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## The Influence of Mobile Website Quality on Consumer Satisfaction and Behavior

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THE INFLUENCE OF MOBILE WEBSITE QUALITY ON CONSUMER  
SATISFACTION AND BEHAVIOR

by

Xiuyuan Gao

A THESIS

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# THE INFLUENCE OF MOBILE WEBSITE QUALITY ON CONSUMER SATISFACTION AND BEHAVIOR

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University of Nebraska, 2013

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Mobile shopping has grown into a huge market and an increasing number of consumers have begun to use mobile websites to shop. Therefore, how mobile shopping websites provide good shopping to customers is significant. The object of this study is to relate factors of website quality to college students' satisfaction with mobile shopping experiences, which in turn influence their intentions to return to the website and/or to purchase on the website. Five dimensions of website quality, which were information quality, navigation, visual appeal, response time and interactivity, were selected in this study. The model of self-regulatory process (Bagozzi, 1992) has been widely used in consumer behavior to explain the relationship between attitude and intention. This model was adopted in this study to examine the relationship between website quality and consumer satisfaction with mobile shopping experience and the relationship between consumer satisfaction and their intentions to return to the website and/or to purchase on the website.

The results of this study suggested all dimensions of mobile website quality except navigation were positively related to consumer's satisfaction with their mobile shopping experience and consumer satisfaction positively related to consumers' intentions to revisit and/or purchase a product in mobile website contexts.

There are a limited number of studies focusing on consumer mobile shopping behaviors. Further study might consider other dimensions of mobile website quality, such as security (Szymanski & Hise, 2000) and innovativeness (Loiacono et al., 2002), and their relationship with consumer satisfaction with mobile shopping experience. In addition, the results of this study will provide marketers and retailers a better understanding of consumer mobile shopping behavior.

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## **CHAPTER I INTRODUCTION**

In recent years mobile shopping has grown into a huge market and an increasing number of consumers have begun to use mobile websites to shop. In the U.S., mobile shopping sales were \$20.85 billion in 2012, which is almost double mobile sales for 2011 (MarketingCharts, 2012a). However, as a new shopping channel, mobile websites still need to be improved in order to provide consumers with better mobile shopping experiences. Seascope Web (2012) suggested that a mobile-friendly website is a website designed for mobile devices and a website displaying correctly on mobile devices. Results of a Google survey (2012) about what users want from mobile websites revealed that 52 % of respondents said that they were less likely to patronize the companies with whom they had a bad mobile shopping experience. Seventy five percent of respondents preferred a mobile-friendly website to a traditional website on mobile, and 67% of respondents were more likely to buy from a mobile-friendly website. Hence, mobile website design will influence consumers' choice of websites and also influence their purchasing decisions. Mobile websites that provide good shopping experiences are important for attracting consumers and maintaining consumer loyalty.

### **Purpose of the Study**

Previous research has shown that website quality does influence consumer purchasing behavior (Barnes & Vidgen, 2000; Loiacono et al., 2002; DeLone & McLean, 2004). However, mobile websites are different from traditional websites. They are accessible everywhere through mobile devices, which have smaller display screens. Thus, consumers will have different requirements for mobile websites than for traditional websites. Although mobile shopping has been studied in many ways, there is limited

research about mobile website quality. Therefore, the purpose of this study is to relate factors of website quality to college students' satisfaction with mobile shopping experiences, which in turn influence their intentions to return to the website and/or to purchase on the website.

### **Definitions of Terms**

The terms used in the present study are defined as follows:

***Website quality.*** Consumer's evaluation of how well the website provided assistance with their shopping experience (Polites, et al., 2012)

***Information quality.*** Consumer's evaluation of the website content (Barnes and Vidgen, 2002).

***System quality.*** Consumer's evaluation of website technical characteristics (DeLone and McLean, 2003)

***Navigation.*** Website Navigation is a website guide that informs the users about areas and information contained in the website and the way to get these areas (Novaket et al., 2000).

***Interactivity.*** Website interactivity involves users' input and websites' response that allow direct communication between users and websites (Zhao and Dholakia, 2009).

***Response time.*** The speed with which the website responds to requests or performs particular functions (Chen & Dibb, 2010).

***Visual appeal.*** The appearance of the website interface (Chen & Dibb, 2010).

***Satisfaction.*** Consumers' evaluation of the extent their expectations or needs are fulfilled by the mobile shopping website (Oliver, 1997).

## CHAPTER II LITERATURE REVIEW

### Self-regulatory Process

Bagozzi's (1992) theory of self-regulatory process explains the relationship between attitude and intention. Previous attitude theories, such as the theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) and the theory of planned behavior (Ajzen, 1990), suggested that attitudes could influence intentions directly. However, Bagozzi (1992) argued that attitudes did not determine intentions sufficiently. He suggested that self-regulatory processes were needed to predict intention. The framework of the self-regulatory process is illustrated in Figure 2.1 (Bagozzi, 1992).

Appraisal process(attitude)	Emotional reactions	Coping response(Intention)
Outcome-desire conflict	→ Dissatisfaction	→ Intent to avoid
Outcome-desire fulfillment	→ Satisfaction	→ Intent to approach

*Figure 2.1. Framework of the Self-regulatory Process (Bagozzi, 1990)*

In this theory, Bagozzi defines attitude as an appraisal of the consequences of acting or simply as an appraisal process. Bagozzi (1992) argues that the appraisal process would stimulate emotional reactions, which, in turn, lead to coping response of intention. Therefore, attitude does not influence intention directly. Emotion could moderate the relationship between attitudes and intentions.

Bagozzi used outcome-desire units to represent the consequence of appraisals. Outcome is defined as an event that happens to a person. Desire is defined as hope of

approaching or avoiding something. Outcome-desire units represent appraisals of coordination of reality and hope. There are two kinds of appraisals. The first is outcome-desire fulfillment and the second is outcome-desire conflict. If one experiences a pleasant event or achieves a goal, outcome-desire fulfillment would occur. Appraisal would lead to particular emotion, such as satisfaction. In this situation, this emotion will lead to specific intentions, such as to maintaining or increasing satisfaction. In contrast, if one experiences an unpleasant event or fails to achieve a goal, an outcome-desire conflict would occur. Particular emotion, such as dissatisfaction, results. This emotion, in turn, stimulates the intention of avoidance.

### **Self-regulatory Process & Consumer study**

Bagozzi's (1992) theory of self-regulatory process has been used for consumer studies. Polites et al. (2012) used the theory as a framework to explore the antecedents of e-satisfaction and the relationship between e-satisfaction and site loyalty. The result showed that satisfaction mediated the relationship between site stickiness and consumer's appraisal of information quality, system quality, usefulness and perceived value of the website.

### **Website Quality**

Several studies have focused on-the dimension of website quality (Barnes & Vidgen, 2000; Loiacono et al., 2002; DeLone & McLean, 2004).

Barnes and Vidgen (2000) developed a measure of website quality named WebQual 1.0. In their study, they used the adopted quality function deployment (QFD) (Slabey, 1990) as a framework for their study. Barnes and Vidgen developed a questionnaire to evaluate the quality of four business school websites. According to its

reliability analysis, items in the questionnaire were classified into eight subcategories, including navigation, general ease of use, communication, visual impact, individual impact, finding information, information content, external integration and communication. However, their study used a small sample size and only tested business school websites. Then, based on WebQual 1.0, Barnes and Vidgen (2001) developed WebQual 2.0 applying it to B2C websites. Compared with WebQual 1.0, which focused on information quality, WebQual 2.0 emphasized interaction quality. This is because in earlier research, Bitner et al. (1990) proposed that consumers viewed interaction with stores as the service in store. Therefore, interaction quality, which was important to service in e-commerce, was measured in WebQual 2.0. In WebQual 3.0, Barnes and Vidgen (2001) adopted service quality measurements SERVQUAL (Parasuraman, 1985, 1988, 1995; Zeithaml et al., 1990, 1993) and IS SERVQUAL (Pitt et al., 1995, 1997; Kettinger and Lee, 1997; Van Dyke et al., 1997) to measure interaction quality. WebQual 3.0 (Barnes and Vidgen, 2001) categorized all instruments of WebQual 1.0 and 2.0 into three distinct areas, which were information quality, interaction quality and site design quality. In this measurement, site design quality referred to website's navigation, appearance and a sense of competency. Service interaction referred to website's reputation, security and goods/services delivered as promised. Barnes and Vidgen (2002) developed WebQual 4.0 based on WebQual 3.0. Site design quality was replaced by usability. They defined usability as the navigation, ease of use and visual design.

Loiacono et al. (2002) developed WebQual, an instrument about consumers' perceptions of website quality and their behavior of revisiting the website. This instrument is based on the theory of reasoned action (TRA) (Ajzen et al. 1980; Fishbein

et al. 1975). According to the theory of reasoned action, individuals' beliefs influence attitudes, which in turn lead to intention and behavior. To know consumers' intention of revisiting the website in Loiacono et al.'s (2002) study, perception, which could affect their beliefs about website quality, was measured. Based on Davis's study about the relationship between perception and behavior of using technology, Loiacono et al. (2002) suggested that perceptions of "usefulness", "ease of use" "entertainment" and "complementary relationship" would influence the consumer's behavior toward revisiting the website. In the Loiacono et al. (2002) instrument, dimensions of informational fit-to-task, interactivity and trust measured usefulness. Dimensions of ease of understanding and intuitive operations measured ease of use. Dimensions of visual appeal, innovativeness and flow-emotional appeal measured entertainment. Dimensions of consistent image, on-line completeness and better than alternative channels measured complementary relationships.

DeLone and McLean (1992) suggested that information system success was decided by factors of system quality, information quality, use, user satisfaction, individual impact and organizational impact. They argued that both system quality and information quality could influence usage and user satisfaction both singularly and jointly. Besides, the amount of usage and satisfaction could influence each other, positively or negatively. To measure e-commerce success, DeLone and McLean (2004) adopted their previous instrument of the DeLone & McLean Information System (IS) Success Model (DeLone & McLean, 1992) to develop a new instrument. Because service was important to e-commerce websites, dimension of service quality was added. Therefore, dimensions of information quality, system quality and service quality were used as independent



variables to predict users' satisfaction and usage in their measurement of e-commerce success.

### **Summary of Literature Review**

Self-regulatory process (Bagozzi, 1992) has been widely used in consumer behavior to explain the relationship between attitude and intention. Barnes and Vidgen (2000), DeLone and McLean (2002), and Loiacono et al. (2002) identified a wide array of website features that influence consumers' evaluation of website quality. Website quality instruments developed by them were used in previous studies to evaluate different kinds of websites' quality. To study mobile shopping websites in this study, several dimensions for these website quality instruments are used.

### CHAPTER III DESIGN OF STUDY

The purpose of this study is to relate factors of website quality to college students' satisfaction with mobile shopping experiences, which in turn influence their intentions to return to the website and/or to purchase on the website.

Because different websites have different functions and consumers have different requirements for website quality, Kim and Stoel (2004) suggested that the dimensions of website quality be decided by the function of the website. DeLone and McLean (1992) suggested that the choice of variables differ according to the objective of the study. Therefore, to study mobile shopping website quality, the present study identified and adopted dimensions and categories of website quality based on the attributes of mobile shopping websites.

Dimensions and categories were selected from Barnes and Vidgen's (2002) WebQual 4.0, Loiacono et al.'s (2002) WebQual, DeLone and McLean's (2004) Information System (IS) Success Model. DeLone and McLean (2004) suggested to use categories of information quality, system quality and service quality to measure e-commerce website. Because mobile websites' service is limited, information quality and system quality were used as two categories to measure mobile website quality in this study. Navigation, response time, visual appeal and interactivity were used as four dimensions of system quality.

Bagozzi's (1992) self-regulatory model will be used as the theoretical framework for this study. The appraisal process refers to how consumers appraise their experience and outcome of using mobile shopping. Dimensions of website quality are used to measure the consumer's appraisal of mobile shopping experiences. Reaction refers to the

consumer's emotional reaction to the mobile shopping experience. Satisfaction is used to measure the consumer's emotional reaction towards the experience. Intention refers to the consumer's intentions to approach or avoid this mobile shopping behavior in the future.

## **Hypotheses**

**Information Quality.** Consumers visit mobile websites to look up information, such as price information, product information, and promotional information (MarketingCharts, 2012b). Information is an essential part of websites and information quality influences transactions in shopping (Xu & Koronios, 2004, 2005). Websites can attract, retain and stimulate consumers through providing valuable information (Kim & Niehm, 2009; Wen, 2009). Previous research suggested that when information quality had a positive effect on consumer satisfaction that consumers were more likely to be satisfied with adequate and accurate information (Polites, 2012; Kim and Stoel, 2003; Cry, 2008). Consumers will be satisfied with the results when they find the information they need on the mobile websites. Therefore, in this study the relationship between information quality and satisfaction is posited as follow:

**H1: Information quality of mobile websites will have a positive impact  
on consumer satisfaction.**

**System quality.** System refers to the content delivery process (DeLone & McLean, 1992). DeLone and McLean (2004) suggested that for e-commerce, the measures of system quality were usefulness, usability, responsiveness, reliability and flexibility. McKinney et al. (2002) suggested that dimensions of system quality were access, usability, navigation and interactivity.

In this study, mobile websites system quality is measured using the four dimensions of navigation, visual appeal, response time and interactivity.

**Navigation.** Websites navigation influence users' fluency of visiting website experiences (Novak et al., 2000) and their attitudes towards the website (Eagly & Chaiken, 1993). Richard (2005) suggested that navigational cues of websites were related to consumers' behavior of visiting and purchasing. Loiacono et al. (2002) suggested that ease of operation and navigation influenced consumers' perceived ease of use. Cry (2008) found that navigation of websites influenced consumers' satisfaction and loyalty. Consumers need to take time and effort to learn and get used to mobile shopping, a new shopping channel. Good website navigation could make it easy for consumers to learn mobile shopping and bring good experiences when visiting websites. Therefore, the following hypothesis is proposed:

**H2: Navigation of mobile websites will have a positive impact on consumer satisfaction.**

**Response time.** Kim and Stoel (2003) concluded that fast response time had strong positive influence on consumer satisfaction with online shopping. Szymanski and Hise (2000) suggested that convenience and the saving of time and effort, significantly influenced consumer satisfaction, while fast load speed reduced consumers' waiting time when they visited mobile websites. Fast response time could make consumers' visiting experience fluent and save consumers' time. Therefore, the following hypothesis is proposed:

**H3: Response time of mobile websites will have a positive impact on consumer satisfaction.**

**Visual appeal.** A website's graphical look of balance, emotional appeal, aesthetics and uniformity is related to visual design (Cry, 2008). In a cross cultural study among Chinese, Canadian and German consumers, Cry (2008) found that visual design influenced consumer satisfaction for persons in all three countries. Color appeal leads to satisfaction with the websites and trust (Cyr et al., 2010). Website design elements such as color, shape, image, and video could influence users' perception of the website (Simon, 2001). Moreover, hedonic or emotional elements in website design are significant to users' enjoyment and loyalty (Cry et al., 2009). However in other studies, visual appeal did not significantly affect satisfaction (Kim & Stoel, 2003). The following hypothesis is proposed:

**H4: Visual appeal of mobile websites will have a positive impact on consumer satisfaction**

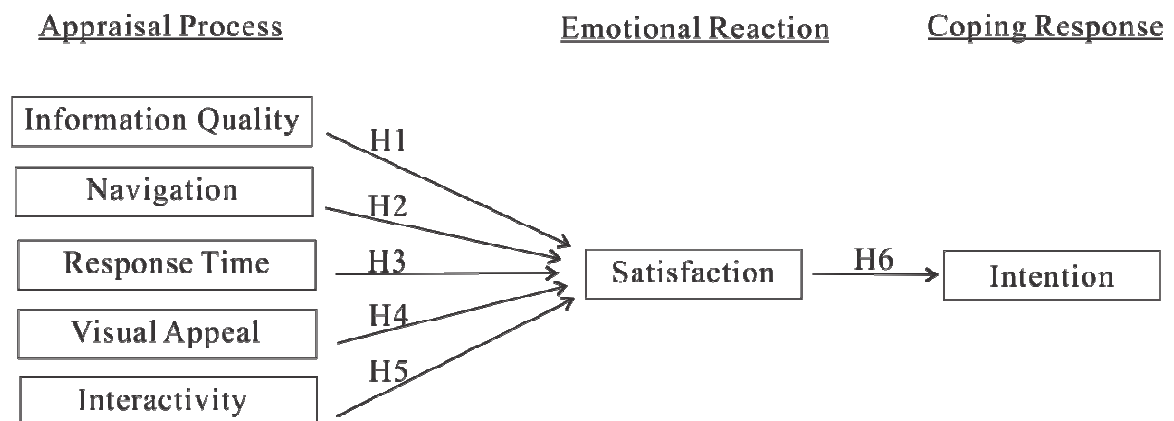
**Interactivity.** Consumers think online service can be defined as the interaction between the consumer and the shopping websites (Bitner et al., 1990). Mobile websites are not only interactive as traditional websites; they also have some other interactivity features, such as location based service and notifications that provide more customized service. These interactivity functions could save consumers time and efforts. Zhao and Dholakia (2009) suggested that website interactivity has multiple features, such as keyword search, personalization and customer feedback. They identified eight features and examined the relationship between interactivity features and satisfaction. The result showed all these features contribute to consumer satisfaction. Besides, previous research found that interactivity could influence consumer satisfaction positively (Rafaeli, 1988; Rafaeli & Sudweeks, 1997; Liu & Shrum, 2002). Therefore, following hypothesis is proposed:

**H5: Interactivity of mobile websites will have a positive impact on consumer satisfaction.**

**Satisfaction.** Satisfaction refers to consumers' evaluation of the extent their expectations or needs are fulfilled (Oliver, 1980). Molla and Licker (2001) defined e-commerce satisfaction as the consumers' reactions or feelings in relation to their experience with the e-commerce system. Consumer satisfaction is significant for long-term client relationships (Patternson et al., 1997). Previous research suggests that satisfaction with the website or shopping experience will lead to consumers' approach intention or behavior in the future (Kim & Niehm, 2009; Polites, 2012). Therefore, the following hypothesis is proposed:

**H6: Consumer satisfaction will have a positive impact on the consumer's approach intention.**

Proposed hypotheses are illustrated in Figure 3.1.



*Figure 3.1. Conceptual Framework and Proposed Hypotheses*

## CHAPTER IV METHODOLOGY

### Instrument Development

**Demographic information.** Participants were requested to provide demographic information, such as gender, age, education, citizenship and ethnicity in this study.

**Mobile Shopping Experience.** Participants were asked which mobile commerce website they used within a specific period of time. If participants indicated that they had purchased a product after visiting the mobile website, they were asked if they purchased the product in store, online or using the mobile website. Also, they were asked to identify the item. In addition, they would be asked how frequently they visit the mobile website.

**Appraisal of the mobile website quality.** Participants were asked to rate the mobile retailer they visited most frequently within the last three months from the date they completed the survey. To measure information quality, and navigation, eight items were adopted from Barnes and Vidgen's (2002) WebQual scale. Nine items were adopted from Loiacono et al. (2002) to measure response time, visual appeal and interactivity. Each item was measured using a 7-point Likert scale from 1 (Strongly Disagree), 2 (Disagree), 3 (Somewhat Disagree), 4 (Undecided), 5 (Somewhat Agree), 6 (Agree), to 7 (Strongly Agree).

**Satisfaction.** Two items to measure satisfaction were adopted from Szymanski and Hise (2000). A 7-point Likert scale from 1 (Very dissatisfied) to 7 (Very satisfied) and a 7-point Likert scale from 1 (Very displeased) to 7 (Very pleased) were used for these items.

**Intention.** Two items to measure intentions to revisit the mobile website and/or to purchase from the mobile website were adopted from Chen and Bibb (2010). A 7-point

Likert scale from 1 (Not at all) to 7 (very much) was used for these items. The measurements are found in Table 4.1.



Table 4.1. Measurements

<i>Measurement</i>	
1	<b>Information quality (<i>Barnes &amp; Vidgen, 2002</i>)</b> <ul style="list-style-type: none"> <li>• The website provides accurate information.</li> <li>• The website provides information on the right level of detail.</li> <li>• The website provides timely information.</li> <li>• The information on the website is relevant to me.</li> <li>• The website provides relevant information.</li> </ul>
2	<b>System quality</b> <p><i>Navigation (<i>Barnes &amp; Vidgen, 2002</i>)</i></p> <ul style="list-style-type: none"> <li>• I find the site easy to learn to operate.</li> <li>• My interaction with the site is clear and understandable.</li> <li>• I find the site easy to navigate.</li> </ul> <p><i>Response time (<i>Loiacono et al., 2002</i>)</i></p> <ul style="list-style-type: none"> <li>• When I use the website there is very little waiting time between my actions and the website's response.</li> <li>• The website loads quickly.</li> <li>• The website takes long to load.</li> </ul> <p><i>Visual appeal (<i>Loiacono et al., 2002</i>)</i></p> <ul style="list-style-type: none"> <li>• The web site is visually pleasing.</li> <li>• The website displays visually pleasing design.</li> <li>• The website is visually appealing.</li> </ul> <p><i>Interactivity (<i>Loiacono et al., 2002</i>)</i></p> <ul style="list-style-type: none"> <li>• The website allows me to interact with it to receive tailored information.</li> <li>• The website has interactive features, which help me accomplish my task.</li> <li>• I can interact with the website in order to get information tailored to my specific needs.</li> <li>• The website creates a sense of personalization.</li> </ul>
3	<b>Satisfaction (<i>Szymanski &amp; Hise, 2000</i>)</b> <p>Overall, how do you feel about your Internet-shopping experience?</p> <ul style="list-style-type: none"> <li>• Choose from very dissatisfied to very satisfied</li> <li>• Choose from very displeased to very pleased</li> </ul>
4	<b>Intention (<i>Chen &amp; Bibb</i>)</b> <ul style="list-style-type: none"> <li>• How much would you like to revisit this mobile website?</li> <li>• How much would you like to do business with this mobile website in the near future?</li> <li>• Choose from not at all to very much</li> </ul>

**Pilot Study**

A pilot study was conducted online among 81 undergraduate students in the Department of Textiles, Merchandising, and Fashion Design at the University of Nebraska- Lincoln. The purpose of pilot study was to check for the reliability of the questionnaire items and to determine whether survey items needed to be changed. The pilot study questionnaire is available in Appendix C. IBM SPSS Statistics 20 was used to analyze the data. Cronbach's Alpha ( $\alpha$ ) was used to assess the reliability of the instruments.

The reliability for "Information" was .91 indicating good reliability. The reliability for "Navigation" was .91. The reliability for "Response time" was .88. The reliability for "Visual appeal" was .96. The reliability for "Interactive" was .90. The reliability for "Satisfaction" was .92. The reliability for "Intention" was .81.

The result of reliability analysis showed that the Cronbach's  $\alpha$  of all factors were above .70, which indicates the items were consistent with the constructs to be measured (see Table 4.2.).

*Table 4.2. Factor Analysis and Reliability*

<b>Variables</b>	<b>Cronbach's <math>\alpha</math></b>
Information	.91
Navigation	.91
Response time	.88
Visual appeal	.96
Interactive	.90
Satisfaction	.92
Intention	.81

## **CHAPTER V RESULTS**

### **Descriptive Statistics**

IBM SPSS was used to obtain descriptive statistics. Two thousand five hundred students attending the University of Nebraska-Lincoln were invited to participate in the survey through email. A total of 216 persons responded to the survey. However, among those respondents, 96 persons did not qualify because they either did not have a mobile shopping experience or did not complete the questionnaire. A total of 120 individuals submitted valid questionnaires for analysis. A demographic profile of the sample is presented in Table 5.1. Among those 120 respondents, 38 (32%) were male and 82 (68%) were female. Seventy eight (65%) were 19-24 years of age and 42 (35%) were 25 years and older. One hundred and seven (89%) were domestic students and 13 (11%) were international students. Among the respondents who responded to the Ethnic background question, 104 (87%) were Caucasian American. 2 (2%) were Native American or Alaska Native, 5 (4%) were Hispanic American, 3 (2%) were Asian or Pacific Islander and 6 (5%) were other ethnic groups (see Table 5.1).

*Table 5.1 Demographic Characteristics of Respondents*

<b>Characteristics</b>	<b>Frequencies</b>	<b>Percentage</b>
<i>Gender</i>	N=120	
Male	38	32%
Female	82	68%
<i>Age</i>	N=120	
19-24 years	78	65%
25 years and older	42	35%
<i>Student Classification</i>	N=120	
International Student	13	11%
Domestic Student	107	89%
<i>Ethnic Background</i>	N=120	
Caucasian American	104	87%
Hispanic American	5	4%
Native American or Alaskan Native	2	2%
Asian or Pacific Islander	3	2%
African American	0	0
Other	6	5%

### **Mobile Searching Behavior**

When the 120 respondents were asked to identify one or more shopping activities for which they used their mobile phones, 91 (76%) of the respondents browsed an online store to look for product or store information, 82 (68%) researched product features, 74 (62%) checked product rating and reviews, 72 (60%) compared price, 71 (59%) compared product, and 66 (55%) accessed coupons for in-store redemption. When respondents were asked to identify one or more ways through which they accessed the mobile website, 79 (66%) individuals visited mobile websites through browsers on mobile phones and 41 (34%) visited mobile websites through mobile Apps. When they

were asked to indicate one or more reasons for preferring a mobile website, 110 (92%) respondents chose convenience, 68 (57%) chose speed, and 46 (38%) chose navigation.

Respondents indicated they visited one or more of the following product categories: 85 (71%) chose apparel and accessories, 82 (68%) chose electronics, 70 (58%) chose recreational products, such as video games, sports equipment, and 47 (39%) chose the Beauty and health aids category (See Table 5.2).

Table 5.2 Respondents use of mobile phones to search for information

Characteristics	Frequency	Percentage of respondents
<i>Shopping activities on mobile phones (Multiple answers)</i>		
	Total respondents=120	
Access promotional coupons for in-store redemption	66	55%
Product comparison	71	59%
Check product rating and reviews	74	62%
Scan a product barcode	24	20%
Research product features	82	68%
Browse an online store for product	91	76%
Look up store information	91	76%
Price comparison	72	60%
<i>How respondents access the mobile website</i>		
	Total respondents=120	
Through browser on the mobile phone	79	66%
Through Apps on the mobile phone	41	34%
<i>Reasons for preferring a mobile website (Multiple answers)</i>		
	Total respondents=120	
Convenience	110	92%
More features (ex. price comparisons)	13	11%
Navigation	46	38%
Look/Feel	31	26%
Speed	68	57%
Secure	17	14%
Reliable	38	32%
<i>Mobile shopping product categories (Multiple answers)</i>		
	Total respondents=120	
Apparel &/or accessories	85	71%
Beauty & Health aids	47	39%
Electronics	82	68%
Recreational products (ex. video games, sports equipment)	70	58%

### Purchase Behavior

Of the 120 respondents who used mobile phones to search for product information, 82 (68%) individuals purchased a product after using mobile phones for information. Those 82 respondents were asked to indicate one or more ways they purchased after using mobile phones. Among those respondents, 52 (63%) purchased using a computer, 26 (32%) purchased a product using the mobile phone, and 25 (30%) purchased the product in a retail store associated with the mobile website (See Table 5.3).

*Table 5.3 Respondents' behavior of purchasing product after using mobile phones*

Characteristics	Frequency	Percentage of respondents
<i>Purchasing after using mobile phones</i>	Total respondents=120	
Yes	82	68%
No	38	32%
<i>Where to purchase the item (Multiple answers)</i>	Total respondents =82	
I purchased it on the mobile phone	26	32%
I purchased it using a computer	52	63%
I purchased it in a retail store associated with the mobile website	25	30%
I purchase it from another retail store	13	16%



### Reliability Analysis

Cronbach's Alpha was used to assess the reliability of internal consistency of the five factors. IBM SPSS was used to determine Cronbach's Alpha. The coefficients ranged from 0.85 to 0.96, indicating high internal consistency for all seven factors (See Table 5.4).

*Table 5.4 Factor Analysis and Reliability*

Factor	Reliability
Information Quality	.951
Navigation	.932
Response Time	.848
Visual Appeal	.963
Interactivity	.871
Satisfaction	.939
Intention	.879

### Determining Model Fit

The hypothesized model was tested employing path analysis. Mplus was used to analyze the model fit. Three commonly used measures of fit, which are chi-square, Comparative Fit Index (CFI), and Standardized Root Mean Square Residual (SRMR), were used. As to the chi-square statistic,  $p > .05$  indicates good fit. The result of chi-square ( $\chi^2 (5) = 14.746, p < 0.05$ ) for this model indicated the estimated model did not fit perfectly. However, CFI and SRMR indicated good model fit. Hu and Bentler (1999) indicated a CFI value greater than or equal to .95 indicated good model fit. The value of CFI for the model was 0.962, which indicated good model fit. Hu and Bentler (1999) indicated SRMR values less than or equal to .08 indicate good model fit. For the model

estimated above, SRMR = .035 indicated good model fit. Therefore, the overall fit of model is acceptable.

## Results

Path analysis was used to examine the validation of all hypotheses. The reason to use path analysis was to allow the model to be examined in one step. Mplus was used to analyze all hypotheses. Hypotheses H1 to H5 examined the relationship of mobile website quality on consumer satisfaction with mobile shopping experience. All hypotheses were statistically supported except for H2, which was the relationship between navigation and consumer satisfaction. H6 was statistically supported revealing that satisfaction had positive influence on intention to purchase and/or revisit the website (See Table 5.5).

Hypothesis 1 examined the relationship between information quality and satisfaction. Results showed that information quality had a positive relationship with satisfaction (H1:  $\beta=0.252$ ,  $p<0.05$ ). Therefore, H1 was supported.

Hypothesis 2 proposed that navigation would be positively related to satisfaction. Results indicated that navigation was not positively related to satisfaction (H2:  $\beta=0.059$ ,  $p>0.05$ ). Therefore, H2 was not supported.

Hypothesis 3 proposed that response time would have a positive relationship with satisfaction. Results showed that response time had a positive relationship with satisfaction (H3:  $\beta=0.149$ ,  $p<0.05$ ). Therefore, H3 was supported.

Hypothesis 4 proposed that visual appeal would be positively related to satisfaction. Results suggested that visual appeal was positively related to satisfaction (H4:  $\beta=0.237$ ,  $p<0.01$ ). Therefore, H4 was supported.

Hypothesis 5 tested the relationship between interactivity and satisfaction. Results suggested that interactivity had a positive relationship with satisfaction (H5:  $\beta=0.186$ ,  $p<0.05$ ). Therefore, H5 was supported.

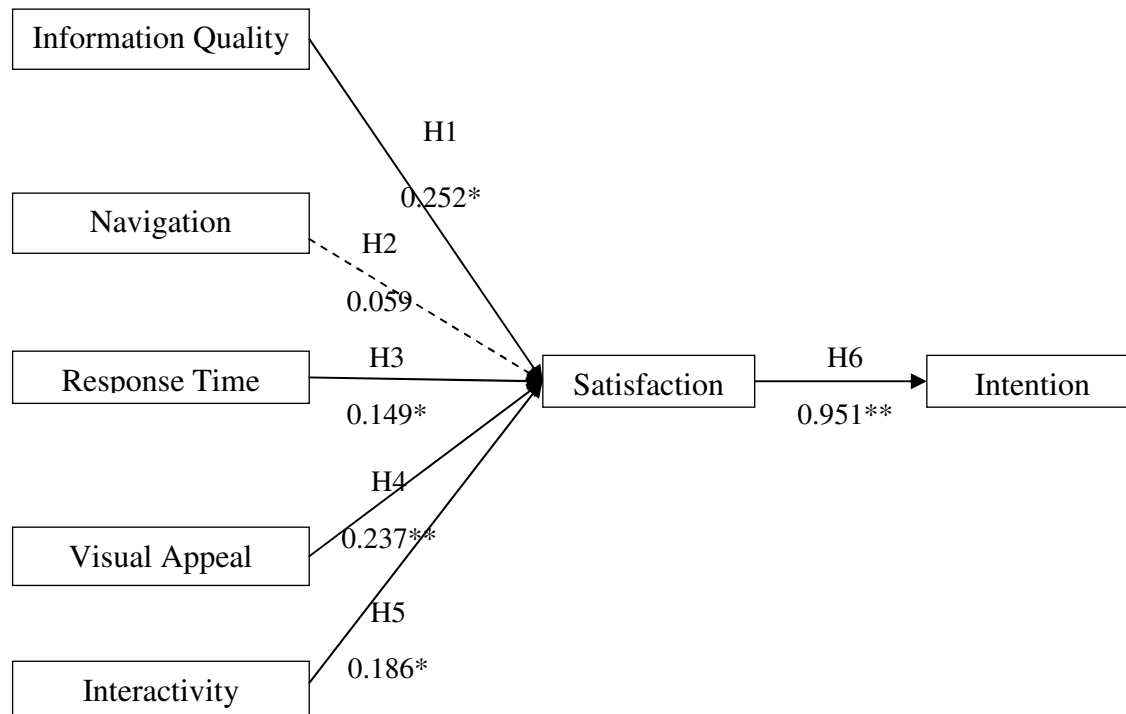
Hypothesis 6 examined the relationship between satisfaction and intention. Results suggested that satisfaction with mobile shopping experience was positively related to intention to purchase and/or revisit the website (H5:  $\beta=0.951$ ,  $p<0.001$ ). Therefore, H6 was supported.

*Table 5.5 Path Analysis Results*

<b>Hypotheses</b>	<b>Results</b>	<b>Estimate</b>	<b>Standard Error</b>	<b>Est./S.E.</b>	<b>P-Value</b>
H1: Information Quality → Satisfaction	Support	0.252	0.109	2.310	0.021*
H2: Navigation → Satisfaction	Not support	0.059	0.068	0.870	0.384
H3: Response Time → Satisfaction	Support	0.149	0.058	2.551	0.011*
H4: Visual Appeal → Satisfaction	Support	0.237	0.071	3.333	0.001**
H5: Interactivity → Satisfaction	Support	0.186	0.079	2.364	0.018*
H6: Satisfaction → Intention	Support	0.951	0.087	10.907	0.000**

Path significance: \*\*  $p < .01$ , \*  $p < .05$

Figure 5.1 A Final Structural Model Fit and Estimation Results



Note. Standardized path estimates are reported. Broken line indicates insignificant path.  
 Path significance: \*\*  $p < .01$ , \*  $p < .05$

## CHAPTER VI DISCUSSION AND CONCLUSIONS

### Summary of Major Results

The purpose of this study was to relate factors of website quality to college students' satisfaction with their mobile shopping experiences, which in turn influenced their intentions to return to the website and/or to purchase from the mobile website. Based on the theory of self-regulatory process (Bagozzi, 1992), five factors of website quality were: information quality, navigation, response time, visual appeal and interactivity. The study focused on the relationship between these five factors of website quality and consumer satisfaction with their mobile shopping experience (Hypothesis 1 through 5) and the relationship between satisfaction and consumers' intentions to revisit and/or purchase a product (Hypothesis 6). The results of this study suggested that four of five factors of mobile website quality, which were information quality, response time, visual appeal and interactivity, positively related to consumer satisfaction with their mobile shopping experience and consumer satisfaction positively related to consumers' intentions to revisit and/or purchase a product in mobile website contexts.

Information quality had the strongest relationship with satisfaction. A high level of information quality referred to accurate, timely and relevant information. Mobile websites with high levels of information quality would satisfy consumers. This result was consistent with Filo et al.'s (2009) study that website user satisfaction would increase when users perceived high levels of information quality. Also, this result supported Polites's (2012), Kim and Stoel's (2003), and Cry's (2008) findings that consumers would be more satisfied with adequate and accurate information on the shopping websites.

Visual appeal had the second strongest relationship with satisfaction. Consumers were more satisfied with visually pleasing mobile websites. This result was supported by Cry's (2008) findings that visual design influenced consumer satisfaction.

Interactivity contributed to consumer satisfaction. Mobile websites could have a variety of interactive features. This result was consistent with Zhao and Dholakia's (2009) study that interactivity features contributed to consumer satisfaction.

Fast loading speed was important to consumer satisfaction. This result was consistent with Kim and Stoel (2003) who found that fast loading speed positively influenced consumer satisfaction with online shopping experiences.

However, navigation did not positively relate to consumer satisfaction. This result was inconsistent with Cry's (2008) findings that website navigation influences consumer satisfaction. This inconsistency might be caused by the difference between using a mobile phone for shopping and using a computer for shopping. A mobile phone screen is considerably smaller than a computer screen.

Satisfaction positively related to consumers' intentions to revisit the website and/or purchase a product on the website. This result was supported by Kim and Niehm (2009) and Polites (2012) who found consumer satisfaction with the website would influence their intentions to revisit and/or to purchase from the website in the future.

### **Limitations**

There were several limitations to this study. The first limitation of this study was the sample. All respondents were college students of whom the majority (65%) were between 19 and 25 years of age. Because mobile shopping is a recent phenomenon, a number of students did not have mobile shopping experience. A total of 120 respondents

completed the survey and submitted valid questionnaires. To study consumer mobile shopping behavior, a larger and more diverse sample should be recruited in the future.

Another limitation was that respondents answered the questions based on their previous experience within a specific time period (three months). Therefore, their answers might not accurately describe their actual experience due to their flawed memory.

This study did not ask consumers to answer questions based on a particular type of mobile website. Further study could examine consumers' appraisal of a specific type of mobile website, such as apparel mobile websites or electronics mobile websites.

### **Conclusion & Managerial Implications**

Mobile shopping is a new shopping channel and is experiencing rapid growth. However, there are a limited number of studies focusing on consumer mobile shopping behaviors. This study examined the relationship between consumers' appraisal of mobile website quality and consumer satisfaction with their shopping experience, which in turn, influenced their intention to purchase and/or revisit the mobile website. The results suggested mobile website quality could influence consumers' intentions to purchase and/or to revisit the website. This study focused on five dimensions of mobile website quality: information quality, navigation, response time, visual appeal and interactivity. With the exception of navigation, positive relationships were found between four of the five dimensions of website quality and consumer satisfaction with mobile shopping experience. Further study might consider other dimensions of mobile website quality, such as security (Szymanski & Hise, 2000) and innovativeness (Loiacono et al., 2002), and their relationship with consumer satisfaction with mobile shopping experience.



The results of this study will provide marketers and retailers a better understanding of consumer mobile shopping behaviors. Because most consumers visit mobile websites for product or store information, retailers should provide accurate and adequate information on mobile websites. Besides, convenience is an important factor when consumers use a mobile website. Therefore, retailers could enhance website convenience through increasing interactivity features and speed. Also, good mobile website design will appeal to consumers. Marketers and retailers should consider the difference between mobile websites and traditional websites and design mobile websites based on consumers' needs and expectations.

## REFERENCE

- Bagozzi, R. (1992). The self-regulation of attitudes, intentions, and behavior. *Social psychology quarterly*, 55(2), 178–204.
- Barnes, S., Liu, K., & Vidgen, R. (2001). Evaluating WAP news sites: the WebQual/m approach. *Proceedings of the Ninth European Conference on Information Systems*, 344–355.
- Barnes, S., & Vidgen, R. (2000). WebQual: an exploration of Web site quality. *Eighth European Conference on Information Systems*.
- Barnes, S., & Vidgen, R. (2001). An evaluation of cyber-bookshops: The WebQual method. *International Journal of Electronic Commerce*, 6(1), 11–30.
- Barnes, S., & Vidgen, R. (2002). An integrative approach to the assessment of e-commerce quality. *Journal of Electronic Commerce Research*, 3(3), 114–127.
- Bitner, M. J., Booms, B. H., & Tetreault, M. S. (1990). The service encounter: diagnosing favorable and unfavorable incidents. *Journal of Marketing*, 54(1), 71–84.
- Chen, J., & Dibb, S. (2010). Consumer trust in the online retail context□: exploring the antecedents and consequences. *Psychology & Marketing*, 27(4), 323–346.
- DeLone, W. H., & Mclean, E. (2004). Measuring e-commerce success: Applying the DeLone & McLean information systems success model. *International Journal of Electronic Commerce*, 9(1), 31–47.
- DeLone, W. H., & McLean, E. (1992). Information systems success: The quest for the dependent variable. *Information systems research*, 3(1), 60–95.

- DeLone, W. H., & McLean, E. (2003). The DeLone and McLean model of information systems success: a ten-year update. *Journal of Management Information Systems*, 19(4), 9–30.
- Google. (2012). *What users want most from mobile sites today*. Retrieved from <http://www.thinkwithgoogle.com/insights/library/studies/what-users-want-most-from-mobile-sites-today/>
- Kim, S., & Stoel, L. (2004). Dimensional hierarchy of retail website quality. *Information & Management*, 41(5), 619–633.
- Loiacono, E., Watson, R., & Goodhue, D. (2007). WebQual: an instrument for consumer evaluation of web sites. *International Journal of Electronic Commerce*, 11(3), 51–87.
- MarketingCharts. (2012a). US mobile commerce sales to double this year. *Marketing Charts*. Retrieved from <http://www.marketingcharts.com/wp/topics/e-commerce/us-mobile-commerce-sales-to-double-this-year-23666/>
- MarketingCharts. (2012b). 1 in 3 online consumers perform mobile shopping research. *Marketing Charts*. Retrieved from <http://www.marketingcharts.com/wp/direct/1-in-3-online-consumers-perform-mobile-shopping-research-19065/>
- McKinney, V., Kanghyun, Y., & Zahedi, F. (2002). The measurement of web-customer satisfaction: an expectation and disconfirmation approach. *Information Systems Research*, 13(3), 296–315.
- Molla, A., & Licker, P. S. (2001). E-commerce systems success: an attempt to extend and specify the Delone and Maclean model of is success. *Journal of Electronic Commerce Research*, 2(4), 131–141.

- Novak, T.P, Hoffman, D.L, & Yung, Y.F (2000). Modeling the flow construct in online environments: a structural modeling approach. *Marketing Science*, 19(1), 22- 42.
- Oliver, R. L. (1997). Satisfaction: a behavioral perspective on the consumer. New York, NY: McGraw Hill.
- Rafaeli, S. (1988) Interactivity: From new media to communication. *Sage Annual Review of Communication Research: Advancing Communication Science*, 16, 110-134.
- Richard, M. O. (2005). Modeling the impact of internet atmospherics on surfer behavior. *Journal of Business Research*, 58(12), 1632–1642.
- Seascape Web (2012). What is a mobile-friendly website? Retrieved from <http://www.seascapewebdesign.com/category/blog-post-categories/mobile-friendly?page=1>.
- Slabey, W. R. (1990). QFD: A basic primer. Excerpts from the implementation manual for the three day QFD workshop. *Transactions of the Second Symposium on Quality Function Deployment* (pp. 21–85). Novi, MI.

## APPENDICES

### Appendix A: Invitation Email

Greetings!

Hello, my name is Xiuyuan Gao, and I am a graduate student in the Department of Textiles, Merchandising and Fashion Design at University of Nebraska-Lincoln. I am working on my thesis and you have been selected to participate in this online research survey about mobile shopping behavior. The title of this study is: “Influences of mobile website quality on consumer satisfaction and behaviors.” The purpose of this study is to relate factors of website quality to consumers’ satisfaction with the mobile shopping experience, which in turn influence purchase intentions. Your participation in this study is instrumental to understanding the influence of specific website cues on shopper responses. The completion of this online survey will take approximately 10-15 minutes. In addition, please understand the following:

- You must be 19 years of age or older to participate.
- Participation within this study is completely voluntary. You can decline to participate or withdraw at any time without any penalty or loss.
- All of your responses will remain confidential and will be kept in a password-protected file for one year after the study is complete.
- The responses will be anonymous.
- The data collected from the survey will be only used for research purposes and will not be disclosed for any other reasons.
- There are no known risks for participants in completing this study.

By continuing with the survey, you consent to be a participant within this study. If you are willing to participate in this survey, please click on the following link:

[https://unleducation.qualtrics.com/SE/?SID=SV\\_dif3f2cze85UD7D](https://unleducation.qualtrics.com/SE/?SID=SV_dif3f2cze85UD7D).

If the link does not work, proceed by copying and pasting the link within the browser address bar. Because this is a web-based survey, you can participate in the survey when and where convenient for you. I really appreciate your time and consideration. If you have problems or questions, please email me at [xiuyuan@huskers.unl.edu](mailto:xiuyuan@huskers.unl.edu).

If you would like to have contact with someone other than the researchers, please contact the Research Compliance Services Office at 402-472-6965 or [irb@unl.edu](mailto:irb@unl.edu).

Best regards,

Xiuyuan Gao, Graduate Student

Dept. of Textiles, Merchandising, and Fashion Design  
University of Nebraska-Lincoln  
Tel: 402-613-6219  
Email: [xiuyuan@huskers.unl.edu](mailto:xiuyuan@huskers.unl.edu)

**Appendix B: Informed Consent Form****INFORMED CONSENT FORM**

IRB 20130413466 EX

Hello,

You have been selected to participate in a research study about mobile website quality. The title of this study is: “Influence of mobile website quality on consumer satisfaction and behavior.” Your participation in this study will help researchers understand how mobile website quality influences consumer satisfaction and decision making. If you choose to participate, you will be asked to answer a series of questions about your experience. It takes approximately 5-8 minutes to complete the interview.

Please make sure that by continuing with the online survey, you should understand the following:

- You must be 19 years of age or older to participate.
- Your participation is completely voluntary. You can withdraw your participation at any time without any penalty.
- There are no known risks for participants in completing this study.
- The responses will be anonymous.
- The data will be kept indefinitely and will be used only for the purposes indicated above. Only the research team has an access to the data.
- By continuing with the survey, you consent to be a participant within this study.

Your input is greatly appreciated! Please be sure to print a copy of this consent page for your records.

If you have any questions about this research project before or after your participation, please contact with Xiuyuan Gao, at (402) 613-6219 or xiuyuan@huskers.unl.edu. If you have concerns about the treatment of research participants, you can contact the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965 or irb@unl.edu.

Thank you.

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University of Nebraska-Lincoln  
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## **Appendix C: Online Survey Questionnaire**

### **Part 1 This section is about how you searched for product information within the last three months.**

Q1. Have you used a mobile phone to search for product information within the last three months from today's date?

- ☐ Yes (go to Q3)
- ☐ No (go to Q2)

Q2. Why did not you use a mobile phone to search for product information? (Check as many as applicable) (go to Q20)

- ☐ I did not want to search for information.
- ☐ I didn't have a smart phone or data plan that allows me to use my mobile phone for product information.
- ☐ It was not convenient to search for product information on my mobile phone.
- ☐ I didn't believe my mobile phone is secure.
- ☐ My mobile phone was not reliable.
- ☐ Not applicable.

Q3. For what purposes did you use your mobile phone? (Check as many as applicable)

- ☐ Access promotional coupons for in-store redemption
- ☐ Product comparison
- ☐ Check product rating and reviews
- ☐ Scan a product barcode
- ☐ Research product features

- ☐ Browse an online store for product
- ☐ Look up store information
- ☐ Price comparison

Q4. Select all the product categories for which you search online for product information using a mobile phone within the past three months. (Check as many as applicable)

- ☐ Apparel &/or accessories
- ☐ Beauty & Health aids
- ☐ Electronics
- ☐ Recreational products (ex. video games, sports equipment)

Q5. How did you access these mobile website? (Check as many as applicable)

- ☐ Through the browser on my mobile phone.
- ☐ Through the Apps on my mobile phone.

Q6. For each product category you visited, please indicate the mobile website you used within the past three months.

Product Category	Name of mobile websites
Apparel and Accessories	
Beauty and Health	
Electronics	
Recreational products (ex. video games, sports equipment)	

Q7. What characteristics influence you to use a mobile website when shopping? (check as many as applicable)

- ☐ Convenience
- ☐ More features (ex. price comparisons)
- ☐ Navigation
- ☐ Look/Feel
- ☐ Speed
- ☐ Secure
- ☐ Reliable

Q8. Please indicate the highest price range for each product category that you searched within the past three months.

- |                       |                                     |                                  |                                   |  |
|-----------------------|-------------------------------------|----------------------------------|-----------------------------------|--|
| Apparel & accessories | <input type="checkbox"/> Under \$20 | <input type="checkbox"/> \$20-50 | <input type="checkbox"/> \$50-100 | <input type="checkbox"/> More than \$100 |
| Beauty & Health       | <input type="checkbox"/> Under \$20 | <input type="checkbox"/> \$20-50 | <input type="checkbox"/> \$50-100 | <input type="checkbox"/> More than \$100 |
| Electronics           | <input type="checkbox"/> Under \$20 | <input type="checkbox"/> \$20-50 | <input type="checkbox"/> \$50-100 | <input type="checkbox"/> More than \$100 |
| Recreational products | <input type="checkbox"/> Under \$20 | <input type="checkbox"/> \$20-50 | <input type="checkbox"/> \$50-100 | <input type="checkbox"/> More than \$100 |

Q9. Please indicate the lowest price range for each product category that you searched within the past three months.

- |                       |                                     |                                  |                                   |  |
|-----------------------|-------------------------------------|----------------------------------|-----------------------------------|--|
| Apparel & accessories | <input type="checkbox"/> Under \$20 | <input type="checkbox"/> \$20-50 | <input type="checkbox"/> \$50-100 | <input type="checkbox"/> More than \$100 |
| Beauty & Health       | <input type="checkbox"/> Under \$20 | <input type="checkbox"/> \$20-50 | <input type="checkbox"/> \$50-100 | <input type="checkbox"/> More than \$100 |
| Electronics           | <input type="checkbox"/> Under \$20 | <input type="checkbox"/> \$20-50 | <input type="checkbox"/> \$50-100 | <input type="checkbox"/> More than \$100 |
| Recreational products | <input type="checkbox"/> Under \$20 | <input type="checkbox"/> \$20-50 | <input type="checkbox"/> \$50-100 | <input type="checkbox"/> More than \$100 |

Q10. What is the frequency with which you use your mobile device for product information purposes?

Apparel & accessories	<input type="checkbox"/> Once Month	<input type="checkbox"/> 2-3 times	<input type="checkbox"/> Once a week	<input type="checkbox"/> 2-3 times a week	<input type="checkbox"/> Daily
Beauty & Health	<input type="checkbox"/> Once Month	<input type="checkbox"/> 2-3 times	<input type="checkbox"/> Once a week	<input type="checkbox"/> 2-3 times a week	<input type="checkbox"/> Daily
Electronics	<input type="checkbox"/> Once Month	<input type="checkbox"/> 2-3 times	<input type="checkbox"/> Once a week	<input type="checkbox"/> 2-3 times a week	<input type="checkbox"/> Daily
Recreational products	<input type="checkbox"/> Once Month	<input type="checkbox"/> 2-3 times	<input type="checkbox"/> Once a week	<input type="checkbox"/> 2-3 times a week	<input type="checkbox"/> Daily

**Part 2 This section is about your experience with the mobile website you visited most frequently within the past three months for product information.**

Q11. Which mobile website did you visit most frequently within the past three months for product information?

---

**Please think about the experience with this mobile website and then answer the following questions.**

Q12. Please circle an answer for each of the following statements based on your experience with the mobile website you visited most frequently within the past three months for product information.

	Strongly Disagree	Disagree	Somewhat Disagree	Undecided	Somewhat Agree	Agree	Strongly Agree
The website provided accurate information.	1	2	3	4	5	6	7
The website provided an appropriate amount of detailed information.	1	2	3	4	5	6	7
The website provided timely information.	1	2	3	4	5	6	7
The information on the website was relevant to me.	1	2	3	4	5	6	7
The website provided relevant information.	1	2	3	4	5	6	7
The website was easy to operate.	1	2	3	4	5	6	7
My experience interacting with the website was clear and understandable.	1	2	3	4	5	6	7
The website was easy to navigate.	1	2	3	4	5	6	7
There was a short amount of waiting time between my actions and the website's response.	1	2	3	4	5	6	7
The website loaded quickly.	1	2	3	4	5	6	7
The Website takes long to load.	1	2	3	4	5	6	7
The website was visually pleasing.	1	2	3	4	5	6	7
The website displayed a visually pleasing design.	1	2	3	4	5	6	7

The website was visually appealing.	1	2	3	4	5	6	7
When interacting with the website, it provided me with tailored information (e.g. product recommendation).	1	2	3	4	5	6	7
The website had interactive features, which helped me accomplish my task.	1	2	3	4	5	6	7
I was able to obtain information tailored to my specific needs.	1	2	3	4	5	6	7
The website created a sense of personalization.	1	2	3	4	5	6	7

Q13. Please use the following scale to tell us your overall impression of the mobile website you visited most frequently within the past three months for product information.

Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neutral	Somewhat Satisfied	Satisfied	Very Satisfied
1	2	3	4	5	6	7
Very Displeased	Displeased	Somewhat Displeased	Neutral	Somewhat Pleased	Pleased	Very Pleased
1	2	3	4	5	6	7

Q14. Please use the following scale to tell us your intention about the mobile website you visited most frequently within the past three months for product information in the future.

	Not At All						Very Much
How likely is it that you would revisit this mobile website?	1	2	3	4	5	6	7
How likely is it that you would purchase from this mobile website in the near future?	1	2	3	4	5	6	7

**Part 3 This section is about your purchase behavior within the past three months.**

Q15. Did you purchase a product after using a mobile website within the past three months?

- ☐ Yes (go to Q16)
- ☐ No, I did not purchase anything (go to Q20)

Q16. Where did you purchase the item?

- ☐ I purchased it on the mobile device
- ☐ I purchased it using a computer
- ☐ I purchased it in a retail store associated with the mobile website
- ☐ I purchase it from another retail store

Q17. Please identify the categories of items that you purchased within the past three months. (Check as many as applicable)

- ☐ Apparel & accessories

- ☐ Beauty & Health
- ☐ Electronics
- ☐ Recreational products

Q18. Please indicate the highest price range for each product category that you purchased within the past three months.

- |                       |                                     |                                  |                                   |  |
|-----------------------|-------------------------------------|----------------------------------|-----------------------------------|--|
| Apparel & accessories | <input type="checkbox"/> Under \$20 | <input type="checkbox"/> \$20-50 | <input type="checkbox"/> \$50-100 | <input type="checkbox"/> More than \$100 |
| Beauty & Health       | <input type="checkbox"/> Under \$20 | <input type="checkbox"/> \$20-50 | <input type="checkbox"/> \$50-100 | <input type="checkbox"/> More than \$100 |
| Electronics           | <input type="checkbox"/> Under \$20 | <input type="checkbox"/> \$20-50 | <input type="checkbox"/> \$50-100 | <input type="checkbox"/> More than \$100 |
| Recreational products | <input type="checkbox"/> Under \$20 | <input type="checkbox"/> \$20-50 | <input type="checkbox"/> \$50-100 | <input type="checkbox"/> More than \$100 |

Q19. Please indicate the lowest price range for each product category that you purchased within the past three months.

- |                       |                                     |                                  |                                   |  |
|-----------------------|-------------------------------------|----------------------------------|-----------------------------------|--|
| Apparel & accessories | <input type="checkbox"/> Under \$20 | <input type="checkbox"/> \$20-50 | <input type="checkbox"/> \$50-100 | <input type="checkbox"/> More than \$100 |
| Beauty & Health       | <input type="checkbox"/> Under \$20 | <input type="checkbox"/> \$20-50 | <input type="checkbox"/> \$50-100 | <input type="checkbox"/> More than \$100 |
| Electronics           | <input type="checkbox"/> Under \$20 | <input type="checkbox"/> \$20-50 | <input type="checkbox"/> \$50-100 | <input type="checkbox"/> More than \$100 |
| Recreational products | <input type="checkbox"/> Under \$20 | <input type="checkbox"/> \$20-50 | <input type="checkbox"/> \$50-100 | <input type="checkbox"/> More than \$100 |

#### **Part 4 Demographic information**

Q20. What is your gender?



- ☐ Female
- ☐ Male

Q21. How old are you?

\_\_\_\_\_

Q23. Are you an international student?

- ☐ Yes
- ☐ No

Q24. If you are a domestic student, what is your race/ethnicity?

- ☐ African American
- ☐ Caucasian American
- ☐ Native American or Alaskan
- ☐ Native Hispanic
- ☐ American Asian or Pacific Islander
- ☐ Other