

CONSUMERS' PRIOR EXPERIENCE AND ATTITUDES AS PREDICTORS OF  
THEIR ONLINE SHOPPING BELIEFS, ATTITUDES, AND PURCHASE  
INTENTIONS IN A MULTICHANNEL SHOPPING ENVIRONMENT

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Mijeong Noh

Certificate of Approval:

---

Sandra Forsythe  
Wrangler Professor  
Consumer Affairs

---

Carol L. Warfield, Chair  
Professor  
Consumer Affairs

---

Wi-Suk Kwon  
Assistant Professor  
Consumer Affairs

---

Gwynedd A. Thomas  
Associate Professor  
Polymer and Fiber Engineering

---

Alejandro A. Lazarte  
Assistant Professor  
Psychology

---

George T. Flowers  
Dean  
Graduate School

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INTENTIONS IN A MULTICHANNEL SHOPPING ENVIRONMENT

Mijeong Noh

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Mijeong Noh

Doctor of Philosophy, December 19, 2008  
(M.S., Auburn University, 1997)  
(B.A., Ewha Womans University, 1989)

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Directed by Carol Warfield

This study was designed to develop a conceptual model which indicated 1) the interrelationships among consumers' prior in-store shopping experience with the multichannel retailer, consumers' advertisement attitude, and their brand attitude and 2) the causal relationships of consumers' prior in-store shopping experience with the multichannel retailer, consumers' advertisement attitude, and their brand attitude with online shopping beliefs, attitudes, and purchase intentions at the website of the multichannel retailer. The conceptual model is based on the Theory of Reasoned Action, Schema Theory, and the Consumer Decision-Making Process.

This research was comprised of two phases which were the brand selection phase and the model development phase. The brand selection stage (Phase I) was used to select three multi-channel apparel retail brands to be used in the Phase II research. Phase II research consisted of the model development and the hypotheses

testing with the sample of four thousand randomly selected female college students. A pilot-test was conducted with female undergraduate students for both phases of the study. Web-based surveys were used to gather the data for the main surveys of the Phase I and Phase II research.

To develop the measurement model, exploratory and confirmatory factor analyses were conducted to assess the validity of the scales. The three predictors of beliefs about online shopping at the website of the multichannel retailer were reduced to two predictors (i.e., prior in-store shopping experience with the multichannel retailer and brand attitude) after the construct validity was tested. Structural equation models for three apparel retail brands (i.e., *Gap*, *Old Navy*, and *American Eagle*) were developed using the data of the Phase II main survey.

Multiple-group SEM was conducted to test structural invariance across the brands. The results indicated that this conceptual model can be applied to all three brands considered together. A positive relationship was found between consumers' prior in-store shopping experience with *Old Navy* brand and their online shopping beliefs, attitudes, and purchase intentions at the *Old Navy* website. Brand attitude appeared to be a key predictor to indirectly increase consumers' purchase intentions at the website of all three multichannel apparel retail brands in this study. Specifically, it was suggested that all three brands might have an indirect effect of prior in-store shopping experience and brand attitude on the attitudes toward online shopping.

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## TABLE OF CONTENTS

LIST OF TABLES .....	xiii
LIST OF FIGURES .....	xv
CHAPTER 1. INTRODUCTION .....	1
Rationale and Purpose.....	6
Research Rationale.....	6
Purpose.....	6
Research Questions .....	7
Definition of Terms .....	9
CHAPTER 2. LITERATURE REVIEW.....	12
Conceptual Background.....	12
Multichannel Retailing.....	12
Multichannel Shoppers.....	13
Multichannel Shopping Behavior .....	14
Theoretical Framework.....	15
Theory of Reasoned Action (TRA).....	16
Schema Theory.....	18
Consumer Decision-Making Process .....	20
Model Development and Proposed Hypotheses .....	22
Hypotheses regarding the Interrelationships among Prior In-Store Shopping Experience with the Multichannel Retailer, Advertisement Attitude, and Brand Attitude .....	23
Hypotheses regarding Online Shopping Beliefs at the Website of the Multichannel Retailer .....	26

Hypotheses regarding Attitudes toward Online Shopping at the Website of the Multichannel Retailer .....	31
Hypothesis regarding Purchase Intentions at the Website of the Multichannel Retailer .....	32
Hypothesis regarding Mediating Effect of Beliefs about Online Shopping.....	34
<b>CHAPTER 3. METHODOLOGY .....</b>	<b>36</b>
Phase I: Brand Selection Stage .....	37
Instruments.....	37
Phase I: Pilot-test.....	38
Phase I: Main Study .....	39
Phase I: Data Analysis.....	40
Phase II: Development of Measurement and Structural Model.....	40
Instrument .....	41
Prior In-Store Shopping Experience .....	43
Advertisement Attitude .....	43
Brand Attitude .....	44
Beliefs about Searching for Information, Evaluating Alternatives, Choosing Products and Purchasing Products .....	44
Attitudes toward Online Shopping.....	45
Online Purchase Intentions .....	46
Phase II: Pilot-test.....	46
Phase II: Main Study.....	47
Phase II: Data Analysis .....	48
<b>CHAPTER 4. RESULTS AND DISCUSSION .....</b>	<b>53</b>
Phase I: Data Analyses and Summary of Pilot-testing.....	53
Demographic Characteristics .....	53

Phase I: Data Analyses and Results of Main Study .....	54
Demographic Characteristics .....	55
Preferred Brands of the Respondents .....	56
Phase II: Data Analyses and Summary of Pilot-testing .....	64
Characteristics of the Respondents .....	65
Demographic Characteristics .....	65
Phase II: Data Analyses and Results of Main Study .....	66
Characteristics of the Respondents .....	66
Demographic Characteristics .....	66
Internet Use .....	68
Shopping Behavior.....	70
Development of Measurement Model.....	74
Exploratory Factor Analysis.....	75
Confirmatory Factor Analysis .....	79
Reliability and Validity.....	81
Development of Structural Model and Hypotheses Testing.....	86
CHAPTER 5. SUMMARY AND IMPLICATIONS .....	103
Summary .....	103
Limitations.....	105
Implications for Industry Practitioners.....	106
Implications for Future Research .....	107
REFERENCES .....	108
APPENDICES .....	118
Appendix A. Phase I Pilot-test Information Letter .....	119
Appendix B. Phase I Main Survey Information Letter .....	121

Appendix C. Phase I Pilot-test Questionnaire .....	123
Appendix D. Phase I Main Survey Questionnaire .....	129
Appendix E. Phase II Pilot-test Information Letter .....	135
Appendix F. Phase II Main Survey Information Letter .....	137
Appendix G. Phase II Pilot-test Questionnaire .....	139
Appendix H. Phase II Main Survey Questionnaire.....	152
Appendix I. Phase I: Results of Pilot-testing .....	166
Appendix J. Phase II: Results of Pilot-testing .....	173
Appendix K. Measurement Model for Prior In-Store Shopping Experience with the Multichannel Retailer and Advertisement and Brand Attitudes .....	180
Appendix L. Structural Equation Model with Standardized Estimates (Gap brand).....	181
Appendix M. Structural Equation Model with Standardized Estimates (Old Navy brand).....	182
Appendix N. Structural Equation Model with Standardized Estimates (American Eagle brand) .....	183
Appendix O. Constrained Model with Unstandardized Estimates (Gap brand).....	184
Appendix P. Constrained Model with Unstandardized Estimates (Old Navy brand).....	185
Appendix Q. Constrained Model with Unstandardized Estimates (American Eagle brand) .....	186
Appendix R. Structural Equation Model with Standardized Estimates (Entire Group) .....	187
Appendix S. Alternative Structural Equation Model with Standardized Estimates (Entire Group).....	188
Appendix T. Alternative Structural Equation Model with Standardized Estimates (Gap brand) .....	189
Appendix U. Alternative Structural Equation Model with Standardized Estimates (Old Navy brand) .....	190

Appendix V. Alternative Structural Equation Model with Standardized  
Estimates (American Eagle brand).....191

## LIST OF TABLES

Table 3-1. Construct and Scale Items for Phase II Survey Instrument .....	41
Table 4-1. Demographic Profile of the Phase I Pilot-test Respondents .....	54
Table 4-2. Demographic Profile of the Phase I Main Study Respondents.....	55
Table 4-3. Prior Buying Experience with Offline Stores of Selected Retail Brands .....	57
Table 4-4. Prior Buying Experience with Online Stores of Selected Retail Brands.....	59
Table 4-5. Offline or Online Store from which Clothing or Accessories Were Purchased Most Frequently.....	61
Table 4-6. Clothing or Accessories Purchased Most Frequently .....	62
Table 4-7. Level of Brand Liking .....	63
Table 4-8. Top Four Brands Selected in Phase I.....	64
Table 4-9. Demographic Profile of the Phase II Pilot-test Respondents.....	65
Table 4-10. Demographic Profile of the Phase II Main Study Respondents .....	67
Table 4-11. Internet Use of the Phase II Main Study Respondents .....	69
Table 4-12. Shopping Behavior of the Phase II Main Study Respondents .....	70
Table 4-13. Phase II Main Study Respondents' Brand Choice .....	74
Table 4-14. Factor Loadings for Consumers' Affective Reactions to Advertisements .....	76
Table 4-15. Factor Loadings for Beliefs about Online Shopping at the Website of the Multichannel Retailer.....	77
Table 4-16. Factor Loadings for Attitudes toward Online Shopping at the Website of the Multichannel Retailer .....	79
Table 4-17. Reliability Measures, Factor Loadings, and Squared Multiple Correlation of Scale Items of Prior In-Store Shopping Experience with the Multichannel Retailer and Attitudes .....	81

Table 4-18. Reliability Measures of Scale Items of Beliefs, Attitudes, and Purchase Intentions at the Website of the Multichannel Retailer .....	82
Table 4-19. Correlation Coefficients between Constructs in the Measurement Model .....	84
Table 4-20. Multiple-Brand Model Fit Comparison .....	87
Table 4-21. Within-Brand Path and Correlation Coefficients and Hypotheses Testing (Entire Group) .....	90
Table 4-22. Model Fit Comparison between Base Model and Alternative Model (Entire Group) .....	92
Table 4-23. Within-Brand Path and Correlation Coefficients and Hypotheses Testing .....	96
Table 4-24. Model Fit Comparison between Base Models and Alternative Models .....	99

## LIST OF FIGURES

Figure 2-1. Conceptual Model: Hypothesized Prior Experience and Attitudes as Predictors of Online Shopping Beliefs, Attitudes, and Purchase Intentions in a Multichannel Context.....	16
Figure 2-2. Theory of Reasoned Action.....	17
Figure 2-3. Consumer Decision-Making Process .....	20
Figure 3-1. Alternative Model: Hypothesized Prior Experience and Attitudes as Predictors of Online Shopping Beliefs, Attitudes, and Purchase Intentions in a Multichannel Context.....	52
Figure 4-1. Measurement Model for Prior In-Store Shopping Experience with the Multichannel Retailer and Advertisement and Brand Attitudes .....	80
Figure 4-2. Revised Conceptual Model: Hypothesized Prior Experience and Brand Attitude as Predictors of Online Shopping Beliefs, Attitudes, and Purchase Intentions in a Multichannel Context .....	85
Figure 4-3. Revised Alternative Model: Hypothesized Prior Experience and Brand Attitude as Predictors of Online Shopping Beliefs, Attitudes, and Purchase Intentions in a Multichannel Context .....	86
Figure 4-4. Constrained Model with Standardized Estimates across Gap, Old Navy, and American Eagle Brands .....	88
Figure 4-5. Structural Equation Model (Entire Group) .....	89
Figure 4-6. Structural Equation Model (Gap, Old Navy, and American Eagle brands).....	93
Figure 4-7. Alternative Structural Equation Model (Gap brand).....	99

## **CHAPTER 1: INTRODUCTION**

The Internet has been used as an effective channel for selling and buying products and services since Internet commerce emerged in the middle of the 1980s (Hiser, Lanka, Li, & Oliver, n.d.; Sioshansi, 2000). A variety of products such as clothes, accessories, computers, books, software, and cosmetics have been purchased through the Internet (UCLA, 2003). According to the USC Annenberg Center Report for the Digital Future (2005), 78.6 percent of Americans had Internet access in 2005. Specifically, two-thirds of Americans (66.2%) accessed the Internet at home in 2005 as compared to 46.9 percent in 2000 (USC Annenberg Center Report for the Digital Future, 2005). Nearly 63 million U.S. households are projected to shop online in 2008 (Promomagazine.com, 2003). Internet purchasing frequency has continued to increase as well as dollars spent online. In 2005, online shoppers spent \$43 a month on average more than they did in 2001 (USC Annenberg Center Report for the Digital Future, 2005).

Online retail sales increased to \$82.3 billion in non-travel retail (e.g., apparel and accessories, computer software) in 2005, 24 percent higher than in 2004 (Burns, 2006). According to the 2006 State of Retailing Online study conducted by Forrester Research, online sales in non-travel retail were expected to increase to \$138 billion in 2006, approximately 68 percent more than those in 2005. Online sales in 2006 accounted for eight percent of total retail sales (Wolf, 2006). Online sales of apparel, accessories, and footwear increased to \$18.3 billion in 2006

(Pcpro.co.uk, 2007), compared to \$12.2 billion in 2005 and \$9 billion in 2004 (Burns, 2006).

Sanderson (2000) pointed out that E-tailing is growing fast, and web-based retailers are challenging traditional brick-and-mortar retailers without their own retail web sites. Many offline retailers have been encouraged to open online stores (Kim & Park, 2005). Click-and-mortar retailers amounted to 62 percent of all Internet shopping sites in 2001, which indicates how important it is for retailers to connect the clicks and bricks (i.e., to manage the multichannel retailing) (Olafson, 2001). Similarly, retailers selling apparel in the online format tend to utilize integrated multiple channels because many consumers believe that apparel, more than other products, needs a sensory inspection before it is purchased through the Internet (McCorKle, 1990). Multichannel retailers can provide more opportunities for physical product inspections to online apparel shoppers.

Retaining customers, as well as acquiring new customers, in the competitive online market is crucial for success in the online business (Park & Stoel, 2005). The application of multichannel retailing is one of the effective methods to retain customers. Multichannel retailers have competitive advantages and opportunities (Lawson, 2001) because they can enhance their sales, as compared to pure online retailers, by moving their offline shoppers to the web site and moving online customers to their traditional physical stores. For instance, Forrester Research (2003) reported that multichannel retailers increased both online and offline sales through an effective and efficient multichannel approach, leading to greater customer retention and customer loyalty for the retailers. More than 50 percent of multichannel retailers reported the two-way synergistic effect of a multichannel strategy in 2001, including increased margins and profits for online business (Kim &

Park, 2005).

Over the past few years, there has been growing interest in what drives multichannel apparel shopping behaviors in a multichannel environment. For example, researchers have recently investigated the effect of consumers' demographics, shopping orientation, perceived usefulness of information source (Choi & Park, 2006), prior experience with the online channel and/or frequent purchases (Kumar & Venkatesan, 2005), and consumers' attitude toward offline store of a multichannel retailer (Kim & Park, 2005) on consumers' multichannel shopping behaviors. However, although studies describing consumers' beliefs, attitudes, and purchase intentions have been published (Kim, Kim, & Kumar, 2003; Yoh, Damhorst, Sapp, & Laczniak, 2003), relatively little has been published about consumers' prior in-store shopping experience with the multichannel retailer and their advertisement and brand attitudes as the predictors of consumers' shopping beliefs, attitudes, and purchase intentions in the online channel of multichannel apparel retailers and how these specific predictors and consumers' online shopping beliefs, attitudes, and purchase intentions are related in the multichannel shopping context. Therefore, this study aims to address this knowledge gap. The main objectives of this study were 1) to develop a conceptual model illustrating the relationships among predictors of online shopping beliefs, attitudes, and purchase intentions (i.e., prior in-store shopping experience with the multichannel retailer, advertisement attitude, and brand attitude), beliefs, attitudes and purchase intentions for online shopping in the multichannel context and 2) to examine these relationships among the constructs by building hypotheses and testing them using survey research methods and statistical analysis.

This study postulated three predictors of consumers' online shopping beliefs, attitudes, and purchase intentions in the multichannel context: prior in-store shopping experience with the multichannel retailer, advertisement attitude, and brand attitude. Several studies have shown that online shopping positively affects in-store sales (Choi & Park, 2006; Liang & Huang, 1998; Wolf, 2006). Liang and Huang (1998) reported that some customers who avoid purchasing on the Internet due to perceived risk related to Internet purchase often searched for information (e.g., price or product comparisons) through the Internet, but then made purchases at the brick-and-mortar stores. In this case, searching for information through the online channel may result in the promotion of in-store sales. In fact, 22 percent of all offline (in-store) sales, including clothing items, were influenced by the Web in 2006 (Wolf, 2006). Consumers' prior in-store shopping experience and their attitudes toward the offline store may also influence the online sales. Kim and Park (2005) found that consumers' attitude toward the offline store positively affected their attitude toward the online store. Park and Stoel (2005) suggested that prior shopping experience from the store or catalog of the retail brand might affect the shopping behaviors at the web site of the same brand. However, few studies documenting the relationships of prior in-store shopping experience with the multichannel retailer with consumers' shopping beliefs, attitudes, and purchase intentions for online shopping in the multichannel context have been found.

Advertisement attitude refers to a consumer's predisposition to respond favorably or unfavorably to a particular advertisement (Lutz, 1985). Kim, Damhorst, and Lee (2002) found an effect of advertisement attitude on product attitude, which led to product purchase and/or consumption behavior. However, no mention of these relationships in the multichannel context was made in Kim et al.'s study (2002).

Because these relationships have not been investigated in the multichannel context, advertisement attitude was selected as the second predictor to examine the relationships among consumers' advertisement attitude, their shopping beliefs, attitudes, and purchase intentions in the online channel of multichannel apparel retailers.

Brand attitude, as the final predictor of consumers' shopping beliefs, attitudes, and purchase intentions in the online channel of multichannel apparel retailers, was selected based on studies which examined consumer-brand relationships (Aaker, Fournier, & Brasel, 2004; Aggarwal, 2004; Muniz & O'Guinn, 2001), noting the importance of consumers' relationship with brand in their brand attitudes and purchase behavior. Aggarwal (2004) found that consumers' relationship with brand was a predictor of overall brand evaluations in the conceptual model proposed in his study. Brand attitude refers to the extent to which consumers evaluate a brand favorably or unfavorably (Keller, 1993). Few studies have been found describing the relationships of brand attitude with consumers' shopping beliefs, attitudes, and purchase intentions for online shopping in the multichannel context. Therefore, brand attitude was selected as a predictor of consumers' shopping beliefs, attitudes, and purchase intentions for online shopping in the multichannel context.

In this study, the Consumer Decision-Making Process was applied to the proposed model as consumers' beliefs about online shopping at the website of the multichannel retailer focused on three stages of the Consumer Decision-Making Process (i.e., information search, evaluation of alternatives, and choice/purchase). Consumers' beliefs were defined by beliefs about four behavioral dimensions -- 1) belief about searching for information at the website of the multichannel retailer, 2) belief about evaluating alternatives at the website of the multichannel retailer, 3)

belief about choosing products at the website of the multichannel retailer, and 4) belief about purchasing products at the website of the multichannel retailer.

## **Rationale and Purpose**

### ***Research Rationale***

Apparel multichannel retailers face intense competition in the online business (Johnson, Busbin, & Pearce, 1999); they want to increase online shopping by developing an effective strategy based on knowledge of consumers' behaviors (Goldsmith & McGregor, 1999). In general, behavioral beliefs and attitudes are determinants of intention which can be used as an indicator of actual behavior such as purchase behavior as based on the Theory of Reasoned Action (Fishbein & Ajzen, 1975). This theory has been applied to the analysis of online shopping behavior by Kim et al. (2003), Shim and Drake (1990), and Yoh et al. (2003). These previous studies focused on predictors of purchase intention in the online shopping context as a single channel. However, it is also important to understand whether these predictors (of purchase intention) can be used as predictors of consumers' online shopping beliefs, attitudes, and purchase intentions in the multichannel context. Although a few studies have been conducted regarding consumers' multiple channel choice behaviors (Choi & Park, 2006; Kim & Park, 2005), there is still a lack of knowledge regarding crucial predictors of consumers' beliefs, attitudes, and purchase intentions for online shopping in the multichannel context.

### ***Purpose***

The purpose of this study was to develop a conceptual framework that indicated 1) the interrelationships among consumers' prior in-store shopping

experience with the multichannel retailer, consumers' advertisement attitude, and their brand attitude and 2) the causal relationships among consumers' prior in-store shopping experience with the multichannel retailer, consumers' advertisement attitude, and consumers' brand attitude with beliefs, attitudes, and purchase intentions at the website of the multichannel retailer. The conceptual framework was developed, hypotheses were formulated based upon the conceptual framework, and then the hypotheses were tested based upon analysis of data derived from a survey of female college students in a southeastern university in the U.S. Four apparel brands represented in multichannel retailing were used in the survey. This research addressed the following research questions.

### **Research Questions**

1. What are the interrelationships among consumers' prior in-store shopping experience with the multichannel retailer, advertisement attitude, and brand attitude?
2. How do consumers' prior in-store shopping experience with the multichannel retailer and their advertisement and brand attitudes (i.e., attitude toward the multichannel retailer's advertisement and attitude toward the multichannel retailer's brand) relate to their beliefs about online shopping (i.e., belief about searching for information, belief about evaluating alternatives, belief about choosing products, and belief about purchasing products) at the website of the multichannel retailer?
3. What are the causal relationships, if any, between beliefs about online shopping (i.e., belief about searching for information, belief about evaluating alternatives, belief about choosing products, and belief about purchasing

products) at the website of the multichannel retailer and attitudes toward online shopping at the website of the multichannel retailer?

4. What are the causal relationships between attitudes toward online shopping at the website of the multichannel retailer and consumers' intentions to shop at the website of the multichannel retailer?
5. What is the mediating effect, if any, of beliefs about online shopping (i.e., belief about searching for information, belief about evaluating alternatives, belief about choosing products, and belief about purchasing products) at the website of the multichannel retailer on the causal relationships between 1) consumers' prior in-store shopping experience with the multichannel retailer, their advertisement and brand attitudes and 2) attitudes toward online shopping at the website of the multichannel retailer?

## Definition of Terms

The terms which will be used in this research are defined as follows:

**Advertisement attitude** (Sometimes referred to as attitude toward the advertisement): A consumer's predisposition to respond in a favorable or unfavorable manner to a particular advertisement (Lutz, 1985).

**Attitude toward behavior:** The extent to which a person evaluates a given behavior affirmatively or negatively (Fishbein & Ajzen, 1975).

**Attitude toward online shopping:** The extent to which a consumer evaluates online shopping at the website of a multichannel retailer affirmatively or negatively.

**Attitude toward the website:** "A predisposition to respond favorably or unfavorably to a website in natural exposure situations" (Chen & Wells, 1999, p. 28).

**Behavioral belief:** The extent to which a person believes a behavior has certain attributes or benefits (Fishbein & Ajzen, 1975).

**Belief about choosing products:** The extent to which a consumer believes that the following behavior, i.e., choosing products, has attributes or benefits.

**Belief about evaluating alternatives:** The extent to which a consumer believes that the following behavior, i.e., evaluating alternatives, has attributes or benefits.

**Belief about purchasing products:** The extent to which a consumer believes that the following behavior, i.e., purchasing products, has attributes or benefits.

**Belief about searching for information:** The extent to which a consumer believes that the following behavior, i.e., searching for information, has attributes or benefits.

**Brand attitude** (Sometimes referred to as attitude toward the brand): "Consumers' overall evaluations of a brand" (Keller, 1993, p. 4).

**Channel:** A retail medium in which a purchase can be made, such as a traditional

brick-and-mortar store, the Internet, a catalog, teleshopping.

**Integrated multichannel retailing strategy:** A strategy which involves detailed planning and developing an infrastructure that can effectively link multiple channels (Berman & Thelen, 2004).

**Multichannel retailer:** The retailer who responds to the demand of consumers throughout offline and online stores (Clark, 1997). Click-and-mortar retailers are one example of a multichannel retailer.

**Multichannel retailing:** A distribution strategy to serve customers across all the channels or media used (Stone, Hobbs, & Khaleeli, 2002).

**Multichannel shoppers** (Sometimes referred to as cross channel shoppers):

“Customers who have made a purchase in more than one channel in the observed time period” (Kumar & Venkatesan, 2005, p. 45).

**Multichannel shopping** (Sometimes referred to as cross channel purchasing): An activity in which a consumer chooses and purchases a product in more than one channel.

**Normative belief:** The perception about the behavior, which is influenced by the assessment of others who are important to the person (Fishbein & Ajzen, 1975).

**Online purchase intention:** Consumers' intention to purchase a product at the website of the multichannel retailer.

**Online shopping beliefs:** The extent to which a consumer believes online shopping has attributes or benefits.

**Prior in-store shopping experience with the multichannel retailer:** Consumers' previous shopping involvement with traditional brick-and-mortar stores of the multichannel retailer.

**Pure online retailer:** The retailer who has a presence through only online stores.

**Schema:** “An active organization of past reactions or past experiences, which must always be supposed to be operating in any well-adapted organic response” (Bartlett, 1932, p. 201).

**Script:** “A predetermined, stereotyped sequence of actions that define a well-known situation” (Schank & Abelson, 1977, p.41).

**Single channel retailer:** The retailer who responds to the demand of consumers through only one channel (i.e., offline or online stores).

**Single channel shopper:** Customers who have made a purchase through only one channel (i.e., offline or online stores).

**Subjective norms:** The social norms by which a person perceives the approval or disapproval of particular salient others for a particular behavior (Fishbein & Ajzen, 1975).

## **CHAPTER 2: LITERATURE REVIEW**

The literature review provides support for a conceptual model that delineates consumers' prior in-store shopping experience with the multichannel retailer and their advertisement and brand attitudes as predictors of online shopping beliefs, attitude, and purchase intentions in a multichannel shopping context. Hypotheses are developed to test the relationships proposed in the conceptual model.

### **Conceptual Background**

#### ***Multichannel Retailing***

Multichannel retailing is defined as a distribution strategy to serve customers across multiple channels or media (Stone et al., 2002). Multichannel retailers sell their products across online and offline channels such as Internet, kiosk, catalog, and traditional store channels to increase retailers' revenue and to make the retailers competitive in the retail market (Lohse & Spiller, 1998; Ponsford, 2000; Stone et al., 2002). In the multichannel environment, an integrated multichannel retail strategy helps increase store sales by moving online traffic to physical stores and helps online sales by moving offline store customers to the Web, creating a two-way synergistic effect (Lawson, 2001). This is why multichannel retailing is important to retailers.

Multichannel retailers have enjoyed an essential two-way synergistic effect of sales, as well as marketing and advertising, as compared to single channel retailers (Jaffe, 2000). For example, more than 50 percent of multi-channel retailers reported

they had increased margins and profits for online business due to the synergy effect (Kim & Park, 2005). Likewise, Kumar and Venkatesan (2005) found a positive synergistic effect on multichannel shopping when customers were contacted through multiple channels such as retail stores, e-mail, direct mail, and tele-marketing. They found that customer contacts across multiple channels were a good strategy for reducing the risk customers perceived in new channels and for educating customers about various purchase channels to help them to migrate to other channels.

Multiple transaction channels have been successful in global markets (Choi & Park, 2006). For example, Korean retailers have been using multichannel retailing integration as a new retailing strategy to increase sales and profits. It was reported that Korean multichannel online purchasers preferred online stores for purchasing because they perceived the benefits such as lower price and free shipping. The Korean consumers browsed for information related to products at the physical store and then purchased online (Choi & Park, 2006). As another example, apparel retailer Eddie Bauer has used a multichannel retailing strategy to extend its markets globally to Germany and Japan. Global sales and profits have increased through tri-channels (i.e., stores, catalogs, and websites) under the Eddie Bauer brand (Internetretailer.com, 2005). Therefore, we can speculate that study of multichannel retailing may be advantageous in determining consumers' online shopping beliefs, attitudes, and purchase intentions in the multichannel shopping context

### ***Multichannel Shoppers***

Multichannel shoppers are defined as “customers who have made a purchase in more than one channel in the observed time period” (Kumar & Venkatesan, 2005, p. 45). Studies of multichannel shoppers indicate that demographics of multichannel

shoppers differentiate the channel choice behavior (Choi & Park, 2006; Lee & Johnson, 2002). Choi and Park (2006) defined shoppers based on their shopping behaviors (i.e., multichannel offline purchaser, single-channel offline purchaser, multichannel online purchaser, and single-channel online purchaser) and found that “multichannel offline purchasers” who used online sources for information search but made a purchase offline in a Korean market were apt to be younger and have higher incomes and education levels as compared to “single-channel offline purchasers” who only shopped offline in a Korean market. These findings are consistent with Lee and Johnson (2002) who found that Internet apparel browsers who had browsed, but not purchased apparel product via the Internet, were likely to be younger.

### ***Multichannel Shopping Behavior***

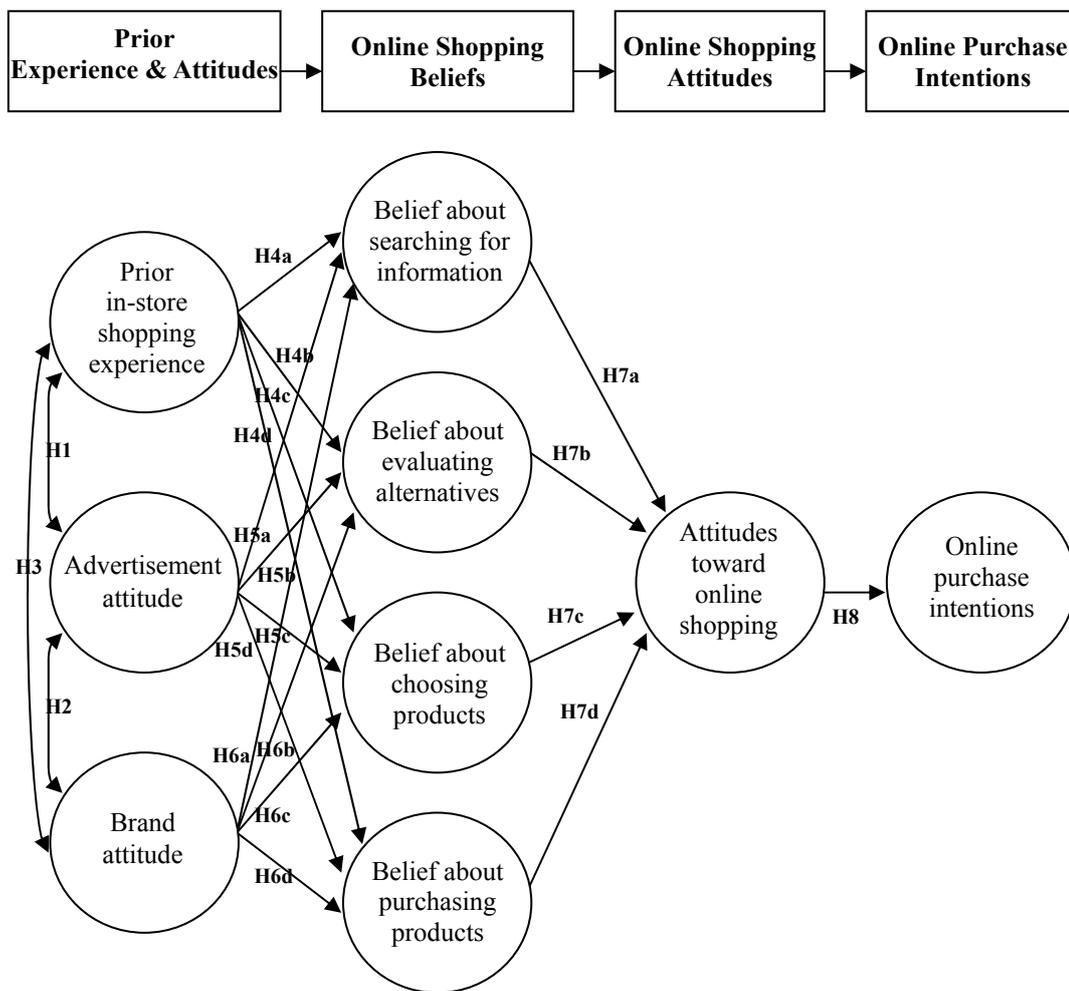
Cross-channel shopping by multichannel shoppers is important for retailers’ success (Forrester Research, 2004b) because they spend more and are more loyal than single channel shoppers (Allbusiness.com, 2001). Multichannel shoppers frequently search for product items online and buy them offline (Forrester Research, 2004b). Multichannel customers who enjoy searching for information via the Internet may avoid purchasing products online due to perceived risk in Internet purchasing (Liang & Huang, 1998). Forrester Research (2004a) reported that 11 percent of online customers bought online then picked up the order in the physical store so as not to pay for shipping.

Many researchers have conducted studies related to consumer buying behavior in the multichannel shopping environment (Kim & Park, 2005; Schoenbachler & Gordon, 2002). Schoenbachler and Gordon (2002) proposed a model of channel choice suggesting five factors - perceived risk, past direct channel

experience, customer motivation to buy from a channel, product category, and web site design, that might influence the likelihood of purchasing from multiple channels. Kim and Park (2005) found that attitude toward a retailer's offline store had a positive impact on attitude toward its online store and purchase intentions via the online store operated by the same retailer. Although previous studies regarding consumers' multichannel shopping behaviors have been conducted, relatively little has been studied about what predicts consumers' beliefs, attitudes, and purchase intentions regarding online shopping in the multichannel context. This research was designed to provide core information about relationships regarding consumers' behavioral beliefs, attitudes and intentions for online shopping in the multichannel context by investigating the relationships of these beliefs, attitudes, and purchase intentions with three predictors, prior in-store shopping experience, advertisement attitude, and brand attitude. In addition, the results of this research are expected to be a cornerstone in the literature related to multichannel shopping behaviors.

### **Theoretical Framework**

In this research, a conceptual model was built which proposed prior in-store shopping experience and attitudes as predictors of consumers' online shopping beliefs, attitudes, and purchase intentions in a multichannel retail context. The Theory of Reasoned Action, Schema Theory, and the Consumer Decision-Making Process were used to build the conceptual model. The proposed conceptual model was used as a basis for the hypothesis development (see Figure 2-1).



Note. H9 which addresses the mediating effect of beliefs about online shopping is omitted in this figure.

Figure 2-1. Conceptual Model: Hypothesized Prior Experience and Attitudes as Predictors of Online Shopping Beliefs, Attitudes, and Purchase Intentions in a Multichannel Context

### ***Theory of Reasoned Action (TRA)***

The Theory of Reasoned Action (TRA), proposed by Fishbein and Ajzen in 1975, consists of two independent determinants of behavioral intention - the attitude toward behavior and subjective norms (Figure 2-2). Attitude toward the behavior refers to the extent to which a person evaluates a given behavior affirmatively or negatively. Subjective norms represent the social norms by which a person

perceives the approval or disapproval of particular salient others for a particular behavior. In the TRA, the belief about behavior and normative beliefs precede the attitude toward behavior and subjective norms respectively. In other words, behavioral beliefs and normative beliefs are considered as predictors of attitude toward behavior and subjective norms respectively in the TRA. Beliefs about the behavior refer to the extent to which a person believes the behavior has certain attributes or benefits. The normative belief indicates the perception about the behavior, which is influenced by the assessment of others who are important to the person. In addition, behavioral intention is a predictor of actual behavior in TRA (Fishbein & Ajzen, 1975).

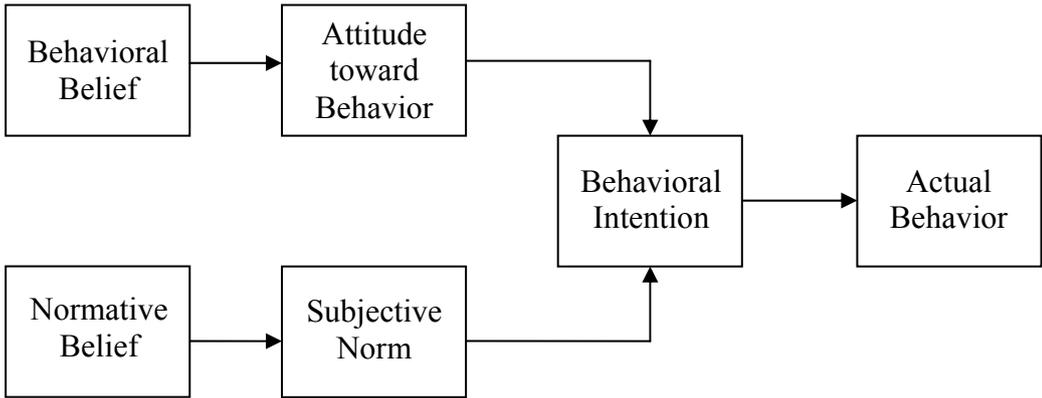


Figure 2-2. Theory of Reasoned Action (Fishbein & Ajzen, 1975)

Several studies on consumer online buying behavior (Kim et al., 2003; Shim & Drake, 1990; Sorce, Perotti, & Widrick, 2005; Yoh et al., 2003) have been rooted in TRA. Shim and Drake (1990) used TRA as a theoretical basis to examine the predictors of intention to purchase via the Internet. They found that attitude toward behavior and normative beliefs were important predictors of online purchasing intention. Kim et al. (2003) investigated the relative importance of attitude and

subjective norms on online apparel shopping intention and proposed a modified Fishbein's behavioral intentions model for online shopping for clothing. They found that both attitude toward online shopping and subjective norms related to online shopping had positive causal relationships with behavioral intention to purchase clothing online. On the contrary, some studies (Bagozzi, 1981; Dabholkar, 1994) have suggested the minimum influence of subjective norms on behavioral intentions. Hence, online shopping beliefs and behavioral attitude were considered as predictors of behavioral intention in the proposed model while subjective norms and normative beliefs were not included in the model.

TRA was adopted as a theoretical basis for the parts of the proposed model (Figure 2-1) in which the beliefs about searching for information, evaluating alternatives, choosing products, and purchasing products at the website of the multichannel retailer relate to the attitudes toward online shopping at the website of the multichannel retailer (see H7 a-d in the proposed conceptual model). The TRA supports the model in that attitudes toward online shopping at the website of the multichannel retailer was proposed to have a causal relationship to the intentions to purchase at the website of the multichannel retailer (see H8 in the proposed conceptual model).

### ***Schema Theory***

The concept of the schema was derived from cognitive psychology, which has its modern origins in the work of Bartlett (1932) and Piaget (1952). Schema is defined as “an active organization of past reactions or past experiences, which must always be supposed to be operating in any well-adapted organic response” (Bartlett, 1932, p. 201). Applying schema is “top-down, conceptually driven processing”.

When an individual applies schemas, he or she is using pre-existing knowledge in the place of new information (Abelson, 1981). Schema Theory has grown to include scripts (Schank & Abelson, 1977), which share many similarities with the original idea (i.e., concept of the schema). A script is defined as “a predetermined, stereotyped sequence of actions that define a well-known situation” (Schank & Abelson, 1977, p.41). The similarities between these concepts (i.e., schema and script) are summarized as follows: Knowledge gained from past experience and stored in memory creates schema, which is then used to interpret and understand new information and experience (Smyth, Morris, Levy, & Ellis, 1987).

Hauser (1986) explained how Schema theory can be applied in analyzing consumer behavior. By invoking schemas, consumers determine their responses to external stimuli that could influence the ways in which consumers select or eliminate choice options. Based on Schema Theory, consumers with a well developed schema would be unlikely to rigorously evaluate new information and alternatives, depending instead on their pre-existing knowledge or schema. The schema, developed from prior in-store shopping experience with the multichannel retailer in the proposed model, forms a basis for consumers to develop their advertisement attitude, brand attitude, and their beliefs about online shopping (i.e., belief about searching for information, belief about evaluating alternatives, belief about choosing products, and belief about purchasing products) at the website of the multichannel retailer. Specifically, consumers who have positive knowledge or schema gained from their prior in-store shopping experience with the multichannel retailer will have a more positive attitude toward the advertisement and brand than will consumers who do not have positive knowledge or schema from their prior in-store shopping experience with the multichannel retailer (see H1 and H3 in the conceptual proposed model).

Application of Schema Theory would suggest that prior in-store shopping experience with the multichannel retailer would lead to more positive beliefs about online shopping at the website of the multichannel retailer (see H4 a-d in the conceptual proposed model). In addition, positive advertisement and brand attitudes derived from prior in-store shopping experience with the multichannel retailer would result in more positive beliefs about online shopping at the website of the multichannel retailer based on Schema Theory (see H5 a-d and H6 a-d in the conceptual proposed model).

### ***Consumer Decision-Making Process***

The consumer's decision-making process regarding purchasing in traditional retail stores has been well explained by the Consumer Decision-Making Process Model (Engel, Blackwell, & Miniard, 1986). This model consists of the steps of problem recognition, information search, alternative evaluation, purchase, and post-purchase behavior as illustrated in Figure 2-3. The process begins with a recognized need based on an internal stimulus or an external stimulus (problem recognition step). Then consumers search for information to solve the problem and evaluate the alternatives. The purchase decision may include what to purchase, when to purchase, from whom to purchase, and how to pay for it. Finally, consumers evaluate the degree of satisfaction/dissatisfaction with the product/service (Engel, Blackwell, & Miniard, 1986).

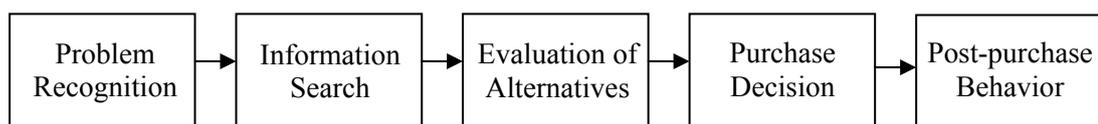


Figure 2-3. Consumer Decision-Making Process (Engel, Blackwell, & Miniard, 1986)

This decision-making process can be also applied to online shopping. In the problem recognition step, consumers may be stimulated by Internet ads such as banners and other visual ads and recognize a purchase need. In this step, the Internet serves as a stimulus. Specifically, the information search and evaluation of alternatives are conducted at the same time in online shopping (Kim, 2006). In the information search step, consumers gather information by surfing the Internet in order to resolve the problem. The Internet provides a variety of information from the retailer regarding product details such as product price, dimensions, specifications, characteristics, quality, and warranty policies. The consumer is usually able to obtain detailed information about the product with greater clarity and a higher degree of analysis within a shorter period of time online than in brick-and- mortar stores. In addition, evaluations (e.g., product and service evaluation) are often available in the virtual community from those who have purchased the product on the Internet. The alternative evaluation step has become convenient online because many Internet retailers competitively provide higher quality services (e.g., 3D product displays and trial version of products, etc.) for Internet surfers to use (Butler & Peppard, 1998).

The choice and purchase decision in online shopping include product choice as well as decisions regarding brand, quantities, retailer selection, and payment method on the web. In the post-purchase step, consumers confirm their decision, evaluate their experience and their degree of satisfaction, and form intentions for future purchases. This final step of the Consumer Decision-Making Process is very important for a sound and continued relationship between retailers and their consumers (Butler & Peppard, 1998).

The proposed model focuses on information search, evaluation of alternatives, and choice/purchase decision stages of the Consumer Decision-Making Process. It

is proposed that online shopping beliefs can be key predictors of consumers' attitudes toward online shopping and purchase intentions at the website of the multichannel retailer. Specifically, the beliefs about online shopping behavior are defined by beliefs about four behavioral dimensions in this proposed conceptual model based on application of Consumer Decision-Making Process. These behavioral dimensions are belief about searching for information at the website of the multichannel retailer, belief about evaluating alternatives at the website of the multichannel retailer, belief about choosing products at the website of the multichannel retailer, and belief about purchasing products at the website of the multichannel retailer.

### **Model Development and Proposed Hypotheses**

The proposed conceptual model is composed of variables which correspond to prior experience and attitudes, online shopping beliefs, online shopping attitudes, and online purchase intentions. Prior experience and attitudes include such variables as prior in-store shopping experience with the multichannel retailer, consumers' advertisement attitude, and brand attitude. Beliefs about online shopping include the belief about searching for information, belief about evaluating alternatives, belief about choosing products, and belief about purchasing products at the website of the multichannel retailer. The proposed conceptual model posits the relationships among these variables - 1) the interrelationships among consumers' prior in-store shopping experience with the multichannel retailer, their advertisement attitude, and brand attitude, 2) the causal relationships among consumers' prior experience and attitudes and their beliefs about online shopping, and 3) the causal relationships among beliefs about online shopping, attitudes toward online shopping, and online purchase intentions in the multichannel shopping context. Based on the proposed

conceptual model, nine research hypotheses were proposed with respect to the relationships of consumers' prior in-store shopping experience and their advertisement and brand attitudes with the consumers' online shopping beliefs, attitudes, and purchase intentions in the multichannel shopping context.

***Hypotheses regarding the Interrelationships among Prior In-Store Shopping Experience with the Multichannel Retailer, Advertisement Attitude, and Brand Attitude***

Some researchers have addressed how prior experience with a product impacts cognitive reactions to advertisements in evaluating a brand (Mangleburg et al., 1998) or how direct product experience affects consumers' product evaluations (Mooy & Robben, 2002). Mangleburg et al. (1998) found that consumers who had high levels of prior experience with a product used utilitarian cues (e.g., comfort attribute for running shoes) presented in the advertisements to evaluate a brand, whereas consumers who had low prior experience with a product used user-image based cues (e.g., college students talking about running shoes) in the advertisements to assess the brand. Mooy and Robben (2002) found that consumers who experienced the product directly (i.e, hands-on experience and product demonstration) were better able to process product-related information and develop new knowledge structures about a new product than were consumers who had not experienced the product directly. Therefore, it is reasonable to believe that if prior experience with a product can impact consumers' evaluation of that product, then prior shopping experience in a store of a particular brand may impact how consumers evaluate advertisements relating to that brand.

Although the relationship regarding prior shopping experience and advertisement attitude was suggested by previous research (Mangleburg et al., 1998;

Mooy & Robben, 2002), few studies were found that addressed the relationship between consumers' prior in-store shopping experience with the multichannel retailer and their advertisement attitude. However, Schema Theory can support this proposed relationship between consumers' prior in-store shopping experience with the multichannel retailer and their advertisement attitude because consumers interpret new experience based on their past experience. Consumers depend on their pre-existing knowledge or schema to interpret new information according to Schema Theory. Namely, Schema Theory suggests that as consumers' prior experience with the offline retailer increases, their advertisement attitude will become more positive. This research aims to investigate how prior in-store shopping experience with the multichannel retailer relates to the advertisement attitude in the multichannel context. This leads to the following hypothesis of the present research.

**H1: Prior in-store shopping experience with the multichannel retailer and the consumers' advertisement attitude are positively related.**

Lutz, MacKenzie, and Belch (1983) proposed a dual mediation model positing that advertisement attitude influenced brand attitude both directly and indirectly via brand cognition. This dual mediation model was used in studies by Brown and Stayman (1992), Homer (1990), and Mackenzie, Lutz, and Belch (1986). Homer (1990) found that advertisement attitude served as a mediator in the model through which advertising (i.e., advertisement cognition) influenced brand attitude and purchase intention. Brown and Stayman (1992) assessed the fit of the dual mediation model for the direct and indirect effects of advertisement attitude on brand attitude as proposed by Lutz et al. (1983) and found that the dual mediation model was supported by their data. In addition, they found the indirect effect of

advertisement attitude on brand attitude via brand cognition was relatively more important than previous research (Homer, 1990) had suggested. Based on these studies (Brown & Stayman, 1992; Homer, 1990; Lutz et al., 1983; Mackenzie et al., 1986), it can be posited that consumers' advertisement attitude is positively related to their brand attitude in the multichannel context. This leads to the following hypothesis.

**H2: The advertisement attitude and the brand attitude are positively related.**

Only limited information about the relationship between prior in-store shopping experience and brand attitude exists in the literature. There have been a couple of studies to support this correlation indirectly: Alba and Hutchinson (1987) found that purchase or usage of a specific brand positively influenced brand familiarity. In addition, Sen and Johnson (1997) found that brand familiarity derived from mere and arbitrary possession (e.g., mere possession of a coupon for a product) of a brand resulted in a positive evaluation of the brand. Likewise, application of Schema Theory can support this relationship between consumers' prior in-store shopping experience with the multichannel retailer and their brand attitude. In Schema Theory, consumers interpret new experience depending on the knowledge gained from past experience. Schema Theory would suggest that prior experience with another channel of the multichannel retailer would lead to a more positive brand attitude. Based upon previous research and Schema Theory, it is posited that consumers' prior in-store shopping experience with the multichannel retailer is positively related to their brand attitude. This leads to the following hypothesis.

**H3: Prior in-store shopping experience with the multichannel retailer and brand attitude are positively related.**

### ***Hypotheses regarding Online Shopping Beliefs at the Website of the Multichannel Retailer***

Balasubramanian, Raghunathan, and Mahajan (2005) identified the stages (i.e., searching for information, choosing a product, and purchasing the product) in a purchase process to examine how consumer-shopping goals (e.g., consumers' economic shopping goal) influenced channel choice. Their study was rooted in the Consumer Decision-Making Process (Engel et al., 1986). As in Balasubramanian et al.'s (2005) study, the Consumer Decision-Making Process (Engel et al., 1986) was used to explain some constructs of the proposed conceptual model in which the beliefs about online shopping behavior in the multichannel context were defined by beliefs about four behavioral dimensions - 1) belief about searching for information at the website of the multichannel retailer, 2) belief about evaluating alternatives at the website of the multichannel retailer, 3) belief about choosing products at the website of the multichannel retailer, and 4) belief about purchasing products at the website of the multichannel retailer. Problem recognition in the Consumer Decision-Making Process was premised in this proposed model since the problem recognition stage stimulated the consumer to take action to acquire knowledge in the information search stage (Butler & Peppard, 1998). Post-purchase behavior was not considered in this proposed model because this proposed model focused on the beliefs about pre-purchase searches and purchase decision behaviors. The information search and alternative evaluation behaviors via the Internet were considered in this proposed model and the purchase decision stage was divided into stages for product choice and product purchase via the Internet in this proposed model.

The relationship of prior shopping experience and beliefs about apparel online shopping has been investigated by previous research (Lennon et al., 2007; Yoh

et al., 2003). Yoh et al. (2003) found a positive effect of prior shopping experience via the Internet on belief about Internet apparel shopping. They noted that consumers with more prior experience with the Internet had more positive beliefs about apparel shopping via the Internet than did consumers with less prior experience with the Internet. Lennon et al. (2007) found a positive effect of previous purchase (i.e., online food and home furnishings purchase and catalog apparel purchase) on beliefs about online shopping among rural consumers. Although the relationship regarding prior shopping experience with the Internet or catalog and beliefs about online shopping has been examined, relatively little has been studied about relationship between prior in-store shopping experience with the multichannel retailer and beliefs about online shopping in the multichannel context.

Consumers depend on their knowledge obtained from past experience to interpret and understand new information and experience according to the Schema Theory (Smyth et al., 1987). Based on the Schema Theory, prior in-store shopping experience with the multichannel retailer is likely to condition beliefs about online shopping (i.e., belief about searching for information, belief about evaluating alternatives, belief about choosing products, and belief about purchasing products) at the website of the multichannel retailer. Namely, Schema Theory suggests that prior experience with the in-store channel of the multichannel retailer will lead to more positive beliefs about online shopping at the website of the multichannel retailer.

Based on previous studies and application of Schema Theory and Consumer Decision-Making Process, it is expected that consumers' prior in-store shopping experience with the multichannel retailer is positively related to the consumers' beliefs about online shopping (belief about searching for information, belief about evaluating alternatives, belief about choosing products, and belief about purchasing

products) at the website of the multichannel retailer. This leads to the following hypothesis.

**H4: The more prior in-store shopping experience with the multichannel retailer, the more positive consumers' beliefs about a) searching for information at the website of the respective multichannel retailer, b) evaluating alternatives at the website of the respective multichannel retailer, c) choosing products at the website of the respective multichannel retailer, and d) purchasing products at the website of the respective multichannel retailer.**

Lutz (1985) defined advertisement attitude as predisposition to respond in a favorable or unfavorable manner to a particular advertisement. Consumers form advertisement attitudes from affective reaction to an advertisement as they are exposed to the advertisement (Lutz, 1985). For example, Aaker, Stayman, and Hagerty (1986) found that warmth of feeling toward the advertising was significantly related to advertisement attitude (liking of the ad) and purchase likelihood.

Previous studies have demonstrated the effect of advertisement attitude on attitude toward the advertised product or brand (Batra & Ahtola, 1990; Kim et al., 2002). Kim et al. (2002) found that consumers' advertisement attitude directly or indirectly influenced the consumers' attitude formation toward the advertised product. Specifically, consumers' advertisement attitude was directly measured by consumers' affective reactions to the advertisements in their study. Batra and Ahtola (1990) asserted that product attitude (attitude toward the advertised product) as a consequence of response to advertisement led to product purchase and/or consumption behavior.

Previous studies (Batra & Ahtola, 1990; Kim et al., 2002) have shown a relationship among advertisement attitude, product attitude, and product purchase behavior in a single channel context. Since the interest in multichannel apparel shopping behaviors is growing, there is a need to consider the relationships between advertisement attitude and consumers' beliefs about shopping behavior in the multichannel context. Based on the previous studies, it is presumed that consumers' advertisement attitude is related to consumers' beliefs about online shopping behavior (i.e., belief about searching for information, belief about evaluating alternatives, belief about choosing products, and belief about purchasing products) at the website of the multichannel retailer. This leads to the following hypothesis.

**H5: The more positive consumers' advertisement attitude, the more positive their beliefs about a) searching for information at the website of a multichannel retailer, b) evaluating alternatives at the website of a multichannel retailer, c) choosing products at the website of a multichannel retailer, and d) purchasing products at the website of a multichannel retailer.**

Brand attitude is defined as "consumers' overall evaluations of a brand" (Keller, 1993, p. 4). Keller (1993) contended that brand attitude was important since consumer behavior such as brand choice was based on brand attitude. In general, beliefs about specific behavior are referred to as the extent to which a person believes that the behavior has certain attributes or benefits. As TRA is applied to analysis of online shopping behavior, beliefs about online shopping are important antecedents of purchase intention on the Web.

Understanding the relationship between brand attitude and beliefs about online shopping is important for the analysis of consumers' shopping behaviors in the

multichannel context because the consumers' positive brand attitude can affect their purchase behaviors in the multiple channels related with the brand (Muniz & O'Guinn, 2001). However, there has been little published information available regarding this relationship. On the other hand, Schema Theory can support this relationship between brand attitude and beliefs about online shopping at the website of the multichannel retailer. Knowledge gained from past experience is used to determine consumer's response to new experiences and information according to Schema Theory. Schema Theory suggests that positive brand attitude derived from prior in-store shopping experience with the multichannel retailer leads to more positive beliefs about online shopping at the website of the multichannel retailer.

Several researchers have examined the relationship between brand attitude and attitude toward brand's website (Balabanis & Reynolds, 2001), and the effect of attitude toward the brand's website on choice and purchase intention of the same brand via the Internet (Lee, Hong, & Lee, 2004; Stevenson, Bruner, & Kumar, 2000). Balabanis and Reynolds (2001) found that consumers' attitude toward the brand (e.g., "Gap" and "Principles") positively affected their attitude toward the web site of the same brand in a multichannel environment and that the attitude toward the brand's website and length of time spent browsing at the brand's website were positively correlated for the "Principles" brand in their study. If the length of time spent browsing the website for information about a product is positively related to belief about searching for information (this assumption is plausible because those who have positive beliefs about searching for information at a specific website can be expected to spend more time at the same website), there should be a positive relationship between brand attitude and belief about searching for information at the website of the multichannel retailer.

Similarly, if choice intention is positively correlated to the belief about choosing products (this assumption is also plausible according to TRA), a positive relationship between brand attitude and belief about choosing products can be predicted based upon the results of Lee et al. (2004) who found that consumers who had a favorable attitude toward the brand's website (i.e., laptop computer manufacturer websites) were more likely to choose the brand of the website than were consumers who did not have a favorable attitude toward the brand's website. Applying the same logic to the relationship between brand purchase intention and belief about purchasing products, the brand attitude is presumed to be positively related to belief about purchasing products based upon the results of Stevenson et al.'s (2000) work which found that consumers' attitude toward the lottery website positively influenced lottery purchase intention. Thus, this discussion leads to the following hypothesis.

**H6: The more positive consumers' brand attitude, the more positive their beliefs about a) searching for information at the website of a multichannel retailer, b) evaluating alternatives at the website of a multichannel retailer, c) choosing products at the website of a multichannel retailer, and d) purchasing products at the website of a multichannel retailer.**

***Hypothesis regarding Attitudes toward Online Shopping at the Website of the Multichannel Retailer***

The belief about the behavior (e.g., Internet shopping) precedes the attitude toward the behavior in the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975). This theory has been widely adopted as a theoretical framework in several research studies associated with consumer buying behavior.

Yoh et al. (2003) applied the Theory of Reasoned Action (TRA) to development of a conceptual model of apparel shopping on the Internet. They investigated whether the belief about apparel shopping on the Internet was a predictor of attitude toward apparel shopping on the Internet. They found that consumers with a positive belief about Internet apparel shopping had a more positive attitude toward apparel shopping on the Internet than did consumers without a positive belief about Internet apparel shopping. Therefore, it seems reasonable to predict that beliefs about online shopping (i.e., belief about searching for information, belief about evaluating alternatives, belief about choosing products, and belief about purchasing products) at the website of the multichannel retailer have a positive relationship with attitudes toward online shopping at the website of the multichannel retailer. This leads to the following hypothesis.

**H7: The more positive the beliefs about a) searching for information at the website of a multichannel retailer, b) evaluating alternatives at the website of a multichannel retailer, c) choosing products at the website of a multichannel retailer, and d) purchasing products at the website of a multichannel retailer, the more positive the attitudes toward shopping at the website of that multichannel retailer.**

***Hypothesis regarding Purchase Intentions at the Website of the Multichannel Retailer***

The relationship between attitude and purchase intention has been investigated by several researchers (Goldsmith & Bridges, 2000; Kim et al., 2003; Kim & Park, 2005; Shim, Eastlick, Lotz, & Warrington, 2001; Xu & Paulins, 2005; Yoh et al., 2003). Shim et al. (2001) found a significant relationship between

attitude toward Internet shopping and the likelihood of online purchasing. In addition, Goldsmith and Bridges (2000) found that Internet shoppers who had a more positive attitude toward Internet shopping were more inclined to purchase via the Internet than those who had a less positive attitude toward Internet shopping. The causal relationship between attitude toward Internet apparel shopping behavior and Internet purchase intention was investigated by Yoh et al. (2003) who found a positive effect of the attitude toward Internet apparel shopping on intention to purchase apparel via the Internet.

Kim et al. (2003) proposed a model regarding the influence of attitude toward online shopping on clothing purchase intention via the Internet. They found that consumers who had a favorable attitude toward online shopping were more inclined to purchase clothing via the Internet than those who did not have a favorable attitude toward online shopping. They found a significant impact of attitude toward online stores of multichannel retailers on the consumers' intention to purchase apparel through the online stores of multichannel retailers. This current research examined the relationship between consumers' attitudes toward online shopping at the website of the multichannel retailer and their intentions to purchase at the website of the multichannel retailer. The research utilized three selected apparel retail brands, which is different from Kim and Park's (2005) study examining general consumer shopping channel extension in the multichannel retailing setting. A theoretical framework for the causal relationship between attitudes toward purchase via the online store of multichannel retailers and purchase intentions via the online store operated by multichannel retailers was offered by Kim and Park (2005).

On the basis of previous studies, therefore, it seems reasonable to assume that attitudes toward shopping at the website of the multichannel retailer have a significant

relationship to intentions to purchase at the website of the multichannel retailer. This leads to the following hypothesis.

**H8: The more positive the attitudes toward shopping at the website of a multichannel retailer, the more positive the intentions to purchase at the website of that multichannel retailer.**

***Hypothesis regarding Mediating Effect of Beliefs about Online Shopping***

In previous research, attitude toward the behavior has been measured by beliefs about the behavior (Kim et al., 2003; Shim & Drake, 1990). In the proposed conceptual model, beliefs about online shopping (belief about searching for information, belief about evaluating alternatives, belief about choosing products, and belief about purchasing products) at the website of the multichannel retailer were presented as predictors of attitude toward online shopping at the website of the multichannel retailer based on the Theory of the Reasoned Action. In addition, prior in-store shopping experience with the multichannel retailer, advertisement attitude, and brand attitude were introduced as predictors to investigate their causal relationship to beliefs about online shopping, attitudes toward online shopping, and purchase intentions at the website of the multichannel retailer in the multichannel context in the proposed conceptual model. Beliefs about online shopping behavior (belief about searching for information, belief about evaluating alternatives, belief about choosing products, and belief about purchasing products) at the website of a multichannel retailer are expected to mediate between 1) prior in-store experience with the multichannel retailer, advertisement attitude and brand attitude and 2) attitudes toward online shopping at the website of the respective multichannel retailer. This leads to the following hypothesis.

**H9: Beliefs about searching for information, evaluating alternatives, choosing products, and purchasing products at the website of a multichannel retailer mediate the relationship between prior in-store shopping experience and attitudes (i.e., advertisements attitude and brand attitude) and attitudes toward online shopping at the website of the respective multichannel retailer.**

### **CHAPTER 3: METHODOLOGY**

This chapter describes the sample selection, instrument and model development, and data analysis for the study of consumers' prior experience and attitudes as predictors of their online shopping beliefs, attitudes, and purchase intentions in a multichannel shopping environment. The instrument and model development were composed of two phases; 1) the brand selection stage and 2) building the model (the measurement and structural model). The brand selection stage (Phase I) was used to select three multi-channel apparel specialty retail brands which were highly rated in terms of female college students' prior buying experience with either the offline or the online channel of each brand and the students' level of liking for each of the brands. Pilot-testing for the questionnaire was conducted before the main survey for brand selection to clarify the terms used in the questionnaire and to determine the consistency of scale items used in the questionnaire. The multi-channel retail brands selected in Phase I of this research were used in Phase II to investigate the relationship among consumers' prior in-store shopping experience with the multichannel retailer, their advertisement and brand attitudes, their online shopping beliefs, attitudes, and purchase intentions in a multichannel context.

Phase II consisted of the scale development, structural model development, and testing the fit of the model based on survey data. The survey questionnaire was pilot-tested before the main survey was administered to clarify the terms used in the

questionnaire and to determine the consistency of scale items used in the questionnaire. The survey sample was selected randomly from female college students in a southeastern public university, and an information letter hyperlinked to the structured questionnaire was e-mailed using valid email addresses provided by the public university. The randomly selected respondents were asked to complete a self-administered online questionnaire. Data analysis included descriptive analysis, exploratory factor analysis, confirmatory factor analysis, and structural equation modeling (SEM).

### **PHASE I: BRAND SELECTION STAGE**

Phase I of the study was designed to obtain information about female college students' experiences with and preferences for selected retail brands which had both an offline and an online presence in the geographic area in which the study was conducted. An online pilot-test and a main study for Phase I were administered to determine the top three brands chosen which were to be used in Phase II.

#### **Instruments**

According to results of the research co-sponsored by Anderson Analytics and Brandport, Inc. (Andersonanalytics.com, 2005), of all clothing brands, *Gap*, *Old Navy*, *American Eagle*, or *Abercrombie & Fitch* have been considered as favorite brands by American female college students. In addition to these four brands, seven more brands, i.e., *Anthropologie*, *Hollister Co.*, *Banana Republic*, *WetSeal*, *Ann Taylor Loft*, *J. Crew*, and *bebe* were included in the Phase I survey because: 1) the selected apparel retail brands are targeting the female college student market in the southeast of U.S., 2) the apparel retail brands have offline presence (i.e., stores) in the region in which

the survey was performed (i.e., stores in the malls in two hours' distance as well as stores in the local mall), and 3) the apparel retail brands have online presence (i.e., website of the brand). Therefore, 11 multi-channel apparel specialty retail brands targeting female college students were included in the survey instrument for Phase I.

The respondents were asked to evaluate the selected 11 multi-channel apparel brands with regard to prior buying experience with each brand and the degree of liking for each brand. The prior buying experience with apparel brands was measured according to the following scale: 1 (never), 2 (once per year), 3 (twice per year), 4 (three to four times per year), 5 (five to twelve times per year), 6 (twice per month), 7 (three times per month), or 8 (more than three times per month). In addition, respondents were asked to indicate the level of apparel brand liking using the 5-point Likert scale ranging from 1 (dislike it very much) to 5 (like it very much).

The demographic characteristics of the respondents were obtained. Additionally, questions asking the offline or the online store from which apparel or accessories were purchased most often by the respondents, as well as questions asking which type of clothing or accessories were purchased at either the offline or the online stores of the retail brand purchased the most were included in the instrument (see Appendix C for the Phase I Pilot-test questionnaire and Appendix D for the Phase I Main Survey questionnaire).

### **Phase I: Pilot-test**

Female college students are the population for this research since they are more accustomed to using the Internet for apparel shopping than are other adult consumer groups (Shop.org, 2004). Human Subjects Research approval for Phase I was obtained from the university's Institutional Review Board (IRB). A pilot-test

was conducted initially to clarify the terms used in the questionnaire and to determine the consistency of scale items used in the questionnaire before administering the Phase I main survey. A convenience sample of 25 female undergraduate students enrolled in an apparel merchandising class in a southeastern public university comprised the sample for the pilot-test. The researcher made arrangements with the class instructor to give a brief introduction to the purpose of the survey and the procedure for participating and then invited the students to participate. The students were provided with the information letter hyperlinked to the questionnaire for the pilot-test through posting on the chalkboard and Blackboard (see Appendix A for the Phase I Pilot-test Information Letter). All students in the class were assigned a unique code number. Female undergraduate students who completed the pilot-test recorded their code number in the survey questionnaire to receive three extra points on the next course exam. Respondents were asked to add their comments at the end of the questionnaire before submitting it.

### **Phase I: Main Study**

Because there were no revisions or refinements suggested by the pilot-test respondents, the research instruments used in the pilot-test were also used for the Phase I main survey. A random sample of 2082 female undergraduate students from a southeastern public university was offered the opportunity to participate in this brand selection process to choose three multi-channel apparel specialty retail brands. A list of e-mail addresses for 2082 female undergraduate students was obtained from the university. The information letter hyperlinked to the structured questionnaire was e-mailed to these students using valid e-mail address provided by university (see Appendix B for the Phase I Main Survey Information Letter). A reminder was sent

two weeks later to increase the response rate in the main survey of Phase I.

### **Phase I: Data Analysis**

The objective of the brand selection process was to choose three multi-channel apparel specialty retail brands which the female college students purchased most and preferred. Descriptive statistics (i.e., frequency, percentage, mean, standard deviation) were calculated for prior buying experience with either the offline or the online channel of each brand and brand liking as well as the demographics of the respondents using the Statistical Package for Social Science (SPSS), Version 16.0. The frequencies for choice of the offline or the online store at which the respondents most often purchased clothing or accessories for themselves and the frequencies for the clothing types or accessories purchased at the offline or the online store at which they purchased the most were calculated. Based on the frequency of choosing the selected multichannel retail brands, four multi-channel apparel specialty retail brands were chosen to be used in the Phase II research. Initially, three multi-channel apparel specialty retail brands were to be selected for Phase II of this research, but one more brand was added based on the results of the Phase I main survey.

### **PHASE II: DEVELOPMENT OF MEASUREMENT AND STRUCTURAL MODEL**

Survey research was used to collect data in this study. An online questionnaire measuring each of the constructs in the conceptual model as well as demographics, Internet usage of the respondents, and online and offline shopping behaviors of the respondents was developed by the researcher. The information letter hyperlinked to the questionnaire was sent to respondents through the e-mail, and

they were asked to answer each question in the questionnaire (see Appendix E for the Phase II Pilot-test Information Letter and Appendix F for the Phase II Main Survey Information Letter).

### **Instrument**

This instrument was designed on the basis of the brand selection results of the Phase I research. Respondents were given a list of four apparel brands identified in Phase I and were asked to answer the questionnaire based on their experience with the brand they have purchased most frequently. Measures for the following constructs: prior in-store shopping experience, advertisement attitude, brand attitude, belief about searching for information, belief about evaluating alternatives, belief about choosing products, belief about purchasing products, attitudes toward online shopping, and online purchase intentions were adapted from previous research to reflect the multichannel context (see Table 3-1).

Table 3-1. Construct and Scale Items for Phase II Survey Instrument

<b>Construct and Scale Items</b>	<b>References</b>
<b>Prior In-Store Shopping Experience</b>	Park and Stoel (2005)
The frequency with which you generally visit a store of the brand you have chosen	Yoh et al. (2003)
The length of time spent at the store of the brand you have chosen	
The frequency with which you generally purchase apparel or accessory products at the store of the brand you have chosen	
<b>Advertisement Attitude</b>	Oh (2005)
I feel erotic	
I feel sexy	
I feel sensual	
I feel humiliated	
I feel distasteful	
I feel offended	
I feel merry	
I feel energetic	
I feel vigorous	

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I feel warmhearted	
I feel sentimental	
I feel warm	
I feel bored	
I feel dull	
<b>Brand Attitude</b>	Aaker (1996)
Dislike/like	Holbrook and
Unfavorable/favorable	Batra (1987)
Negative/positive	
Bad/good	
Not provide good value for the money/provides good value for the money	
<b>Belief about Searching for Information</b>	Settle, Alreck, and McCorkle (1994)
Slow/fast	
Inconvenient/convenient	
Difficult/easy	
Not enjoyable/enjoyable	
Impractical/practical	
<b>Belief about Evaluating Alternatives</b>	Settle et al. (1994)
Slow/fast	
Inconvenient/convenient	
Difficult/easy	
Not enjoyable/enjoyable	
Impractical/practical	
<b>Belief about Choosing Products</b>	Settle et al. (1994)
Inconvenient/convenient	
Difficult/easy	
Not enjoyable/enjoyable	
Impractical/practical	
<b>Belief about Purchasing Products</b>	Aaker (1996)
Inconvenient/convenient	Settle et al. (1994)
Difficult/easy	
Not enjoyable/enjoyable	
Impractical/practical	
Not provide good value for the money/provides good value for the money	
<b>Attitudes toward Online Shopping</b>	Childers, Carr, Peck, and Carson (2001)
Bad/good	Yoh et al. (2003)
Inferior/superior	
Unpleasant/pleasant	
Useless/beneficial	
Undesirable/desirable	

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<b>Online Purchase Intentions</b>	Kim and Lennon (2000)
How likely is it that you will buy an apparel or accessory item at the website of the chosen brand when you find something you like?	
How likely is it that you will buy an apparel or accessory item at the website of the chosen brand within the next year?	

### ***Prior In-Store Shopping Experience***

The measure for prior in-store shopping experience with the multichannel retailer was adapted from the scales used by Park and Stoel (2005) and Yoh et al. (2003) and some expressions of the items were modified to reflect the research objective. Three items were used for the measurement of prior in-store shopping experience with the multichannel retailer. Two of the items were adopted from Yoh et al.'s scale (2003) and one item was adopted from Park and Stoel's scale (2005).

### ***Advertisement Attitude***

Advertisement attitude was measured by items indicating affective reactions to advertisements. The measure for consumers' affective reactions to advertisements was adapted from a scale developed by Oh (2005). It was reported that the Cronbach alpha coefficient for all constructs in Oh's scale was .96 (sensual feeling), .96 (negative feeling), .96 (upbeat feeling), .95 (warm feeling), and .58 (dull feeling). The scale developed by Oh (2005) accomplished very good reliability except the reliability (.58) for the dull feeling construct. Fourteen 7-point Likert-type scale items were used for the measurement of the affective reactions to advertisements in this research. The relevant factors were extracted with exploratory factor analysis and the mean of items with higher weights for each factor produced the measured variables used in the confirmatory factor analysis. According to Hair, Anderson, Tatham, and Black (1998), a factor loading greater than .7 indicates a

relatively high factor loading.

### ***Brand Attitude***

The brand attitude was measured by adapting scales developed by Aaker (1996) and Holbrook and Batra (1987). Four items for brand attitude were adopted from Holbrook and Batra's scale (1987) which had a reported scale reliability of .98. One item (e.g., valueless/valuable) that closely matches the objective of the study was also adopted from Aaker's scale (1996) to measure brand attitude. Balabanis and Reynolds (2001) measured attitudes toward two brands using Aaker's scale. The reliability in Balabanis and Reynolds' study (2001) was reported as .86 when the attitude toward Gap brand was measured and its reliability was .85 when the attitude was measured using Principles brand. Five 7-point semantic differential bipolar scales (i.e., dislike/like, unfavorable/favorable, negative/positive, bad/good, and not provide good value for the money/provides good value for the money) were used to measure brand attitude. Some wording of these items from Holbrook and Batra's scale (1987) and Aaker's scale (1996) were revised to relate to the multichannel environment context.

### ***Beliefs about Searching for Information, Evaluating Alternatives, Choosing Products, and Purchasing Products***

The measure for consumers' beliefs about searching for information, evaluating alternatives, choosing products, and purchasing products at the website of the multichannel retailer was adapted from a study by Settle et al. (1994). Consumers' beliefs about searching for information and evaluating alternatives at the website of the multichannel retailer were measured by five 7-point semantic

differential bipolar scale items (i.e., slow/fast, inconvenient/convenient, difficult/easy, not enjoyable/enjoyable, and impractical/practical). Consumers' belief about choosing products at the website of the multichannel retailer was measured by four 7-point semantic differential bipolar scale items (i.e., inconvenient/convenient, difficult/easy, not enjoyable/enjoyable, and impractical/practical). Four 7-point semantic differential bipolar scale items from Settle et al. (1994) were used to measure consumers' belief about purchasing products at the website of the multichannel retailer. Additionally, one item from Aaker's scale (1996) (i.e., not provide good value for the money/provides good value for the money) which closely matches the objective of the proposed study was added to measure consumers' belief about purchasing products at the website of the multichannel retailer. Some words of these items from Settle et al.'s scale (1994) and Aaker's scale (1996) were modified to reflect the multichannel shopping context. Reliability in the Settle et al.'s scale (1994) ranged from a low of .77 (for magazine ratings) to a high of .80 (for catalog ratings). Settle et al.'s scale (1994) was adopted for Yoh et al.'s study (2003) which reported a measurement reliability of 0.81.

### ***Attitudes toward Online Shopping***

The measure for consumers' attitude toward online shopping at the website of the multichannel retailer was adapted from the scales developed by Yoh et al. (2003) and Childers et al. (2001). The reported reliability in the Yoh et al.'s measurement (2003) was 0.95. Childers et al.'s scale (2001) achieved very good reliability with the value of .89 (sample 1) and .93 (sample 2). The five items from the scales developed by Yoh et al. (2003) and Childers et al. (2001) were used to measure consumers' attitude toward online shopping at the website of the multichannel

retailer using a 7-point semantic differential scale. Wording in these items was modified to reflect the multichannel environment context.

### ***Online Purchase Intentions***

Using a 5-point Likert-type scale ranging from 1 (very unlikely) to 5 (very likely), two items (e.g., “How likely is it that you will buy an apparel or accessory item at the website of the chosen brand when you find something you like?” and “How likely is it that you will buy an apparel or accessory item at the website of the chosen brand within the next year?”) were used to measure the intention to purchase at the website of the multichannel retailer. These items were adapted from Kim and Lennon’s scale (2000) to measure purchase intent of television shopping. These items were revised to reflect the multichannel environment context. Kim and Lennon’s scale (2000) was adopted by researchers to measure purchase intention in previous studies by Park, Lennon, and Stoel (2005) and Park and Stoel (2005) (see Appendix H for the Phase II Main Survey Questionnaire).

### **Phase II: Pilot-test**

An online pilot test was conducted with a convenience sample of 40 female undergraduate students enrolled in a merchandising class in a major southeastern public university before the Phase II main survey. The students were provided with the information letter hyperlinked to the questionnaire for the pilot-test through the e-mail. All students in the class were assigned a unique code number. Female undergraduate students who completed the pilot-test recorded their code number in the survey questionnaire to receive two points as extra credit. The questionnaire for the pilot-test was developed using Microsoft FrontPage.

Data from the pilot-test were analyzed to determine if the meaning of each statement in the questionnaire was clear and every question correctly addressed the research problem as well as to determine the internal consistency of scale items used in the questionnaire. To clarify the terms or expressions used in the questionnaire, respondents were asked to add their comments at the end of the questionnaire before submitting it (see Appendix G for the Phase II Pilot-test Questionnaire). Based on the results of the pilot-test, the research instrument was modified in the form of clarification of terms for the main survey.

### **Phase II: Main Study**

The web-based survey for the Phase II main study was conducted using a random sample of female college students enrolled in a major southeastern public university during the semester the research was conducted. The desired minimum sample size needed to validate Phase II main study was 400. In this study, the population was female college students in the southeastern U.S. Selecting college students is appropriate for this study because they have been more devoted to apparel shopping in online channels than have any other adult consumer groups (Lebo et al., 2004). Female college students were targeted as the population in the research based on results of the previous research that female shoppers were more likely to purchase apparel products online than male shoppers (Lee & Johnson, 2002). The information letter, hyperlinked with a structured self-administered questionnaire, was e-mailed to 4000 female college students. A reminder was sent two weeks later to increase the response rate in the main survey of Phase II. A reminder contributed to the increase of the response rate in this study. The response rate was below 5% before the reminder was sent.

## **Phase II: Data Analysis**

Data were collected for one week for the Phase II pilot-test and for about two and half months for the Phase II main study. Respondents were profiled (i.e., demographics of the respondents, Internet usage of the respondents, and online and offline shopping behaviors of the respondents) using descriptive statistics (i.e., frequency and percentage). The constructs of the conceptual model were assessed through confirmatory factor analysis, and the proposed model was evaluated with structural equation modeling (SEM). The hypotheses in the research were tested using SEM.

To extract factors giving rise to items that measured consumers' affective reactions to advertisements, beliefs about online shopping at the website of the multichannel retailer, and attitudes toward online shopping at the website of the multichannel retailer, exploratory factor analysis (principal axis factor analysis) was first conducted. Then, a confirmatory factor analysis (CFA) was used to determine if the measured variables reflect the latent variables validly in the measurement model for prior in-store shopping experience and advertisement and brand attitudes. To assess the overall fit of the measurement model, Chi-square ( $\chi^2$ ) statistic, ratio of Chi-square statistic/*df*, goodness of fit index (GFI), comparative fit index (CFI), normed fit index (NFI), and root mean square error of approximation (RMSEA) were used (Schumacker & Lomax, 1996).

Confirmatory factor analysis was applied to assess the construct validity of the measurement model. Construct validity is defined as "the degree to which a measure actually assesses the theoretical construct it is supposed to assess and is often assessed through confirmatory factor analysis" (Meyers, Gamst, & Guarino, 2006, p. 550). As part of the construct validity, convergent validity of the measurement

model was measured by examining factor loadings between the latent variable and measured variables. The value should be 0.3 or greater to provide convergent validity (Meyers et al., 2006). Discriminant validity, as the other element of construct validity, was assessed by the correlation coefficients between the constructs in the measurement model. The value should be less than 0.8 to demonstrate adequate discriminant validity (Meyers et al., 2006). Cronbach alpha was used to test internal reliability of the scales. The acceptable level of the internal reliability is 0.7 (Peterson, 1994).

Multiple and single-group SEM using Amos 16.0 was used to evaluate the structural models for the selected apparel retail brands. First, multiple-group SEM was conducted to test structural invariance across the groups simultaneously (Hu & Bentler, 1999). Multiple-group SEM will determine if the individual paths in the hypothesized model are invariant across the brands. The invariance test was done by using Chi-square ( $\chi^2$ ) and degrees of freedom ( $df$ ) for the base model (model in which paths were assessed independently across the brands) and the constrained model (model in which paths were restricted to be equal across the brands). No significant difference in Chi-square values ( $\Delta\chi^2$ ) (meaning differences of  $\chi^2$  values between the base model and constrained model in the model fit comparison) across the brands represents that the models (based and constrained model) will indicate no statistical difference. It means that the paths in the hypothesized model are invariant across the brands.

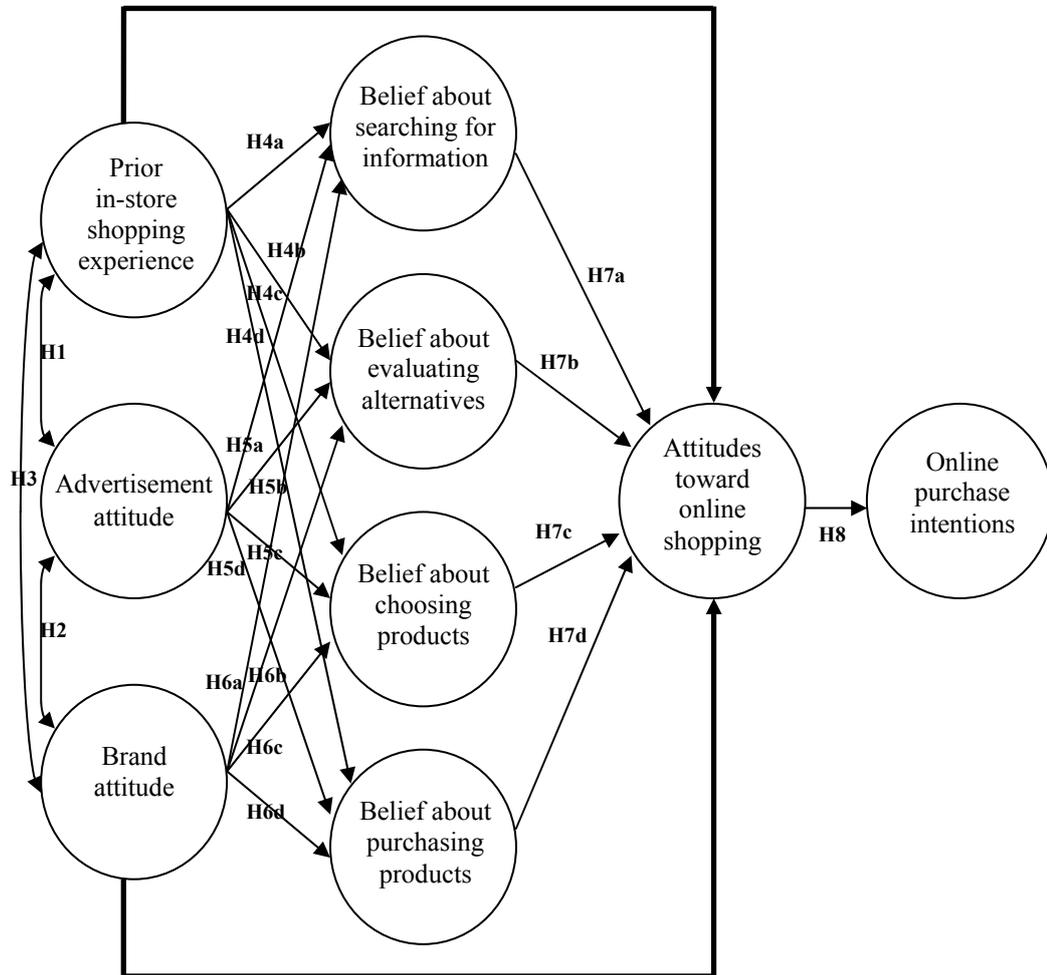
Next, single structural equation modeling was performed to assess the structural model that examined the relationship among consumers' prior in-store shopping experience with the multichannel retailer, their advertisement and brand attitudes, and their buying beliefs, attitudes, and intentions to purchase at the web site

of the multichannel retailer as well as to test the hypotheses except for hypothesis 9 in the research. The  $p$ -value of Chi-square ( $\chi^2$ ) statistic should be greater than .05 to indicate an acceptable fit between the proposed model and observed data (Meyers et al., 2006). The value of GFI (goodness of fit index), similar to the R-square in regression, indicates how much of the variance in the data is explained by the proposed model. Values of .95 in GFI are deemed as a good fit. The CFI (comparative fit index) measures how well the model fits. The values of .95 in CFI are deemed as a good fit. The values between .9 and .95 in NFI (the normed fit index), one of incremental fit measures, are deemed acceptable. The RMSEA (root mean square error of approximation) assesses the error that would be found in the population. The Value of RMSEA should be less than .05 for a close fit of the model (Meyers et al., 2006). If the overall fit indices for the proposed model are close to what is mentioned above, the proposed model will fit the data.

If all standardized path coefficients are significant, all paths for the proposed model will be supported by the data. In other words, the structural paths can achieve statistical significance ( $\rho < .05$ ) and practical significance ( $\beta > .3$ ) (Meyers et al., 2006). Moreover, the premise that correlations among three exogenous variables with the statistical significance ( $\rho < .05$ ) are preceded in SEM was intended to be verified through testing the hypotheses in the proposed model (Meyers et al., 2006).

To test hypothesis 9, the alternative model which includes direct paths between the consumers' prior in-store shopping experience with the multichannel retailer and their advertisement and brand attitudes and the attitudes toward online shopping at the website of the multichannel retailer was developed (see Figure 3-1). The Chi-square ( $\chi^2$ ) statistic, the goodness of fit index (GFI), the comparative fit index (CFI), the normed fit index (NFI), and the root mean square error of

approximation (RMSEA) were used to evaluate overall fit of the alternative model. Then, the Chi-square difference test was conducted to examine the fit superiority of the alternative model. No difference in Chi-square ( $\chi^2$ ) and degrees of freedom (*df*) between the base model and the alternative model indicates support for hypothesis 9 which proposed a mediating effect of beliefs about online shopping on the relationship between prior in-store shopping experience and attitudes (i.e., advertisement attitude and brand attitude) and attitudes toward online shopping at the website of the multichannel retailer.



Note. H9 which addresses the mediating effect of beliefs about online shopping is omitted in this figure.

Figure 3-1. Alternative Model: Hypothesized Prior Experience and Attitudes as Predictors of Online Shopping Beliefs, Attitudes, and Purchase Intentions in a Multichannel Context

## **CHAPTER 4: RESULTS AND DISCUSSION**

The purpose of this study was to investigate the relationships among 1) consumers' prior in-store shopping experience with the multichannel retailer, their advertisement attitude, and their brand attitude and 2) consumers' prior in-store shopping experience with the multichannel retailer and their advertisement and brand attitudes as predictors of beliefs, attitudes, and purchase intentions at the website of the multichannel retailer. This chapter consists of the data analyses and results of Phase I research and Phase II research. Completed questionnaires for the brand selection (Phase I) and development of measurement and structural model (Phase II) were analyzed.

### **Phase I: Data Analyses and Summary of Pilot-testing**

A pilot-test of the Phase I research was administered before the main survey to clarify the terms used in the questionnaire. A convenience sample of 19 female undergraduate students enrolled in a southeastern public university completed the pilot-test. The demographic characteristics of the pilot-test in Phase I are summarized as follows.

#### ***Demographic Characteristics***

Nineteen of the 25 female undergraduate students enrolled in a visual merchandising class at a major southeastern university voluntarily responded to the online survey for pre-testing the brand selection phase of the research study.

Respondents gave their age, college grade, ethnic group, and college or school of their major. The demographic characteristics of the respondents are shown in Table 4-1.

Table 4-1. Demographic Profile of the Phase I Pilot-test Respondents

	<i>Frequency (Percentage)</i>		<i>Frequency (Percentage)</i>
<b>College grade</b>		<b>Age</b>	
Junior	7 (36.8%)	20 years old	7 (36.8%)
Senior	12 (63.2%)	21 years old	6 (31.6%)
		22 years old	5 (26.3%)
		23 years old	1 (5.3%)
<b>Ethnic group</b>		<b>College or School</b>	
White, non-Hispanic	17 (89.5%)	College of Human Sciences	19 (100%)
African American	2 (10.5%)		

There were no specific additional comments made, therefore, the research instrument used in the pilot-test was used for the Phase I main survey. In addition, the results of the pilot-test in Phase I are summarized in Appendix I.

### **Phase I: Data Analyses and Results of Main Study**

The objective of the brand selection process in this research was to select three multi-channel apparel retail brands which the female college students at a major southeastern university preferred the most to use in the Phase II research dealing with structural model development and hypothesis testing. The questionnaire used in the pretest was used in this Phase I Main Study.

### *Demographic Characteristics*

Three hundred thirteen female undergraduate students from a randomly selected sample of 2082 students attending a major southeastern university responded to the online survey for this brand selection research (15% response rate). Respondents were asked to give their age, college grade, ethnic group, and college or school of their major. Respondents' ages ranged from 19 to 47 years; their median age was 20 years. The respondents were distributed approximately equally in the four college grade levels: 23.3% were freshmen; 28.7%, sophomores; 25.6%, juniors, and 22.4%, seniors. Most of the respondents were Caucasian (89.8%). The largest group of the respondents (45.7%) was enrolled in the College of Human Sciences (see Table 4-2). Though the sample was randomly selected from the population of female college students, it may have been that students in the College of Human Sciences were more interested in the focus of this study. Therefore, Human Sciences students may have been more likely to respond to the invitation to participate in the study.

Table 4-2. Demographic Profile of the Phase I Main Study Respondents

	<i>Frequency (Percentage)</i>		<i>Frequency (Percentage)</i>
<b>College grade</b>		<b>Age</b>	
Freshman	73 (23.3%)	19	128 (40.9%)
Sophomore	90 (28.7%)	20	85 (27.2%)
Junior	80 (25.6%)	21	46 (14.7%)
Senior	70 (22.4%)	22- 47	54 (17.2%)
<b>Ethnic group</b>		<b>College or School</b>	
White, non-Hispanic	281 (89.8%)	College of Agriculture	10 (3.2%)
African American	15 (4.8%)	College of Architecture,	3 (1.0%)
Asian	8 (2.5%)		

Hispanic/Latino/ Spanish	5 (1.6%)	Design & Construction	
Other	4 (1.3%)	College of Business	29 (9.3%)
		College of Education	18 (5.7%)
		College of Human Sciences	143 (45.7%)
		College of Liberal Arts	59 (18.8%)
		College of Sciences and Mathematics	14 (4.5%)
		College of Veterinary Medicine	1 (0.3%)
		Honors College	2 (0.6%)
		School of Pharmacy	10 (3.2%)
		College of Engineering	11 (3.5%)
		School of Forestry and Wildlife Sciences	0 (0%)
		School of Nursing	13 (4.2%)
		Others	0 (0%)

### ***Preferred Brands of the Respondents***

Respondents were asked to evaluate the eleven selected multi-channel retail brands in terms of their level of prior buying experience with each brand and the level of liking for each brand. Multi-channel apparel retail brands were summarized by prior buying experience with the offline store of each brand (see Table 4-3). The brick-and-mortar stores of *Gap* (30%) and *Old Navy* (36.4%) were the offline stores with the highest number of respondents reporting that they had purchased clothing or accessories often or frequently (i.e., five or more times per year or more). The brick-and-mortar stores of *American Eagle*, *Anthropologie*, *Banana Republic*, *WetSeal*, and *J.Crew* were the offline stores where 15% - 19% of the respondents had purchased clothing or accessories often or frequently (i.e., five or more times per year or more).

*Gap* and *Old Navy* were also the stores with the lowest percentage of “Never” shopped, i.e., 9.9% (*Old Navy*) and 15% (*Gap*). The brick-and-mortar stores of *bebe*, *Abercrombie & Fitch*, *Anthropologie*, *Ann Taylor Loft*, and *Hollister Co.* brand were selected as the offline stores where more than 50% of the respondents had never purchased any clothing or accessories.

Table 4-3. Prior Buying Experience with Offline Stores of Selected Retail Brands

	<u>Gap</u>	<u>Old Navy</u>	<u>American Eagle</u>	<u>Abercrombie &amp; Fitch</u>
	<i>f</i> (%)	<i>f</i> (%)	<i>f</i> (%)	<i>f</i> (%)
<b>Never</b>	47 (15.0%)	31 (9.9%)	93 (29.7%)	204 (65.2%)
<b>Occasionally</b> (once per year, twice per year, or three to four times per year)	172 (55.0%)	168 (53.7%)	160 (51.2%)	84 (26.8%)
<b>Often</b> (five to twelve times per year)	69 (22.0%)	84 (26.8%)	36 (11.5%)	17 (5.4%)
<b>Frequently</b> (twice per month, three times per month, or more than three times per month)	25 (8.0%)	30 (9.6%)	24 (7.6%)	8 (2.6%)
	<u>Anthropologie</u>	<u>Hollister Co.</u>	<u>Banana Republic</u>	<u>WetSeal</u>
	<i>f</i> (%)	<i>f</i> (%)	<i>f</i> (%)	<i>f</i> (%)
<b>Never</b>	181 (57.8%)	204 (65.2%)	106 (33.9%)	153 (48.9%)
<b>Occasionally</b> (once per year, twice per year, or three to four times per year)	77 (24.6%)	87 (27.8%)	160 (51.2%)	106 (33.9%)

<b>Often</b> (five to twelve times per year)	34 (10.9%)	11 (3.5%)	32 (10.2%)	31 (9.9%)
<b>Frequently</b> (twice per month, three times per month, or more than three times per month)	21 (6.7%)	11 (3.5%)	15 (4.7%)	23 (7.3%)
	Ann Taylor Loft <hr/> f (%)	J. Crew <hr/> f (%)	bebe <hr/> f (%)	
<b>Never</b>	161 (51.4%)	150 (47.9%)	211 (67.4%)	
<b>Occasionally</b> (once per year, twice per year, or three to four times per year)	115 (36.7%)	104 (33.2%)	82 (26.2%)	
<b>Often</b> (five to twelve times per year)	23 (7.4%)	34 (10.9%)	14 (4.5%)	
<b>Frequently</b> (twice per month, three times per month, or more than three times per month)	14 (4.5%)	25 (8.0%)	6 (1.9%)	

Table 4-4 summarizes respondents' prior buying experience with the online store of each brand. Most of the students in this sample had never purchased at the online stores listed in the questionnaire. In fact, for each of the 11 online stores listed, over 70% of the respondents reported that they had never purchased apparel or accessories at the online store. *Anthropologie* and *J.Crew*'s websites were the online stores where the respondents most frequently purchased clothing or accessories (i.e., five or more times per year or more – *Anthropologie*, 7.3% and *J.Crew*, 8.3%). By

contrast, the websites of *Hollister Co.*, *Abercrombie & Fitch*, *Ann Taylor Loft*, and *bebe* were the online stores where fewer than 10% of the respondents had purchased any clothing or accessories.

Table 4-4. Prior Buying Experience with Online Stores of Selected Retail Brands

	Gap website	Old Navy website	American Eagle website	Abercrombie & Fitch website
	<i>f</i> (%)	<i>f</i> (%)	<i>f</i> (%)	<i>f</i> (%)
<b>Never</b>	232 (74.1%)	235 (75.1%)	258 (82.4%)	283 (90.4%)
<b>Occasionally</b> (once per year, twice per year, or three to four times per year)	74 (23.7%)	74 (23.7%)	46 (14.8%)	24 (7.7%)
<b>Often</b> (five to twelve times per year)	4 (1.3%)	1 (0.3%)	7 (2.2%)	5 (1.6%)
<b>Frequently</b> (twice per month, three times per month, or more than three times per month)	3 (0.9%)	3 (0.9%)	2 (0.6%)	1 (0.3%)
	Anthropologie website	Hollister Co. website	Banana Republic website	WetSeal website
	<i>f</i> (%)	<i>f</i> (%)	<i>f</i> (%)	<i>f</i> (%)
<b>Never</b>	235 (75.1%)	297 (94.9%)	260 (83.1%)	277 (88.5%)
<b>Occasionally</b> (once per year, twice per year, or three to four times per year)	55 (17.6%)	16 (5.1%)	48 (15.3%)	28 (8.9%)
<b>Often</b> (five to twelve times per year)	11 (3.5%)	0 (0%)	4 (1.3%)	4 (1.3%)

<b>Frequently</b> (twice per month, three times per month, or more than three times per month)	12 (3.8%)	0 (0%)	1 (0.3%)	4 (1.3%)
	Ann Taylor Loft website <hr/> f (%)	J. Crew website <hr/> f (%)	Bebe website <hr/> f (%)	
<b>Never</b>	285 (91.0%)	225 (71.9%)	289 (92.3%)	
<b>Occasionally</b> (once per year, twice per year, or three to four times per year)	24 (7.7%)	62 (19.8%)	21 (6.8%)	
<b>Often</b> (five to twelve times per year)	4 (1.3%)	12 (3.8%)	0 (0%)	
<b>Frequently</b> (twice per month, three times per month, or more than three times per month)	0 (0%)	14 (4.5%)	3 (0.9%)	

Respondents were asked to choose the offline or the online store from which they most often purchased clothing or accessories for themselves. The results are summarized in Table 4-5. The brick-and-mortar stores of *Old Navy*, *Gap*, *American Eagle*, *WetSeal*, and *Anthropologie* were the offline stores where at least 10% of the respondents reported that they had most frequently purchased clothing or accessories for themselves. Moreover, the websites of *Old Navy*, *Gap*, *J. Crew*, *Anthropologie*, and *American Eagle* were the online stores where at least 10% of the respondents reported that they had most frequently purchased clothing or accessories for themselves.

Table 4-5. Offline or Online Store from Which Clothing or Accessories Were Purchased Most Frequently

Brand	Offline Store	Online Store
	<i>f</i> (%)	<i>f</i> (%)
Abercrombie & Fitch	7 (2.2%)	19 (6.1%)
American Eagle	45 (14.4%)	33 (10.6%)
Ann Taylor Loft	18 (5.8%)	9 (2.9%)
Anthropologie	35 (11.2%)	42 (13.4%)
Banana Republic	8 (2.5%)	6 (1.9%)
bebe	10 (3.2%)	12 (3.8%)
Gap	55 (17.6%)	57 (18.2%)
Hollister Co.	5 (1.6%)	2 (0.6%)
J. Crew	22 (7.0%)	46 (14.7%)
Old Navy	72 (23.0%)	61 (19.5%)
WetSeal	36 (11.5%)	26 (8.3%)

Respondents were asked to choose the type of clothing or accessories purchased most frequently at the offline or the online store of the apparel brand which they purchased the most frequently. The frequency of type of clothing or accessories purchased the most frequently at the offline or the online store is summarized in Table 4-6. Specifically, tops (69%), dresses (47.6%), and jeans (37.7%) were cited as the items purchased the most frequently at the offline store. Tops (50.8%), dresses (36.1%), shirts (23.3%), accessories (22.4%), and jeans (20.1%) were selected as items purchased the most frequently at the online store. In addition, shoes, purses, and swimsuits were mentioned by the respondents as other items purchased at offline or online stores. These items were added as possible responses to the question in the questionnaire used for the pilot-test and main survey of Phase II.

Table 4-6. Clothing or Accessories Purchased Most Frequently

Clothing or Accessories	Offline Store	Online Store
	<i>f</i> (%)	<i>f</i> (%)
Accessories	63 (20.1%)	70 (22.4%)
Active wear	8 (2.6%)	10 (3.2%)
Capris	12 (3.8%)	2 (0.6%)
Dresses	149 (47.6%)	113 (36.1%)
Jeans	118 (37.7%)	63 (20.1%)
Others	11 (3.5%)	22 (7.0%)
Outerwear	23 (7.3%)	24 (7.7%)
Pants	39 (12.5%)	25 (8.0%)
Shirts	92 (29.4%)	73 (23.3%)
Shorts	37 (11.8%)	28 (8.9%)
Skirts	60 (19.2%)	42 (13.4%)
Sleepwear	11 (3.5%)	14 (4.5%)
Sweaters	55 (17.6%)	40 (12.8%)
Tops	216 (69.0%)	159 (50.8%)
Ts & Camis	44 (14.1%)	37 (11.8%)

The level of apparel brand liking is summarized in Table 4-7. *Banana Republic, Old Navy, Gap, J. Crew, and Anthropologie* received the highest “brand liking” ratings by the respondents, i.e., a value of  $\geq 3.8$  on a scale of 1 - 5 with five as highest. *Hollister Co. and Abercrombie & Fitch* had the lowest levels of brand liking.

Table 4-7. Level of Brand Liking

Brand	<i>n</i>	Brand Liking			
		<i>M</i>	<i>SD</i>	<i>Min.</i>	<i>Max.</i>
Abercrombie & Fitch	313	2.69	1.40	1	5
American Eagle	313	3.41	1.30	1	5
Ann Taylor Loft	313	3.45	1.15	1	5
Anthropologie	313	3.81	1.16	1	5
Banana Republic	313	3.92	1.00	1	5
bebe	313	3.13	1.22	1	5
Gap	313	3.84	1.15	1	5
Hollister Co.	313	2.65	1.37	1	5
J. Crew	313	3.81	1.15	1	5
Old Navy	313	3.88	1.08	1	5
WetSeal	313	3.02	1.40	1	5

As mentioned in the demographic characteristics of the respondents, the majority of the respondents (45.7%) were enrolled in the College of Human Sciences. The sample was divided into two groups: the College of Human Sciences ( $n = 143$ ) and the rest of the colleges ( $n = 170$ ) in order to test the effect of college major on the data analysis results. The data analysis of the level of prior buying experience with each brand at offline or online store, offline or online store purchased most frequently, and the degree of brand liking was conducted for each group and compared to find out the difference between two groups. The findings for each of the two groups were not statistically different from those of the total group ( $n = 313$ ).

At first, three multi-channel apparel specialty retail brands were expected to be selected for Phase II of this research, but one more brand was added based on the results of the Phase I main survey (see Table 4-8). *WetSeal* brand was selected instead of the *Anthropologie* and *J. Crew* brands, since the respondents would be

more likely to have prior in-store shopping experience at the store of *WetSeal* brand which was located in the local mall in the region in which the survey was performed whereas *Anthropologie* and *J. Crew* stores were not located in the local region. Therefore, *Gap*, *Old Navy*, *American Eagle*, and *WetSeal* were selected as respondents' favorite multi-channel retail brands on the basis of the results of the level of their prior buying experience with offline or online stores, offline or online store purchased most frequently, and the degree of brand liking.

Table 4-8. Top Four Brands Selected in Phase I

Brand	Frequency of Offline Buying Experience (more than once per year)	Frequency of Online Buying Experience (more than once per year)	Offline Store Purchased Most Frequently	Online Store Purchased Most Frequently	Brand Liking (a scale of 1 - 5 with 5 as the highest)
Gap	266 (85.0%)	81 (25.9%)	55 (17.6%)	57 (18.2%)	3.84
Old Navy	282 (90.1%)	78 (24.9%)	72 (23.0%)	61 (19.5%)	3.88
American Eagle	220 (70.3%)	55 (17.6%)	45 (14.4%)	33 (10.5%)	3.41
WetSeal	160 (51.1%)	36 (11.5%)	36 (11.5%)	26 (8.3%)	3.02

### **Phase II: Data Analyses and Summary of Pilot-testing**

A pilot-test for the Phase II research was conducted to help the researcher determine whether modifications of the research instrument were needed for the main survey. The demographic characteristics of the pilot-test in the Phase II research are summarized as follows.

## Characteristics of the Respondents

The pilot-test data of Phase II were analyzed to determine demographic characteristics of the respondents. Internet use of the respondents and shopping behavior of the respondents were also determined (see Appendix J).

### *Demographic Characteristics*

Of 40 female undergraduate students enrolled in the merchandising class in the Fall Semester, 2007 at a major southeastern university, 33 answered the online survey for this pre-test (83% response rate). Respondents were asked to indicate their age, college grade, ethnic group, college or school of their major, and internet usage behavior including internet shopping. See Table 4-9 for a description of their demographic characteristics.

Table 4-9. Demographic Profile of the Phase II Pilot-test Respondents

	<i>Frequency (Percentage)</i>		<i>Frequency (Percentage)</i>
<b>College grade</b>		<b>Age</b>	
Freshman	0 (0%)	20 years old	11 (33.3%)
Sophomore	0 (0%)	21 years old	15 (45.5%)
Junior	15 (45.4%)	22 years old	4 (12.1%)
Senior	16 (48.5%)	23 years old	1 (3.0%)
Graduate student	2 (6.1%)	24 years old	2 (6.1%)
<b>Ethnic group</b>		<b>College or School</b>	
White, non-Hispanic	31 (93.9%)	College of Human Sciences	33 (100%)
Asian	2 (6.1%)		

Additional comments from respondents guided the modification of the research instrument from the Phase II pilot-test for the Phase II main survey. The revisions made were in the form of clarification of terms. Moreover, the results of the pilot-test in Phase II are summarized in Appendix J.

### **Phase II: Data Analyses and Results of Main Study**

The Phase II research comprises the scale development, structural model development, and testing the fit of the model. The results of the main study in the Phase II research are summarized as follows.

#### **Characteristics of the Respondents**

The main study data of Phase II were analyzed to determine demographic characteristics and Internet use behavior, Internet shopping behavior of the respondents. Respondents gave their demographic profile including the age, college grade, ethnic group, college or school of their major.

#### ***Demographic Characteristics***

A random sample of 4000 female undergraduate and graduate students enrolled in a major southeastern university was invited to participate in the online Phase II main survey. Three hundred ninety-five usable questionnaires were returned out of 4000 sent, yielding a response rate of 9.9%. Respondents' ages ranged from 19 to 53 years. Their median age was 21 years; 28.6% of the respondents were graduate students. Most of the respondents (78%) were Caucasian; one-fifth belonged to College of Human Sciences (see Table 4-10).

Table 4-10. Demographic Profile of the Phase II Main Study Respondents

	<i>Frequency (Percentage)</i>		<i>Frequency (Percentage)</i>
<b>College grade</b>		<b>Age</b>	
Freshman	80 (20.3%)	19	118 (29.9%)
Sophomore	54 (13.7%)	20 - 29	241 (61.0%)
Junior	74 (18.7%)	30 - 39	26 (6.6%)
Senior	74 (18.7%)	40 - 49	7 (1.8%)
Graduate student	113 (28.6%)	50 - 53	3 (0.7%)
<b>Ethnic group</b>		<b>College or School</b>	
White, non-Hispanic	308 (78.0%)	College of Agriculture	27 (6.8%)
African American	39 (9.9%)	College of Architecture, Design & Construction	8 (2.0%)
Asian	27 (6.8%)	College of Business	55 (13.9%)
Hispanic/Latino/Spanish	7 (1.8%)	College of Education	47 (11.9%)
Other	14 (3.5%)	College of Human Sciences	77 (19.5%)
		College of Liberal Arts	66 (16.7%)
		College of Sciences and Mathematics	44 (11.2%)
		College of Veterinary Medicine	6 (1.5%)
		Honors College	3 (0.8%)
		School of Pharmacy	15 (3.8%)
		College of Engineering	30 (7.6%)
		School of Forestry and Wildlife Sciences	2 (0.5%)
		School of Nursing	12 (3.0%)
		Others	3 (0.8%)

### ***Internet Use***

Table 4-11 reports the Internet use of the respondents. While 60.5% of the respondents reported that they had used the Internet for three or more years for online shopping, 5.1% reported that they had never shopped online. When they were asked about time spent on the Internet, 35.7% of the respondents reported spending 20 or more hours weekly on the Internet. Of the respondents, 61.8% reported that they had spent 1-4 hours weekly shopping on the Internet and 28.3% reported that they had not spent any time shopping on the Internet.

Of the respondents, 30.6% reported that they had searched for apparel product information on the Internet either never or less than once a month. While 35.4% of the respondents indicated that they had used the Internet one to three times a month to choose apparel products, 11.1% reported that they had never used the Internet to choose apparel products. Meanwhile, 55.9% reported that they had used the Internet less than once a month to purchase apparel products while another 21.3% reported that they had never purchased apparel products on the Internet.

When asked about the amount of money spent to purchase apparel or accessory products at the online store, 34.4% reported that they had not spent any money to purchase apparel or accessory products online during the past six months. Of the respondents, 29.1% reported spending \$1-\$99 and another 17.7% reported spending \$100-\$199 for online apparel purchases in the past six months (see Table 4-11).

Table 4-11. Internet Use of the Phase II Main Study Respondents

	<i>Frequency (%)</i>		<i>Frequency (%)</i>
<b>Years to use the internet for online shopping</b>		<b>Weekly hours spent on the internet</b>	
Never have shopped online	20 (5.1%)	None	1 (0.3%)
Less than 1 year	36 (9.1%)	1-4 hours	34 (8.6%)
1-2 years	100 (25.3%)	5-9 hours	90 (22.8%)
3-4 years	129 (32.7%)	10-19 hours	129 (32.6%)
5-6 years	63 (15.9%)	20-29 hours	78 (19.7%)
Over 6 years	47 (11.9%)	30-39 hours	37 (9.4%)
		40 hours or more	26 (6.6%)
<b>Weekly hours spent shopping on the internet</b>		<b>Time spent on the internet to search for apparel product information</b>	
None	112 (28.3%)	Never	32 (8.1%)
1-4 hours	244 (61.8%)	Less than once a month	89 (22.5%)
5-9 hours	33 (8.4%)	Once a month	64 (16.2%)
10-19 hours	6 (1.5%)	Twice to three times a month	89 (22.5%)
20-29 hours	0 (0%)	Once a week	47 (11.9%)
30-39 hours	0 (0%)	More than once a week	46 (11.7%)
40 hours or more	0 (0%)	Almost everyday	28 (7.1%)
<b>Time spent on the internet to choose apparel products</b>		<b>Time spent on the internet to purchase apparel products</b>	
Never	44 (11.1%)	Never	84 (21.3%)
Less than once a month	144 (36.5%)	Less than once a month	221 (55.9%)
Once a month	81 (20.5%)	Once a month	45 (11.4%)
Twice to three times a month	59 (14.9%)	Twice to three times a month	33 (8.3%)
Once a week	29 (7.4%)	Once a week	7 (1.8%)
More than once a week	32 (8.1%)	More than once a week	4 (1.0%)
Almost everyday	6 (1.5%)	Almost everyday	1 (0.3%)

<b>Amount spent to purchase apparel or accessories online during the past 6 months</b>			
\$0	136 (34.4%)		
\$1-\$99	115 (29.1%)		
\$100-199	70 (17.7%)		
\$200-\$499	49 (12.4%)		
\$500-\$999	17 (4.3%)		
\$1,000-\$1,999	7 (1.8%)		
\$2,000 or more	1 (0.3%)		

### ***Shopping Behavior***

The 395 responses to the online survey were analyzed regarding shopping behavior at offline and online stores of the brand with which the respondents had the most shopping experience. Table 4-12 reports the frequency of visiting an offline and online store of the brand which they had chosen, the frequency of purchasing apparel or accessories at the offline and online store of the brand, time spent at the offline and online store of the brand for apparel shopping, the type of product purchased the most frequently at the offline and online store of the brand, and amount spent to purchase apparel or accessories at the offline and online store of the brand.

Table 4-12. Shopping Behavior of the Phase II Main Study Respondents

	<i>Frequency (%)</i>		<i>Frequency (%)</i>
<b>Frequency of visiting offline store of favorite brand</b>		<b>Frequency of visiting online store of favorite brand</b>	
Never	1 (0.3%)	Never	83 (21.0%)
Once per year	12 (3.0%)	Once per year	49 (12.4%)
Twice per year	19 (4.8%)	Twice per year	70 (17.7%)
Three to four times per year	59 (14.9%)	Three to four times per year	64 (16.2%)
Five to twelve times per year	168 (42.5%)	Five to twelve times per year	71 (18.0%)
Twice per month	83 (21.0%)	Twice per month	27 (6.8%)
Three times per month	37 (9.4%)	Three times per month	13 (3.3%)
More than three times per month	16 (4.1%)	More than three times per month	18 (4.6%)

<b>Frequency of purchasing apparel or accessories at the offline store of favorite brand</b> Never 7 (1.8%) Once per year 27 (6.8%) Twice per year 45 (11.4%) Three to four times per year 110 (27.8%) Five to twelve times per year 152 (38.5%) Twice per month 41 (10.4%) Three times per month 5 (1.3%) More than three times per month 8 (2.0%)		<b>Frequency of purchasing apparel or accessories at the online store of favorite brand</b> Never 228 (57.7%) Once per year 93 (23.5%) Twice per year 40 (10.1%) Three to four times per year 25 (6.3%) Five to twelve times per year 7 (1.8%) Twice per month 1 (0.3%) Three times per month 1 (0.3%) More than three times per month 0 (0%)	
<b>Time spent at the offline store of favorite brand for apparel shopping in a typical month</b> None 9 (2.2%) Less than 1 hour 197 (49.9%) 1 hour 120 (30.4%) 2 hours 46 (11.6%) 3 hours 13 (3.3%) 4 hours 5 (1.3%) 5 hours or more 5 (1.3%)		<b>Time spent at the online store of favorite brand for apparel shopping in a typical month</b> None 99 (25.1%) Less than 1 hour 248 (62.8%) 1 hour 31 (7.8%) 2 hours 10 (2.5%) 3 hours 5 (1.3%) 4 hours 2 (0.5%) 5 hours or more 0 (0%)	
<b>Type of product purchased the most frequently at the offline store of favorite brand</b> Jeans 186 (47.1%) Pants 68 (17.2%) Capris 24 (6.1%) Shorts 43 (10.9%) Skirts 60 (15.2%) Dresses 87 (22.0%) Outerwear 28 (7.1%) Sweaters 90 (22.8%) Tops 212 (53.7%) Shirts 115 (29.1%) Ts & Camis 70 (17.7%) Active wear 6 (1.5%) Sleepwear 16 (4.1%) Swimsuit 9 (2.3%) Accessories 40 (10.1%) Shoes 14 (3.5%)		<b>Type of product purchased the most frequently at the online store of favorite brand</b> Jeans 53 (13.4%) Pants 34 (8.6%) Capris 4 (1.0%) Shorts 14 (3.5%) Skirts 20 (5.1%) Dresses 44 (11.1%) Outerwear 15 (3.8%) Sweaters 29 (7.3%) Tops 67 (17.0%) Shirts 34 (8.6%) Ts & Camis 26 (6.6%) Active wear 3 (0.8%) Sleepwear 9 (2.3%) Swimsuit 20 (5.1%) Accessories 22 (5.6%) Shoes 16 (4.1%)	

Purses	7 (1.8%)	Purses	7 (1.8%)
Others	4 (1.0%)	Others	13 (3.3%)
<b>Amount spent to purchase apparel or accessories at the offline store of favorite brand during the past 6 months</b>		<b>Amount spent to purchase apparel or accessories at the online store of favorite brand during the past 6 months</b>	
\$0	23 (5.8%)	\$0	274 (69.4%)
\$1-\$99	152 (38.5%)	\$1-\$99	78 (19.7%)
\$100-199	107 (27.1%)	\$100-199	28 (7.1%)
\$200-\$499	89 (22.5%)	\$200-\$499	9 (2.3%)
\$500-\$999	22 (5.6%)	\$500-\$999	6 (1.5%)
\$1,000-\$1,999	2 (0.5%)	\$1,000-\$1,999	0 (0%)
\$2,000 or more	0 (0%)	\$2,000 or more	0 (0%)

The respondents' shopping behaviors with the multi-channel apparel retail brand they had chosen can be summarized as follows. While 23% of the respondents reported that they generally had visited the offline store of the brand they had chosen either not at all or four times a year or less, 42.5% had visited the offline store five to twelve times per year and another 34.5% reported that they had visited the store two or more times per month. In contrast, 21% reported that they had never visited the website of the brand they had chosen, 46.3% visited the online store of their preferred brand only one to four times per year, and 32.7% had visited the online store five or more times per year. Of the respondents, 46% had purchased apparel or accessories at the store of the preferred brand once or no more than four times per year, while 38.5% had purchased apparel or accessories at the offline store of the brand they had chosen five to twelve times per year and 13.7% reported purchasing apparel or accessories at the offline store of the brand chosen two or more times per month. Over half of the respondents (57.7%) reported that they had never purchased apparel or accessories at the online store of the preferred brand and 33.6% reported that they had made an apparel or accessory purchase at the online store only once or

twice per year.

Over 80% of the respondents spent one hour or less per month at the offline stores selected; 95.7% of the respondents spent one hour or less per month shopping for apparel in the online store. Tops (53.7%), jeans (47.1%), and shirts (29.1%) were reported by the respondents as the items they had purchased most frequently at the offline store of the brand, whereas tops (17%), jeans (13.4%), and dresses (11.1%) were cited by the respondents as the items they purchased most frequently at the website of the brand.

While 44.3% respondents reported that they had spent less than \$100 to purchase apparel or accessories at the offline store of the preferred brand during the past six months, 49.6% had spent between \$100 and \$499. In contrast, 69.4% reported that they had never purchased apparel or accessories at the website of the brand they had chosen during the past six months. Another 26.8% spent between \$1 and \$199 on apparel and accessories purchased from the website of the brand chosen.

Of the 395 responses returned from the online survey, 120 respondents selected *Gap* as the brand with which they have had the most shopping experience, 168 respondents selected *Old Navy*, 80 respondents chose the *American Eagle* brand, and 27 respondents chose *WetSeal*. The 27 responses listing *WetSeal* as the brand with which they had had the most shopping experience among four multichannel apparel retail brands were eliminated from further analysis because the frequency was too small to conduct the data analysis. The remaining 368 responses were used to analyze the data for the model development and hypothesis testing. Therefore, three multichannel apparel specialty retail brands (i.e., *Gap*, *Old Navy*, and *American Eagle*) were used in the data analysis in the Phase II main survey (see Table 4-13).

Table 4-13. Phase II Main Study Respondents' Brand Choice

<b>Brand</b>	<b><i>Frequency</i></b> <b>(%)</b>
Gap	120 (30.4%)
Old Navy	168 (42.5%)
American Eagle	80 (20.3%)
WetSeal	27 (6.8%)

### **Development of Measurement Model**

The measurement model was developed first to examine how well the measured variables defined their respective constructs before the structural equation model was built. The measurement model was developed using Amos 16.0 and evaluated by model fit indices (i.e.,  $\chi^2/df$ , GFI, CFI, NFI, and RMSEA) with the utilization of the data of the Phase II main survey. Exploratory factor analysis (Principal Axis Factoring) was first performed on the items composing the scales related to consumers' affective reactions to advertisements, beliefs about online shopping at the website of the multichannel retailer (i.e., belief about searching for information, belief about evaluating alternatives, belief about choosing products, and belief about purchasing products), and attitudes toward online shopping at the website of the multichannel retailer. Then, a confirmatory factor analysis for prior in-store shopping experience with the multichannel retailer and advertisement and brand attitudes was conducted to assess the model fit and to inspect validity of the scales. The reliability of the scales was also examined.

### ***Exploratory Factor Analysis***

Exploratory factor analysis, using a principal axis extraction method with a varimax rotation, was performed on 14 items measuring consumers' affective reactions to advertisements, 19 items measuring beliefs about online shopping at the website of the multichannel retailer, and five items measuring attitudes toward online shopping at the website of the multichannel retailer.

The initial 14 items measuring consumers' affective reactions to advertisements represented five dimensions: sensual feeling, negative feeling, upbeat feeling, warm feeling, and dull feeling. The first exploratory factor analysis extracted three factors, but the negative feeling dimension with three items and the sensual feeling dimension with two items had cross loadings between two factors. The sensual feeling dimension consisted of only one item which did not have a cross loading. These six items regarding negative and sensual feeling dimensions were dropped and then exploratory factor analysis was again conducted with the eight remaining items. Two factors (positive feeling and dull feeling) were extracted from the items that represented three dimensions: upbeat feeling, warm feeling, and dull feeling. The positive feeling factor reflected two dimensions of upbeat feeling and warm feeling. All factor loadings were relatively high with values greater than .6 (see Table 4-14).

Table 4-14. Factor Loadings for Consumers' Affective Reactions to Advertisements

Constructs	Items	Factor loadings
Positive Feeling	19. I feel merry.	.853
	20. I feel energetic.	.895
	21. I feel vigorous.	.799
	22. I feel warmhearted.	.902
	23. I feel sentimental.	.793
Dull Feeling	24. I feel warm.	.875
	25. I feel bored.	.932
	26. I feel dull.	.945

The nineteen items regarding beliefs about online shopping at the website of the multichannel retailer represented the four constructs: belief about searching for information, belief about evaluating alternatives, belief about choosing products, and belief about purchasing products. The exploratory factor analysis, using a principal axis extraction method with a varimax rotation, was conducted and two factors (search and evaluation beliefs and choice and purchase beliefs) were extracted from items representing the four constructs. The two dimensions of belief about searching for information and belief about evaluating alternatives generated one factor, renamed "Search and Evaluation Beliefs", whereas the two dimensions of belief about choosing products and belief about purchasing products comprised the other factor, renamed "Choice and Purchase Beliefs". All factor loadings had values almost equal to or greater than .6 (see Table 4-15).

Table 4-15. Factor Loadings for Beliefs about Online Shopping at the Website of the Multichannel Retailer

Constructs	Items	Factor loadings
Search and Evaluation Beliefs	32. Information searching at the website of the brand I have chosen is slow/fast.	.685
	33. Information searching at the website of the brand I have chosen is inconvenient/convenient.	.666
	34. Information searching at the website of the brand I have chosen is difficult/easy.	.711
	35. Information searching at the website of the brand I have chosen is not enjoyable/enjoyable.	.707
	36. Information searching at the website of the brand I have chosen is impractical/practical.	.725
	37. Evaluating alternatives at the website of the brand I have chosen is slow/fast.	.846
	38. Evaluating alternatives at the website of the brand I have chosen is inconvenient/convenient.	.875
	39. Evaluating alternatives at the website of the brand I have chosen is difficult/easy.	.896
	40. Evaluating alternatives at the website of the brand I have chosen is not enjoyable/enjoyable.	.821
	41. Evaluating alternatives at the website of the brand I have chosen is impractical/practical.	.885
Choice and Purchase Beliefs	42. Choosing a product at the website of the brand I have chosen is inconvenient/convenient.	.755
	43. Choosing a product at the website of the brand I have chosen is difficult/easy.	.758
	44. Choosing a product at the website of the brand I have chosen is not enjoyable/enjoyable.	.742
	45. Choosing a product at the website of the brand I have chosen is impractical/practical.	.756

	46. Making a purchase at the website of the brand I have chosen is inconvenient/convenient.	.861
	47. Making a purchase at the website of the brand I have chosen is difficult/easy.	.842
	48. Making a purchase at the website of the brand I have chosen is not enjoyable/enjoyable.	.818
	49. Making a purchase at the website of the brand I have chosen is impractical/practical.	.828
	50. Making a purchase at the website of the brand I have chosen does not provide good value for the money/provides good value for the money.	.598

The exploratory factor analysis, using a principal axis extraction method with varimax rotation was conducted with the five items representing the attitudes toward online shopping at the website of the multichannel retailer. One factor was extracted from items and named “Attitudes toward Online Shopping”. All factor loadings were relatively high with the values greater than .6 (see Table 4-16).

Table 4-16. Factor Loadings for Attitudes toward Online Shopping at the Website of the Multichannel Retailer

Constructs	Items	Factor loadings
Attitudes toward Online Shopping	51. Online shopping at the website of the brand I have chosen is bad/good idea.	.828
	52. Online shopping at the website of the brand I have chosen is inferior/superior to store shopping.	.687
	53. Online shopping at the website of the brand I have chosen is unpleasant/pleasant.	.845
	54. Online shopping at the website of the brand I have chosen is useless/beneficial in saving time and money.	.755
	55. Online shopping at the website of the brand I have chosen is undesirable/desirable.	.878

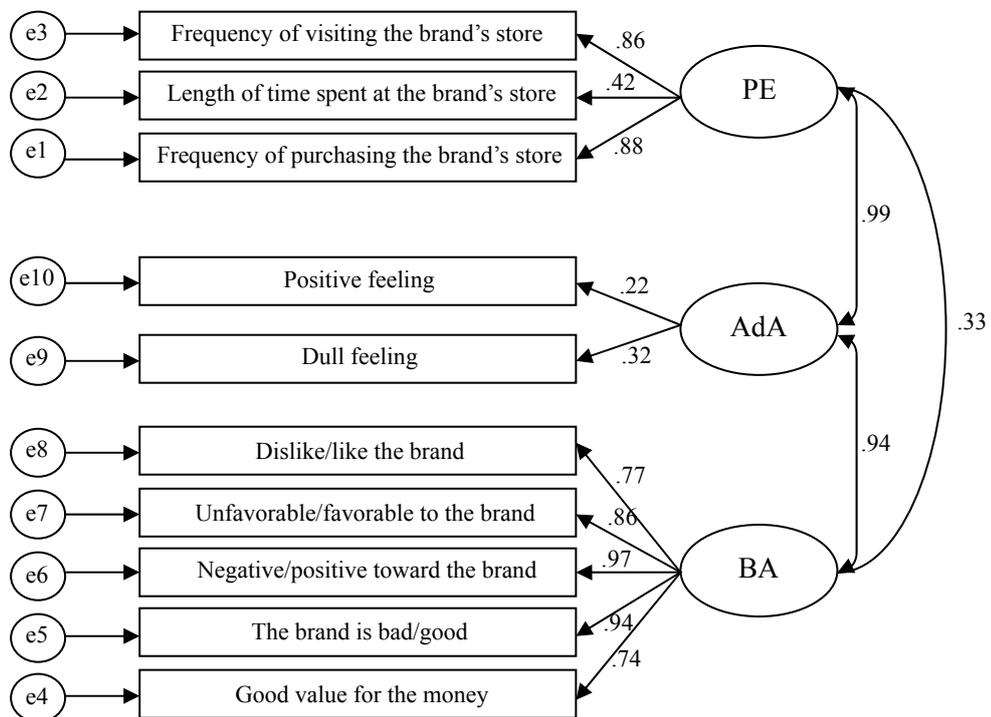
### ***Confirmatory Factor Analysis***

The results of confirmatory factor analysis derived from the main survey data contain the model fit assessment, statistical significance of factor loadings relating the latent variables to indicator variables, and correlation coefficients between the constructs. The respective means of the six items representing the positive feeling factor and the two items indicating the dull feeling factor were calculated to be used as measured variables of advertisement attitude.

***Prior In-Store Shopping Experience with the Multichannel Retailer and Advertisement and Brand Attitudes.*** The hypothesized model concerning prior in-store shopping experience with the multichannel retailer and advertisement and brand attitudes was assessed by five goodness-of-fit indexes (see Appendix K). The ratio of Chi-square statistic/*df* was 5.47 (Chi-square= 174.95, *df* =32, *p*=.000), indicating a marginal fit of the model to the data since the ratio which is equal to or less than 5

suggests that the model has a reasonable fit (Wheaton, Muthen, Alwin, & Summers, 1977). In this measurement model, both GFI and CFI were .903 and .938, respectively, indicating acceptable fit of the model. The NFI yielded a value of .925, indicating acceptable fit. The RMSEA should be less than .05 for a close fit of the model (Meyers et al., 2006). In this measurement model, the value of RMSEA (i.e., .110) did not indicate an acceptable fit (see Figure 4-1). All the factor loadings achieved statistical significance at  $p < .001$ . All modification indices were somewhat low and the estimated SMCs (squared multiple correlations) ranged from .05 to .94 in this measurement model (see Table 4-17).

Figure 4-1. Measurement Model for Prior In-Store Shopping Experience with the Multichannel Retailer and Advertisement and Brand Attitudes



Chi-square = 174.950, df = 32,  $p = .000$ , GFI = .903, CFI = .938, NFI = .925, RMSEA = .110

PE = Prior In-Store Shopping Experience with the Multichannel Retailer,  
AdA = Advertisement Attitude, BA = Brand Attitude

**Reliability and Validity**

Cronbach Alpha was examined to provide evidence of internal consistency for each construct as presented in Table 4-17 and Table 4-18. The results of the reliability test showed that the scales were reliable with Cronbach Alphas greater than .7. Confirmatory factor analysis was applied to assess the validity of the scales. Construct validity, including convergent validity and discriminant validity, was assessed for the measurement model. Factor loadings greater than .3 in the scale items, except for the indicator variable called positive feeling, showed the acceptable convergent validity in the measurement model (see Table 4-17).

Table 4-17. Reliability Measures, Factor Loadings, and Squared Multiple Correlation of Scale Items of Prior In-Store Shopping Experience with the Multichannel Retailer and Attitudes

Constructs	Scale Items	Reliability $\alpha$	CFA item loading	Squared multiple correlation
Prior In-Store Shopping Experience (PE)	3. The frequency with which you generally visit a store of the brand you have chosen.	.755	.86	.747
	4. The length of time spent at the store of the brand you have chosen.		.42	.175
	5. The frequency with which you generally purchase apparel or accessory products at the store of the brand you have chosen.		.88	.770
Advertisement Attitude (AdA)	Positive Feeling (19-24) 19. I feel merry. 20. I feel energetic. 21. I feel vigorous. 22. I feel warmhearted. 23. I feel sentimental. 24. I feel warm.	.941	.22	.046
	Dull Feeling (25-26) 25. I feel bored. 26. I feel dull.	.936	.32	.103

Brand Attitude (BA)	27. I dislike/like the brand.	.932	.77	.591
	28. I am unfavorable/favorable to the brand.		.86	.731
	29. I am negative/positive toward the brand.		.97	.942
	30. The brand is bad/good.		.94	.877
	31. The brand does not provide/provides good value for the money.		.74	.549

Table 4-18. Reliability Measures of Scale Items of Beliefs, Attitudes, and Purchase Intentions at the Website of the Multichannel Retailer

Constructs	Scale Items	Reliability $\alpha$
Search and Evaluation Beliefs (SEB)	32. Information searching at the website of the brand I have chosen is slow/fast. 33. Information searching at the website of the brand I have chosen is inconvenient/convenient. 34. Information searching at the website of the brand I have chosen is difficult/easy. 35. Information searching at the website of the brand I have chosen is not enjoyable/enjoyable. 36. Information searching at the website of the brand I have chosen is impractical/practical. 37. Evaluating alternatives at the website of the brand I have chosen is slow/fast. 38. Evaluating alternatives at the website of the brand I have chosen is inconvenient/convenient. 39. Evaluating alternatives at the website of the brand I have chosen is difficult/easy. 40. Evaluating alternatives at the website of the brand I have chosen is not enjoyable/enjoyable. 41. Evaluating alternatives at the website of the brand I have chosen is impractical/practical.	.972
Choice and Purchase Beliefs (CPB)	42. Choosing a product at the website of the brand I have chosen is inconvenient/convenient. 43. Choosing a product at the website of the brand I have chosen is difficult/easy. 44. Choosing a product at the website of the brand I have chosen is not enjoyable/enjoyable. 45. Choosing a product at the website of the brand I have chosen is impractical/practical. 46. Making a purchase at the website of the brand I have chosen is inconvenient/convenient.	.961

	47. Making a purchase at the website of the brand I have chosen is difficult/easy. 48. Making a purchase at the website of the brand I have chosen is not enjoyable/enjoyable. 49. Making a purchase at the website of the brand I have chosen is impractical/practical. 50. Making a purchase at the website of the brand I have chosen does not provide/provides good value for the money.	
Attitudes toward Online Shopping (AOS)	51. Online shopping at the website of the brand I have chosen is bad/good idea. 52. Online shopping at the website of the brand I have chosen is inferior/superior to store shopping. 53. Online shopping at the website of the brand I have chosen is unpleasant/pleasant. 54. Online shopping at the website of the brand I have chosen is useless/beneficial in saving time and money. 55. Online shopping at the website of the brand I have chosen is undesirable/desirable.	.896
Online Purchase Intentions (OPI)	56. How likely is it that you will buy an apparel or accessory item at the website of the chosen brand when you find something you like? 57. How likely is it that you will purchase an apparel or accessory item at the website of the chosen brand within the next year?	.854

Table 4-19 presents the correlation coefficients between the factors related to discriminant validity of the scales. The result showed that only the correlation coefficient between prior in-store shopping experience with the multichannel retailer and brand attitude achieved discriminant validity since the coefficient was less than .8. Therefore, the construct, advertisement attitude, was deleted from the proposed conceptual model since the correlation coefficients between the factors (i.e., between prior in-store shopping experience with the multichannel retailer and advertisement attitude and between advertisement attitude and brand attitude) were .99 and .94, respectively.

Table 4-19. Correlation Coefficients between Constructs in the Measurement Model

Constructs	Correlation coefficient	Sig.
Prior In-Store Shopping Experience (PE) ↔ Advertisement Attitude (AdA)	.987	***
Prior In-Store Shopping experience (PE) ↔ Brand Attitude (BA)	.334	***
Advertisement Attitude (AdA) ↔ Brand Attitude (BA)	.942	***

\*\*\* =  $p < .001$

New hypotheses were developed based on the revised conceptual model (see Figure 4-2). A revised alternative model was also developed to test hypothesis 6 addressing the mediating effect of beliefs about online shopping in a multichannel context (see Figure 4-3).

**H1: Prior in-store shopping experience with the multichannel retailer and brand attitude are positively related.**

**H2: The more prior in-store shopping experience with the multichannel retailer, the more positive consumers' beliefs about a) searching for information and evaluating alternatives at the website of the respective multichannel retailer and b) choosing products and purchasing products at the website of the respective multichannel retailer.**

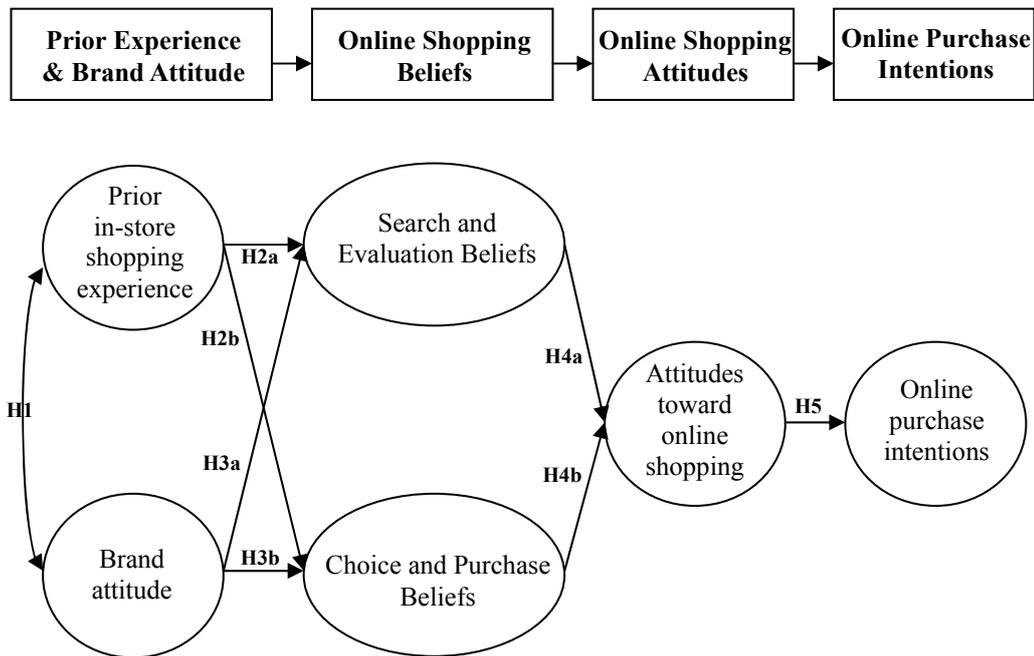
**H3: The more positive consumers' brand attitude, the more positive their beliefs about a) searching for information and evaluating alternatives at the website of a multichannel retailer and b) choosing products and purchasing products at the website of a multichannel retailer.**

**H4: The more positive the beliefs about a) searching for information and evaluating alternatives at the website of a multichannel retailer and b) choosing**

products and purchasing products at the website of a multichannel retailer, the more positive the attitudes toward shopping at the website of that multichannel retailer.

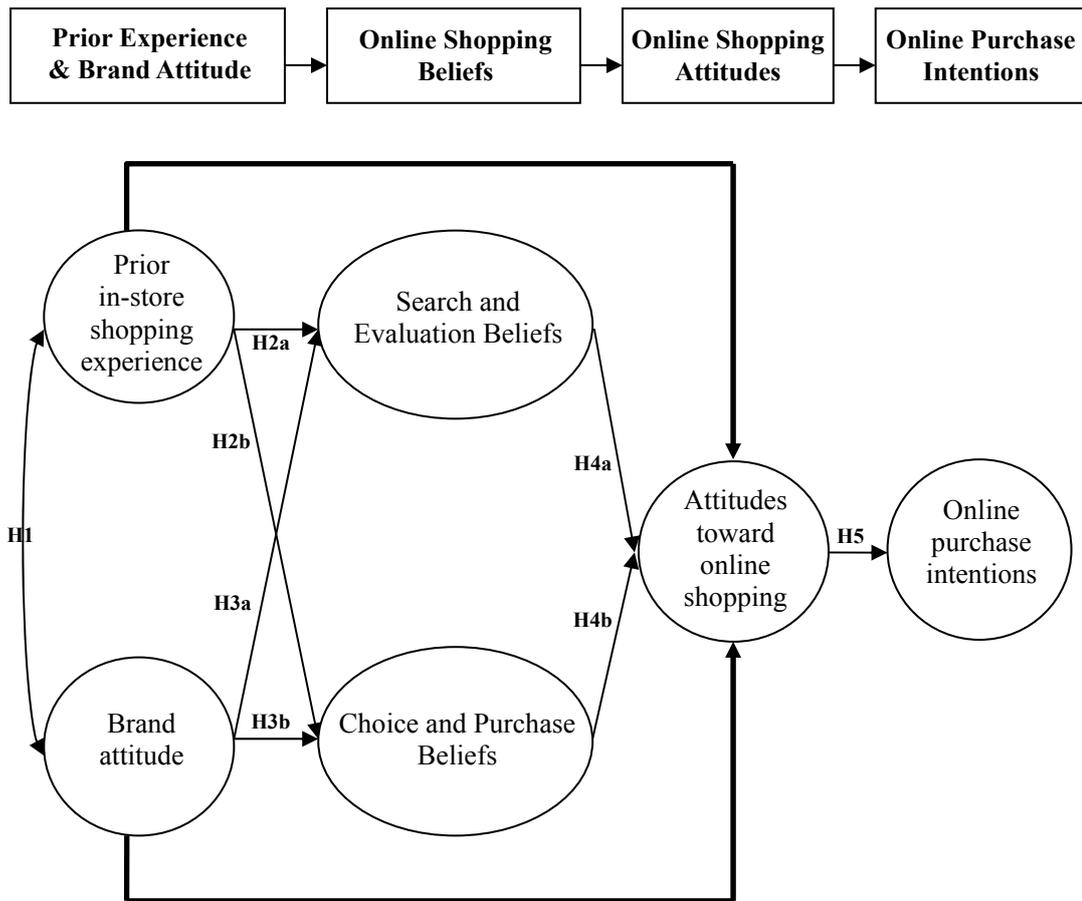
**H5:** The more positive the attitudes toward shopping at the website of a multichannel retailer, the more positive the intentions to purchase at the website of that multichannel retailer.

**H6:** Beliefs about searching for information, evaluating alternatives, choosing products, and purchasing products at the website of a multichannel retailer mediate the relationship between prior in-store shopping experience and brand attitude and attitudes toward online shopping at the website of the respective multichannel retailer.



Note. H6 which addresses the mediating effect of beliefs about online shopping is omitted in this figure.

Figure 4-2. Revised Conceptual Model: Hypothesized Prior Experience and Brand Attitude as Predictors of Online Shopping Beliefs, Attitudes, and Purchase Intentions in a Multichannel Context



Note. H6 which addresses the mediating effect of beliefs about online shopping is omitted in this figure.

Figure 4-3. Revised Alternative Model: Hypothesized Prior Experience and Brand Attitude as Predictors of Online Shopping Beliefs, Attitudes, and Purchase Intentions in a Multichannel Context

### Development of Structural Model and Hypotheses Testing

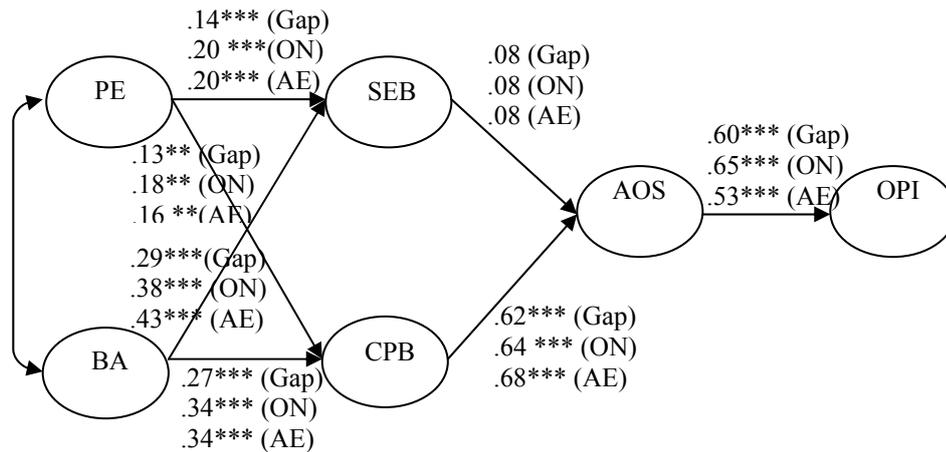
A structural equation model was developed to see how well the latent constructs are related to each other for three apparel retail brands. First, multiple-group structural equation modeling (SEM) was conducted to test structural invariance across the groups (i.e., three brands) simultaneously to determine whether or not the individual path parameters across three brands are invariant. The base model (paths were assessed independently) and the constrained model (paths were restricted to be equal) were used to test the invariance across three brands. To generate the

constrained model, equality constraints were imposed to all path parameters across the brands. Then, the model fit comparison between base model (Appendices L, M, and N) and constrained model (Appendices O, P, and Q) across three brands was conducted. The results of the multiple-brand invariance test are presented in Table 4-20. The model fit comparison between the base model and the constrained model across three brands showed that the Chi-square test for difference ( $\Delta\chi^2$ ) was not statistically significant ( $\Delta\chi^2 = 9.090, \Delta df = 14, p = .825$ ). The results indicated that the path parameters in the hypothesized model across three brands were invariant (see Figure 4-4). Therefore, based on the findings in this research, this conceptual model can be considered as a model which can be applied to all three brands considered together. This model does not need to be applied to each brand individually because the path parameters are not significantly different across the three brands. In other words, the path parameters in the conceptual model across three brands were not affected by the operation that the group was divided into three brands.

Table 4-20. Multiple-Brand Model Fit Comparison

Brands		Model Description	$\chi^2$	<i>df</i>	$\Delta\chi^2$	$\Delta df$	Sig.	Invariance
Three-brand model comparison (Gap/ Old Navy/ AE)	All paths assessed as equal	Base Model	5377.340	1557	9.090	14	.825	Yes
		Constrained Model	5386.430	1571				

AE=American Eagle



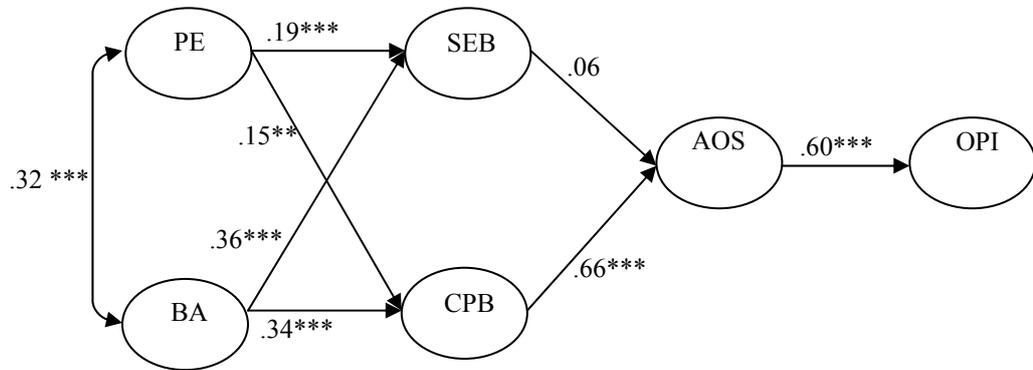
PE = Prior In-Store Shopping Experience with the Multichannel Retailer, BA = Brand Attitude, SEB = Search and Evaluation Beliefs about Online Shopping, CPB = Choice and Purchase Beliefs about Online Shopping, AOS = Attitudes toward Online Shopping, OPI = Online Purchase Intentions, ON = Old Navy, AE = American Eagle  
 \*\*\* =  $p < .001$  \*\* =  $p < .01$

Figure 4-4. Constrained Model with Standardized Estimates across Gap, Old Navy, and American Eagle Brands

Next, single-group structural equation modeling with Amos 16.0 was conducted to evaluate the structural model for the entire data combining three brands and to test the hypotheses. The model fit indexes were used to evaluate the proposed structural model for consumers' prior in-store shopping experience with the multichannel retailer and their brand attitude as predictors of their online shopping beliefs, attitudes, and purchase intentions in a multichannel context. The overall fit of the structural model for the entire group was poor. Furthermore, the lower values of GFI, CFI, and NFI suggested poor fit of the model. The value of RMSEA was above the generally accepted high bound of .1, indicating poor fit:  $\chi^2 = 3540.407$ ,  $df = 519$ ,  $p = .000$ ,  $GFI = .588$ ,  $CFI = .792$ ,  $NFI = .765$ , and  $RMSEA = .126$  (see Figure 4-5 and Appendix R).

Because the fit of the model to the data was not impressive, it is possible for the researcher to speculate that a respecified model (i.e., model that is a modified

version of the original) may better account for the observed data (Meyers et al., 2006). However, because this study is substantially more confirmatory rather than exploratory, that respecification will not be addressed in the current study.



PE = Prior In-Store Shopping Experience with the Multichannel Retailer, BA = Brand Attitude, SEB = Search and Evaluation Beliefs about Online Shopping, CPB = Choice and Purchase Beliefs about Online Shopping, AOS = Attitudes toward Online Shopping, OPI = Online Purchase Intentions, ON = Old Navy, AE = American Eagle  
 \*\*\* =  $p < .001$  \*\* =  $p < .01$

Figure 4-5. Structural Equation Model (Entire Group)

The path and correlation coefficients in the structural model and hypotheses testing for the entire group are presented in Table 4-21. **In the structural model for the entire group including Gap, Old Navy, and American Eagle brands, all structural coefficients were significant except H4a ( $p = .135$ ). Therefore, hypotheses H1, H2a, H2b, H3a, H3b, H4b, and H5 were supported.** For all three brands, there was a significant positive relationship between prior in-store shopping experience with the multichannel retailer and brand attitude. Prior in-store shopping experience with the multichannel retailer and brand attitude for three brands indirectly increased intentions to purchase at the websites of three brands via positively predicting choice and purchase beliefs about online shopping and attitudes

toward online shopping at the websites of three brands.

Table 4-21. Within-Brand Path and Correlation Coefficients and Hypotheses Testing (Entire Group)

Hypotheses		Entire Group	
		coefficients	Sig.
H1	PE ↔ BA	.32	***
H2a	PE → SEB	.19	***
H2b	PE → CPB	.15	**
H3a	BA → SEB	.36	***
H3b	BA → CPB	.34	***
H4a	SEB → AOS	.06	NS
H4b	CPB → AOS	.66	***
H5	AOS → OPI	.60	***

PE = Prior In-Store Shopping Experience with the Multichannel Retailer, BA = Brand Attitude, SEB = Search and Evaluation Beliefs about Online Shopping, CPB = Choice and Purchase Beliefs about Online Shopping, AOS = Attitudes toward Online Shopping, OPI = Online Purchase Intentions

\*\*\* =  $p < .001$  \*\* =  $p < .01$

The alternative model (model which includes direct paths between the consumers' prior in-store shopping experience with the multichannel retailer and their brand attitude and the attitudes toward online shopping at the website of the multichannel retailer) was developed for entire group to test the hypothesis 6 which addresses the mediating effect of beliefs about online shopping at the website of the multichannel retailer on the relationship between 1) consumers' prior in-store shopping experience with the multichannel retailer and their brand attitude and 2) attitudes toward online shopping at the website of the multichannel retailer (see

Figure 4-3). The overall fit of the alternative structural model for entire group was poor. The values of GFI, CFI, and NFI were too low to be suggested indicative of a well-fitting model. The value of RMSEA was higher than .1:  $\chi^2 = 3538.250$ ,  $df = 517$ ,  $p = .000$ , GFI = .589, CFI = .792, NFI = .766, and RMSEA = .126 (see Appendix S for alternative structural equation model for entire group). As observed above, the respective fit indexes for the base model for entire group did not show a reasonably good fit to the data:  $\chi^2 = 3540.407$ ,  $df = 519$ ,  $p = .000$ , GFI = .588, CFI = .792, NFI = .765, and RMSEA = .126 (see Appendix R for structural equation model for entire group). **Based on model fit indices (i.e., Chi-square and degrees of freedom) between the base model and alternative model for entire group, H6 was supported since there was not a significant difference ( $p > .05$ ) between the fit indices for the two models** (see Table 4-22). In summary, beliefs about searching for information, evaluating alternatives, choosing products, and purchasing products at the website of the multichannel retailer had a mediating effect on the relationship between 1) consumers' prior in-store shopping experience with the multichannel retailer and their brand attitude and 2) attitudes toward online shopping at the website of the respective multichannel retailer for entire group including three brands (i.e., *Gap*, *Old Navy*, and *American Eagle*). In other words, all three brands as one group might have an indirect effect of prior in-store shopping experience and brand attitude on the attitudes toward online shopping at the websites of three brands.

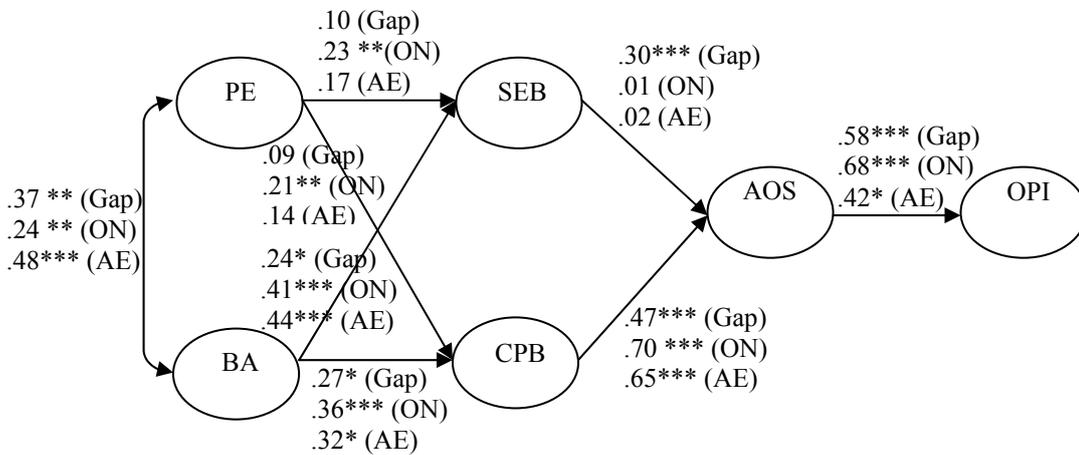
Table 4-22. Model Fit Comparison between Base Model and Alternative Model  
(Entire Group)

Model Description	$\chi^2$	$df$	$\Delta\chi^2$	$\Delta df$	Sig.
Base Model	3540.407	519	2.157	2	$p > .05$
Alternative Model	3538.250	517			

In addition, single-group structural equation modeling with Amos 16.0 was conducted to evaluate the structural models for three selected apparel retail brands and to test the hypotheses. The model fit indices were used to assess the proposed structural model for consumers' prior in-store shopping experience with the multichannel retailer and their brand attitude as predictors of their online shopping beliefs, attitudes, and purchase intentions in a multichannel context. For the *Gap* brand, the overall fit of the structural model was poor even if the ratio of Chi-square statistic/ $df$  was less than 5. Moreover, the lower value of GFI indicated a lack of fit. CFI and NFI were also below the recommended .95. The value of RMSEA was above the generally accepted high bound of .1, indicating poor fit:  $\chi^2/df = 3.34$ ,  $\chi^2 = 1733.521$ ,  $df = 519$ ,  $p = .000$ , GFI = .531, CFI = .762, NFI = .694, and RMSEA = .140 (see Appendix L). According to *Old Navy* brand's results, the overall fit of the structural model was poor although the ratio of Chi-square statistic/ $df$  was less than 5. In the same way as the results of *Gap* brand, the values of GFI, CFI, NFI, and RMSEA were below or above the recommended value, respectively:  $\chi^2/df = 4.28$ ,  $\chi^2 = 2223.281$ ,  $df = 519$ ,  $p = .000$ , GFI = .524, CFI = .757, NFI = .706, and RMSEA = .140 (see Appendix M). Finally, the overall fit of the structural model for *American Eagle* brand was poor although the ratio of Chi-square statistic/ $df$  was less than 5. The values of GFI, CFI, and NFI were lower than the recommended value that would indicate good fit. The value of RMSEA was higher than .1:  $\chi^2/df = 2.73$ ,  $\chi^2 =$

1418.894,  $df = 519$ ,  $p = .000$ , GFI = .493, CFI = .735, NFI = .641, and RMSEA = .148

(see Appendix N and Figure 4-6).



PE = Prior In-Store Shopping Experience with the Multichannel Retailer, BA = Brand Attitude, SEB = Search and Evaluation Beliefs about Online Shopping, CPB = Choice and Purchase Beliefs about Online Shopping, AOS = Attitudes toward Online Shopping, OPI = Online Purchase Intentions, ON = Old Navy, AE = American Eagle  
 \*\*\* =  $p < .001$  \*\* =  $p < .01$  \* =  $p < .05$

Figure 4-6. Structural Equation Model (Gap, Old Navy, and American Eagle brands)

The path and correlation coefficients in the structural model and hypotheses testing for each brand are presented in Table 4-23. As noted by Meyers et al. (2006), correlation between two exogenous variables is permitted in SEM. In this study for the *Gap*, *Old Navy*, and *American Eagle* brands, there were significant positive relationships between prior in-store shopping experience with the multichannel retailer and brand attitude. **Therefore, H1 was supported for each brand.** Consumers who had had prior shopping experience at the brand’s offline store had a significant positive attitude toward the brand with which they had had shopping experience. This finding is supported by the Schema Theory which suggests that prior experience with another channel of the multichannel retailer leads to a more

positive brand attitude.

**For the Gap brand, all structural coefficients were positive and significant except H2a ( $p=.325$ ) and H2b ( $p= .356$ ). Therefore, hypotheses H3a, H3b, H4a, H4b, and H5 were supported.** Brand attitude, but not prior in-store shopping experience, for the *Gap* brand indirectly increased intentions to purchase at the website of *Gap* brand by way of positively predicting beliefs about online shopping (i.e., search and evaluation beliefs and choice and purchase beliefs) at *Gap brand's* website, then resulting in a positive prediction of attitudes toward online shopping at *Gap's* website.

**In the structural model for the *Old Navy* brand, all structural coefficients were significant except H4a ( $p = .886$ ). Therefore, hypotheses H2a, H2b, H3a, H3b, H4b, and H5 were supported.** Prior in-store shopping experience with the multichannel retailer and brand attitude for the *Old Navy* brand indirectly increased intentions to purchase at the website of the *Old Navy* brand via positively predicting search and evaluation beliefs and choice and purchase beliefs about online shopping. In turn, attitudes toward online shopping at *Old Navy's* website were significantly affected by the choice and purchase beliefs about online shopping and attitudes toward online shopping had a significant effect on online purchase intentions.

**For the *American Eagle* brand, all path coefficients were significant except H2a ( $p = .170$ ), H2b ( $p = .313$ ), and H4a ( $p = .814$ ) and therefore hypotheses H3a, H3b, H4b, and H5 were supported.** Brand attitude, but not prior in-store shopping experience, for the *American Eagle* brand indirectly increased intentions to purchase at the website of the *American Eagle* brand by positively predicting choice and purchase beliefs about online shopping at *American Eagle* brand's website and attitudes toward online shopping at *American Eagle's* website

(see Table 4-23).

In the case of the *Old Navy* brand, consumers' prior in-store shopping experience with the *Old Navy* brand had a significant positive relationship with their beliefs, attitudes, and purchase intentions at the website of the *Old Navy* brand. This finding is also supported by Schema Theory in which the schema developed from past experience with *Old Navy* can be used to interpret and understand new information and experience related to *Old Navy*. For the other two brands (i.e., *Gap* and *American Eagle*), there was no relationship of prior in-store shopping experience with the respective brand with the respondents' beliefs, attitudes, and purchase intentions at the website of the respective brand.

As hypothesized, for all three selected brands (i.e., *Gap*, *Old Navy*, and *American Eagle*), there was a significant positive relationship between consumers' brand attitude and their beliefs, attitudes, and intentions to purchase at the online store of the brand. Brand attitude can be considered as the key predictor to indirectly increase consumers' purchase intentions at the website of the brand the respondents cited in this study. This finding is consistent with the results of Stevenson et al.'s study (2000) which found a positive relationship between attitude toward the brand's website and the purchase intention. In addition, this finding is also supported by the Schema Theory, suggesting that positive brand attitude derived from prior in-store shopping experience with the multichannel retailer leads to more positive beliefs about online shopping at the website of the multichannel retailer.

Table 4-23. Within-Brand Path and Correlation Coefficients and Hypotheses Testing

Hypotheses		Gap		Old Navy		American Eagle	
		coefficients	Sig.	coefficients	Sig.	coefficients	Sig.
H1	PE ↔ BA	.37	**	.24	**	.48	***
H2a	PE → SEB	.10	NS	.23	**	.17	NS
H2b	PE → CPB	.09	NS	.21	**	.14	NS
H3a	BA → SEB	.24	*	.41	***	.44	***
H3b	BA → CPB	.27	*	.36	***	.32	*
H4a	SEB → AOS	.30	***	.01	NS	.02	NS
H4b	CPB → AOS	.47	***	.70	***	.65	***
H5	AOS → OPI	.58	***	.68	***	.42	*

PE = Prior In-Store Shopping Experience with the Multichannel Retailer, BA = Brand Attitude, SEB = Search and Evaluation Beliefs about Online Shopping, CPB = Choice and Purchase Beliefs about Online Shopping, AOS = Attitudes toward Online Shopping, OPI = Online Purchase Intentions

\*\*\* =  $p < .001$  \*\* =  $p < .01$  \* =  $p < .05$

Yoh et al. (2003) found a positive relationship between belief about Internet apparel shopping and attitude toward apparel shopping on the Internet. Using scales developed by Yoh et al. (2003) and Settle et al. (1994), the current study investigated how two behavioral dimensions of online shopping beliefs (i.e., search and evaluation beliefs and choice and purchase beliefs) related to the attitude toward online shopping based on the Consumer Decision-Making Process. The results of the current study indicated that choice and purchase beliefs had a stronger relationship to attitude toward online shopping than did search and evaluation beliefs. In fact, search and evaluation beliefs were significant only for one of the three multi-channel retailers tested. In TRA, the attitude toward behavior is determinant of behavioral intention

and actual behavior suggesting support for the impact of choice and purchase beliefs on attitudes toward online shopping.

As hypothesized, there was a significant positive relationship between attitudes toward online shopping and purchase intentions at the website of the multichannel retailer for all three selected brands (i.e., *Gap*, *Old Navy*, and *American Eagle*). This is consistent with Kim and Park's research (2005) which reported that consumers' attitude toward online stores of multichannel retailers positively related to their intention to purchase apparel through the online stores. The current research also has shown consistent results in the relationship between online shopping attitudes and online purchase intentions in a multichannel context using three different retail brands. This finding is also supported by TRA in which the belief about online shopping has a significant relationship with attitude toward online shopping and purchase intention via the Internet.

The alternative model (model which includes direct paths between the consumers' prior in-store shopping experience with the multichannel retailer and their brand attitude and the attitudes toward online shopping at the website of the multichannel retailer) was developed for three selected apparel retail brands to test the hypothesis 6 which addresses the mediating effect of beliefs about online shopping at the website of the multichannel retailer on the relationship between 1) consumers' prior in-store shopping experience with the multichannel retailer and their brand attitude and 2) attitudes toward online shopping at the website of the multichannel retailer (see Figure 4-3). The alternative model for the *Gap* brand was evaluated by goodness-of-fit indices. The overall fit of the alternative structural model was poor although the ratio of Chi-square statistic/*df* was less than 5. The values of GFI, CFI, and NFI were too low to be considered indicative of a well-fitting model. The value

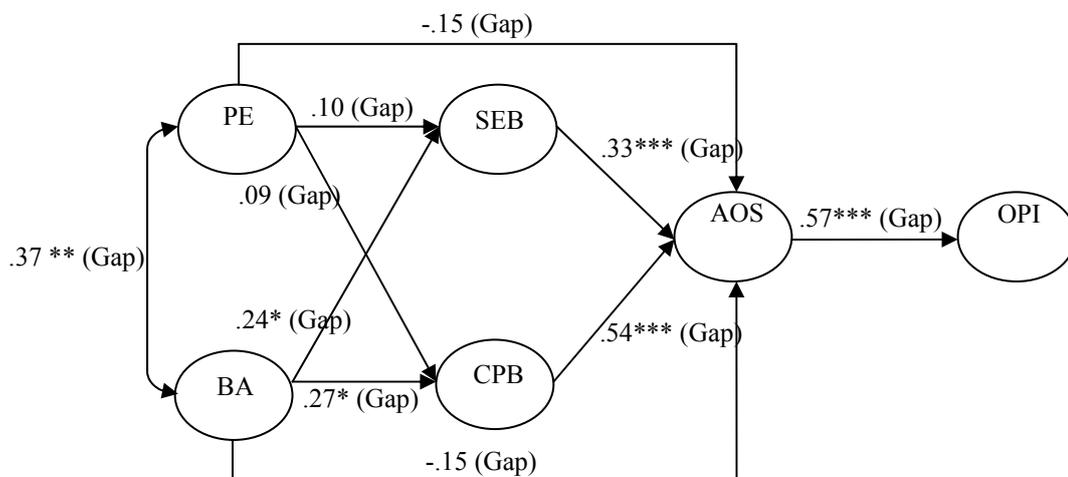
of RMSEA was higher than .1:  $\chi^2/df = 3.34$ ,  $\chi^2 = 1725.094$ ,  $df = 517$ ,  $p = .000$ , GFI = .533, CFI = .763, NFI = .696, and RMSEA = .140 (see Appendix T for alternative structural equation model for the *Gap* brand). Nor did the respective fit indexes for the base model for the *Gap* brand demonstrate a reasonably good fit although the ratio of Chi-square statistic/ $df$  was less than 5:  $\chi^2/df = 3.34$ ,  $\chi^2 = 1733.521$ ,  $df = 519$ ,  $p = .000$ , GFI = .531, CFI = .762, NFI = .694, and RMSEA = .140 (see Appendix L for structural equation model for the *Gap* brand). As mentioned earlier, this study was designed to be substantially more confirmatory rather than exploratory. Therefore, it was not intended to explore a modified model to try to improve the respective fit indices.

For the *Gap* brand, there was a significant difference ( $p = .015$ ) in model fit indices (i.e., Chi-square and degrees of freedom) between the base model and alternative model (see Table 4-24). However, in the alternative model for the *Gap* brand, the path coefficients between two predictors (i.e., prior in-store shopping experience with the multichannel retailer and brand attitude) and attitudes toward online shopping were negative and not significant ( $p = .095$  and  $p = .109$ ), which was contrary to the hypothesized direction (see Figure 4-7). **Therefore, H6 was supported even though there was a significant difference in Chi-square ( $\chi^2$ ) and degrees of freedom ( $df$ ) between the base model and alternative model for the *Gap* brand (see Table 4-24).**

Table 4-24. Model Fit Comparison between Base Models and Alternative Models

Brands	Model Description	$\chi^2$	<i>df</i>	$\Delta \chi^2$	$\Delta df$	Sig.
Gap	Base Model	1733.521	519	8.427	2	.015*
	Alternative Model	1725.094	517			
Old Navy	Base Model	2223.281	519	0.82	2	.664
	Alternative Model	2222.461	517			
American Eagle	Base Model	1418.894	519	0.508	2	.770
	Alternative Model	1418.386	517			

\* =  $p < .05$



PE = Prior In-Store Shopping Experience with the Multichannel Retailer, BA = Brand Attitude, SEB = Search and Evaluation Beliefs about Online Shopping, CPB = Choice and Purchase Beliefs about Online Shopping, AOS = Attitudes toward Online Shopping, OPI = Online Purchase Intentions

\*\*\* =  $p < .001$  \*\* =  $p < .01$  \* =  $p < .05$

Figure 4-7. Alternative Structural Equation Model (Gap brand)

For the *Old Navy* brand, the overall fit of the alternative structural model was poor regardless of the ratio of Chi-square statistic/*df*. The values of GFI, CFI, NFI, and RMSEA did not demonstrate a good model fit:  $\chi^2/df = 4.30$ ,  $\chi^2 = 2222.461$ ,  $df = 517$ ,  $p = .000$ , GFI = .524, CFI = .756, NFI = .706, and RMSEA = .141 (see Appendix U for alternative structural equation model for *Old Navy* brand). Neither did the

overall fit indexes for the base model for the *Old Navy* brand show an acceptable fit although the ratio of Chi-square statistic/*df* was less than 5:  $\chi^2/df = 4.28$ ,  $\chi^2 = 2223.281$ ,  $df = 519$ ,  $p = .000$ , GFI = .524, CFI = .757, NFI = .706, and RMSEA = .140 (see Appendix M for structural equation model for *Old Navy* brand). **For *Old Navy*, H6 was supported since there was no difference ( $p = .664$ ) in Chi-square ( $\chi^2$ ) and degrees of freedom (*df*) between the base model and alternative model for the *Old Navy* brand (see Table 4-24).**

Finally, the overall fit of the alternative structural model for *American Eagle* brand was poor regardless of the ratio of Chi-square statistic/*df*:  $\chi^2/df = 2.74$ ,  $\chi^2 = 1418.386$ ,  $df = 517$ ,  $p = .000$ , GFI = .493, CFI = .734, NFI = .641, and RMSEA = .149 (see Appendix V for alternative structural equation model for *American Eagle* brand). The results of the base model for *American Eagle* brand did not indicate an acceptable fit either although the ratio of Chi-square statistic/*df* was less than 5. The values of GFI, CFI, NFI, and RMSEA were below or above the recommended value, respectively:  $\chi^2/df = 2.73$ ,  $\chi^2 = 1418.894$ ,  $df = 519$ ,  $p = .000$ , GFI = .493, CFI = .735, NFI = .641, and RMSEA = .148 (see Appendix N for structural equation model for *American Eagle* brand). **Therefore, H6 was supported for the *American Eagle* brand since there was no difference ( $p = .770$ ) in Chi-square ( $\chi^2$ ) and degrees of freedom (*df*) between the base model and alternative model for the *American Eagle* brand (see Table 4-24).** In summary, beliefs about searching for information, evaluating alternatives, choosing products, and purchasing products at the website of the multichannel retailer had a mediating effect on the relationship between 1) consumers' prior in-store shopping experience with the multichannel retailer and their brand attitude and 2) attitudes toward online shopping at the website of the respective multichannel retailer for three brands (i.e., *Gap*, *Old Navy*, and *American Eagle*).

Hence, this research suggests that all three brands might have an indirect effect of prior in-store shopping experience and brand attitude on the attitudes toward online shopping. For all three brand retailers, it is important to understand the indirect effect of consumers' prior in-store shopping experience at the stores of three brands and their brand attitude as predictors of positive purchase intentions at the websites of three brands. Such multichannel shopping synergy can increase revenue for the multichannel retailer.

One further matter must be considered before closing the present discussion. As we have seen, the respondents' online shopping behaviors investigated in this research indicated that most respondents were less likely to visit the website than the offline store of the brand they had chosen and therefore, were less likely to purchase apparel or accessories at the website of the preferred brand than at the offline store of the brand they had chosen. In addition, more than 90% of the respondents reported that they spent one hour or less per month shopping for apparel at the website of their preferred brand compared to in-store shopping of their preferred brand. One-fifth of the respondents reported that they had never used the Internet to purchase apparel products and another 56% reported that they had purchased apparel products on the Internet less than once a month compared to 37% reporting that they had purchased apparel products less than once a month at the offline store of their preferred brand. The findings in this research suggest that multichannel apparel retailers reported in this study have a significant opportunity to increase the online shopping activities of their brand-loyal consumers. Retailers need to capitalize upon the relationship between brand attitude derived from prior in-store shopping experience with the brand and online shopping beliefs, attitudes, and purchase intentions at the website of the respective brand because the consumers' positive brand attitude can have a significant

impact on their purchase behaviors relative to the brand in the multiple channels including the online store (Muniz & O'Guinn, 2001). Consumers who are reluctant to use the Internet for shopping should be encouraged to shop at the online store of the multichannel retailer. Multichannel apparel retailers may use these findings to develop marketing strategies that emphasize the positive brand experience as they encourage consumers to engage in online shopping behavior at their websites, thus complementing the shopping behavior at their offline stores.

## CHAPTER 5: SUMMARY AND IMPLICATIONS

### *Summary*

This research examined the interrelationships among consumers' prior in-store shopping experience with the multichannel retailer, consumers' advertisement attitude, and their brand attitude and the causal relationships of consumers' prior in-store shopping experience with the multichannel retailer, consumers' advertisement attitude, and their brand attitude with consumers' online shopping beliefs, attitudes, and purchase intentions at the website of the multichannel retailer. Three apparel retail brands represented in multichannel retailing were used in this research.

The sample was selected randomly from female college students in a southeastern public university and the structured questionnaire was e-mailed using valid email addresses provided by the public university. Pilot-testing was conducted to clarify the terms used in the questionnaire before operating the main survey.

In Phase I of the research, the researcher selected four multi-channel apparel retail brands (i.e., *Gap*, *Old Navy*, *American Eagle*, and *WetSeal*) which were highly rated with respect to female college students' prior buying experience (with either their offline or the online channel), purchasing frequency in the offline or online store, and their level of liking for each brand. *WetSeal* brand was eliminated from further analysis because the frequency of responses related to the *WetSeal* brand was too small to conduct the data analysis. *Gap*, *Old Navy*, and *American Eagle* were the multi-channel apparel retail brands used in the Phase II research related to developing the proposed conceptual model.

In the proposed conceptual model for the entire group including three brands, there was a significant positive relationship between prior in-store shopping experience with the multichannel retailer and brand attitude for all three brands. Consumers' prior in-store shopping experience with the multichannel retailer and their brand attitude for all three brands indirectly increased their online purchase intentions at the websites of three brands by positively predicting choice and purchase beliefs about online shopping and attitudes toward online shopping at the websites of three brands. Consumers' beliefs about online shopping had a mediating effect on the relationship between prior in-store shopping experience with three brands and brand attitude and attitudes toward online shopping at the websites of all three brands.

The proposed conceptual models for three selected apparel retail brands were also evaluated using data collected in the Phase II main survey. For the *Gap*, *Old Navy*, and *American Eagle* brands, there were significant positive relationships between prior in-store shopping experience with the multichannel retailer and brand attitude. Consumer's prior in-store shopping experience with the Old Navy brand had a positive relationship to their choice and purchase beliefs, attitudes, and online purchase intentions only for the Old Navy brand.

Brand attitude indirectly increased consumers' online purchase intentions for each brand through positively predicting beliefs about online shopping at the website of each brand, resulting in positive prediction of attitudes toward online shopping for the three retail brands (i.e., *Gap*, *Old Navy*, and *American Eagle*). Consumers' beliefs about searching for information, evaluating alternatives, choosing products, and purchasing products at the website of each brand had a mediating effect on the relationship between prior in-store shopping experience with each brand and brand attitude and attitudes toward online shopping at the website of each brand for the *Gap*,

*Old Navy*, and *American Eagle* brands. In addition, choice and purchase beliefs had a positive relationship with attitudes toward online shopping for all three brands, while search and evaluation beliefs was related to only one brand in this study. The more positive consumers' attitudes toward online shopping at the website of each brand was, the stronger their intentions to purchase at the website of each brand for three retail brands studied in this research.

### ***Limitations***

Because the sample size of this study was confined to female college students enrolled in a major southeastern public university, there are some limitations to generalizing the results of this study to the U.S. female college students' consumer population. The questionnaires should be applied to a study with a larger sample representing apparel multichannel shoppers in the U.S. In addition, only 11 multichannel apparel specialty retail brands targeting the female college student market in the southeastern U.S. were selected in the survey instrument for Phase I. In a smaller city, the number of retailers with both an offline and an online presence may be limited. Given that the number of multichannel apparel retail brands which have offline presence (i.e., stores) and online presence (i.e., website of the brand) in the U.S. is much larger than 11, an expanded study would help to reflect consumers' diverse and extensive experience within offline and online channels in the multichannel shopping context.

In the process of measuring discriminant validity between the constructs in this research, one construct (i.e., advertisement attitude) was deleted from the proposed conceptual model because the correlation coefficient between the constructs was more than the recommended value. There were some problems in measuring

respondents' advertisement attitude in this study, which led to elimination of this predictor from the revised conceptual model used to test the hypotheses. For this study, the respondents were asked to indicate (via recall) their feeling when they have seen apparel advertisements of the brand they had chosen in the online survey. However, the respondents did not actually see any advertisements, therefore, their recall may not have been accurate and descriptive enough to provide truly valid responses to these scale items. The elimination of this predictor variable, advertisement attitude, may have contributed to poor fit of the proposed conceptual model.

### ***Implications for Industry Practitioners***

Online businesses need a marketing strategy to achieve a competitive position (Kimiloglu, 2004). Multichannel retailing strategies involving product consistency across channels and integrated information systems across channels have been suggested by scholars (Berman & Thelen, 2004; Wolf, 2006). For example, product consistency across multiple channels can result in a uniform image of products sold across channels and retailers with integrated information systems across channels share pricing and inventory-based information (Berman & Thelen, 2004). In addition, highly integrated promotion strategies across channels encourage consumers to become multichannel shoppers. Berman and Thelen (2004) proposed that a well-integrated multichannel retailing strategy provides a number of chances to increase the sales and profits of multichannel retailers in the online shopping.

However, a single multichannel marketing strategy may not be applicable to every multichannel retailer due to the diversity in prior in-store shopping experience with the multichannel retailer and brand attitude among the multiple channel shoppers

(Berman & Thelen, 2004). Therefore, consumers' prior in-store shopping experience with the multichannel retailer and their brand attitude need to be incorporated in a multichannel retailer's marketing strategy to address its target consumers' needs more effectively. For example, retailers need to understand and take advantage of consumers' positive brand attitude derived from prior in-store shopping experience, for brand attitude may indirectly contribute to consumers' purchase intentions at the retailers' online stores. This will help retailers to develop a competitive multichannel marketing strategy to increase market share in the online retail market.

### ***Implications for Future Research***

The strategic advantage in understanding and predicting multichannel apparel shopping behaviors in a multichannel environment points to the need for further study on this topic. This research has laid the groundwork for increased insights into consumers' behavioral beliefs, attitude, and purchase intention for online shopping, showing that brand attitude is a key predictor of consumers' online purchase intentions by positively predicting online shopping beliefs and attitudes at the website of three brands the respondents cited in this study. While this study revealed that attitude toward the brand had a positive relationship with female college students' online purchase intentions, future research may focus on the relationship between brand attitude and purchase intention in auction shopping and mobile commerce using males or other population groups (e.g., juveniles). The findings of this future research will also be useful for multichannel retailers to develop the competitive multichannel marketing strategies for the brand-loyal consumers in order to increase the multichannel retailer's market share.

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## **APPENDICES**

## **Appendix A. Phase I Pilot-test Information Letter**

### INFORMATION LETTER

For a Research Study entitled

“Consumers’ Prior Experience and Attitudes as Predictors of Their Online Shopping Beliefs, Attitude, and Purchase Intention in a Multichannel Shopping Environment”

#### Phase I: Brand Selection (Pilot-test)

You are invited to participate in a research study. The purpose of this brand selection study is to select the apparel specialty retail brands which are most frequently purchased by the female college students. The retail brands selected in this study will then be used in a second study to investigate the relationship among consumers’ prior in-store buying experience, their attitudes toward advertisements and brand, and their online shopping beliefs, attitude, and purchase intention. This study is being conducted by Mijeong Noh (Ph.D. student, Department of Consumer Affairs) under the supervision of Dr. Carol L. Warfield (Professor and Head, Department of Consumer Affairs). Ultimately, we hope to learn how consumers’ prior in-store buying experience and their attitudes toward advertisements and brand relate to their online shopping beliefs, attitude, and purchase intention. You were selected as a possible participant because female college students are more accustomed to using the Internet for shopping than are other consumer adult groups.

If you decide to participate, you will be directed to a link for an online survey and asked to answer each question in the questionnaire. Your total time commitment will be approximately 3 minutes.

There are no risks and discomforts associated with participation. Research will be conducted anonymously so your identity will not be exposed.

The population of this research is female college students. The results of this research will help to identify the specific retail brands to be used in the next phase of the study. The results of this study will provide the valuable information to multichannel retailers to better meet their customers’ needs. However, we cannot promise you that you will receive the benefit described above.

You will receive extra credit in CAHS 2760-001 if you participate in the study. To give extra credit to the respondents who will participate in the survey, each student will be given a unique code number which fits her name. The instructor of the course has agreed to give extra credit to respondents who do complete the survey. The instructor will give you three points on the next test administered in the course by the instructor as extra credit. Please check with your instructor to confirm the type and amount of extra credit before agreeing to participate in this study. Respondents should record their code number in the survey questionnaire. The researcher will give the instructor a list of all the code numbers of students who complete the survey.

I would like to inform you that you may withdraw from participation at any time, without penalty. However, after you have provided anonymous information you

will be unable to withdraw your data since there will be no way to identify individual information. Your decision whether or not to participate will not jeopardize your future relations with Auburn University or the Department of Consumer Affairs.

Any information obtained in connection with this study will remain anonymous. Information collected through your participation may be used as part of a dissertation to help fulfill the requirements of the Ph.D. in Integrated Textile and Apparel Science. The information will also be used for presentations at professional meetings and publications in peer reviewed journals. Since your identity is anonymous, no identifiable information will be included in any reports of the data.

If you have any questions we invite you to ask them now. If you have questions later, please contact me (Mijeong Noh) by phone (334)-844-1343 or e-mail at [nohmije@auburn.edu](mailto:nohmije@auburn.edu) or my faculty advisor (Dr. Carol L. Warfield) by phone (334)-844-1329 or e-mail at [warficl@auburn.edu](mailto:warficl@auburn.edu).

For more information regarding your rights as a research participant you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334)-844-5966 or e-mail at [hsubjec@auburn.edu](mailto:hsubjec@auburn.edu) or [IRBChair@auburn.edu](mailto:IRBChair@auburn.edu).

HAVING READ THE INFORMATION ABOVE, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT.

Would you like to participate in this research project?  YES  NO

IF YOU DECIDE NOT TO PARTICIPATE, **PLEASE EXIT**.

IF YOU DECIDE TO PARTICIPATE, PLEASE CLICK ON THIS LINK TO ACCESS THE SURVEY:

[https://fp.auburn.edu/nohmije/survey\\_questionnaire\(Phase I-pretest-modified\).asp](https://fp.auburn.edu/nohmije/survey_questionnaire(Phase I-pretest-modified).asp)

YOU MAY PRINT A COPY OF THIS LETTER TO KEEP.

<p>The Auburn University Institutional Review Board has approved this document for use From 8/16/07 to 8/15/08. Protocol # 07-175 EX 0708</p>
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## **Appendix B. Phase I Main Survey Information Letter**

### INFORMATION LETTER

For a Research Study entitled

“Consumers’ Prior Experience and Attitudes as Predictors of Their Online Shopping Beliefs, Attitude, and Purchase Intention in a Multichannel Shopping Environment”

#### Phase I: Brand Selection (Main Survey)

You are invited to participate in a research study. The purpose of this brand selection study is to select the apparel specialty retail brands which are most frequently purchased by the female college students. The retail brands selected in this study will then be used in a second study to investigate the relationship among consumers’ prior in-store buying experience, their attitudes toward advertisements and brand, and their online shopping beliefs, attitude, and purchase intention. This study is being conducted by Mijeong Noh (Ph.D. student, Department of Consumer Affairs) under the supervision of Dr. Carol L. Warfield (Professor and Head, Department of Consumer Affairs). Ultimately, we hope to learn how consumers’ prior in-store buying experience and their attitudes toward advertisements and brand relate to their online shopping beliefs, attitude, and purchase intention. You were selected as a possible participant because female college students are more accustomed to using the Internet for shopping than are other consumer adult groups.

If you decide to participate, you will be directed to a link for an online survey and asked to answer each question in the questionnaire. Your total time commitment will be approximately 3 minutes.

There are no risks and discomforts associated with participation. Research will be conducted anonymously so your identity will not be exposed.

The population of this research is female college students. The results of this research will help to identify the specific retail brands to be used in the next phase of the study. The results of this study will provide the valuable information to multichannel retailers to better meet their customers’ needs. However, we cannot promise you that you will receive the benefit described above.

I would like to inform you that you may withdraw from participation at any time, without penalty. However, after you have provided anonymous information you will be unable to withdraw your data since there will be no way to identify individual information. Your decision whether or not to participate will not jeopardize your future relations with Auburn University or the Department of Consumer Affairs.

Any information obtained in connection with this study will remain anonymous. Information collected through your participation may be used as part of a dissertation to help fulfill the requirements of the Ph.D. in Integrated Textile and Apparel Science. The information will also be used for presentations at professional meetings and publications in peer reviewed journals. Since your identity is anonymous, no identifiable information will be included in any reports of the data.

If you have any questions we invite you to ask them now. If you have questions later, please contact me (Mijeong Noh) by phone (334)-844-1343 or e-mail at [nohmije@auburn.edu](mailto:nohmije@auburn.edu) or my faculty advisor (Dr. Carol L. Warfield) by phone (334)-844-1329 or e-mail at [warfiel@auburn.edu](mailto:warfiel@auburn.edu).

For more information regarding your rights as a research participant you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334)-844-5966 or e-mail at [hsubjec@auburn.edu](mailto:hsubjec@auburn.edu) or [IRBChair@auburn.edu](mailto:IRBChair@auburn.edu).

HAVING READ THE INFORMATION ABOVE, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT.

Would you like to participate in this research project?  YES  NO

IF YOU DECIDE NOT TO PARTICIPATE, PLEASE EXIT.

IF YOU DECIDE TO PARTICIPATE, PLEASE CLICK ON THIS LINK TO ACCESS THE SURVEY:

[https://fp.auburn.edu/nohmije/survey\\_questionnaire%20\(Phase%20I-brand%20selection\)%20REVISED%20main%20survey.asp](https://fp.auburn.edu/nohmije/survey_questionnaire%20(Phase%20I-brand%20selection)%20REVISED%20main%20survey.asp)

YOU MAY PRINT A COPY OF THIS LETTER TO KEEP.

<p>The Auburn University Institutional Review Board has approved this document for use From 8/16/07 to 8/15/08. Protocol # 07-175 EX 0708</p>
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## Appendix C. Phase I Pilot-test Questionnaire

### Survey Questionnaire (Phase I)

Welcome to this survey! I will appreciate if you complete this questionnaire as accurately as possible.

If you are younger than 19, **please exit**.

1. Before you answer this questionnaire, please record your code number to get extra credit .

Here is a list of apparel retail brands which many female college students in the U.S.A. have purchased.

2. Please check the number which best indicates the frequency of your buying experience with each apparel retail brand in that brand's **store** (i.e., freestanding stores and/or stores in malls).

	Never	Once per year	Twice per year	Three to four times per year	Five to twelve times per year	Twice per month	Three times per month	More than three times per month
<b>Apparel Retail Brand</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
Gap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Old Navy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
American Eagle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Abercrombie & Fitch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anthropologie	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hollister Co.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Banana Republic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WetSeal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ann Taylor Loft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. Crew	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
bebe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. In which one of these **stores** do you most often purchase clothing or accessories for yourself? (**Please check one**)

<input type="checkbox"/> Gap
<input type="checkbox"/> Old Navy
<input type="checkbox"/> American Eagle
<input type="checkbox"/> Abercrombie & Fitch
<input type="checkbox"/> Anthropologie
<input type="checkbox"/> Hollister Co.
<input type="checkbox"/> Banana Republic
<input type="checkbox"/> WetSeal
<input type="checkbox"/> Ann Taylor Loft
<input type="checkbox"/> J. Crew
<input type="checkbox"/> bebe

4. Please check **up to 3 products** purchased most frequently at the **store** of the apparel brand you have chosen in the previous question (Q3).

<input type="checkbox"/> Jeans
<input type="checkbox"/> Pants
<input type="checkbox"/> Capris
<input type="checkbox"/> Shorts
<input type="checkbox"/> Skirts
<input type="checkbox"/> Dresses
<input type="checkbox"/> Outerwear
<input type="checkbox"/> Sweaters
<input type="checkbox"/> Tops
<input type="checkbox"/> Shirts
<input type="checkbox"/> Ts & Camis
<input type="checkbox"/> Active wear

<input type="checkbox"/> Sleepwear
<input type="checkbox"/> Accessories
<input type="checkbox"/> Others (specify) <input type="text"/>

5. Please check the number that best indicates the frequency of your buying experience with the **website** of each of these apparel retail brands.

	Never	Once per year	Twice per year	Three to four times per year	Five to twelve times per year	Twice per month	Three times per month	More than three times per month
Apparel Retail Brand	1	2	3	4	5	6	7	8
Gap (www.gap.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Old Navy (www.oldnavy.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
American Eagle (www.americaneagle.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Abercrombie & Fitch (www.abercrombie.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anthropologie (www.anthropologie.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hollister Co. (www.hollisterco.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Banana Republic (www.bananarepublic.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WetSeal (www.wetseal.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ann Taylor Loft (www.anntaylorloft.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. Crew (www.jcrew.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
bebe (www.bebe.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. In which one of these **websites** do you most often purchase clothing or accessories for yourself? (**Please check one**)

<input type="checkbox"/> Gap (www.gap.com)
<input type="checkbox"/> Old Navy (www.oldnavy.com)
<input type="checkbox"/> American Eagle (www.americaneagle.com)
<input type="checkbox"/> Abercrombie & Fitch (www.abercrombie.com)

<input type="checkbox"/> Anthropologie (www.anthropologie.com)
<input type="checkbox"/> Hollister Co. (www.hollisterco.com)
<input type="checkbox"/> Banana Republic (www.bananarepublic.com)
<input type="checkbox"/> WetSeal (www.wetseal.com)
<input type="checkbox"/> Ann Taylor Loft (www.anntaylorloft.com)
<input type="checkbox"/> J. Crew (www.jcrew.com)
<input type="checkbox"/> bebe (www.bebe.com)

7. Please check **up to 3 products** purchased most frequently at the **website** of the apparel brand you have chosen in the previous question (Q6).

<input type="checkbox"/> Jeans
<input type="checkbox"/> Pants
<input type="checkbox"/> Capris
<input type="checkbox"/> Shorts
<input type="checkbox"/> Skirts
<input type="checkbox"/> Dresses
<input type="checkbox"/> Outerwear
<input type="checkbox"/> Sweaters
<input type="checkbox"/> Tops
<input type="checkbox"/> Shirts
<input type="checkbox"/> Ts & Camis
<input type="checkbox"/> Active wear
<input type="checkbox"/> Sleepwear
<input type="checkbox"/> Accessories
<input type="checkbox"/> Others (specify) <input type="text"/>

8. Please check the number that best indicates the level of liking of each apparel retail brand. "**Dislike it very much**" means I do not like this retail brand very much; "**Like it very much**" means that I like this retail brand very much.

	Dislike it very much	Dislike somewhat	Neither like nor dislike	Like somewhat	Like it very much
Apparel Retail Brand	1	2	3	4	5
Gap	<input type="checkbox"/>				
Old Navy	<input type="checkbox"/>				
American Eagle	<input type="checkbox"/>				
Abercrombie & Fitch	<input type="checkbox"/>				
Anthropologie	<input type="checkbox"/>				
Hollister Co.	<input type="checkbox"/>				
Banana Republic	<input type="checkbox"/>				
WetSeal	<input type="checkbox"/>				
Ann Taylor Loft	<input type="checkbox"/>				
J. Crew	<input type="checkbox"/>				
bebe	<input type="checkbox"/>				

9. Please indicate your college grade in Auburn University.

- Freshman
- Sophomore
- Junior
- Senior

10. What is your age? (Type your answer in the textbox below)

years old.

11. Ethnic group:

- White, non-Hispanic
- African American
- Asian/Pacific Islander
- Hispanic/Latino/Spanish

Others (specify)

12. Under what college or school does your major fall? (If multiple majors, choose one that is most indicative of you)

<input type="checkbox"/> College of Agriculture
<input type="checkbox"/> College of Architecture, Design & Construction
<input type="checkbox"/> College of Business
<input type="checkbox"/> College of Education
<input type="checkbox"/> College of Human Sciences
<input type="checkbox"/> College of Liberal Arts
<input type="checkbox"/> College of Sciences and Mathematics
<input type="checkbox"/> College of Veterinary Medicine
<input type="checkbox"/> Honors College
<input type="checkbox"/> Harrison School of Pharmacy
<input type="checkbox"/> Samuel Ginn College of Engineering
<input type="checkbox"/> School of Forestry and Wildlife Sciences
<input type="checkbox"/> School of Nursing
<input type="checkbox"/> Others

13. Any additional comments?

**Thank you very much for answering the survey!**

<input type="button" value="Submit"/>	<input type="button" value="Reset"/>
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## Appendix D. Phase I Main Survey Questionnaire

### Survey Questionnaire (Phase I)

Welcome to this survey! I will appreciate if you complete this questionnaire as accurately as possible.

If you are younger than 19, please **click here to exit**.

Here is a list of apparel retail brands which many female college students in the U.S.A. have purchased.

1. Please check the number which best indicates the frequency of your buying experience with each apparel retail brand in that brand's **store** (i.e., freestanding stores and/or stores in malls).

	Never	Once per year	Twice per year	Three to four times per year	Five to twelve times per year	Twice per month	Three times per month	More than three times per month
Apparel Retail Brand	1	2	3	4	5	6	7	8
Gap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Old Navy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
American Eagle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Abercrombie & Fitch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anthropologie	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hollister Co.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Banana Republic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WetSeal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ann Taylor Loft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. Crew	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
bebe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. In which one of these **stores** do you most often purchase clothing or accessories for yourself? (**Please check one**)

<input type="checkbox"/> Gap
<input type="checkbox"/> Old Navy
<input type="checkbox"/> American Eagle
<input type="checkbox"/> Abercrombie & Fitch
<input type="checkbox"/> Anthropologie
<input type="checkbox"/> Hollister Co.
<input type="checkbox"/> Banana Republic
<input type="checkbox"/> WetSeal
<input type="checkbox"/> Ann Taylor Loft
<input type="checkbox"/> J. Crew
<input type="checkbox"/> bebe

3. Please check up to 3 products purchased most frequently at the **store** of the apparel brand you have chosen in the previous question (**Q2**).

<input type="checkbox"/> Jeans
<input type="checkbox"/> Pants
<input type="checkbox"/> Capris
<input type="checkbox"/> Shorts
<input type="checkbox"/> Skirts
<input type="checkbox"/> Dresses
<input type="checkbox"/> Outerwear
<input type="checkbox"/> Sweaters
<input type="checkbox"/> Tops
<input type="checkbox"/> Shirts
<input type="checkbox"/> Ts & Camis
<input type="checkbox"/> Active wear

<input type="checkbox"/> Sleepwear
<input type="checkbox"/> Accessories
<input type="checkbox"/> Others (specify) <input type="text"/>

4. Please check the number that best indicates the frequency of your buying experience with the **website** of each of these apparel retail brands.

	Never	Once per year	Twice per year	Three to four times per year	Five to twelve times per year	Twice per month	Three times per month	More than three times per month
Apparel Retail Brand	1	2	3	4	5	6	7	8
Gap (www.gap.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Old Navy (www.oldnavy.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
American Eagle (www.americaneagle.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Abercrombie & Fitch (www.abercrombie.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anthropologie (www.anthropologie.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hollister Co. (www.hollisterco.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Banana Republic (www.bananarepublic.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WetSeal (www.wetseal.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ann Taylor Loft (www.anntaylorloft.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. Crew (www.jcrew.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
bebe (www.bebe.com)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. In which one of these **websites** do you most often purchase clothing or accessories for yourself? (**Please check one**)

<input type="checkbox"/> Gap (www.gap.com)
<input type="checkbox"/> Old Navy (www.oldnavy.com)
<input type="checkbox"/> American Eagle (www.americaneagle.com)
<input type="checkbox"/> Abercrombie & Fitch (www.abercrombie.com)

<input type="checkbox"/>	Anthropologie (www.anthropologie.com)
<input type="checkbox"/>	Hollister Co. (www.hollisterco.com)
<input type="checkbox"/>	Banana Republic (www.bananarepublic.com)
<input type="checkbox"/>	WetSeal (www.wetseal.com)
<input type="checkbox"/>	Ann Taylor Loft (www.anntaylorloft.com)
<input type="checkbox"/>	J. Crew (www.jcrew.com)
<input type="checkbox"/>	bebe (www.bebe.com)

6. Please check up to 3 products purchased most frequently at the **website** of the apparel brand you have chosen in the previous question (**Q5**).

<input type="checkbox"/>	Jeans
<input type="checkbox"/>	Pants
<input type="checkbox"/>	Capris
<input type="checkbox"/>	Shorts
<input type="checkbox"/>	Skirts
<input type="checkbox"/>	Dresses
<input type="checkbox"/>	Outerwear
<input type="checkbox"/>	Sweaters
<input type="checkbox"/>	Tops
<input type="checkbox"/>	Shirts
<input type="checkbox"/>	Ts & Camis
<input type="checkbox"/>	Active wear
<input type="checkbox"/>	Sleepwear
<input type="checkbox"/>	Accessories
<input type="checkbox"/>	Others (specify) <input type="text"/>

7. Please check the number that best indicates the level of liking of each apparel retail brand. "Dislike it very much" means I do not like this retail brand very much; "Like it very much" means that I like this retail brand very much.

	Dislike it very much	Dislike somewhat	Neither like nor dislike	Like somewhat	Like it very much
<b>Apparel Retail Brand</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Gap	<input type="checkbox"/>				
Old Navy	<input type="checkbox"/>				
American Eagle	<input type="checkbox"/>				
Abercrombie & Fitch	<input type="checkbox"/>				
Anthropologie	<input type="checkbox"/>				
Hollister Co.	<input type="checkbox"/>				
Banana Republic	<input type="checkbox"/>				
WetSeal	<input type="checkbox"/>				
Ann Taylor Loft	<input type="checkbox"/>				
J. Crew	<input type="checkbox"/>				
bebe	<input type="checkbox"/>				

8. Please indicate your college grade in Auburn University.

- Freshman
- Sophomore
- Junior
- Senior

9. What is your age? (Type your answer in the textbox below)

years old.

10. Ethnic group:

- White, non-Hispanic
- African American
- Asian/Pacific Islander
- Hispanic/Latino/Spanish
- Others (specify)

11. Under what college or school does your major fall? (If multiple majors, choose one that is most indicative of you)

<input type="checkbox"/> College of Agriculture
<input type="checkbox"/> College of Architecture, Design & Construction
<input type="checkbox"/> College of Business
<input type="checkbox"/> College of Education
<input type="checkbox"/> College of Human Sciences
<input type="checkbox"/> College of Liberal Arts
<input type="checkbox"/> College of Sciences and Mathematics
<input type="checkbox"/> College of Veterinary Medicine
<input type="checkbox"/> Honors College
<input type="checkbox"/> Harrison School of Pharmacy
<input type="checkbox"/> Samuel Ginn College of Engineering
<input type="checkbox"/> School of Forestry and Wildlife Sciences
<input type="checkbox"/> School of Nursing
<input type="checkbox"/> Others (specify) <input type="text"/>

**Thank you very much for answering the survey!**

<input type="button" value="Submit"/>	<input type="button" value="Reset"/>
---------------------------------------	--------------------------------------

## **Appendix E. Phase II Pilot-test Information Letter**

### INFORMATION LETTER

For a Research Study entitled

“Consumers’ Prior Experience and Attitudes as Predictors of Their Online Shopping Beliefs, Attitude, and Purchase Intention in a Multichannel Shopping Environment”

(Phase II: Pilot-test)

You are invited to participate in a research study. The purpose of this study is to examine the relationship among consumers’ prior in-store buying experience, their attitudes toward advertisements and brand, and their online shopping beliefs, attitude, and purchase intention. This study is being conducted by Mijeong Noh (Ph.D. student, Department of Consumer Affairs) under the supervision of Dr. Carol L. Warfield (Professor and Head, Department of Consumer Affairs). We hope to learn how consumers’ prior in-store buying experience and their attitudes toward advertisements and brand relate to their online shopping beliefs, attitude and purchase intention. You were selected as a possible participant because as a female college student, you are part of an important market for multichannel retailers.

If you decide to participate, you will be directed to a link to an online survey and asked to answer each question in the questionnaire. Your total time commitment will be approximately 5 minutes.

There are no risks and discomforts associated with participation. Research will be conducted anonymously so your identity will not be exposed.

The results of this research will be used to provide the information to multichannel retailers to help them meet their customers’ needs. However, we cannot promise you that you will receive any direct benefits.

You will receive extra credit in CAHS 3850 if you participate in the study. To give extra credit to the respondents who will participate in the survey, each student will be given a unique code number which fits her name. The instructor of the course has agreed to give extra credit to respondents who do complete the survey. The instructor will give you two points as extra credit. Please check with your instructor to confirm the type and amount of extra credit before agreeing to participate in this study. Respondents should record their code number in the survey questionnaire. The researcher will give the instructor a list of all the code numbers of students who complete the survey.

You may withdraw from participation at any time, without penalty. However, after you have provided anonymous information you will be unable to withdraw your data since there will be no way to identify individual information. Your decision whether or not to participate will not jeopardize your future relations with Auburn University or Department of Consumer Affairs.

Any information obtained in connection with this study will remain anonymous. Information collected through your participation may be used in my dissertation to partially fulfill the requirements of the Ph.D. in Integrated Textile and Apparel Science. The information will also be used for presentations at professional meetings and publications in peer reviewed journals. No identifiable information will be collected.

If you have any questions we invite you to ask them now. If you have questions later, please contact me (Mijeong Noh) by phone (334)-844-1343 or e-mail at [nohmije@auburn.edu](mailto:nohmije@auburn.edu) or my faculty advisor (Dr. Carol L. Warfield) by phone (334)-844-1329 or e-mail at [warfiel@auburn.edu](mailto:warfiel@auburn.edu).

For more information regarding your rights as a research participant you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334)-844-5966 or e-mail at [hsubjec@auburn.edu](mailto:hsubjec@auburn.edu) or [IRBChair@auburn.edu](mailto:IRBChair@auburn.edu).

HAVING READ THE INFORMATION ABOVE, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT.

Would you like to participate in this research project?  YES  NO

IF YOU DECIDE NOT TO PARTICIPATE, PLEASE EXIT.

IF YOU DECIDE TO PARTICIPATE, PLEASE CLICK ON THIS LINK TO ACCESS THE SURVEY:

[https://fp.auburn.edu/nohmije/survey\\_questionnaire%20\(phase%20II-PRETEST\).asp](https://fp.auburn.edu/nohmije/survey_questionnaire%20(phase%20II-PRETEST).asp)

YOU MAY PRINT A COPY OF THIS LETTER TO KEEP.

The Auburn University  
Institutional Review Board  
has approved this document for use  
From 10/24/07 to 8/15/08.  
Protocol # 07-175 EX 0708

## **Appendix F. Phase II Main Survey Information Letter**

### INFORMATION LETTER

For a Research Study entitled

“Consumers’ Prior Experience and Attitudes as Predictors of Their Online Shopping Beliefs, Attitude, and Purchase Intention in a Multichannel Shopping Environment”

(Phase II: Main Survey)

You are invited to participate in a research study. The purpose of this study is to examine the relationship among consumers’ prior in-store buying experience, their attitudes toward advertisements and brand, and their online shopping beliefs, attitude, and purchase intention. This study is being conducted by Mijeong Noh (Ph.D. student, Department of Consumer Affairs) under the supervision of Dr. Carol L. Warfield (Professor and Head, Department of Consumer Affairs). We hope to learn how consumers’ prior in-store buying experience and their attitudes toward advertisements and brand relate to their online shopping beliefs, attitude and purchase intention. You were selected as a possible participant because as a female college student, you are part of an important market for multichannel retailers.

If you decide to participate, you will be directed to a link to an online survey and asked to answer each question in the questionnaire. Your total time commitment will be approximately 5 minutes.

There are no risks and discomforts associated with participation. Research will be conducted anonymously so your identity will not be exposed.

The results of this research will be used to provide the information to multichannel retailers to help them meet their customers’ needs. However, we cannot promise you that you will receive any direct benefits.

You may withdraw from participation at any time, without penalty. However, after you have provided anonymous information you will be unable to withdraw your data since there will be no way to identify individual information. Your decision whether or not to participate will not jeopardize your future relations with Auburn University or Department of Consumer Affairs.

Any information obtained in connection with this study will remain anonymous. Information collected through your participation may be used in my dissertation to partially fulfill the requirements of the Ph.D. in Integrated Textile and Apparel Science. The information will also be used for presentations at professional meetings and publications in peer reviewed journals. No identifiable information will be collected.

If you have any questions we invite you to ask them now. If you have questions later, please contact me (Mijeong Noh) by phone (334)-844-1343 or e-mail at [nohmije@auburn.edu](mailto:nohmije@auburn.edu) or my faculty advisor (Dr. Carol L. Warfield) by phone (334)-844-1329 or e-mail at [warficl@auburn.edu](mailto:warficl@auburn.edu).

For more information regarding your rights as a research participant you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334)-844-5966 or e-mail at [hsubjec@auburn.edu](mailto:hsubjec@auburn.edu) or [IRBChair@auburn.edu](mailto:IRBChair@auburn.edu).

HAVING READ THE INFORMATION ABOVE, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT.

Would you like to participate in this research project?  YES  NO

IF YOU DECIDE NOT TO PARTICIPATE, **PLEASE EXIT**.

IF YOU DECIDE TO PARTICIPATE, PLEASE CLICK ON THIS LINK TO ACCESS THE SURVEY:

<https://fp.auburn.edu/nohmije/Phase%20II%20main%20survey%204000.asp>

YOU MAY PRINT A COPY OF THIS LETTER TO KEEP.

<p>The Auburn University Institutional Review Board has approved this document for use From 10/24/07 to 8/15/08. Protocol # 07-175 EX 0708</p>
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## Appendix G. Phase II Pilot-test Questionnaire

### Survey Questionnaire (Phase II)

If you are younger than 19, please **click here to exit**.

1. Before you answer this questionnaire, please record your code number to get extra credit .

#### **PART I:**

Nowadays, there are many multi-channel apparel shoppers. Multi-channel shoppers are defined as “customers who have made a purchase in more than one channel in the observed time period.” *Channel* means the medium by which a purchase was made, such as a traditional store, the internet, a catalog, teleshopping, etc. Here are four multi-channel apparel retail brands which have been purchased by many American female college students: Gap, Old Navy, American Eagle, and WetSeal. These brands have both offline presence (i.e., freestanding stores and/or stores in malls) and online presence (i.e., website).

2. Please indicate your purchasing experience with each of the brands listed.

	Never purchased	Have purchased only at the store	Have purchased only at the website	Have purchased at both the store and the website
Gap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Old Navy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
American Eagle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WetSeal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you have chosen “Never purchased” for all four brands listed in the question above, please **click here to exit**.

#### **PART II:**

3. Please mark the brand you have purchased the most frequently.

Gap	Old Navy	American Eagle	WetSeal
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please respond to the following questions based on your experience with the brand you have purchased the most frequently.

4. Please indicate the **frequency with which you generally visit a store** of the brand you have chosen.

<input type="checkbox"/> never
<input type="checkbox"/> once per year
<input type="checkbox"/> twice per year
<input type="checkbox"/> three to four times per year
<input type="checkbox"/> five to twelve times per year
<input type="checkbox"/> twice per month
<input type="checkbox"/> three times per month
<input type="checkbox"/> more than three times per month

5. In a typical month, please indicate the **length of time spent** (on average) at **the store** (e.g., freestanding stores and/or stores in malls) of the brand you have chosen.

<input type="checkbox"/> none
<input type="checkbox"/> less than 1 hour
<input type="checkbox"/> 1 hour
<input type="checkbox"/> 2 hours
<input type="checkbox"/> 3 hours
<input type="checkbox"/> 4 hours
<input type="checkbox"/> 5 hours or more

6. Please indicate the **frequency with which you generally purchase** apparel or accessory products at **the store** of the brand you have chosen.

<input type="checkbox"/> never
<input type="checkbox"/> once per year
<input type="checkbox"/> twice per year
<input type="checkbox"/> three to four times per year

<input type="checkbox"/> five to twelve times per year
<input type="checkbox"/> twice per month
<input type="checkbox"/> three times per month
<input type="checkbox"/> more than three times per month

7. Please check the **2 or 3 products** most frequently purchased from **the store** of the brand you selected.

<input type="checkbox"/> Jeans
<input type="checkbox"/> Pants
<input type="checkbox"/> Capris
<input type="checkbox"/> Shorts
<input type="checkbox"/> Skirts
<input type="checkbox"/> Dresses
<input type="checkbox"/> Outerwear
<input type="checkbox"/> Sweaters
<input type="checkbox"/> Tops
<input type="checkbox"/> Shirts
<input type="checkbox"/> Ts & Camis
<input type="checkbox"/> Active wear
<input type="checkbox"/> Sleepwear
<input type="checkbox"/> Swimsuit
<input type="checkbox"/> Accessories
<input type="checkbox"/> Shoes
<input type="checkbox"/> Purses
<input type="checkbox"/> Others (please specify) <input type="text"/>

8. During the past 6 months, how much have you spent to purchase apparel or accessory products at **the store** of the brand you have chosen?

<input type="checkbox"/> \$0
<input type="checkbox"/> \$1- \$99
<input type="checkbox"/> \$100 - \$199
<input type="checkbox"/> \$200 - \$499
<input type="checkbox"/> \$500 - \$999
<input type="checkbox"/> \$1,000 - \$1,999
<input type="checkbox"/> \$2,000 or more

9. Please indicate **the frequency with which you generally visit the website** of the brand which you have chosen.

<input type="checkbox"/> never
<input type="checkbox"/> once per year
<input type="checkbox"/> twice per year
<input type="checkbox"/> three to four times per year
<input type="checkbox"/> five to twelve times per year
<input type="checkbox"/> twice per month
<input type="checkbox"/> three times per month
<input type="checkbox"/> more than three times per month

10. In a typical month, please indicate the **length of time spent** (on average) at **the website** of the brand which you have chosen for apparel shopping.

<input type="checkbox"/> none
<input type="checkbox"/> less than 1 hour
<input type="checkbox"/> 1 hour
<input type="checkbox"/> 2 hours
<input type="checkbox"/> 3 hours
<input type="checkbox"/> 4 hours

<input type="checkbox"/> 5 hours or more
--

11. Please indicate the **frequency with which you generally purchase** apparel or accessory products at **the website** of the brand which you have chosen.

<input type="checkbox"/> never
<input type="checkbox"/> once per year
<input type="checkbox"/> twice per year
<input type="checkbox"/> three to four times per year
<input type="checkbox"/> five to twelve times per year
<input type="checkbox"/> twice per month
<input type="checkbox"/> three times per month
<input type="checkbox"/> more than three times per month

12. Please check the 2 or 3 products most frequently purchased from **the website** of the brand you have chosen.

<input type="checkbox"/> Jeans
<input type="checkbox"/> Pants
<input type="checkbox"/> Capris
<input type="checkbox"/> Shorts
<input type="checkbox"/> Skirts
<input type="checkbox"/> Dresses
<input type="checkbox"/> Outerwear
<input type="checkbox"/> Sweaters
<input type="checkbox"/> Tops
<input type="checkbox"/> Shirts
<input type="checkbox"/> Ts & Camis
<input type="checkbox"/> Active wear
<input type="checkbox"/> Sleepwear
<input type="checkbox"/> Swimsuit

<input type="checkbox"/>	Accessories
<input type="checkbox"/>	Shoes
<input type="checkbox"/>	Purses
<input type="checkbox"/>	Others (please specify) <input type="text"/>

13. During the past 6 months, how much have you spent to purchase apparel or accessory products at **the website** of the brand you have chosen?

<input type="checkbox"/>	\$0
<input type="checkbox"/>	\$1- \$99
<input type="checkbox"/>	\$100 - \$199
<input type="checkbox"/>	\$200 - \$499
<input type="checkbox"/>	\$500 - \$999
<input type="checkbox"/>	\$1,000 - \$1,999
<input type="checkbox"/>	\$2,000 or more

Using a scale ranging from 1(strongly disagree) to 7(strongly agree), please choose the number that best indicates **your feelings when you have seen the apparel advertisements (e.g., TV, magazine, newspaper, or catalog, etc.)** of the brand you have chosen.

	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
	1	2	3	4	5	6	7
14. I feel <b>humiliated.</b>	<input type="checkbox"/>						
15. I feel <b>distasteful.</b>	<input type="checkbox"/>						
16. I feel <b>offended.</b>	<input type="checkbox"/>						
17. I feel <b>erotic.</b>	<input type="checkbox"/>						
18. I feel <b>sexy.</b>	<input type="checkbox"/>						
19. I feel <b>sensual.</b>	<input type="checkbox"/>						
20. I feel <b>merry.</b>	<input type="checkbox"/>						
21. I feel <b>energetic.</b>	<input type="checkbox"/>						

22. I feel <b>vigorous</b> .	<input type="checkbox"/>						
23. I feel <b>warmhearted</b> .	<input type="checkbox"/>						
24. I feel <b>sentimental</b> .	<input type="checkbox"/>						
25. I feel <b>warm</b> .	<input type="checkbox"/>						
26. I feel <b>bored</b> .	<input type="checkbox"/>						
27. I feel <b>dull</b> .	<input type="checkbox"/>						

Using the following bipolar scale ranging from 1 to 7, please choose the number which best fits your attitude toward **the brand which you have chosen**.

Attitude toward the brand which I have chosen								
	1	2	3	4	5	6	7	
28. I <b>dislike</b> the brand.	<input type="checkbox"/>	I <b>like</b> the brand.						
29. I am <b>unfavorable</b> to the brand.	<input type="checkbox"/>	I am <b>favorable</b> to the brand.						
30. I am <b>negative</b> toward the brand.	<input type="checkbox"/>	I am <b>positive</b> toward the brand.						
31. The brand is <b>bad</b> .	<input type="checkbox"/>	The brand is <b>good</b> .						
32. The brand <b>does not provide good value</b> for the money.	<input type="checkbox"/>	The brand <b>provides good value</b> for the money.						

Using the following bipolar scale ranging from 1 to 7, please choose the number indicating your belief about **information searching** at the website of the brand you have chosen.

Information searching at the website of the brand I have chosen is								
	1	2	3	4	5	6	7	
33. <b>Slow</b>	<input type="checkbox"/>	<b>Fast</b>						
34. <b>Inconvenient</b>	<input type="checkbox"/>	<b>Convenient</b>						
35. <b>Difficult</b>	<input type="checkbox"/>	<b>Easy</b>						
36. <b>Not enjoyable</b>	<input type="checkbox"/>	<b>Enjoyable</b>						

37. <b>Impractical</b>	<input type="checkbox"/>	<b>Practical</b>						
------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	------------------

Using the following bipolar scale ranging from 1 to 7, please choose the number indicating your belief about **choosing a product** at the website of the brand you have chosen.

<b>Choosing a product at the website of the brand I have chosen is</b>								
	1	2	3	4	5	6	7	
38. <b>Inconvenient</b>	<input type="checkbox"/>	<b>Convenient</b>						
39. <b>Difficult</b>	<input type="checkbox"/>	<b>Easy</b>						
40. <b>Not enjoyable</b>	<input type="checkbox"/>	<b>Enjoyable</b>						
41. <b>Impractical</b>	<input type="checkbox"/>	<b>Practical</b>						

Using the following bipolar scale ranging from 1 to 7, please choose the number indicating your belief about **purchasing products** from the website of the brand you have chosen.

<b>Making a purchase at the website of the brand I have chosen is</b>								
	1	2	3	4	5	6	7	
42. <b>Inconvenient</b>	<input type="checkbox"/>	<b>Convenient</b>						
43. <b>Difficult</b>	<input type="checkbox"/>	<b>Easy</b>						
44. <b>Not enjoyable</b>	<input type="checkbox"/>	<b>Enjoyable</b>						
45. <b>Impractical</b>	<input type="checkbox"/>	<b>Practical</b>						
<b>Making a purchase at the website of the brand</b>								
46. <b>Does not provide good value for the money.</b>	<input type="checkbox"/>	<b>Provides good value for the money.</b>						

Using the following bipolar scale ranging from 1 to 7, please choose the number indicating your **attitude towards online shopping** at the website of the brand you have chosen.

Online shopping at the website of the brand I have chosen is								
	1	2	3	4	5	6	7	
47. <b>Bad</b> idea.	<input type="checkbox"/>	<b>Good</b> idea.						
48. <b>Inferior</b> to store shopping.	<input type="checkbox"/>	<b>Superior</b> to store shopping.						
49. <b>Unpleasant</b> .	<input type="checkbox"/>	<b>Pleasant</b> .						
50. <b>Useless</b> in saving time and money.	<input type="checkbox"/>	<b>Beneficial</b> in saving time and money.						
51. <b>Undesirable</b> .	<input type="checkbox"/>	<b>Desirable</b> .						

Using a scale ranging from 1 (very unlikely) to 5 (very likely), please indicate the level of your **likelihood of making a purchase at the website of the brand you have chosen**.

	Very unlikely	Unlikely	Neutral	Likely	Very likely
	1	2	3	4	5
52. How likely is it that you will buy an apparel or accessory item at the website of the chosen brand <b>when you find something you like?</b>	<input type="checkbox"/>				
53. How likely is it that you will buy an apparel or accessory item at the website of the chosen brand <b>within the next year?</b>	<input type="checkbox"/>				

**Please answer the following questions regarding general internet shopping.**

54. How long have you been using the internet to shop online?

<input type="checkbox"/> never have shopped online
<input type="checkbox"/> less than 1 year

<input type="checkbox"/> 1- 2 years
<input type="checkbox"/> 3-4 years
<input type="checkbox"/> 5-6 years
<input type="checkbox"/> over 6 years

55. In an average week, how many hours do you spend on the internet?

<input type="checkbox"/> none
<input type="checkbox"/> 1-4 hours
<input type="checkbox"/> 5-9 hours
<input type="checkbox"/> 10-19 hours
<input type="checkbox"/> 20-29 hours
<input type="checkbox"/> 30-39 hours
<input type="checkbox"/> 40 hours or more

56. In an average week, how many hours do you spend shopping on the internet?

<input type="checkbox"/> none
<input type="checkbox"/> 1-4 hours
<input type="checkbox"/> 5-9 hours
<input type="checkbox"/> 10-19 hours
<input type="checkbox"/> 20-29 hours
<input type="checkbox"/> 30-39 hours
<input type="checkbox"/> 40 hours or more

57. Please indicate how often you use the internet to search for apparel product information.

<input type="checkbox"/> never
<input type="checkbox"/> less than once a month
<input type="checkbox"/> once a month
<input type="checkbox"/> twice to three times a month
<input type="checkbox"/> once a week
<input type="checkbox"/> more than once a week
<input type="checkbox"/> almost everyday

58. Please indicate how often you use the internet to choose apparel products online.

<input type="checkbox"/> never
<input type="checkbox"/> less than once a month
<input type="checkbox"/> once a month
<input type="checkbox"/> twice to three times a month
<input type="checkbox"/> once a week
<input type="checkbox"/> more than once a week
<input type="checkbox"/> almost everyday

59. Please indicate how often you use the internet to make an online apparel purchase.

<input type="checkbox"/> never
<input type="checkbox"/> less than once a month
<input type="checkbox"/> once a month
<input type="checkbox"/> twice to three times a month
<input type="checkbox"/> once a week
<input type="checkbox"/> more than once a week
<input type="checkbox"/> almost everyday

60. How much have you spent to purchase apparel products online during the past 6 months?

<input type="checkbox"/> \$0
<input type="checkbox"/> \$1- \$99
<input type="checkbox"/> \$100 - \$199
<input type="checkbox"/> \$200 - \$499
<input type="checkbox"/> \$500 - \$999
<input type="checkbox"/> \$1,000 - \$1,999
<input type="checkbox"/> \$2,000 or more

61. Please indicate your academic year in Auburn University.

<input type="checkbox"/> Freshman
<input type="checkbox"/> Sophomore
<input type="checkbox"/> Junior
<input type="checkbox"/> Senior
<input type="checkbox"/> Graduate student

62. What is your age? (Type your answer in the textbox below)

years old.

63. Ethnic group:

<input type="checkbox"/> White, non-Hispanic
<input type="checkbox"/> African American
<input type="checkbox"/> Asian/ Pacific Islander
<input type="checkbox"/> Hispanic/Latino/Spanish
<input type="checkbox"/> Others (please specify) <input type="text"/>

64. Under what college or school does your major fall? (If multiple majors, choose one that is most indicative of you)

<input type="checkbox"/> College of Agriculture
<input type="checkbox"/> College of Architecture, Design & Construction
<input type="checkbox"/> College of Business
<input type="checkbox"/> College of Education
<input type="checkbox"/> College of Human Sciences
<input type="checkbox"/> College of Liberal Arts
<input type="checkbox"/> College of Sciences and Mathematics
<input type="checkbox"/> College of Veterinary Medicine
<input type="checkbox"/> Honors College
<input type="checkbox"/> Harrison School of Pharmacy
<input type="checkbox"/> Samuel Ginn College of Engineering
<input type="checkbox"/> School of Forestry and Wildlife Sciences
<input type="checkbox"/> School of Nursing
<input type="checkbox"/> Others

65. Any additional comments?

**Thank you very much for answering this survey!**

<input type="button" value="Submit"/>	<input type="button" value="Reset"/>
---------------------------------------	--------------------------------------

## Appendix H. Phase II Main Survey Questionnaire

### Survey Questionnaire (Phase II)

If you are younger than 19, please **exit the survey**.

**PART I:**

Nowadays, there are many multi-channel apparel shoppers. Multi-channel shoppers are defined as “customers who have made a purchase in more than one channel in the observed time period.” *Channel* means the medium by which a purchase was made, such as a traditional store, the internet, a catalog, teleshopping, etc. Here are four multi-channel apparel retail brands which have been purchased by many American female college students: Gap, Old Navy, American Eagle, and WetSeal. These brands have both offline presence (i.e., freestanding stores and/or stores in malls) and online presence (i.e., website).

1. Please indicate your purchasing experience with each of the brands listed.

	Never purchased	Have purchased only at the store	Have purchased only at the website	Have purchased at both the store and the website
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AMERICAN EAGLE OUTFITTERS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>wet seal</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you have chosen “Never purchased” for all four brands listed in the question above, please **exit the survey**.

**PART II:**

2. Please mark the brand you have purchased the most frequently.

Gap	Old Navy	American Eagle	WetSeal
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please respond to the following questions based on your experience with the brand you have purchased the most frequently.

3. Please indicate the frequency with which you generally visit a store of the brand you have chosen. If you have never visited the store of the brand you have chosen, skip to question #8.

<input type="checkbox"/> never
<input type="checkbox"/> once per year
<input type="checkbox"/> twice per year
<input type="checkbox"/> three to four times per year
<input type="checkbox"/> five to twelve times per year
<input type="checkbox"/> twice per month
<input type="checkbox"/> three times per month
<input type="checkbox"/> more than three times per month

4. In a typical month, please indicate the length of time spent (on average) at the store (e.g., freestanding stores and/or stores in malls) of the brand you have chosen.

<input type="checkbox"/> none
<input type="checkbox"/> less than 1 hour
<input type="checkbox"/> 1 hour
<input type="checkbox"/> 2 hours
<input type="checkbox"/> 3 hours
<input type="checkbox"/> 4 hours
<input type="checkbox"/> 5 hours or more

5. Please indicate the **frequency with which you generally purchase** apparel or accessory products at **the store** of the brand you have chosen.

<input type="checkbox"/> never
<input type="checkbox"/> once per year
<input type="checkbox"/> twice per year
<input type="checkbox"/> three to four times per year
<input type="checkbox"/> five to twelve times per year
<input type="checkbox"/> twice per month
<input type="checkbox"/> three times per month
<input type="checkbox"/> more than three times per month

6. Please check the **2 or 3 products** most frequently purchased from **the store** of the brand you selected.

<input type="checkbox"/> Jeans
<input type="checkbox"/> Pants
<input type="checkbox"/> Capris
<input type="checkbox"/> Shorts
<input type="checkbox"/> Skirts
<input type="checkbox"/> Dresses
<input type="checkbox"/> Outerwear
<input type="checkbox"/> Sweaters
<input type="checkbox"/> Tops
<input type="checkbox"/> Shirts
<input type="checkbox"/> Ts & Camis
<input type="checkbox"/> Active wear
<input type="checkbox"/> Sleepwear
<input type="checkbox"/> Swimsuit
<input type="checkbox"/> Accessories

<input type="checkbox"/>	Shoes
<input type="checkbox"/>	Purses
<input type="checkbox"/>	Others (please specify) <input type="text"/>

7. During the past 6 months, how much have you spent to purchase apparel or accessory products at **the store** of the brand you have chosen?

<input type="checkbox"/>	\$0
<input type="checkbox"/>	\$1- \$99
<input type="checkbox"/>	\$100 - \$199
<input type="checkbox"/>	\$200 - \$499
<input type="checkbox"/>	\$500 - \$999
<input type="checkbox"/>	\$1,000 - \$1,999
<input type="checkbox"/>	\$2,000 or more

8. Please indicate **the frequency with which you generally visit the website** of the brand which you have chosen. **If you have never visited the website of the brand you have chosen, skip to question # 13.**

<input type="checkbox"/>	never
<input type="checkbox"/>	once per year
<input type="checkbox"/>	twice per year
<input type="checkbox"/>	three to four times per year
<input type="checkbox"/>	five to twelve times per year
<input type="checkbox"/>	twice per month
<input type="checkbox"/>	three times per month
<input type="checkbox"/>	more than three times per month

9. In a typical month, please indicate the **length of time spent** (on average) at **the website** of the brand which you have chosen for apparel shopping.

<input type="checkbox"/> none
<input type="checkbox"/> less than 1 hour
<input type="checkbox"/> 1 hour
<input type="checkbox"/> 2 hours
<input type="checkbox"/> 3 hours
<input type="checkbox"/> 4 hours
<input type="checkbox"/> 5 hours or more

10. Please indicate the **frequency with which you generally purchase** apparel or accessory products at **the website** of the brand which you have chosen.

<input type="checkbox"/> never
<input type="checkbox"/> once per year
<input type="checkbox"/> twice per year
<input type="checkbox"/> three to four times per year
<input type="checkbox"/> five to twelve times per year
<input type="checkbox"/> twice per month
<input type="checkbox"/> three times per month
<input type="checkbox"/> more than three times per month

11. Please check the **2 or 3 products** most frequently purchased from **the website** of the brand you have chosen.

<input type="checkbox"/> Jeans
<input type="checkbox"/> Pants
<input type="checkbox"/> Capris
<input type="checkbox"/> Shorts
<input type="checkbox"/> Skirts
<input type="checkbox"/> Dresses

<input type="checkbox"/>	Outerwear
<input type="checkbox"/>	Sweaters
<input type="checkbox"/>	Tops
<input type="checkbox"/>	Shirts
<input type="checkbox"/>	Ts & Camis
<input type="checkbox"/>	Active wear
<input type="checkbox"/>	Sleepwear
<input type="checkbox"/>	Swimsuit
<input type="checkbox"/>	Accessories
<input type="checkbox"/>	Shoes
<input type="checkbox"/>	Purses
<input type="checkbox"/>	Others (please specify) <input type="text"/>

12. During the past 6 months, how much have you spent to purchase apparel or accessory products at **the website** of the brand you have chosen?

<input checked="" type="checkbox"/>	\$0
<input checked="" type="checkbox"/>	\$1- \$99
<input checked="" type="checkbox"/>	\$100 - \$199
<input checked="" type="checkbox"/>	\$200 - \$499
<input checked="" type="checkbox"/>	\$500 - \$999
<input checked="" type="checkbox"/>	\$1,000 - \$1,999
<input checked="" type="checkbox"/>	\$2,000 or more

Using a scale ranging from 1(strongly disagree) to 7(strongly agree), please choose the number that best indicates **your feelings when you have seen the apparel advertisements (e.g., TV, magazine, newspaper, or catalog, etc.)** of the brand you have chosen.

	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Somewhat disagree</b>	<b>Neutral</b>	<b>Somewhat agree</b>	<b>Agree</b>	<b>Strongly agree</b>
	1	2	3	4	5	6	7
13. I feel <b>humiliated.</b>	<input type="checkbox"/>						
14. I feel <b>distasteful.</b>	<input type="checkbox"/>						
15. I feel <b>offended.</b>	<input type="checkbox"/>						
16. I feel <b>erotic.</b>	<input type="checkbox"/>						
17. I feel <b>sexy.</b>	<input type="checkbox"/>						
18. I feel <b>sensual.</b>	<input type="checkbox"/>						
19. I feel <b>merry.</b>	<input type="checkbox"/>						
20. I feel <b>energetic.</b>	<input type="checkbox"/>						
21. I feel <b>vigorous.</b>	<input type="checkbox"/>						
22. I feel <b>warmhearted.</b>	<input type="checkbox"/>						
23. I feel <b>sentimental.</b>	<input type="checkbox"/>						
24. I feel <b>warm.</b>	<input type="checkbox"/>						
25. I feel <b>bored.</b>	<input type="checkbox"/>						
26. I feel <b>dull.</b>	<input type="checkbox"/>						

Using the following bipolar scale ranging from 1 to 7, please choose the number which best fits your attitude toward **the brand which you have chosen**.

Attitude toward the brand which I have chosen								
	1	2	3	4	5	6	7	
27. I <b>dislike</b> the brand.	<input type="checkbox"/>	I <b>like</b> the brand.						
28. I am <b>unfavorable</b> to the brand.	<input type="checkbox"/>	I am <b>favorable</b> to the brand.						
29. I am <b>negative</b> toward the brand.	<input type="checkbox"/>	I am <b>positive</b> toward the brand.						
30. The brand is <b>bad</b> .	<input type="checkbox"/>	The brand is <b>good</b> .						
31. The brand <b>does not provide good value</b> for the money.	<input type="checkbox"/>	The brand <b>provides good value</b> for the money.						

Using the following bipolar scale ranging from 1 to 7, please choose the number indicating your belief about **information searching** at the website of the brand you have chosen.

Information searching at the website of the brand I have chosen is								
	1	2	3	4	5	6	7	
32. <b>Slow</b>	<input type="checkbox"/>	<b>Fast</b>						
33. <b>Inconvenient</b>	<input type="checkbox"/>	<b>Convenient</b>						
34. <b>Difficult</b>	<input type="checkbox"/>	<b>Easy</b>						
35. <b>Not enjoyable</b>	<input type="checkbox"/>	<b>Enjoyable</b>						
36. <b>Impractical</b>	<input type="checkbox"/>	<b>Practical</b>						

Using the following bipolar scale ranging from 1 to 7, please choose the number indicating your belief about **evaluating alternatives** at the website of the brand you have chosen.

<b>Evaluating alternatives at the website of the brand I have chosen is</b>								
	1	2	3	4	5	6	7	
37. <b>Slow</b>	<input type="checkbox"/>	<b>Fast</b>						
38. <b>Inconvenient</b>	<input type="checkbox"/>	<b>Convenient</b>						
39. <b>Difficult</b>	<input type="checkbox"/>	<b>Easy</b>						
40. <b>Not enjoyable</b>	<input type="checkbox"/>	<b>Enjoyable</b>						
41. <b>Impractical</b>	<input type="checkbox"/>	<b>Practical</b>						

Using the following bipolar scale ranging from 1 to 7, please choose the number indicating your belief about **choosing a product** at the website of the brand you have chosen.

<b>Choosing a product at the website of the brand I have chosen is</b>								
	1	2	3	4	5	6	7	
42. <b>Inconvenient</b>	<input type="checkbox"/>	<b>Convenient</b>						
43. <b>Difficult</b>	<input type="checkbox"/>	<b>Easy</b>						
44. <b>Not enjoyable</b>	<input type="checkbox"/>	<b>Enjoyable</b>						
45. <b>Impractical</b>	<input type="checkbox"/>	<b>Practical</b>						

Using the following bipolar scale ranging from 1 to 7, please choose the number indicating your belief about **purchasing a product** from the website of the brand you have chosen.

<b>Making a purchase at the website of the brand I have chosen is</b>								
	1	2	3	4	5	6	7	
46. <b>Inconvenient</b>	<input type="checkbox"/>	<b>Convenient</b>						
47. <b>Difficult</b>	<input type="checkbox"/>	<b>Easy</b>						
48. <b>Not enjoyable</b>	<input type="checkbox"/>	<b>Enjoyable</b>						
49. <b>Impractical</b>	<input type="checkbox"/>	<b>Practical</b>						
<b>Making a purchase at the website of the brand</b>								

50. <b>Does not provide good value</b> for the money.	<input type="checkbox"/>	<b>Provides good value</b> for the money.						
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Using the following bipolar scale ranging from 1 to 7, please choose the number indicating your **attitude towards online shopping** at the website of the brand you have chosen.

Online shopping at the website of the brand I have chosen is								
	1	2	3	4	5	6	7	
51. <b>Bad idea.</b>	<input type="checkbox"/>	<b>Good idea.</b>						
52. <b>Inferior</b> to store shopping.	<input type="checkbox"/>	<b>Superior</b> to store shopping.						
53. <b>Unpleasant.</b>	<input type="checkbox"/>	<b>Pleasant.</b>						
54. <b>Useless</b> in saving time and money.	<input type="checkbox"/>	<b>Beneficial</b> in saving time and money.						
55. <b>Undesirable.</b>	<input type="checkbox"/>	<b>Desirable.</b>						

Using a scale ranging from 1 (very unlikely) to 5 (very likely), please indicate the level of your **likelihood of making a purchase at the website of the brand you have chosen.**

	Very unlikely	Unlikely	Neutral	Likely	Very likely
	1	2	3	4	5
56. How likely is it that you will buy an apparel or accessory item at the website of the chosen brand <b>when you find something you like?</b>	<input type="checkbox"/>				
57. How likely is it that you will buy an apparel or accessory item at the website of the chosen brand <b>within the next year?</b>	<input type="checkbox"/>				

**Please answer the following questions regarding general internet shopping.**

58. How long have you been using the internet to shop online?

<input type="checkbox"/> never have shopped online
<input type="checkbox"/> less than 1 year
<input type="checkbox"/> 1- 2 years
<input type="checkbox"/> 3-4 years
<input type="checkbox"/> 5-6 years
<input type="checkbox"/> over 6 years

59. In an average week, how many hours do you spend on the internet?

<input type="checkbox"/> none
<input type="checkbox"/> 1-4 hours
<input type="checkbox"/> 5-9 hours
<input type="checkbox"/> 10-19 hours
<input type="checkbox"/> 20-29 hours
<input type="checkbox"/> 30-39 hours
<input type="checkbox"/> 40 hours or more

60. In an average week, how many hours do you spend shopping on the internet?

<input type="checkbox"/> none
<input type="checkbox"/> 1-4 hours
<input type="checkbox"/> 5-9 hours
<input type="checkbox"/> 10-19 hours
<input type="checkbox"/> 20-29 hours
<input type="checkbox"/> 30-39 hours
<input type="checkbox"/> 40 hours or more

61. Please indicate how often you use the internet to search for apparel product information.

<input type="checkbox"/> never
<input type="checkbox"/> less than once a month
<input type="checkbox"/> once a month
<input type="checkbox"/> twice to three times a month
<input type="checkbox"/> once a week
<input type="checkbox"/> more than once a week
<input type="checkbox"/> almost everyday

62. Please indicate how often you use the internet to choose apparel products online.

<input type="checkbox"/> never
<input type="checkbox"/> less than once a month
<input type="checkbox"/> once a month
<input type="checkbox"/> twice to three times a month
<input type="checkbox"/> once a week
<input type="checkbox"/> more than once a week
<input type="checkbox"/> almost everyday

63. Please indicate how often you use the internet to make an online apparel purchase.

<input type="checkbox"/> never
<input type="checkbox"/> less than once a month
<input type="checkbox"/> once a month
<input type="checkbox"/> twice to three times a month
<input type="checkbox"/> once a week
<input type="checkbox"/> more than once a week
<input type="checkbox"/> almost everyday

64. How much have you spent to purchase apparel products online during the past 6 months?

<input type="checkbox"/> \$0
<input type="checkbox"/> \$1- \$99
<input type="checkbox"/> \$100 - \$199
<input type="checkbox"/> \$200 - \$499
<input type="checkbox"/> \$500 - \$999
<input type="checkbox"/> \$1,000 - \$1,999
<input type="checkbox"/> \$2,000 or more

65. Please indicate your academic year in Auburn University.

<input type="checkbox"/> Freshman
<input type="checkbox"/> Sophomore
<input type="checkbox"/> Junior
<input type="checkbox"/> Senior
<input type="checkbox"/> Graduate student

66. What is your age? (Type your answer in the textbox below)

years old.

67. Ethnic group:

<input type="checkbox"/> White, non-Hispanic
<input type="checkbox"/> African American
<input type="checkbox"/> Asian/ Pacific Islander
<input type="checkbox"/> Hispanic/Latino/Spanish
<input type="checkbox"/> Others (please specify) <input type="text"/>

68. Under what college or school does your major fall? (If multiple majors, choose one that is most indicative of you)

<input type="checkbox"/> College of Agriculture
<input type="checkbox"/> College of Architecture, Design & Construction
<input type="checkbox"/> College of Business
<input type="checkbox"/> College of Education
<input type="checkbox"/> College of Human Sciences
<input type="checkbox"/> College of Liberal Arts
<input type="checkbox"/> College of Sciences and Mathematics
<input type="checkbox"/> College of Veterinary Medicine
<input type="checkbox"/> Honors College
<input type="checkbox"/> Harrison School of Pharmacy
<input type="checkbox"/> Samuel Ginn College of Engineering
<input type="checkbox"/> School of Forestry and Wildlife Sciences
<input type="checkbox"/> School of Nursing
<input type="checkbox"/> Others

**Thank you very much for answering this survey!**

<input type="button" value="Submit"/>	<input type="button" value="Reset"/>
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## Appendix I. Phase I: Results of Pilot-testing

### *Preferred Brands of the Respondents*

In this sample, respondents were asked to assess 11 multi-channel retail brands in terms of their level of prior buying experience with each brand and the level of liking for each brand. The 11 multi-channel apparel retail brands were summarized by frequency of prior buying experience with the offline store of each brand (Table 1). The brick-and-mortar store of *Old Navy* brand was the offline store where the respondents most frequently reported purchasing clothing or accessories; i.e., only one student had never purchased clothing or accessories at an *Old Navy* store. *Banana Republic* and *Gap* were the other two retail brands most frequently listed as brick-and-mortar stores in which the respondents had purchased apparel and /or accessories. In comparison, over 50% of the respondents reported that they had never purchased clothing or accessories in the brick-and-mortar stores of *Hollister Co.*, *Abercrombie & Fitch*, or *bebe*. In fact, 90% had never purchased clothing or accessories in a *Hollister Co.* store.

Table 1. Prior Buying Experience with Offline Stores of Selected Retail Brands

	<u>Gap</u> <i>f</i> (%)	<u>Old Navy</u> <i>f</i> (%)	<u>American Eagle</u> <i>f</i> (%)	<u>Abercrombie &amp; Fitch</u> <i>f</i> (%)
<b>Never</b>	4 (21.0%)	1 (5.3%)	9 (47.3%)	15 (78.9%)
<b>Occasionally</b> (once per year, twice per year, or three to four times per year)	11 (57.9%)	7 (36.8%)	6 (31.6%)	3 (15.8%)
<b>Often</b> (five to twelve times per year)	3 (15.8%)	9 (47.4%)	3 (15.8%)	0 (0%)

<b>Frequently</b> (twice per month, three times per month, or more than three times per month)	1 (5.3%)	2 (10.5%)	1 (5.3%)	1 (5.3%)
	<u>Anthropologie</u> <i>f (%)</i>	<u>Hollister Co.</u> <i>f (%)</i>	<u>Banana Republic</u> <i>f (%)</i>	<u>WetSeal</u> <i>f (%)</i>
<b>Never</b>	6 (31.6%)	17 (89.5%)	3 (15.8%)	8 (42.1%)
<b>Occasionally</b> (once per year, twice per year, or three to four times per year)	6 (31.6%)	2 (10.5%)	12 (63.1%)	8 (42.1%)
<b>Often</b> (five to twelve times per year)	4 (21.0%)	0 (0%)	3 (15.8%)	3 (15.8%)
<b>Frequently</b> (twice per month, three times per month, or more than three times per month)	3 (15.8%)	0 (0%)	1 (5.3%)	0 (0%)
	<u>Ann Taylor Loft</u> <i>f (%)</i>	<u>J. Crew</u> <i>f (%)</i>	<u>bebe</u> <i>f (%)</i>	
<b>Never</b>	7 (36.8%)	5 (26.3%)	10 (52.6%)	
<b>Occasionally</b> (once per year, twice per year, or three to four times per year)	7 (36.8%)	10 (52.6%)	8 (42.1%)	
<b>Often</b> (five to twelve times per year)	3 (15.8%)	3 (15.8%)	1 (5.3%)	
<b>Frequently</b> (twice per month, three times per month, or more than three times per month)	2 (10.6%)	1 (5.3%)	0 (0%)	

Table 2 indicates respondents' prior buying experience with the online store of each brand. The *Anthropologie* website was the online store from which the respondents most frequently purchased clothing or accessories; only seven respondents (36.8%) had never purchased clothing or accessories from the *Anthropologie* website. Respondents had never purchased clothing or accessories at the websites of *Abercrombie & Fitch* and *Hollister Co.* and less than half of the respondents reported purchasing clothing or accessories from the J. Crew website. Over 70% of the respondents reported that they had never purchased clothing or accessories from the *Gap*, *Old Navy*, *American Eagle*, *Banana Republic*, *WetSeal*, *AnnTaylor Loft* or *bebe* websites.

Table 2. Prior Buying Experience with Online Stores of Selected Retail Brands

	Gap website	Old Navy website	American Eagle website	Abercrombie & Fitch website
	<i>f</i> (%)	<i>f</i> (%)	<i>f</i> (%)	<i>f</i> (%)
<b>Never</b>	14 (73.7%)	15 (78.9%)	15 (78.9%)	19 (100%)
<b>Occasionally</b> (once per year, twice per year, or three to four times per year)	4 (21.0%)	2 (10.6%)	4 (21.1%)	0 (0%)
<b>Often</b> (five to twelve times per year)	1 (5.3%)	2 (10.5%)	0 (0%)	0 (0%)
<b>Frequently</b> (twice per month, three times per month, or more than three times per month)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

	Anthropologie website <hr/> f (%)	Hollister Co. website <hr/> f (%)	Banana Republic website <hr/> f (%)	WetSeal website <hr/> f (%)
<b>Never</b>	7 (36.8%)	19 (100%)	14 (73.7%)	15 (78.9%)
<b>Occasionally</b> (once per year, twice per year, or three to four times per year)	8 (42.1%)	0 (0%)	3 (15.8%)	4 (21.1%)
<b>Often</b> (five to twelve times per year)	1 (5.3%)	0 (0%)	2 (10.5%)	0 (0%)
<b>Frequently</b> (twice per month, three times per month, or more than three times per month)	3 (15.8%)	0 (0%)	0 (0%)	0 (0%)
	Ann Taylor Loft website <hr/> f (%)	J. Crew website <hr/> f (%)	Bebe website <hr/> f (%)	
<b>Never</b>	16 (84.2%)	10 (52.6%)	16 (84.2%)	
<b>Occasionally</b> (once per year, twice per year, or three to four times per year)	2 (10.5%)	7 (36.8%)	2 (10.5%)	
<b>Often</b> (five to twelve times per year)	0 (0%)	1 (5.3%)	1 (5.3%)	
<b>Frequently</b> (twice per month, three times per month, or more than three times per month)	1 (5.3%)	1 (5.3%)	0 (0%)	

Respondents were asked to choose the offline or the online store from which they most often purchased clothing or accessories for themselves. Table 3 indicates that almost 32% of the respondents selected the *Anthropologie* brick-and-mortar stores as the offline stores where they have most frequently purchased clothing or accessories for themselves; approximately 26 % cited *Old Navy*, while approximately 11% listed *American Eagle*, *WetSeal*, and *J.Crew*. *Anthropologie* was again selected by almost 32% of the respondents as the online site from which they purchased clothing or accessories for themselves (Table 3). The online site for *J. Crew* was selected by almost 16% of the respondents while approximately 11% of the respondents selected *Gap*, *Old Navy*, *WetSeal*, and *Ann Taylor Loft* (Table 3).

Table 4 summarizes the frequency of type of clothing or accessories purchased most frequently at the offline or the online store at which the respondents purchased the most frequently. Specifically, tops (73.7%), dresses (47.4%), and jeans (42.1%) were cited by respondents as the items they purchased the most frequently at the offline stores. Dresses (73.7%), skirts (31.6%), and tops (31.6%) were cited as the items purchased the most frequently at the online store.

Table 3. Offline or Online Store from Which Clothing or Accessories Were Purchased Most Frequently

Brand	Offline Store		Online Store	
	<i>f</i>	(%)	<i>f</i>	(%)
Gap	1	(5.3%)	2	(10.5%)
Old Navy	5	(26.3%)	2	(10.5%)
American Eagle	2	(10.5%)	1	(5.3%)
Abercrombie & Fitch	0	(0%)	0	(0%)
Anthropologie	6	(31.6%)	6	(31.6%)
Hollister Co.	0	(0%)	0	(0%)
Banana Republic	1	(5.3%)	1	(5.3%)
WetSeal	2	(10.5%)	2	(10.5%)

Ann Taylor Loft	0 (0%)	2 (10.5%)
J. Crew	2 (10.5%)	3 (15.8%)
Bebe	0 (0%)	0 (0%)

Table 4. Clothing or Accessories Purchased Most Frequently

Clothing or Accessories	Offline Store	Online Store
	<i>f</i> (%)	<i>f</i> (%)
Jeans	8 (42.1%)	2 (10.5%)
Pants	1 (5.3%)	2 (10.5%)
Capris	0 (0%)	1 (5.3%)
Shorts	2 (10.5%)	1 (5.3%)
Skirts	2 (10.5%)	6 (31.6%)
Dresses	9 (47.4%)	14 (73.7%)
Outerwear	2 (10.5%)	5 (26.3%)
Sweaters	2 (10.5%)	2 (10.5%)
Tops	14 (73.7%)	6 (31.6%)
Shirts	6 (31.6%)	3 (15.8%)
Ts & Camis	3 (15.8%)	2 (10.5%)
Active wear	1 (5.3%)	1 (5.3%)
Sleepwear	2 (10.5%)	0 (0%)
Accessories	2 (10.5%)	5 (26.3%)

Table 5 indicates the level of apparel brand liking. Specifically, *Anthropologie*, *Banana Republic*, and *J. Crew* had the highest levels of brand liking; i.e., a value of  $\geq 4.0$  on a scale of 1 - 5 with five as highest. *Hollister Co.* and *Abercrombie & Fitch* had the lowest levels of brand liking with a value of  $< 2.0$  on a scale of 1 – 5 with five as highest. Consequently, in the pre-testing in the Phase I research, *Anthropologie*, *Old Navy*, and *J. Crew* were chosen as the respondents' favorite multi-channel retail brands based on the results of the level of their prior

buying experience with offline or online store, offline or online store purchased most frequently, and the degree of brand liking (Table 6).

Table 5. Level of Brand Liking

Brand	<i>n</i>	Brand Liking			
		<i>M</i>	<i>SD</i>	<i>Min.</i>	<i>Max.</i>
Anthropologie	19	4.63	0.68	1	5
Banana Republic	19	4.26	0.93	1	5
J. Crew	19	4.05	1.08	1	5
Old Navy	19	3.84	1.17	1	5
Ann Taylor Loft	19	3.79	1.23	1	5
bebe	19	3.58	1.17	1	5
Gap	19	3.26	1.28	1	5
American Eagle	19	2.79	1.55	1	5
WetSeal	19	2.79	1.27	1	5
Abercrombie & Fitch	19	1.68	1.16	1	5
Hollister Co.	19	1.53	1.02	1	5

Table 6. Top Three Brands - Phase I Pilot-test

Brand	Frequency of Offline Buying Experience (more than once per year)	Frequency of Online Buying Experience (more than once per year)	Offline Store Purchased Most Frequently	Online Store Purchased Most Frequently	Brand Liking (a scale of 1 - 5 with 5 as the highest)
Old Navy	18 (94.7%)	4 (21.1%)	5 (26.3%)	2 (10.5%)	3.84
Anthropologie	13 (68.4%)	12 (63.2%)	6 (31.6%)	6 (31.6%)	4.63
J. Crew	14 (73.7%)	9 (47.4%)	2 (10.5%)	3 (15.8%)	4.05

## **Appendix J. Phase II: Results of Pilot-testing**

### ***Internet Use***

While 69.7% of the respondents reported that they had used the Internet for three or more years for online shopping, 6% reported that they had never used the Internet for online shopping. Of the respondents, 72.7% had spent 10 or more hours weekly on the Internet, 24.3% reported spending 5-9 hours weekly on the Internet. When asked about time spent shopping on the Internet, two-thirds of the respondents reported that they had spent 1-4 hours weekly shopping on the Internet and 9.1% of the respondents mentioned that they never shopped on the Internet (Table 4-16).

Approximately 63% of the respondents reported that they had used the Internet one or more times a week to search for apparel product information, with 12% reporting that they used the Internet for this purpose almost every day. Another 24.3% indicated that they had used the Internet two or three times a month searching for the information about the products they wanted to purchase. Similarly, 63.7% of the respondents reported that they had used the Internet two or more times a month to choose apparel products online. On the other hand, when it came to purchasing apparel online, over half of the respondents (57.6%) reported that they had used the Internet less than once a month to actually purchase apparel online. Moreover, 12.1% reported that they had never used the Internet to make an online apparel purchase.

When reporting the amount of money spent on purchasing apparel or accessories online, 21% of the respondents reported that they had not spent any money purchasing apparel or accessories online in the past six months. Twenty-one percent reported spending \$1-\$99 and another 21% spent \$100-\$199 in the past six months to purchase apparel or accessory products online. Meanwhile, 24.3% reported

spending \$200-\$499 and another 9.1% of the respondents had spent \$500-\$999 (Table 4-16).

Table 4-16. Internet Use of the Phase II Pilot-test Respondents

	<i>Frequency (%)</i>		<i>Frequency (%)</i>
<b>Years to use the Internet for online shopping</b>		<b>Weekly hours spent on the Internet</b>	
Never have shopped online	2 (6.0%)	None	0 (0%)
Less than 1 year	3 (9.1%)	1-4 hours	1 (3.0%)
1-2 years	5 (15.2%)	5-9 hours	8 (24.3%)
3-4 years	14 (42.4%)	10-19 hours	16 (48.5%)
5-6 years	4 (12.1%)	20-29 hours	4 (12.1%)
Over 6 years	5 (15.2%)	30-39 hours	4 (12.1%)
		40 hours or more	0 (0%)
<b>Weekly hours spent shopping on the Internet</b>		<b>Time spent on the Internet to search for apparel product information</b>	
None	3 (9.1%)	Never	0 (0%)
1-4 hours	22 (66.7%)	Less than once a month	0 (0%)
5-9 hours	8 (24.2%)	Once a month	4 (12.1%)
10-19 hours	0 (0%)	Twice to three times a month	8 (24.3%)
20-29 hours	0 (0%)	Once a week	7 (21.2%)
30-39 hours	0 (0%)	More than once a week	10 (30.3%)
40 hours or more	0 (0%)	Almost everyday	4 (12.1%)
<b>Time spent on the Internet to choose apparel products</b>		<b>Time spent on the Internet to purchase apparel products</b>	
Never	1 (3.0%)	Never	4 (12.1%)
Less than once a month	7 (21.2%)	Less than once a month	19 (57.6%)
Once a month	4 (12.1%)	Once a month	5 (15.2%)
Twice to three times a month	8 (24.3%)	Twice to three times a month	4 (12.1%)
Once a week	6 (18.2%)	Once a week	1 (3.0%)
More than once a week	5 (15.1%)	More than once a	0 (0%)
Almost everyday	2 (6.1%)		

		week Almost everyday	0 (0%)
<b>Amount spent to purchase apparel or accessories online during the past 6 months</b>			
\$0	7 (21.2%)		
\$1-\$99	7 (21.2%)		
\$100-199	7 (21.2%)		
\$200-\$499	8 (24.3%)		
\$500-\$999	3 (9.1%)		
\$1,000-\$1,999	0 (0%)		
\$2,000 or more	1 (3.0%)		

### ***Shopping Behavior***

The respondents were instructed to select one brand with which they had had the most shopping experience among the four multi-channel apparel retail brands (i.e., *Gap*, *Old Navy*, *American Eagle*, and *WetSeal*) selected from the Phase I research. They were also instructed to indicate their shopping behavior at the offline and the online stores based upon their prior experience with the brand with which they had the most shopping experience.

Table 4-17, derived from the online survey, shows the frequency of visiting an offline and online store of the brand which they had chosen, the frequency of purchasing apparel or accessories at the offline and online store of the brand, time spent at the offline and online store of the brand for apparel shopping, the type of product purchased the most frequently at the offline and online store of the brand, and amount spent to purchase apparel or accessories at the offline and online store of the brand.

Respondents reported that they had visited the offline store of the brand they had chosen five to twelve times per year (36.4%); another 36.4% reported visiting the store two or more times per month. In contrast, 30.3% of the respondents never had

visited the website of their preferred brand and 21.2% of them had visited the website of their preferred brand only once per year. While almost 60% of the respondents had purchased apparel or accessories products five or more times per year at the offline store of the brand they had chosen, 60% had never made an apparel or accessory purchase at the online store of the brand and another 27.3% had purchased apparel or accessories at the website of the brand they had chosen only once per year.

Over half of the students reported spending less than one hour in a typical month shopping for apparel at either the offline or online stores. Dresses (57.6%), tops (54.5%), and sweaters (24.2%) were cited by respondents as the items they purchased the most frequently at the offline store of the brand, whereas tops (21.2%), sweaters (18.2%), and others (18.2%) were reported by respondents as the items they most frequently purchased at the website of the brand. Fifty-four percent of the respondents reported spending less than \$100 on apparel or accessories at the selected offline store in the past six months. Another 36 % of the respondents reported spending \$100-\$499 in the past six months to purchase apparel or accessories in the offline store they chose. Seventy-two percent of the respondents had not purchased any apparel or accessories at their selected online store in the past six months and another 18% spent between \$1 -\$99 to purchase apparel or accessories at their online store in the six month period.

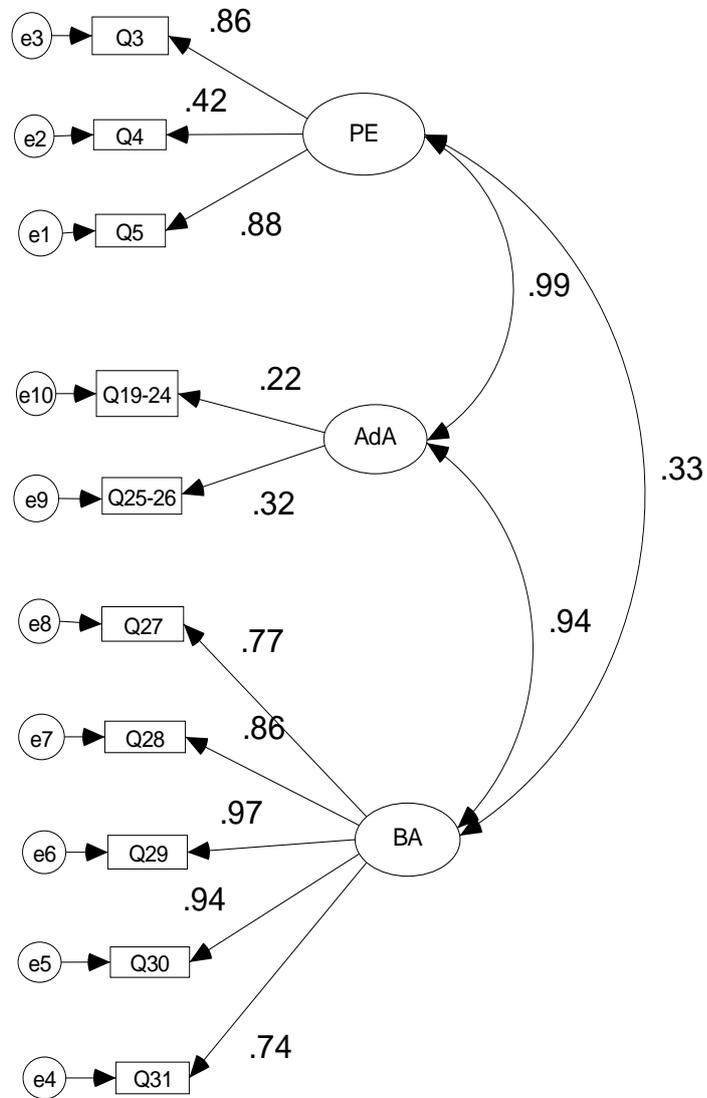
Table 4-17. Shopping Behavior of the Phase II Pilot-test Respondents

	<i>Frequency (%)</i>		<i>Frequency (%)</i>
<b>Frequency of visiting offline store of favorite brand</b>		<b>Frequency of visiting online store of favorite brand</b>	
Never	0 (0%)	Never	10 (30.3%)
Once per year	1 (3.0%)	Once per year	7 (21.2%)
Twice per year	1 (3.0%)	Twice per year	4 (12.1%)
Three to four times per year	7 (21.2%)	Three to four times per year	4 (12.1%)
Five to twelve times per year	12 (36.4%)	Five to twelve times per year	3 (9.1%)
Twice per month	8 (24.3%)	Twice per month	0 (0%)
Three times per month	3 (9.1%)	Three times per month	3 (9.1%)
More than three times per month	1 (3.0%)	More than three times per month	2 (6.1%)
<b>Frequency of purchasing apparel or accessories at the offline store of favorite brand</b>		<b>Frequency of purchasing apparel or accessories at the online store of favorite brand</b>	
Never	0 (0%)	Never	20 (60.6%)
Once per year	3 (9.1%)	Once per year	9 (27.3%)
Twice per year	5 (15.1%)	Twice per year	2 (6.1%)
Three to four times per year	6 (18.2%)	Three to four times per year	1 (3.0%)
Five to twelve times per year	16 (48.5%)	Five to twelve times per year	1 (3.0%)
Twice per month	2 (6.1%)	Twice per month	0 (0%)
Three times per month	1 (3.0%)	Three times per month	0 (0%)
More than three times per month	0 (0%)	More than three times per month	0 (0%)

<p><b>Time spent at the offline store of favorite brand for apparel shopping in a typical month</b></p> <p>None Less than 1 hour 1 hour 2 hours 3 hours 4 hours 5 hours or more</p>	<p>1 (3.0%) 19 (57.6%) 6 (18.2%) 5 (15.2%) 1 (3.0%) 1 (3.0%) 0 (0%)</p>	<p><b>Time spent at the online store of favorite brand for apparel shopping in a typical month</b></p> <p>None Less than 1 hour 1 hour 2 hours 3 hours 4 hours 5 hours or more</p>	<p>12 (36.4%) 18 (54.5%) 2 (6.1%) 1 (3.0%) 0 (0%) 0 (0%) 0 (0%)</p>
<p><b>Type of product purchased the most frequently at the offline store of favorite brand</b></p> <p>Jeans Pants Capris Shorts Skirts Dresses Outerwear Sweaters Tops Shirts Ts &amp; Camis Active wear Sleepwear Swimsuit Accessories Shoes Purses Others</p>	<p>6 (18.2%) 4 (12.1%) 0 (0%) 6 (18.2%) 4 (12.1%) 19 (57.6%) 0 (0%) 8 (24.2%) 18 (54.5%) 4 (12.1%) 7 (21.2%) 1 (3.0%) 5 (15.2%) 2 (6.1%) 3 (9.1%) 2 (6.1%) 2 (6.1%) 0 (0%)</p>	<p><b>Type of product purchased the most frequently at the online store of favorite brand</b></p> <p>Jeans Pants Capris Shorts Skirts Dresses Outerwear Sweaters Tops Shirts Ts &amp; Camis Active wear Sleepwear Swimsuit Accessories Shoes Purses Others</p>	<p>2 (6.1%) 1 (3.0%) 0 (0%) 3 (9.1%) 0 (0%) 5 (15.2%) 4 (12.1%) 6 (18.2%) 7 (21.2%) 4 (12.1%) 2 (6.1%) 1 (3.0%) 0 (0%) 0 (0%) 2 (6.1%) 3 (9.1%) 1 (3.0%) 6 (18.2%)</p>

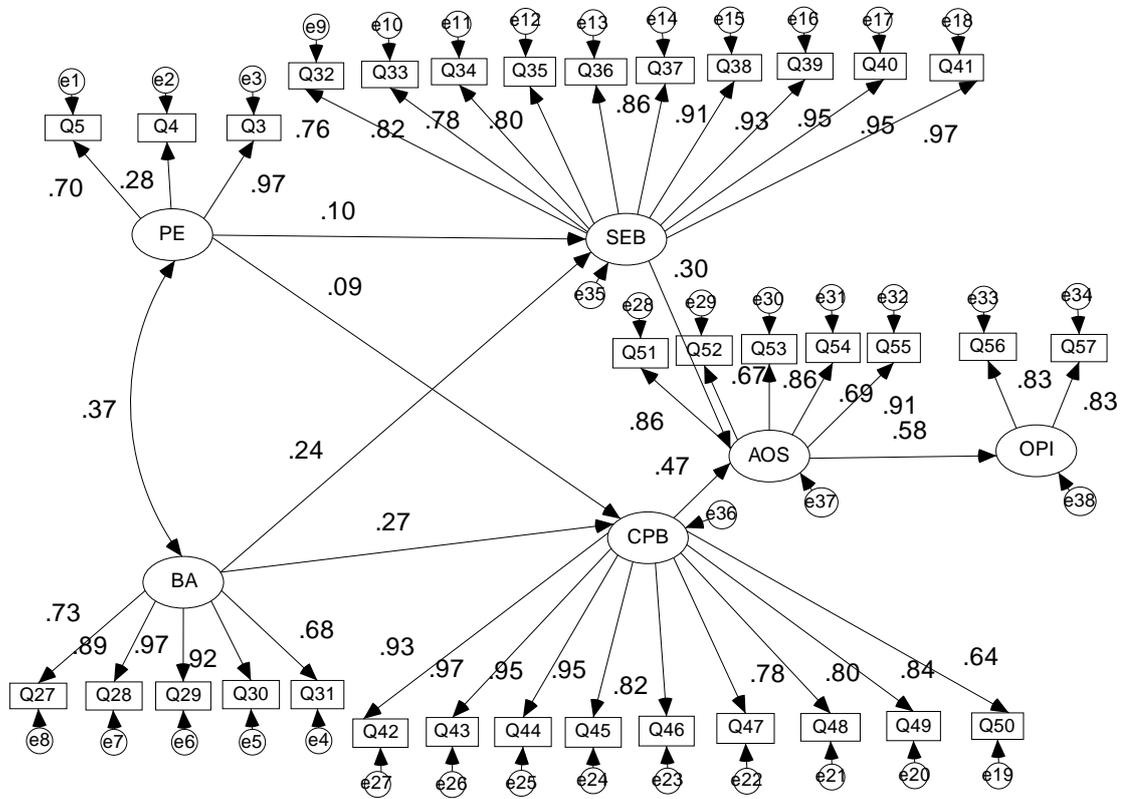
<b>Amount spent to purchase apparel or accessories at the offline store of favorite brand during the past 6 months</b>		<b>Amount spent to purchase apparel or accessories at the online store of favorite brand during the past 6 months</b>	
\$0	2 (6.0%)	\$0	24 (72.7%)
\$1-\$99	16 (48.5%)	\$1-\$99	6 (18.2%)
\$100-199	6 (18.2%)	\$100-199	1 (3.0%)
\$200-\$499	6 (18.2%)	\$200-\$499	2 (6.1%)
\$500-\$999	3 (9.1%)	\$500-\$999	0 (0%)
\$1,000-\$1,999	0 (0%)	\$1,000-\$1,999	0 (0%)

**Appendix K. Measurement Model for Prior In-Store Shopping Experience with the Multichannel Retailer and Advertisement and Brand Attitudes**



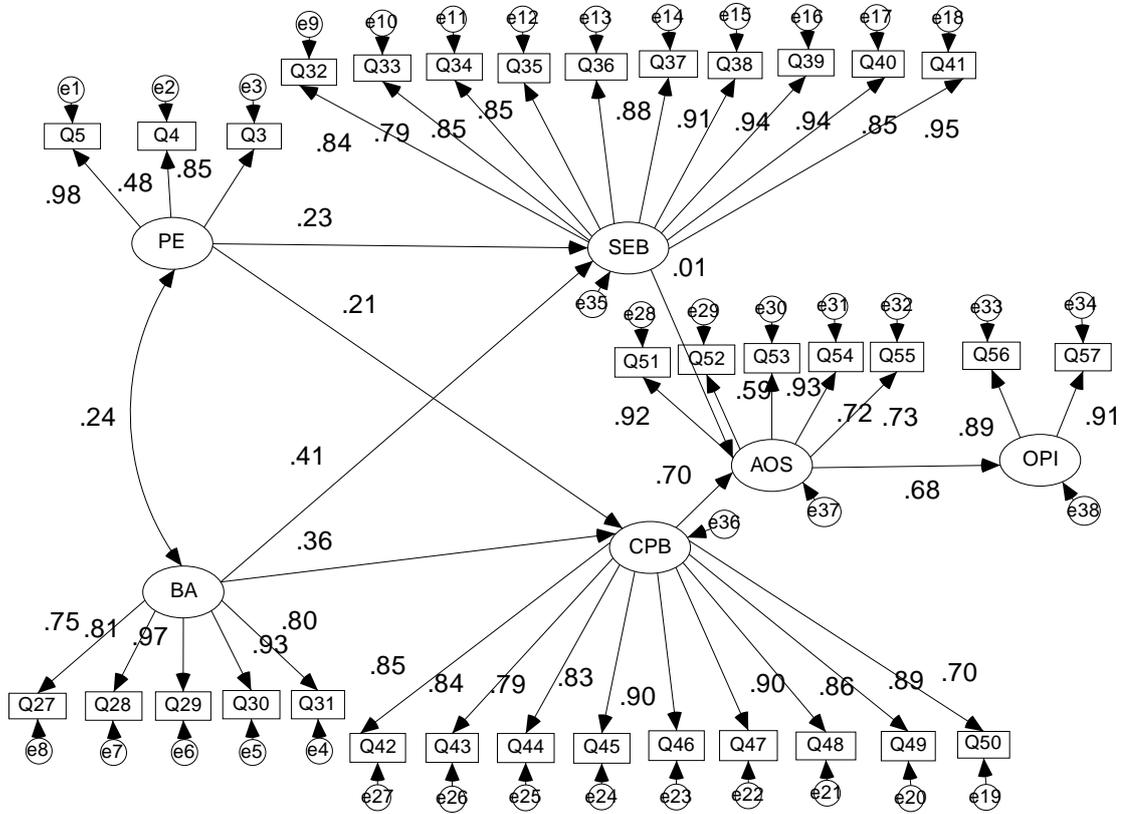
Chi-square = 174.950, df = 32, p = .000, GFI = .903, CFI = .938, NFI = .925, RMSEA = .110

**Appendix L. Structural Equation Model with Standardized Estimates  
(Gap brand)**



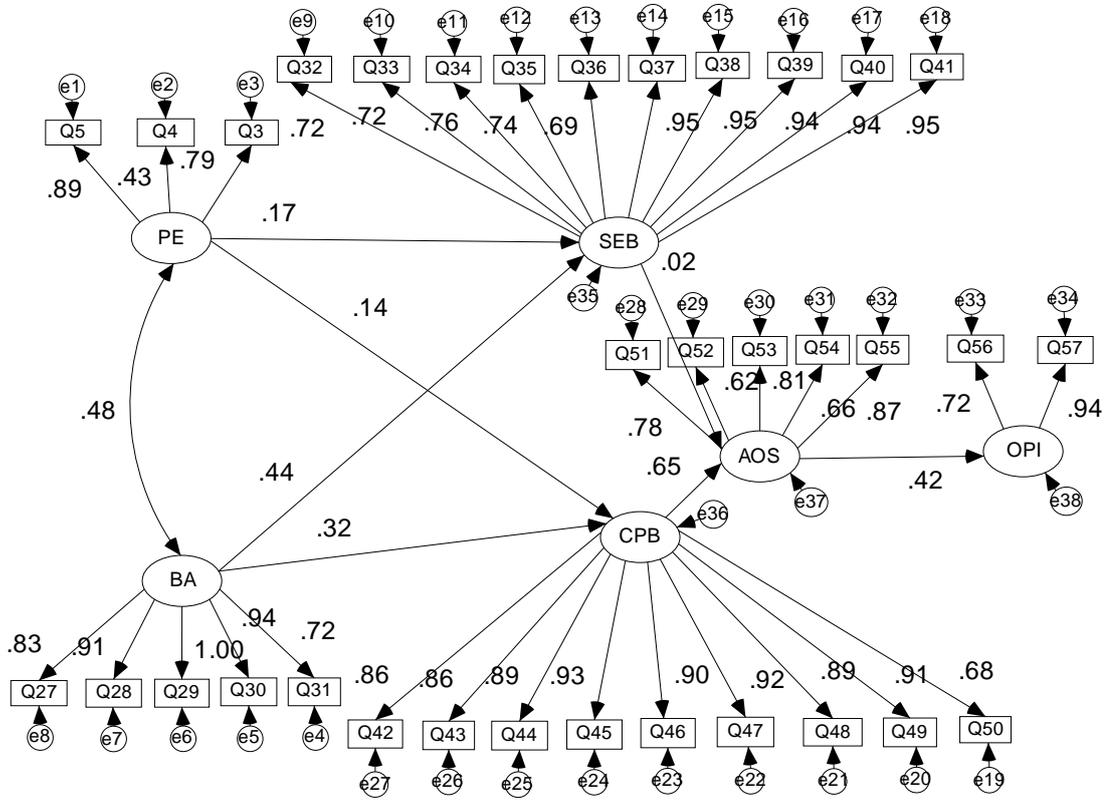
Chi-square = 1733.521, df = 519, p = .000, GFI = .531, CFI = .762, NFI = .694, RMSEA = .140

**Appendix M. Structural Equation Model with Standardized Estimates  
(Old Navy brand)**



Chi-square = 2223.281, df = 519, p = .000, GFI = .524, CFI = .757, NFI = .706, RMSEA = .140

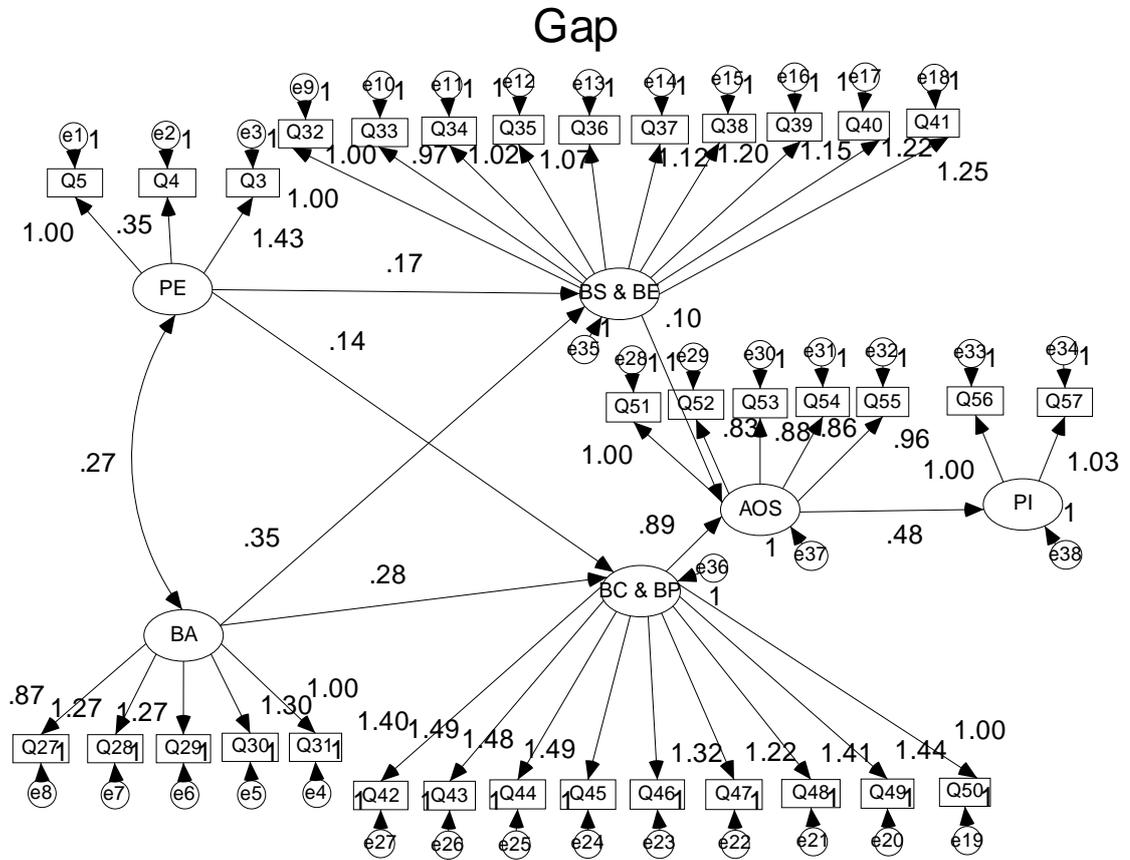
**Appendix N. Structural Equation Model with Standardized Estimates  
(American Eagle brand)**



Chi-square = 1418.894, df = 519, p = .000, GFI = .493, CFI = .735, NFI = .641, RMSEA = .148

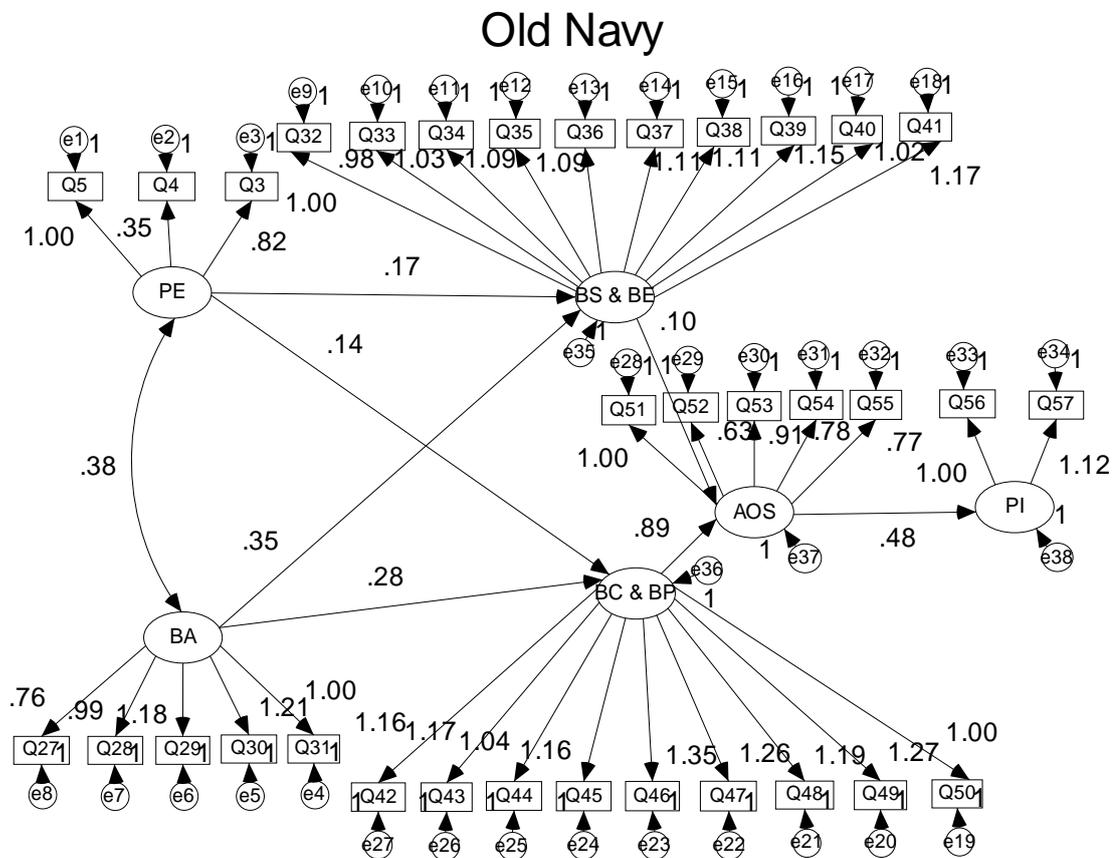
Appendix O. Constrained Model with Unstandardized Estimates

(Gap brand)

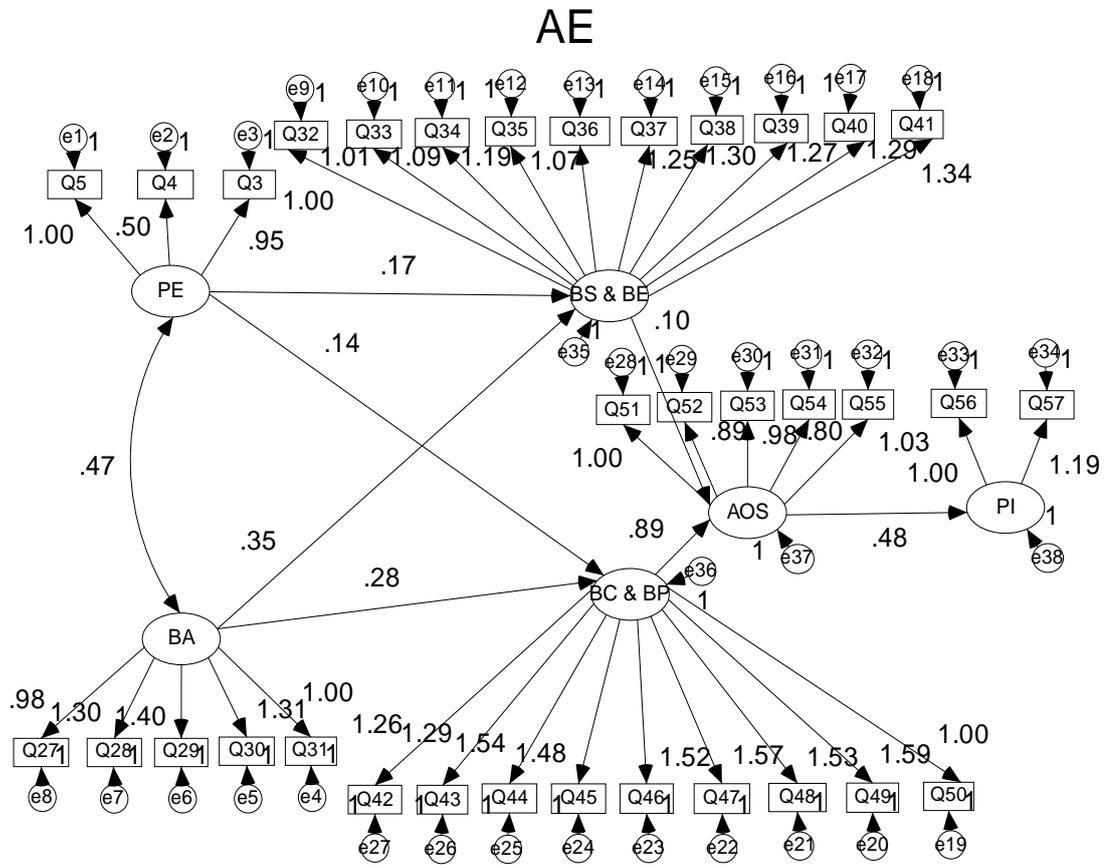


Appendix P. Constrained Model with Unstandardized Estimates

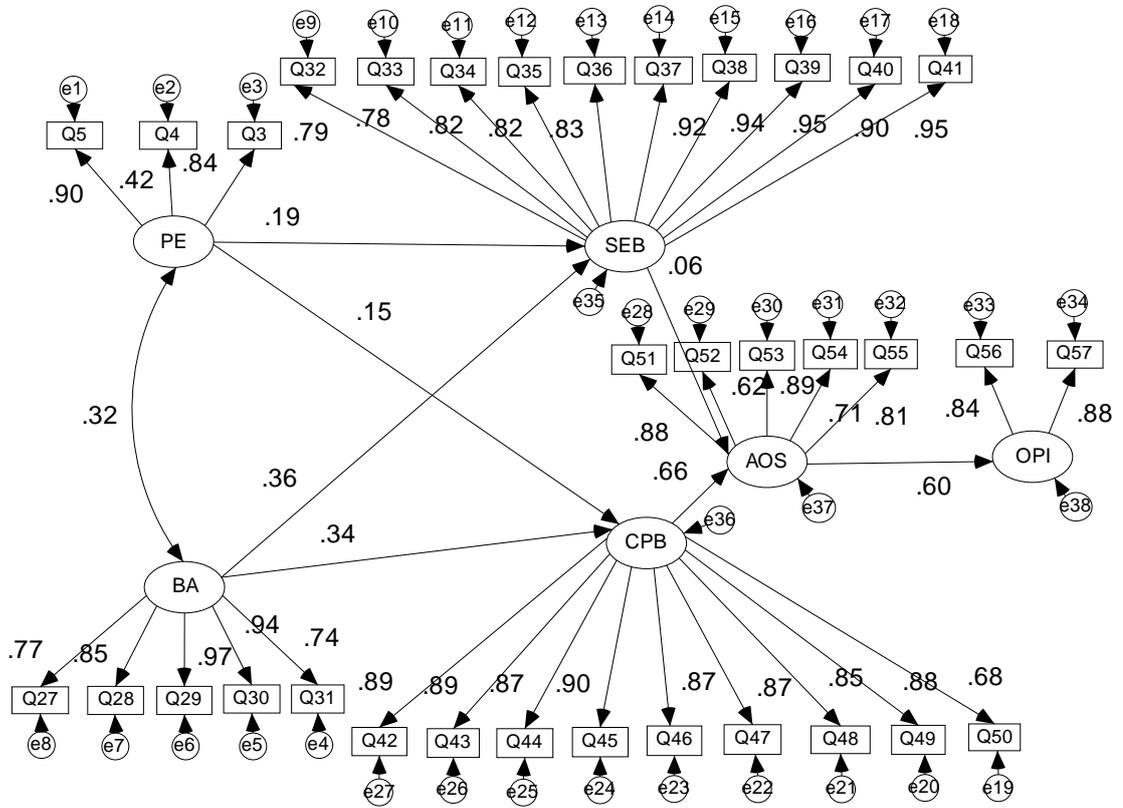
(Old Navy brand)



**Appendix Q. Constrained Model with Unstandardized Estimates  
(American Eagle brand)**

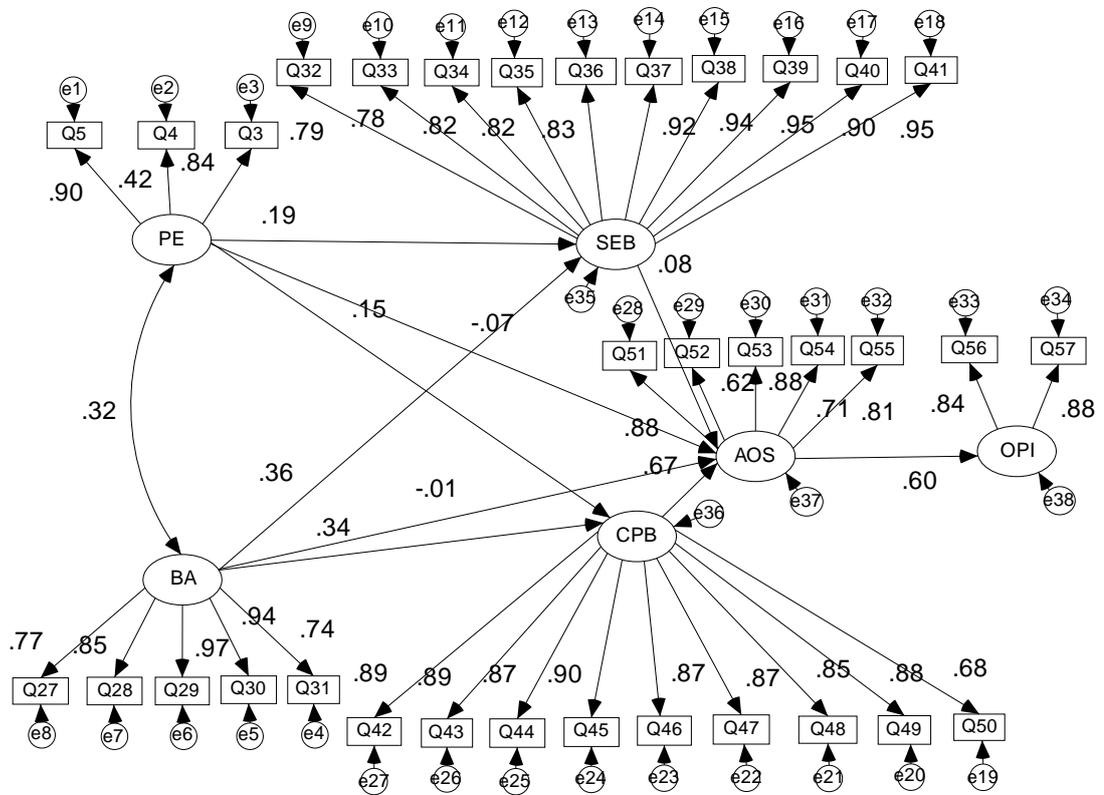


**Appendix R. Structural Equation Model with Standardized Estimates  
(Entire Group)**



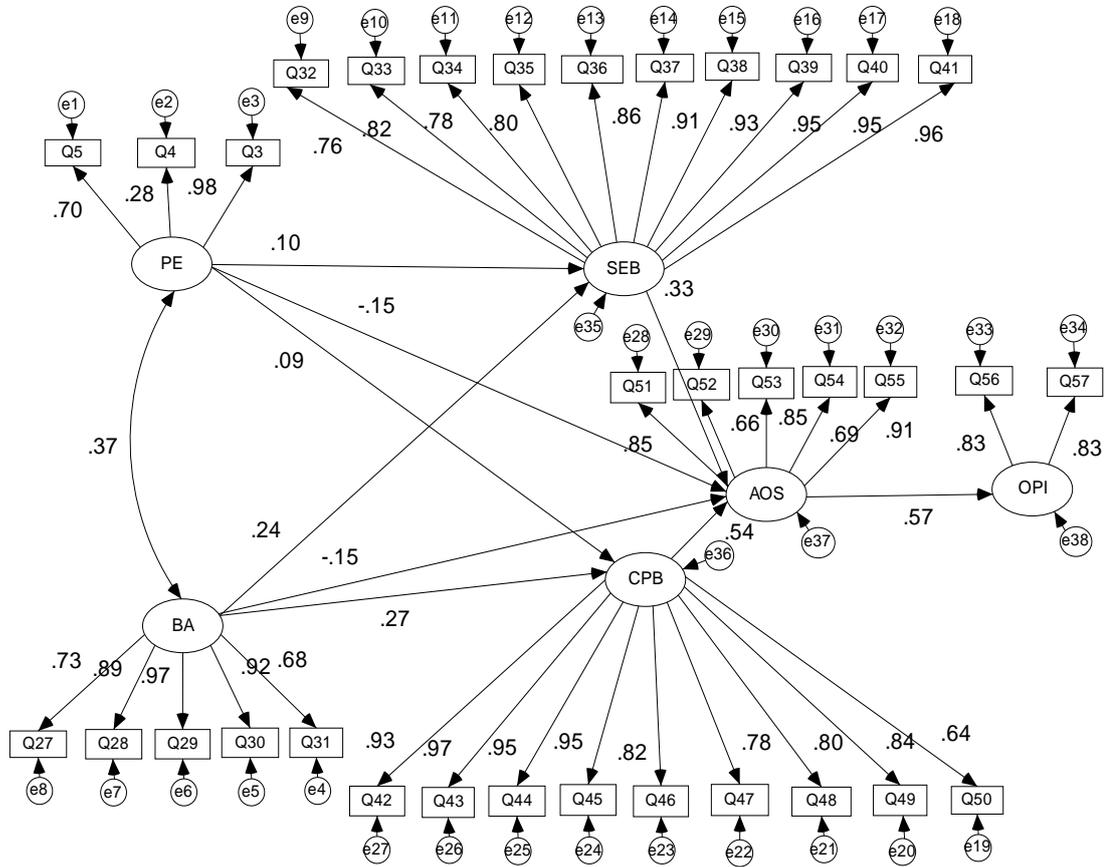
Chi-square = 3540.407, df = 519, p = .000, GFI = .588, CFI = .792, NFI = .765, RMSEA = .126

**Appendix S. Alternative Structural Equation Model with Standardized Estimates (Entire Group)**



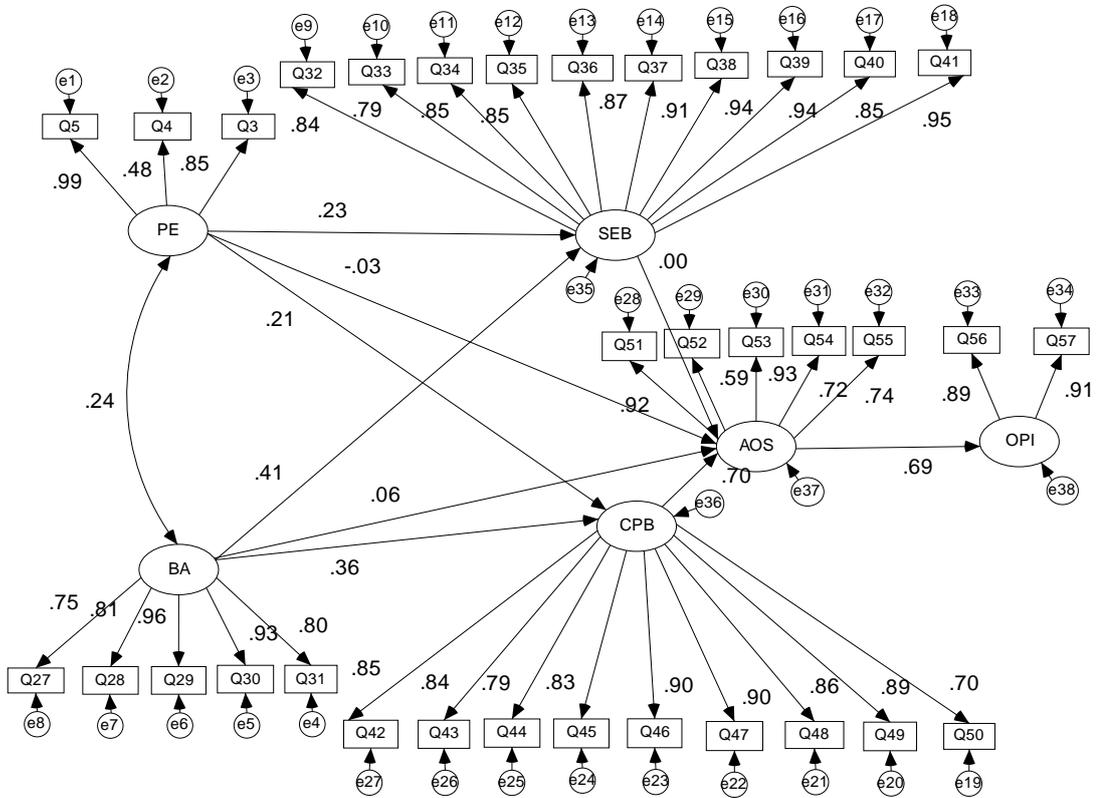
Chi-square = 3538.250, df = 517, p = .000, GFI = .589, CFI = .792, NFI = .766, RMSEA = .126

**Appendix T. Alternative Structural Equation Model with Standardized Estimates (Gap brand)**



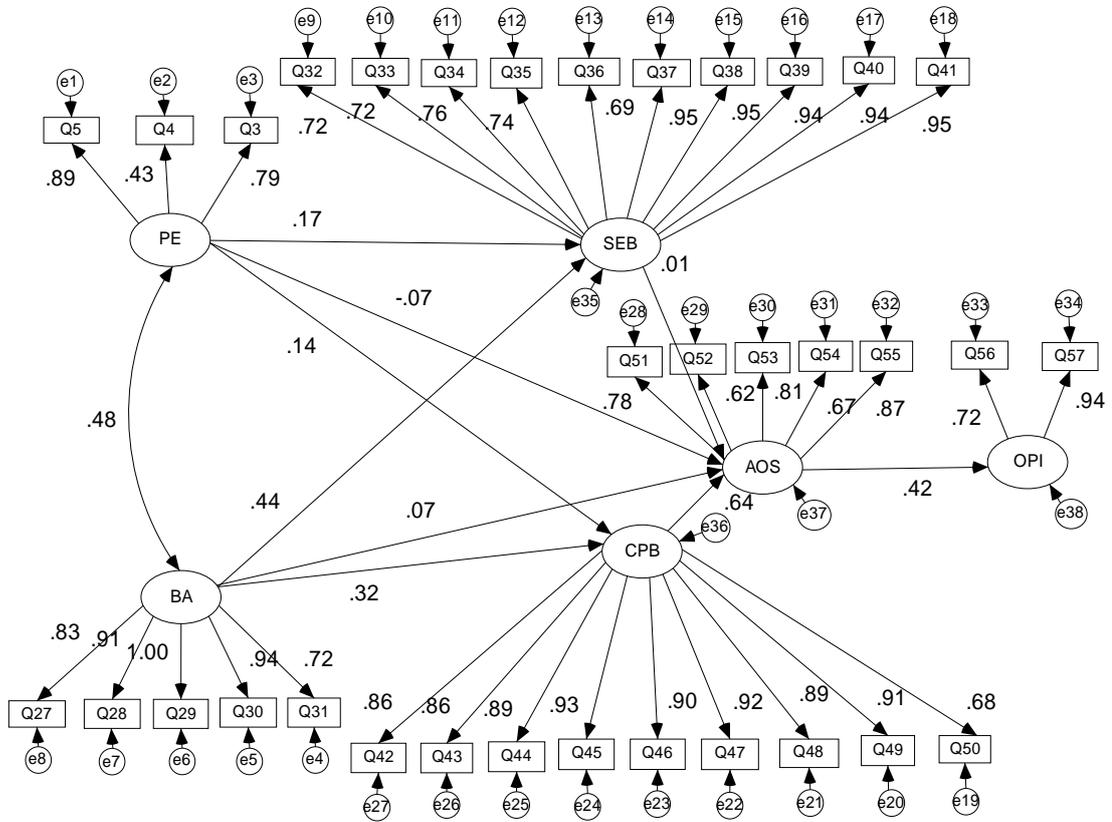
Chi-square = 1725.094, df = 517, p = .000, GFI = .533, CFI = .763, NFI = .696, RMSEA = .140

**Appendix U. Alternative Structural Equation Model with Standardized Estimates (Old Navy brand)**



Chi-square = 2222.461, df = 517, p = .000, GFI = .524, CFI = .756, NFI = .706, RMSEA = .141

**Appendix V. Alternative Structural Equation Model with Standardized Estimates (American Eagle brand)**



Chi-square = 1418.386, df = 517, p = .000, GFI = .493, CFI = .734, NFI = .641, RMSEA = .149