		
	It is easy for me to learn to operate this site.	.807		
	It is easy to become skillful at using this site. It is flexible to interact with this site.	.780 .771		
	It is easy to understand everything on this site.	.816 .852		
	This site is simple to use, even when using it for the first	.032		
	time.	915		
	I will shop on this site in the next few years.	.845		
	I will consider this site to be the first choice for future	.857		
	shopping.	010		
	I will purchase more on this site in the coming months.	.819		
Constinues	I am likely to actually purchase products I found on this site	.852		
Conative e-	I will revisit this site to discover new products and get	.852	11.748%	.975
Loyalty	shopping ideas in the future.	0.40		
	I will revisit this site when I need the type of products it offers.	.840		
	I consider this site to be primary source when I need the type of product or service it offers.	.788		
	I will revisit this site first in preference the others.	.805		
477 1 1 1 (7	F.L) > 0.6, Eigenvalues (E.V) > 1.0 and Chronbach's alpha > 0.7		-1-1-	

Table 12. Factor analysis summary

To evaluate the hypothesized relationships of H1 through H5, linear and multiple regression analyses were conducted. It is used to determine the extent to which there is a linear relationship between a dependent variable and one or more independent variables.

There are two types of linear regression, simple linear regression and multiple linear regressions (Creech, 2017). In simple linear regression, a single independent variable is used to predict the value of a dependent variable. In multiple linear regression two or more independent variables are used to predict the value of a dependent variable. The difference between the two is the number of independent variables. In both cases, there is only a single dependent variable. The output consists of three important pieces of information: (1) R squared value represents the proportion of variance in the dependent variable that can be explained the independent variable; (2) the F value which is the degrees of freedom and, (3) the coefficients (p-value) for the constant and independent variable which is the information needed to predict the dependent variable using the independent variable (Cerny & Kaiser, 1977). If the p-value is much less than 0.05, we conclude that there is a significant relationship between the variables in the linear regression model of the data set.

In this study, both linear and multiple regressions are used to determine the relative importance and significance of the relationships between social presence, user experience and conative e-Loyalty.

H1: Usage of social presence cues (text and images) will positively influence e-Loyalty.

To test H1, linear regression analysis was used. The factor of social presence was used as independent variable or predictor and conative e-Loyalty was a dependent variable as shown in figure 11. The results show that there are significant positive relationships between social presence and conative e-Loyalty (F = 105.807, B=0.637, Adj.  $R^2$  = .406, p = Significant). We can also conclude that 40% of the variance in dependent variable (conative e-Loyalty) can explained by the independent variable (social presence). Therefore, H1, H1a are supported.

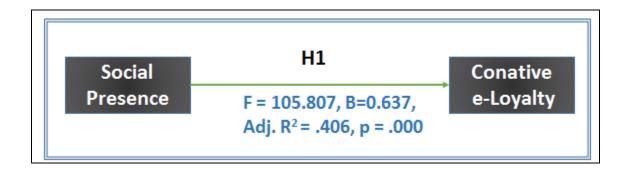


Figure 11. H1 Hypothesis result

H2: Usage of social presence cues (text and images) will positively influence user experience.

For examining H2, linear regression analysis was used. The factor of social presence was used as independent variable or predictor and user experience was a dependent variable. As shown in figure 12, significant positive relationships were found between social presence and user experience (F = 144.885, B=0.695, Adj.  $R^2$  = .438, p =Significant). We can also

conclude that 43% of the variance in dependent variable (User experience) is explained by the independent variable (social presence).

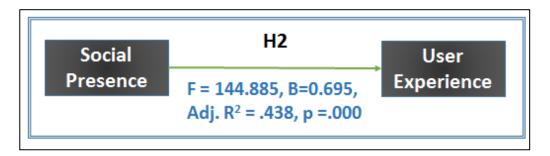


Figure 12. H2 Hypothesis result

H3: Positive user experience (graphical and functional) will positively influence conative e-Loyalty.

For examining H3, linear regression analysis was used. User experience was placed as independent variables or predictor; while conative e-Loyalty was a dependent variable. The results shown in figure 13 show that positive significant relationships were found between user experience and conative e-Loyalty (F = 102.270, B= 0.628, Adj.  $R^2 = .394$ , p = Significant). We can also conclude that 39% of the variance in dependent variable (conative e-Loyalty) is explained by the independent variable (user experience). Therefore, H3 is supported.

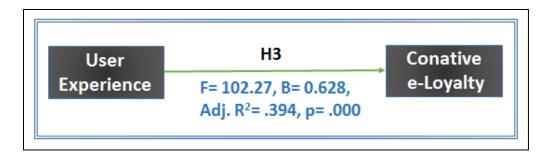


Figure 13. H3 Hypothesis result

H4: Individual's gender will moderate the influence of social presence cues on conative e-Loyalty.

For examining H4, multiple linear regression analysis was used. The gender and social presence variable was used as independent variables or predictors and conative e-Loyalty was placed as a dependent variable. The results show that there is a positive significant relationship between three variables (F = 52.253, B (Social presence) = 0.644, B (Gender) = -0.57, Adj. R<sup>2</sup> = .409, p = Significant). Gender has a positive moderating effect on social presence and conative e-Loyalty. Therefore, H4 is supported.

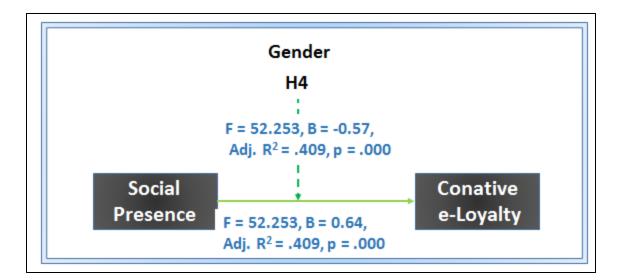


Figure 14. H4 Hypothesis result

H5: Individual's gender will moderate the perception of user experience towards conative e-Loyalty.

For examining H5, multiple linear regression analysis was used. The e-Loyalty variable was used as dependent variables and user experience and gender was placed as independent or predictor variables. The results show that there is a positive significant relationship between two factors (F = 0.018, B (Gender) = 0.003, B (User Experience) = 0.628, Adj. R2 = .394, p = Significant). We can conclude that individual's gender will moderate the perception of user experience towards conative e-Loyalty. Therefore, H5 is supported.

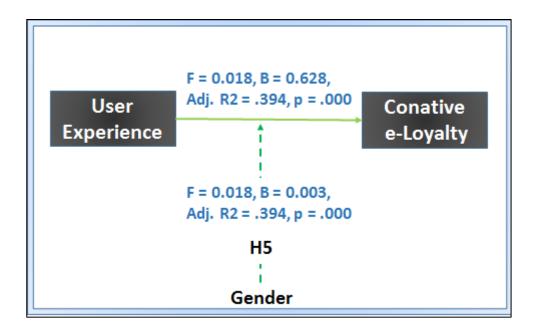


Figure 15. H5 Hypothesis result

## 5.6 Discussion

As outlined in the introduction of this thesis, through this research we explored two main factors, social presence and user experience, that could possibly explain the intention of a customer to revisit or purchase from the website thus generating conative e-Loyalty and to analyze if gender had any role in moderating these two factors in relation to conative e-Loyalty.

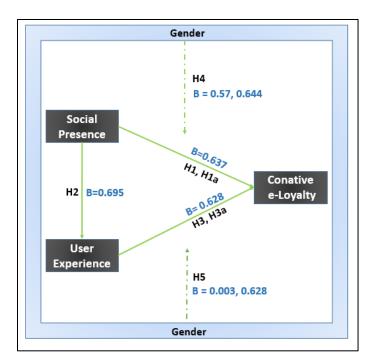


Figure 16. Research Model Result

We found that by manipulating social presence and user experience elements like text and images, we can see a positive increase in customer's intention to revisit or make a purchase from the website thus influencing conative e-Loyalty. In the experimental website, we incorporated features that establish social presence like personalized text, images (Gefen & Straub, 1997), consumer opinion and social media integration. We added personalized text and descriptions of the products and specifications that clearly identified the product. We included user experience features taken from previous literature of Hassanein and Head (2007) that can have potential impacts on perceived social presence like features providing means for actual interaction with other humans, including online communities, product reviews, integration with social media, e-mail after-sales support and features stimulating imaginary interaction with other humans, including socially rich text and picture content. To

successfully manipulate user experience, we relied on a variety of visual design elements, such as text size, color, page layout and font to enhance visual attractive-ness (K.C. Lee & S. Lee, 2003). We also added user product reviews with the reviewer's name, location and image and customer's product pictures to the high website.

The data analysis suggested a significant difference between the three websites in terms of social presence, where 80% of the participants surveying the high website responded positively to social presence questions like there is a sense of human contact in the website, there is a sense of personalness in the website, there is a sense of sociability in the website, there is a sense of human warmth in the website, and there is a sense of human sensitivity in the website. On the other hand, only 55% of the participants responded positively for medium website and only 39% of the participants responded positively for low website.

The data suggested a significant difference between the three websites in terms of user experience, where 83% of the participants surveying the high- website responded positively to user experience questions like the screen design is attractive, the degree of interaction (video, demos) offered by this site is sufficient, I can easily navigate this site, it is easy to understand everything on this site. On the other hand, only 58% of the participants responded positively for low website.

In this study, we also discovered that men and women react differently to website design. We noticed that most men and women had a positive response to the overall high and

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medium website for social presence and user experience elements and their subsequent effects on e-Loyalty, as shown in Table 14. However, our study results show that for low website gender plays a significant role. Further analysis shows that in comparison to male subjects, female subjects had a negative response to lack of social presence elements as well as to e-Loyalty. Whereas, men had a negative response to lack of user experience elements. Hence, we can conclude that having higher social presence and user experience is important regardless to visitor's gender, but lack of such elements would have higher impact on females revisiting or making a purchase. However, the data collected is not nearly large enough to generalize the results across genders (or other demographic variables) in their pursuit to better understand e-Tailing industry.

Website Type		Men	Women
	Social Presence	Neither agree nor disagree	Somewhat disagree
Low Website	User experience	Neither agree nor disagree	Neither agree nor disagree
	E-Loyalty	Neither agree nor disagree	Somewhat disagree
	Social Presence	Somewhat agree	Neither agree nor disagree
Medium Website	User experience	Somewhat agree	Somewhat agree
	E-Loyalty	Somewhat agree	Neither agree nor disagree
	Social Presence	Agree	Somewhat agree
High Website	User experience	Agree	Agree
	E-Loyalty	Neither agree nor disagree	Neither agree nor disagree

Table 13. Gender difference in experimental websites

## Chapter 6

## CONCLUSION AND LIMITATIONS

## 6.1 Conclusion

The objective of this research is to study the influence of two main factors-social presence and user experience towards development of e-Loyalty and moderating effect of gender on the relationship between two main factors and e-Loyalty. The research was conducting following survey methodology, where three experimental websites were used to manipulate social presence and user experience elements. A total of 178 subjects responded to the survey out of which 160 responses were used for analysis. Out of 160 responses, 102 were from male subjects and 58 were from female subjects. Descriptive statistics were used to summarize the survey respondents. Independent t-tests were used to differentiate between the three websites to confirm that the manipulation was successful. Reliability analysis using Cronbach's alpha was used to determine that the variables used in the survey were reliable. Principal component analysis using varimax rotation was conducted on SPSS to determine if each item on the survey questionnaire loaded to the three variables: social presence, user experience and e-Loyalty. For further analysis, linear and multiple regression was used to determine the significance of the relation between the variables.

Hypothesis	Conclusion
H1: Usage of social presence cues (text and images) will positively influence e-Loyalty.	Supported
H2: Usage of social presence cues (text and images) will positively influence user experience.	Supported
H3: Positive user experience (graphical and functional) will positively influence conative e-Loyalty.	Supported
H4: Individual's gender will moderate the influence of social presence cues on conative e-Loyalty.	Supported
H5: Individual's gender will moderate the perception of user experience towards conative e-Loyalty.	Supported

Table 14. Hypothesis Summary Conclusion

According to the result of this study, as seen in figure 17, it can be successfully concluded that social presence and user experience elements play an important role towards development of conative e-Loyalty in customers. For example, displaying images help to create social presence and brings the impersonal process of online shopping closer to that of a face-to-face sales conversation. Thus, it creates a sense of human presence and facilitates the establishment of conative e-Loyalty.

After further analysis, in low website, the data suggests significant differences between men and women where women were perceived a lack of social presence as a hindrance to development of e-Loyalty. As seen in Table 15 below, in low website, on an average, women had a negative response as compared to males who remained neutral. Women perceived a lack of sense of human warmth and sensitivity in the website conversely, men were neutral. However, in high website, both genders responded positively to the questions on perceived social presence. Overall, women were less convinced with the social presence elements on all three websites as compared to their male counterparts.

Eastan	Saala Harra	Lov	V	Med	lium	High	
Factor	Scale Items	Male	Female	Male	Female	Male	Female
	There is a sense of human contact in the website.	3.48	4.41	3.24	3.33	2.4	2.71
	There is a sense of personalness in the website.	4	4.47	3.17	3.33	2.46	2.76
Social Presence	There is a sense of sociability in the website.	4.04	4.75	3.32	3.2	2.4	2.76
	There is a sense of human warmth in the website.	4.28	5.06	3.38	3.53	2.57	3.03
	There is a sense of human sensitivity in the website.	4.32	5	3.55	3.47	2.75	3
1=Strongly	agree, 2=Agree, 3=Somew	0,	either agree ongly disagre	0,	5=Somewhat d	isagree, 6=I	Disagree,

Table 15. Independent t-tests on social presence factors

Interestingly, as seen in Table 16, in user experience, men indicated a negative response as compared to women in low website but responded positively as compared to females in the high website. Men disagreed that the website design was attractive. They were also more attentive towards navigation errors and errors with website links. Males, as compared to females, disagreed on the simplicity and ease of use of the low website. On the contrary, in high website, males had a positive response to each of the above questions which were perceived negatively in the low website.

Scale Items		JOW	Me	dium	High	
Scale Items	Male	Female	Male	Female	Male	Female
The screen design is attractive.	3.88	2.76	2.86	3.47	2.4	2.58
This site has a visually appealing design.	4.08	3.29	3.1	3.4	2.52	2.71
This site looks professional.	4.04	3.94	3.45	3.67	2.47	2.92
The degree of interaction (video, demos) offered by this site is sufficient	4.24	4.71	3.45	3.67	2.83	3.34
The screen design (i.e., colors, images, layout, etc.) is attractive.	4.08	3.35	3.28	3.73	2.52	2.89
This site allowed me to efficiently tailor the information for my specific needs	4.2	4.12	3.38	3.67	2.63	3.19
The website animations are meaningful	4.44	4.65	3.45	4	2.98	2.94
All links in this site are active.	4.36	3.53	3.41	3.67	2.42	2.31
It is easy to go back and forth while browsing this site.	4.28	3.88	3.41	3.8	2.29	2.29
I feel in control of what I do while navigating this site.	4.16	3.65	3.38	3.67	2.21	2.2
It is easy to move within this site.	4.2	3.65	3.24	3.47	2.25	2.09
I find no navigation error in this site.	4.16	3.41	3.21	3.47	2.4	2.29
I can easily navigate this site	4.2	3.71	3.21	3.53	2.19	2.37
I find this website easy to use.	4.2	3.65	3.24	3.4	2.13	2.18
This site provides good navigation facilities to information content.	4.28	4.29	3.24	3.27	2.23	2.36
This site loads its pages quickly.	4.32	3.76	3.38	3.67	1.94	1.79
This site makes it easy to find what I want.	4.08	4.12	3.17	3.33	2.19	2.19
This site is well-organized.	4.16	4.18	3.21	3.53	2.32	2.17
This site enables me to get on to it quickly.	4.24	4.29	3.14	3.67	2.27	2.14
It is easy for me to learn to operate this site.	4.32	3.82	3.28	3.73	2.17	2.03
It is easy to become skillful at using this site.	4.36	3.59	3.28	3.6	2.33	2.17
It is flexible to interact with this site.	4.4	3.88	3.45	3.47	2.4	2.43
It is easy to understand everything on this site.	4.56	4.29	3.48	3.47	2.52	2.25
This site is simple to use, even when using it for the first time.	4.52	3.76	3.48	3.64	2.25	2.14

Table 16. Independent t-tests on user experience factors

As seen in Table 17, both men and women responded similarly to the conative e-Loyalty questions in each of the websites. In low website, it was noted that females were less likely to visit the website again as compared to males whereas, in high website, it was the opposite. Overall, on an average, both males and females had a similar reaction for e-Loyalty questions.

Carls Harris	L	OW	Mee	lium	H	igh
Scale Items	Male	Female	Male	Female	Male	Female
I will shop on this site in the next few years.	4.12	4.12	2.9	3.4	3.75	3.42
I will consider this site to be the first choice for future shopping.	4.24	4.59	3.21	3.53	4.08	3.95
I will purchase more on this site in the coming months.	4.16	4.47	3.21	3.47	4.04	3.97
I am likely to actually purchase products I found on this site	4.36	4.71	3.48	3.6	3.71	3.64
I will revisit this site to discover new products and get shopping ideas in the future.	4.56	4.47	3.66	3.93	3.75	3.32
I will revisit this site when I need the type of products it offers.	4.6	4.53	3.76	3.93	3.75	3.44
I consider this site to be primary source when I need the type of product or service it offers.	4.56	4.94	4	4	4.26	3.95
I will revisit this site first in preference the others.	4.6	5.12	3.96	3.79	4.36	3.94

 Table 17.
 Independent t-tests on e-Loyalty factors

Therefore, with the help of above data, we can conclude that women value social presence slightly more as compared to males whereas males value user experience more as compared to females therefore, it is very important for marketing experts, website designers and researchers to create a better experience for both genders to create long term relationships and develop e-Loyalty towards e-Tailing websites. To further test and strengthen our findings, another hypothesis was added to validate the influence of gender on social presence and user experience. We performed multiple linear regression analysis, using social presence and gender as the predictor variable and user experience as the dependent variable to evaluate if there is a significant relationship. Table 18 and 19 below shows the details of this analysis. H6: Individual's gender will moderate the influence of social presence cues on user experience.

The analysis below confirms the above conclusion, that the role of gender plays an important role in determine the significance of social presence and user experience.

M	odel Sumi	mary
	R	Adjusted
R	Square	R Square
.698a	0.487	0.481

Table 18. Hypothesis 6 Result

	Model	Sum of Squares	df	Mean Square	F	Sig.
						Significant
1	Regression	72343.164	2	36171.582	73.186	(0.000)
	Residual	76112.899	154	494.24		
	Total	148456.064	156			
De	ependent Variabl	e: User experience				
Pr	edictors: Social p	resence, Gender				

Table 19. Hypothesis 6 Anova result

For both genders, goals of a business should be to customize user experience and improve customer loyalty. To create the same environment as a brick and mortar store, website designer can add human presence or warmth to a website by manipulating personalized text information, adding images and graphics, social networking links, incorporating interaction with other customers like interactive reviews, and customer service availability. Hence the gender sensitivity in e-Tailing websites can be tackled by leveraging knowledge and information of impact of social cues and user experience to deliver a better experience for target customers.

## 6.2 Contributions

The results of this study can have immediate and direct impact on developers of e-Tailing websites. Repeat visitation and intention to make a purchase by returning customers can make or break an e-Tailing business. Website developers should consider adding social presence elements in their website designs, as it can have a positive impact on conative e-Loyalty and in return increase the chances of the customer to make a purchase thus increasing sales and profits (Gefen & Straub, 2003). E-Tailing websites that cater to females may notice a positive impact by adding a sense of warmth and human presence in website.

Our model validates previous studies that have shown the effects on social presence on e-Loyalty in Business to consumer (B2C) service domain (Cyr, Hassanein, Head, & Ivanov, 2007). However, using manipulation social presence elements and user experience elements with the moderating effect of gender is a new concept.

A prior study examined the impact of social presence on enjoyment for a product website selling apparel, with positive results (Hassanein & Head, 2007). A study manipulated social presence in a concert ticket website where perceived social presence had a significant impact

on enjoyment for both genders, but a direct impact on e-Loyalty was demonstrated for females but not males (Cyr, Hassanein, Head, & Ivanov, 2007). An older study also found that users experimenting with a virtual reality entertainment system enjoyed the system more when they felt a stronger sense of social presence (Heeter, 1995). Another study manipulated human images used on electronic products like camera and laptop was used with eye tracking methodology which resulted in subtle differences in the use of human images with relation to building trust and loyalty (Cyr, Head, Larios, & Pan, 2009). However, website selling mobile accessory has not been previously studied. Mobile accessory was chosen as the product because it is widely used by people of all ages. A study on the use of mobile cases suggested 86% of the population uses phone cases out of which 82% of male respondents had cases as opposed to 90% of female respondents (Kiersz, 2014). Therefore, it is assumed that it is a common product used by most people.

As seen in Table 14 in the chapter 5, data shows that perceived social presence has a direct influence on women, a male audience will also benefit from the infusion of social presence and user experience as reflected in high website where both male and female responded positively towards the manipulations of the two elements.

## 6.3 Limitations and future research

There are a few limitations to this research that should be noted. First, the sample size of this study was small. We estimated to collect at least 300 responses however we only received 178 responses out of which 160 were usable responses, that is, 160 participants responded to

all the 38 survey questions required to analyze the results. To further generalize the results of this study based on gender, the sample size required would be large. Other demographic profiles such as education level, ethnicity and age can also be considered as factors in further research.

Second, this study was conducted based on an experimental website. User's perceptions may change based on actual websites due to their personal preferences and brand loyalty. The results might vary based on the website selection and user's perception of the website.

Third, the research results may also vary due to the common method used to collect responses for all three experimental websites (task followed by survey analysis). Further research could add technologies and methods like eye tracking, focus groups and one on one interview. These methods could provide a deeper understanding of the effects of social presence and user experience on e-Loyalty.

Lastly, using another product might produce different results based on customer's personal relationship or history with the product, their opinion of the product and brand loyalty. Perhaps, in future, more gender centric products can be used for analysis to further investigate gender differences in perception and preference.

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# APPENDIX A

## Website screenshots

Mobile Designs	Welcome	Home About Us	Store	Contact Us		
<u>FUN CA</u>	SES	PATTE	<u>RN CASES</u>			
LEATHER CAS	<u>ies</u>	FLORA	IL CASES			
	10 mil 100	104			_	
Note: This is an experimental website. The shoppin This website was created for thesis research purpo Product photos, description, reviews are taken fro	ses only.		zon.com	f ⊻ G		

Figure 17. High website snapshot 1

Mobile Designs	Wakoma	Hame	About Us	Stare	Contact Us
TECHNICAL SPECS	With this ca Navigate th sertically an	old school ve se, you will d e bail throug d shoot the l ble case. Try Uly Comp Apple	efinitely be the te h the challenging ball for a fun gen	alk of the tow (mass) from s ung experien	dart to finish Hold ion fun Wist, Available in 4,99
TypeFilled CaseSen Muduit Groosy Compatible Brand: For Apple and Samsing MPR: 5002PG Compatibility: Phone 5 to 70ks		returned wi your produc	t pequal or lesser		date of shipment. W v you a full refund
Martanial: Plantic Brandi Panelican Juni: Assessiva 200 Record Healph					
1800-123-HELP	1				<b>)</b> 2
1800-123-HELP	TOP CUSTO				<b>)</b>
Farme:* Drail: * IT Check from th receive struct (spidence Solitore: *	_	Grand case This is a set to be at the a beat of a state of a state of a state of a	EWS Fun design. Go ry grity case so it it desent i took to it doe quality of it or quality of	od quality may not be fi bide tog far bide tog tog far wry well. be phone, bu	or everyone but 1 alsy to me. What is many other at is in no danger.

Figure 18. High website snapshot 2

	MAZE CASE	Customer Reviews	
		ool retro gaming fun with ( itely be the talk of the town	our newly inspired product line. With this
	Navigate the ball th		ze from start to finish.Hold vertically and
		0.00	n with a fun twist. Available in a <mark>ll col</mark> ors.
< 🚺 🚺 >	Select Quantity       1       Select Color       Blue/Red       Select Model	Compatible with Apple and Samsung	PRICE \$4.99
	Iphone 7 🔻	• · · · ·	Add to Cart
TECHNICAL SPECS Type:Fitted Case/Skin Model: Groovy Compatible Brand: For Apple and Samsung MPN: 60092PG		ed with <mark>i</mark> n the first 14 days	from the date of shipment. We will or give you a full refund (excluding the
Compatibility: iPhone 5 to 7plus Material: Plastic Brand:PureGear UPC: 816958014286	CUSTOMER IM/	AGES	

Figure 19. High website snapshot 3



Figure 20. High website snapshot 4

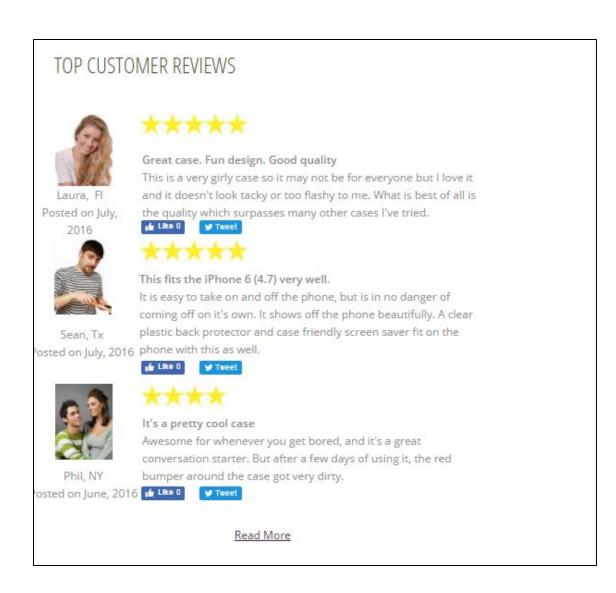


Figure 21. High website snapshot 5

	1800	)-12	3-HE	LP
	-	A	7	
JAB	A	7	1	
Name	*			
Email:	*			
	eck here		eive	
ernail Subjec	updates :t: *			
Messa	ge: *			
		S	ubmit	

Figure 22. High website snapshot 6

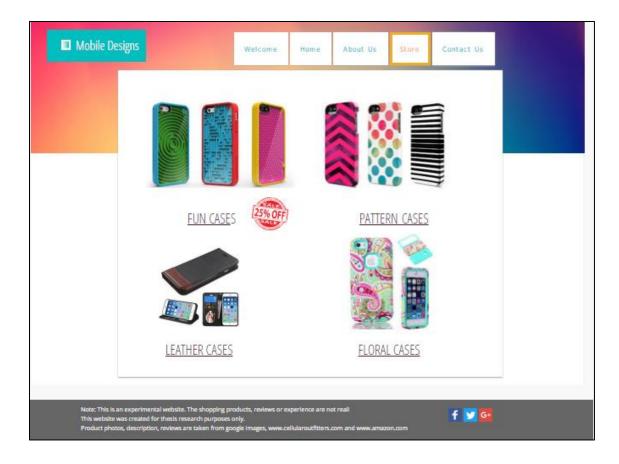


Figure 23. Medium website snapshot 1

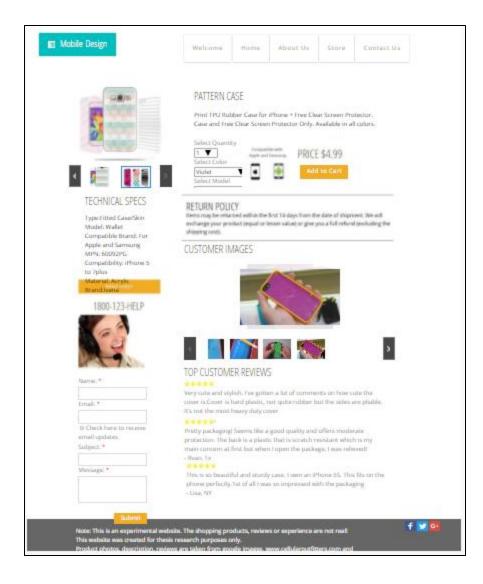


Figure 24. Medium website snapshot 2

	MAZE CASE Sturdy, flexible case. Try this Device protection with a fun twist. Available in all colors.
	Select Quantity T Compatible with Select Color Blue/Red Select Model Tphone 7 V
TECHNICAL SPECS Type:Fitted Case/Skin Model: Wallet Compatible Brand: For Apple and Samsung	RETURN POLICY Items may be returned within the first 14 days from the date of shipment. We will exchange your product (equal or lesser value) or give you a full refund (excluding the shipping cost).
MPN: 60092PG Compatibility: iPhone 5 to 7plus Material: Acrylic Brand:Ivana	CUSTOMER IMAGES
Need Help?	

Figure 25. Medium website snapshot 3

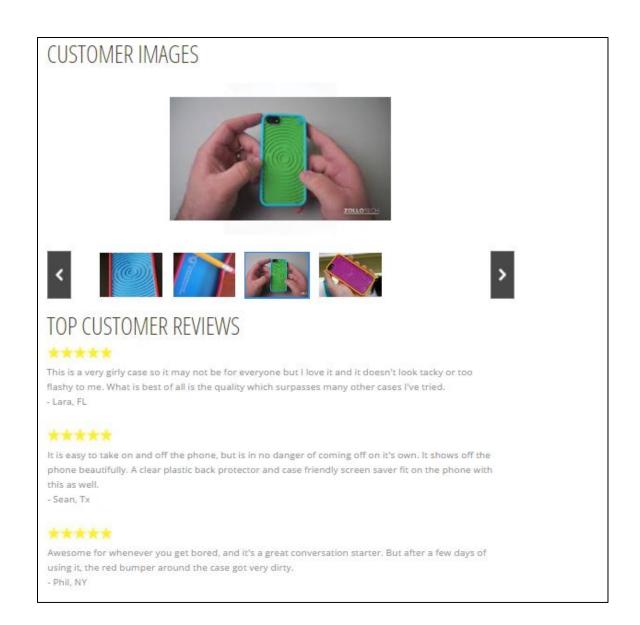


Figure 26. Medium website snapshot 4

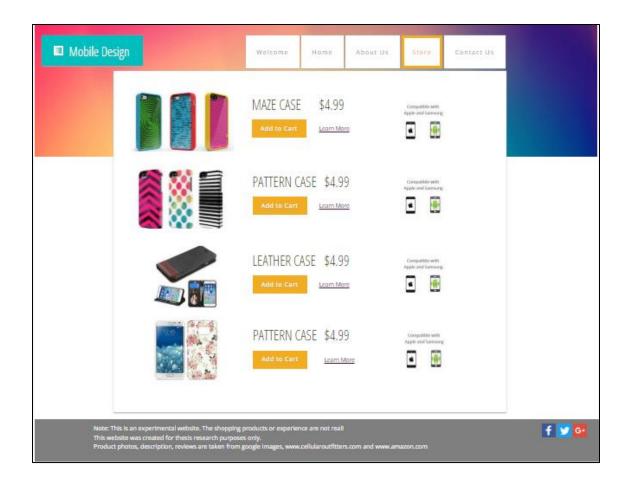


Figure 27. Low website snapshot 1

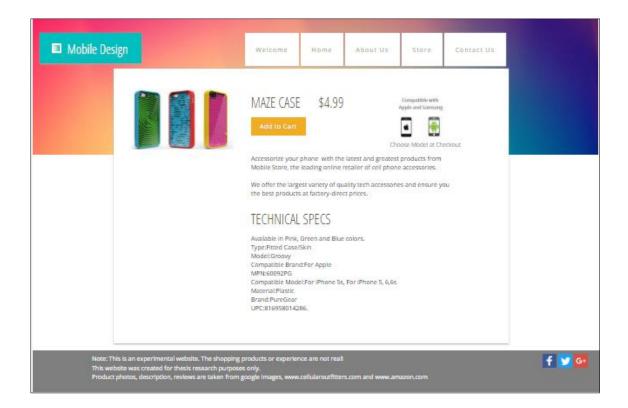


Figure 28. Low website snapshot 2

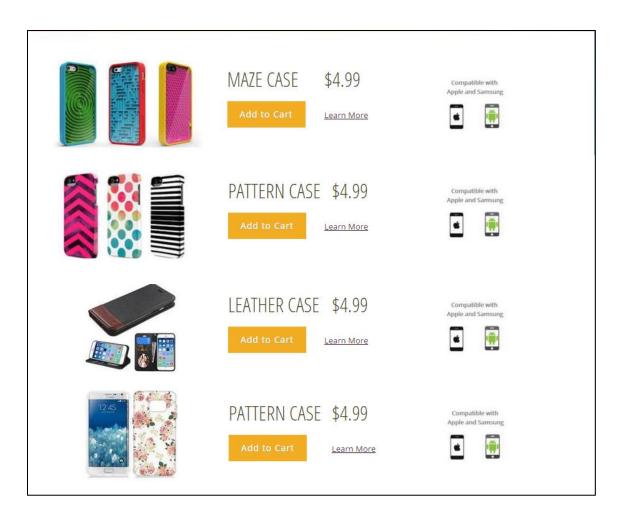


Figure 29. Low website snapshot 3



Figure 30. Low website snapshot 4

# APPENDIX B

## Survey questions

Construct	Items	Source	
	There is a sense of human contact in the website.		
Perceived social presence	There is a sense of personalness in the website.		
	There is a sense of sociability in the website.	(Gefen & Straub, 1997)	
	There is a sense of human warmth in the website.		
	There is a sense of human sensitivity in the website.		
	The screen design is attractive.	(Sanchez-Franco & F.J.Rondan-Cataluna, 2010)	
	This site has a visually appealing design.		
	This site looks professional.		
	The degree of interaction (video, demos) offered by this site is sufficient	(Wolfinbarger & Gilly,	
	The screen design (i.e., colors, images, layout, etc.) is attractive.	2003)	
	This site allowed me to efficiently tailor the information for my specific needs	2003)	
	The website animations are meaningful		
	All links in this site are active.		
	It is easy to go back and forth while browsing this site.	(Ellahi & Bokhari, 2012)	
	I feel in control of what I do while navigating this site.		
	It is easy to move within this site.		
User Experience	I find no navigation error in this site.	(Sanchez-Franco & F.J.Rondan-Cataluna, 2010)	
	I can easily navigate this site		
	I find this website easy to use.		
	This site provides good navigation facilities to information content.		
	This site loads its pages quickly.	(Sanchez-Franco &	
	The searching function in this site is quick.	F.J.Rondan-Cataluna, 2010)	
	This site makes it easy to find what I want.	,	
	This site is well-organized	(Sahadev & K.Purani, 2008)	
	This site enables me to get on to it quickly.		
	It is easy for me to learn to operate this site.		
	It is easy to become skillful at using this site	(Ellahi & Bokhari, 2012)	
	It is flexible to interact with this site	, , , ,	
	It is easy to understand everything on this site.	(Sanchez-Franco &	
	This site is simple to use, even when using it for the first time.	F.J.Rondan-Cataluna, 2010)	
	I will shop on this site in the next few years.	(Ding, Hu, & Sheng, 2010)	
	I will consider this site to be the first choice for future shopping.	(Sahadev & K.Purani,	
	I will purchase more on this site in the coming months.	2008)	
Conative E-	I am likely to actually purchase products I found on this site.	(Shen, 2012)	
Loyalty	I will revisit this site to discover new products and get shopping ideas in the future.	(Shen, 2012)	
	I will revisit this site when I need the type of products it offers.		
	I consider this site to be primary source when I need the type of	(Eun-Ju & Overby, 2004)	
	product or service it offers.	(Luii 30 & Overby, 2004)	
	I will revisit this site first in preference the others.		

Table 20. Survey questions

## APPENDIX C

## **IRB** Approval

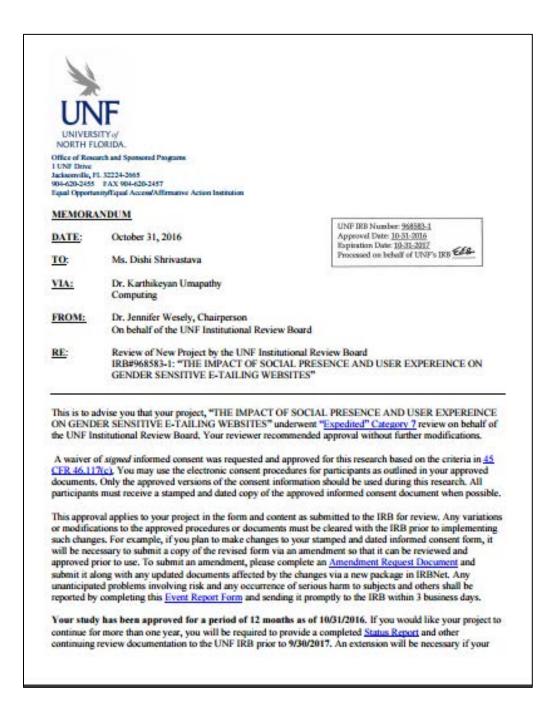


Figure 31. IRB Approval Form Snapshot 1

study will be continuing past the 1-year anniversary of the approval date. We ask that you submit your status report and other continuing review information 30 days before the expiration date as noted above to allow time for review and processing. When you are ready to close your project, please complete a <u>Closing Report Form</u>. Please note that it will be necessary to create a new package in IRBNet in order to submit amendments, status reports, or closing reports in the future. All applicable records relating to this research shall be retained for at least 3 years after completion of the research.

CITI Training for this Project:

Name	CITI Expiration Date
Ms. Dishi Shrivastava	5/11/2019
Dr. Karthikeyan Umapathy	7/12/2018

CITI Course Completion Reports are valid for 3 years. The CITI training for renewal will become available 90 days before the current CITI training expires. Please renew your CITI training when necessary and ensure that all key personnel maintain current CITI training. Individuals can access CITI by following this link: <u>http://www.citiprogram.org/</u>. Should you have questions regarding your project or any other IRB issues, please contact the research integrity unit of the Office of Research and Sponsored Programs by emailing <u>IRB@unf.edu</u> or calling (904) 620-2455.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within UNP's records. All records shall be accessible for inspection and copying by authorized representatives of the department or agency at reasonable times and in a reasonable manner. A copy of this approval may also be sent to the dean and/or chair of your department.

> UNF IKB Number: <u>98583-1</u> Approval Date: <u>10-33-3016</u> Expiration Date: <u>10-31-3017</u> Processed on behalf of UNP's IBB

Figure 32. IRB Approval Form Snapshot 2

### Study Participants Recruitment Scripts

Study participant enrollment will be conducted in two phases. In the first phase, we will contact UNF professors via email and request them to encourage students from their classes to participate voluntarily in the study by posting a link to the study on the class Blackboard/Carwas page. Also, UNF students, faculty, and staff will be requested to participate in the study through postings in the UNF Oxprey Update for students, faculty, and staff. In the second phase, we will request participants from the first phase to post the study information in their social networking website. Unived staff, in the second phase, we will request participants from the first phase to post the study information in their social networking website. Unived in and Facebook to further expand our participant pool. Dr. Uningathy and Oxini Shihastava will also request participation in the second phase by posting the participation request in their personal and professional Facebook and Liskedin accounts. Both phases will be conducted simultaneously and are independent of each other. Participants will be requested to take part in the study voluntarily. All interested volunteers who are 18 years or older will be accepted regardless of their gender, race, or other demographic supects.

### Email script for UNF Professors

Dear Professor,

My name is Dishi Shrivastava and I am a graduate student at the University of North Florida. For my master's thesis, i'm conducting research on the impact of social presence cues and user experience on e-Tailing websites.

We are looking for UNF students to take part in our study. We would like study participants to complete a short navigation task on an experimental website then complete a quick survey. We anticipate that study participation might consume 15 minutes of their time. Participation in the study is completely voluntary and students will not be compensated for their participation. We do not foresee any risks for taking part in the study. However, we anticipate that study results will be beneficial in determining the role of social presence and user experience elements in an e-Tailing website.

With this email, we request your assistance in recruiting participants for our study. We would like you to post below provided study participation in your Blackboard course pages.

This study has been approved by UNF IRB (IRB # <number>>). If you have any questions or concerns about this study, please contact me or my professor, Dr. Umapathy (kumapathy @unf.edu/ 904-620-1329).

Thank you very much for your assistance.

Sincerely, Dishi Shrikastava

Blackboard/ Canves Script

My name is Dishi Shrivastava and I am a graduate student at University of North Florida. For my master's thesis, I am conducting research on the impact of social presence cues and user experience on gender sensitive e-Tailing (electronic retail) websites.

We are requesting that you complete a short task on an experimental website then complete a quick survey. At the end of the survey, we will request you to post the study participation request to your social networking accounts. Facebook and Linkedin to help increase our participant post. Please note that your participation is completely voluntary and your response will be anonymous. In order to participate in the study, you must also be 18 years or above. This study is approved by UNF RB (RB # <-cnumber>>).

Although there are no direct benefits or compensation for taking part in this study, others may benefit from the information we find from the results of this study. Additionally, there are no foreseeable risks for taking part in this project. There are no penalties for not responding to a question or cessing participation. If you choose to withdraw from this study, there will be no penalty or loss of benefits to which you would otherwise receive.

If you have any questions or concerns about this study, please contact me (p) or my professor, Dr. Umapathy (kumapathy (k

If you would like to participate, then visit below website and follow the instructions presented to you: [URL HERE]

Your participation is an immense help to us, and we greatly appreciate your help.

Sincerely, Dishi Shrikastava

UNF IRB Number: 968583-1	
Approval Date: 10-31-2016	
Expiration Date: 10-31-2017	100
Processed on behalf of UNF's II	10 200

Figure 33. IRB Approval Form Snapshot 3

#### Script for UNF Ospreys Update

My name is Dishi Shrivastava and i am a graduate student at University of North Florida. For my master's thesis, i am conducting research on the impact of toolal presence cues and user experience on gender sensitive e-Tailing (electronic retail) websites. We are requesting that you complete a short task on an experimental website then complete a quick survey. At the end of the survey, we will request you to post the study participation request to your social networking accounts- Facebook and Linkedin to help increase our participant pool. This should only take around 15 minutes of your time, and it would greatly help us with our research. Please note that your participation is completely voluntary and your response will be confidential. In order to participate in the study, you must also be 18 years or above. This study is approved by UNF RB (BB # «cnumber»). If you have any questions or concerns about this study, please contact me (to (kumapathy@uni.edu/ 904-630-1329). If you would like to participate, then visit below website and follow the instructions presented to you: [URL HERE]

#### Script for Social network site posting by study volunteers

A graduate student, Dishi Shrivastava at University of North Florida is conducting research on the impact of social presence cues and user experience on e-Tailing (electronic retail) websites. We are requesting that you complete a short task on an experimental website then complete a quick survey. This should only take around 15 minutes of your time, and it would greatly help with the research. Please note that your participation is completely voluntary and your response will be confidential. In order to participate in the study, you must also be 18 years or above. This study is approved by universe (see excenteerror), it you have any questions or concerns about the study, peake contract uses introstave.

(n00931052@oxpreys.unt.edu) or professor, Dr. Umapathy (kumapathy@unf.edu). If you would like to participate, then visit below website and follow the instructions presented to you:

URL HERE]

UNF IRB Number: 968583-1	
Approval Date: 10-31-2016	
Expiration Date: 10-31-2017	100
Processed on behalf of UNF	S IRB CAR

## Figure 34. IRB Approval Form Snapshot 4

Electronic Informed Consent Documer	it.
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Hi my name is Dishi Shrivastava and I am a graduate student at the University of North Florida. We are conducting a research study on the impact of social presence cues and user experience elements on gender sensitive e-tailing website.

If you take part in this study, you will be asked to complete few simple tasks that involves navigating to pages on the mobile accessory shopping website and selecting a mobile cover you prefer, then fill out a short survey. We expect that participation in this study will take about 15 minutes of your time. Your responses will be completely anonymous. Only authorized personnel will have access to your responses. The researcher Dishi Shrivastava will have access to your responses and both the UNF IRB and federal regulators can request access to responses if needed. However, we will not attempt to individually identify you and you will not be identified in any report or publication that comes from this research.

Although there are no direct benefits to or compensation for taking part in this study, others may benefit from the information we learn from the results of this study. Additionally, there are no foreseeable risks for taking part in this project. Participation is voluntary and there are no penalties for deciding not to participate, skipping questions, or withdrawing your participation. You may choose not to participate in this research without negatively impacting your relationship with UNF or your instructor.

Please print a copy of this document to keep for your records.

If you have any questions or concerns about this study, please contact me or my professor, Dr. Umapathy (k.umapathy@unf.edu/ 904-620-132...,

If you have questions about your rights as a participant, you may contact the University of North Florida's Institutional
Review Board Chairperson by calling (904) 620-2498 or by emailing itb@unLedu.

Thank you for your consideration.	
Sincerely,	
Dishi Shrivastava	Dr. Karthikeyan Umapathy
Phone:	Phone: (904) 620-1329
Email:	Email: kumapathy@unf.edu
By selecting "Begin" on the previous and you are at least 1.8 years of age. Do you wish to participate in this stu	page you acknowledge that you have given consent to be a subject of this research dy?
C Yes, I want to participate	

Figure 35. IRB Approval Form Snapshot 5

## VITA

Dishi Shrivastava, is a graduate student at the University of North Florida pursuing her Master's degree in Information Systems. She has a Bachelor's degree in Computer Applications from the University of Pune.

She is currently working at Florida Blue as a Project Manager/ Business Analyst. She is the solutions lead for Florida Blue member and provider application and leads a team of 15 employees. She has previous worked as a website designer and user experience (UX) designer for a startup firm in Jacksonville, called LocatorX. She also developed the UX and prototype for the Haiti project in collaboration with the University of North Florida.

Her research paper received the Best Paper Finalist Award at the Southern Association of Information Systems (SAIS) Conference in March 2016. She also presented her research at the Statewide Research Symposium at the University of Florida, Gainesville in April 2016.

In her free time, she volunteers with the Hispanic Institute for Life and Leadership, organizes career development programs, and maintain their social media presence. She also develops free websites and social media presence for small business owners in Jacksonville to help promote and expand their market.