

Internet Apparel Shopping: Perception of Risk among South Korean Female College Students in the Apparel Major

Seung Bong Ko · Carol J. Salusso* · David E. Sprott* · Choon Sup Hwang**†

Dept. of Design, Housing & Merchandising, Oklahoma State University

*Dept. of Apparel, Merchandising, Design & Textiles, Washington State University

**Dept. Clothing & Textiles, Kyung Hee University

한국 여대생의 인터넷을 통한 의류제품 구입시의 인지위험 -의류학 전공자를 대상으로-

고성봉 · Carol J. Salusso* · David E. Sprott* · 황춘섭**†

Dept. of Design, Housing & Merchandising, Oklahoma State University

*Dept. of Apparel, Merchandising, Design & Textiles, Washington State University

**경희대학교 의상학과

(2007. 3. 22. 접수)

Abstract

The purpose of this study was to investigate perception of risks among South Korean female college students within the process of purchasing apparel products through the Internet. The study was implemented by descriptive survey method using questionnaire and subjects consisted of 324 South Korean female college students. Findings of the study showed that the purchasing process particularly regarding delivery and security issues seemed to be a strong concern. On the other hand, unique selection such as apparel brands only available through the Internet was a strong appeal to 37.7% of subjects. Factor analysis profiled risk perception as: 1) Internet Shopping Selection Preference, 2) Delivery Problems and Lack of Security 3) Product Quality and Characteristics 4) Return Policy Difficulties and 5) Fair Prices. Discriminant analysis showed Factors 1, 2 and 3 were significant in helping to differentiate among Non-Purchasers, Fewer-Purchasers and Many-Purchasers. Factor 1 and 3 helped differentiate among respondents relative to age range. Across all types of purchasers, offering unique selections of cutting edge fashions and improving risk perception relative to delivery and security concerns seemed important for gaining greater market share. Being able to delivery quality products and communicate product characteristics would be a powerful competitive edge to add to the incentive of convenience in shopping for apparel on the Internet.

Key words: Internet shopping, Risk perception, Korean female college students; 인터넷 쇼핑, 위험 인지, 한국 여대생

I. Introduction

The Internet has changed the economics of mar-

keting and established a brand new sales channel that has transformed direct marketing(Silverstein, 1999). In South Korea, as of June 2006, the size of business-to-consumer e-commerce was estimated as big as about \$1128 million(Korea national statistical office,

†Corresponding author

E-mail: cshwang@khu.ac.kr

2006). Globally, apparel retailing also explored use of the Internet. Electronic retailing was found to have a significant portion of sales being apparel products (Goldsmith & Goldsmith, 2002). This growth trend was still strong with experts agreeing that consumers spend more money on apparel purchases through the Internet than on any other retail systems (Kim, 2002). However most consumers who shop on the Internet feel that there are a lot of risks. That perception affects their shopping decisions (Hwang, 2003). Ha and Stole (2004) stated that due to the sensory and interactive nature of the apparel purchase process, apparel products are categorized as high-risk items, and apparel shopping has been associated with high perceived risk. Research indicates that the most powerful reason that Internet shopping has been limited is related to consumer inability to feel and try on their apparel products and read information on care and content labels before purchasing (Park & Stoel, 2002). Consumers prefer to physically examine the products to assess color, size, design, fit and fabric when they shop for apparel. Being able to experience products prior to purchase is simply a long-standing expectation and a key process for predicting apparel quality and performance. Many companies have both a physical store and Internet site that can respond to this concern. However, there are growing numbers of Internet sites where products are only sold from that site.

Another major area of risk that has not been well researched is the shopping process itself. If companies provided secure shopping systems and technology that reduces consumer perceived risk, would more apparel shoppers use Internet for their purchasing of apparel products instead of physical stores? There is also need for research about diverse marketing strategies for Internet shopping malls and their consumer base (Hwang, 2003). Recent e-commerce studies have examined demographic characteristics of Internet users, their attitude toward Internet shopping, and purchasing behavior. There have been relatively few studies about perceived risk of Internet shopping among South Korean consumers, the target market of interest in this study.

II. Review of Literature

1. Risk Perceptions in Shopping for Apparel and Fashion.

Perceived risk is the feeling consumers have when considering a purchase decision that involves perceptions of both the type of risk and the level of that risk (Cox & Rich, 1964). A majority of researchers in consumer behavior support the theory that there are six dimensions of perceived risk when shopping for apparel: 1) financial/ economic risk, 2) performance, 3) social, 4) psychological, 5) physical, and 6) time/ convenience risk (Kwon et al., 1991). Financial risk is the possibility of financial loss when consumers purchase apparel products. In general, apparel products involve higher financial risks than other products (Prasad, 1975). Performance risk results when apparel does not fulfill consumers' performance expectations such as durability, warmth, and absorbency (Kwon et al., 1991). Consumers considered quality and performance as important factors in making apparel purchase decisions (Jenkins & Dickey, 1976). Social risk is closely related to a consumer's public image. Apparel products involved higher levels of social risks than other products due to the high level of social visibility of apparel products (Kwon et al., 1991). Psychological risk appears when consumers get frustrated with the process such as long waiting periods, worries about products getting lost in deliveries and uncertainty about the consequences when they order apparel products. When consumers consider purchasing higher priced clothing such as coats, jackets and suits, they perceived high psychological risks (Engel et al., 1986; Kwon et al., 1991). Physical risk happens when consumers become disappointed with the physical elements of apparel products including style, color, fabric, fit, and quality (Kwon et al., 1991). Consumers have the chance to reduce doubt by comparing several factors such as colors, sizes, styles, fabric and quality of actual garment for less physical risk. However, Internet shopping does not allow these processes. Thus, consumers take more physical risk from Internet shopping. Finally, time/convenience risk happens when consumers are

concerned with long waiting periods to have apparel products and the inconvenience of return and exchange (Engel et al., 1986). Time pressure for shopping is another critical factor because the reason consumers purchase apparel product from Internet is to save time and to get more convenience. Consequently, purchasing apparel from the Internet has relatively high-perceived risks and apparel products involve a higher degree of risk than other products.

Perceptions of Internet apparel shopping are negatively related to consumers' hesitation to purchase apparel products(Choi et al., 2004). There still are many reasons why consumers continue to perceive risks when purchasing apparel products(Pyun, 1999). A primary reason is lack of opportunity to examine products before purchasing. According to Lee et al. (2002), apparel products are typically sold in physical stores because most people want to feel and touch apparel products while making decisions. When purchasing in a physical store, consumers have opportunities to reduce perceived risks by inspecting or trying on products(Cox & Rich, 1964). Consumers can examine the apparel products by comparing sizes, colors, fabrics, or styles. And, they can ask questions of available salesperson to reduce uncertainty. A secondary reason consumers have difficulties relates to exchanging and returning faulty items. Finally, consumers are uncomfortable in security and delivery processes and they have frequent suspicions of the business process. One of the problems that direct marketing companies have is that consumers are afraid to provide their credit card information and personal information. Also consumers worry that products they ordered will be not be delivered when and where they want and would not be in good condition.

2. South Korean Internet Shopping for Apparel

The rate of purchasing apparel products for women was higher than men. However, the amount of spending by men was higher than by women because women usually tended to purchase often but purchased inexpensive products(Hong, 2004). At the end of 2001, South Korean consumers tended to visit

Internet apparel shopping sites once or twice a month, and they purchased apparel once or twice a year. When they purchased apparel products, their average spending was under \$150. The products that South Korean consumers liked to purchase included t-shirts, underwear, jeans, and training wear. Men preferred to purchase sportswear, jeans, and casual pants. Women liked to buy underwear, apparel for their children, and fashion accessory through the Internet. According to Hwang(2003), the reasons that South Korean consumers purchased apparel products through the Internet were easy access and saving time. Internet shoppers who used the Internet for three years enjoyed doing online shopping more than Internet shoppers who experienced Internet shopping for only one year. Also, the amount of time consumers used the Internet related to the rate of Internet shopping.

Kim and Rhee(2003) found that age and education had little influence on Internet shopping. High-income people preferred Internet shopping and had high confidence in the Internet compared to the low-income consumer. Women felt more risk than men when using credit cards and they had less confidence when providing personal information.

South Korean young adults use the Internet to satisfy their needs and get more information. Most companies adopt Internet retailing systems because companies gain more exposure for their products and minimize promotion and distribution efforts. Although there are still a lot of risks with purchasing apparel products through Internet, many people do attempt shopping for apparel products on the Internet(Kim & Rhee, 2003). Also Internet shopping provides various types of information about goods and services, and it allows consumers to purchase goods at low prices and they can get advantage in customization through Internet. However, some consumers are still uncomfortable shopping for apparel products on the Internet despite the rapid growth of Internet apparel shopping. For example, Hong(2004) found that consumers who clicked on products on the Internet for shopping, tended to avoid buying because of incomplete communication, lack of trust in retailer, and better alternatives than Internet shopping such as in

store purchasing. Among Internet these shoppers, 55% withdrew from the purchasing process before payment and 32% changed their mind in the process of paying for Internet products. Thus 87% of shoppers did not end up making a purchase. They were afraid of using credit cards, and having their personal information stolen for other companies' benefit. Also, the strongest reason that Internet shopping was limited was that consumers couldn't feel and try on their apparel products before purchasing. Non-purchasers perceived risk due to their inability to try on garments, feel the fabric, and read information on care and content labels(Park & Stoel, 2002).

III. Methods

1. Research Problems

Review of the previous studies said that considerable number of internet shoppers withdrew from the purchasing process before payment. The need for more specific information regarding consumer's risk perception in the internet shopping process itself was reconfirmed by the review of literature mentioned above. Since apparel major students could be one of the presentative groups having a good knowledge about the characteristics of apparel product and apparel distribution system, their opinion could be a quite valuable guideline for future internet market for apparel. Therefore, the present study selected college students majoring the field of apparel as research subjects of it. Considering these, the present study raised the following research problems:

(1) To profile risk perceptions and Internet shopping behaviors of South Korean female college students with particular emphasis on the purchasing and delivery processes.

(2) To profile differences in the effect of risk factors on Internet purchasing among South Korean female college students classified into groups relative to level of shopping and age.

Hypothesis 1: There is no difference in risk perception and Internet apparel shopping behaviors among South Korean female apparel major college students with regard to level of Internet shopping for

apparel.

Hypothesis 2: There is no difference in risk perception and Internet apparel shopping behaviors among South Korean female apparel major college students with regard to age.

2. Survey Development

The survey was developed from pre-existing questions from other studies(Ha, & Stole, 2004; Hwang, 2003; Park, & Stoel, 2002; Pyun, 1999), as well as a few newly developed questions. While questions were selected to represent all aspects of perceived risk discussed in the literature, emphasis was placed upon risk related to mechanics of the purchasing process(payment type and security, delivery, returns and exchanges of items). The refined survey contained 30 questions on a 5-point Likert scale encompassing participants': 1) perceptions about Internet shopping; 2) purchasing of apparel products and their purchasing characteristics and 3) gender, age, and class standing demographic information. The self-administered survey was developed in English and translated into Korean with special attention given to maintaining accuracy and clarity of meaning in the two versions.

3. Sample, Data Collection and Analysis

The survey itself was conducted March 14th through March 18th in 2005 during class periods for the apparel majors at four universities located in Seoul. The four universities were selected among presentative universities in terms of the number of students enrolled. 324 participants were selected as a convenience sample for data analysis. Class standing was more evenly distributed with 32.5% sophomores, 37.7% juniors and 29.6% seniors. The Statistical Package for the Social Sciences 11(SPSS, 2002) was used to analyze the data. Chi-square analysis was used to test for differences among types of Internet apparel purchasers in this sample. Factor analysis with varimax rotation and discriminant analysis was used to profile differences among shoppers with regard to levels of purchasing and relative age.

IV. Results and Discussion

1. Frequency Analyses of Purchasing Characteristics of Sample

A majority of participants, 59%, shopped for apparel products every month. In contrast, within a six-month period 53.1% bought apparel through the Internet only once or twice(23.1%) or not at all(29.9%). Thus, 69.1% of respondents had tried Internet shopping and had experiences as bases for their responses.

In South Korea, most companies provide consumers choices for payment such as using credit cards or transferring money to bank accounts. More than half of the participants(55.6%) reported transferring money to companies' bank accounts for their payment. Perhaps these South Korean young women consumers were somewhat uncomfortable using credit cards for payment because they did not want their personal information to be used in marketing and promotion campaigns.

Shopping for branded apparel products offered by retail with both physical stores and Internet sites was preferred by 62.3% of participants. Surprisingly, about 37.7% of subjects preferred to purchase apparel products through brands that were only available on the Internet. In South Korea, there are many small apparel businesses that only sell their products through their private Internet mall sites. These companies often sell apparel products at low prices and they deliver directly to their consumers.

2. Cross-Tabulation Distributional Analysis among Variables

Cross-tabulation analyses did not reveal significant chi-square results when testing relationships between age and shopping frequency, class standing and shopping frequency, age and average of clothing expenditure, class standing and average of clothing expenditure, age and favorite brands, and class standing and favorite brands. However, two demographic variables, class standing versus most used payment were significantly related to each other. Among sophomores, 38.7% used only credit cards for payment through the Internet while 65 of respondents transferred money to the companies' bank accounts. Also over 60% of juniors preferred to transfer money for payment. In contrast, approximately 60% of seniors used credit cards when purchasing apparel products through the Internet. Perhaps senior status students had better access to credit cards.

3. Profiling Variability with Factor Analysis

Perceived risks of Internet shopping for apparel products resulted in five factors with a total variance of 46.17%. Factors were labeled using factor loadings over 0.5 to interpret meaning attributed to respective factors.

Factor 1. Internet Shopping Selection Preference (% of variance=11.2). This factor related to performance risk and social risk. These items were designed to measure respondents' perceptions about

Table 1. Internet shopping selection preference(Factor 1: eigen value=4.6, % of variance=11.2, $\alpha=.748$)

Factor 1: Related Questions	Factor Loadings	Frequency % (n=324)					Mean
		SD	D	N	A	SA	
- I prefer shopping for apparel products on the Internet rather than through retail stores.	.74	29.0	44.5	20.4	5.9	1.2	2.1
- I enjoy buying apparel products through the Internet.	.67	8.6	23.2	39.8	19.8	8.6	3.0
- I can get more diverse information from the Internet than being in a physical store.	.63	4.6	29.3	35.5	23.5	7.1	3.0
- Apparel products marketed on the Internet are good quality.	.58	4.0	27.5	56.8	10.2	1.5	2.8
- My main purpose for shopping on the Internet is to find the latest trends not usually available in local stores.	.56	14.2	45.4	25.9	11.4	3.1	2.4
- Apparel products sold through Internet stores are fashionable.	.54	1.5	9.6	38.9	42.6	7.4	3.4
- Internet stores offer more size and diverse designs to their consumers.	.51	3.4	20.4	44.1	29.3	2.8	3.1

SD: strongly disagree, D: disagree, N: neutral, A: agree, SA: strongly agree

whether Korean young consumers prefer Internet shopping and incentives such as to get more information, better assortment, find diverse designs and sizes, and meet quality preferences. That 71.6% of respondents preferred not to shop for apparel on the Internet (Table 1). However, those purchasers who did prefer the Internet seemed to value having more information and better selection as incentives for Internet shopping. Results suggest that the 28.4% of consumers who did like shopping for apparel on the Internet were seeking more trendy apparel than was available in physical stores.

Factor 2. Delivery Problems and Lack of Security (% of variance=10.5). This factor related to psychological risk and time/convenience risk (Table 2). As the second factor, clearly this dimension warrants careful attention as a means to lower risk. Most South Korean Internet companies adopt connections

with professional delivery companies for quick and exact delivery. Also, because South Korea is small in area, and has well developed transportation, most consumers can get products that they purchase within two or three days. Thus, South Korean young women consumers are likely not worried about delivery risk. In the security process, consumers may be asked to use credit cards and to give personal information for payment and delivery. That over half of respondents chose to make money transfers rather than use credit cards suggests this is a more familiar and/or comfortable process. Thus, this factor may be worthwhile improving in gaining a competitive advantage.

Factor 3. Product Quality and Characteristics (10.4%). This factor was associated with physical and psychological risk (Kwon et al., 1991). These items were designed to measure respondents' perceptions about quality related to size, fit, durability and fabric

Table 2. Delivery problems and lack of security (Factor 2: eigen value= 3.3, % of variance= 10.5%, $\alpha=.685$)

Related Questions	Factor Loadings	Frequency % (n=324)					Mean
		SD	D	N	A	SA	
- I worry that apparel products I ordered on the Internet will be lost by delivery people.	.73	9.0	35.5	28.7	21.9	4.9	2.8
- I worry that my credit card information will be stolen while paying for purchases on the Internet.	.72	1.9	5.1	29.3	39.5	14.2	3.5
- I worry that apparel products I ordered on the Internet will be delivered to the wrong address.	.71	10.5	42.9	27.5	15.4	3.7	2.6
- I think that the security system online is not safe.	.69	2.5	29.0	39.8	24.1	4.6	3.0
- I worry that during purchasing on the Internet that my personal information will become part of a database.	.62	2.5	17.3	34.2	34.6	1.4	3.3
- I worry that apparel products purchased on the Internet will be delivered when I am not at home and become lost.	.51	3.4	30.2	29.9	29.0	7.4	3.1

SD: strongly disagree, D: disagree, N: neutral, A: agree, SA: strongly agree

Table 3. Product quality and characteristics (Factor 3: eigen value=2.5, % of variance=10.4%, $\alpha=.756$)

Related Questions	Factor Loadings	Frequency % (n=324)					Mean
		SD	D	N	A	SA	
- I worry that the apparel products shown on Internet websites are not the same product I will receive.	.80	0.6	1.9	6.2	53.4	37.9	4.3
- I worry that the apparel products that I ordered on the Internet will not be as durable as I expect.	.77	0	2.8	11.1	55.6	30.5	4.1
- Because I cannot try them on, I worry that apparel products bought on the Internet will not fit me.	.71	0	0.9	8.6	48.8	41.7	4.3
- Since I cannot feel the fabric, I worry that I cannot evaluate fabric quality of apparel bought on the Internet.	.59	0.9	1.5	6.2	44.5	46.9	4.3
- When shopping for apparel products on the Internet, I do not know what size to order.	.53	0.6	6.3	15.7	54.3	23.1	3.9

SD: strongly disagree, D: disagree, N: neutral, A: agree, SA: strongly agree

visual and functional characteristics of apparel available through Internet shopping. Because South Korea is small, it is easy for young women to visit physical stores to experience and evaluate apparel products prior to purchase. When shopping in a physical store, consumers have the chance to reduce doubt by comparing several factors such as colors, sizes, styles, fabric and quality of actual garment for less physical risk. However, Internet shopping does not allow these processes. Since apparel becomes part of the wearers presentation of self, fit, feel, and look on the body are important characteristics to consider. Over 80% of participants agreed or strongly agreed to questions about quality characteristics (Table 3). The distribution of results suggests that consumer had both positive and negative experiences with this dimension. This dimension could be enhanced by use of technology to help consumers visualize product characteristics. Examples include systems that allow creation of a simulated body form and virtual ‘try-ons’ of apparel to assess visual effect. When consumers are purchasing from a familiar brand, experiences with former purchases help fill in this information void (Kim, 2002).

Factor 4. Return Policy Difficulties (7.5%). This factor was related to financial risk (Kwon et al., 1991). These items were designed to measure respondents’

perceptions about return policy difficulties through Internet apparel shopping. Most consumers are concerned about the higher price of apparel and extra charges such as shipping, handling, and returning fee. Because consumers do not feel and touch real products, they worry that the return process is not easy. In question 2, “Internet stores do not make it easy for me to return apparel products I do not like”, over 70% of participants thought that Internet stores did not make it easy to return apparel products consumers do not like. Also, in the exchange process, over 70% of participants appeared to worry that it is not easy to exchange apparel products purchased on the Internet. Means for the variables within this factor ranged from 3.75 and 3.81 indicating that consumers perceive higher risks than other processes such as delivery and payment processes (Table 4). Thus return processes and may be worth consideration as a competitive advantage.

Factor 5. Fair Prices. (6.5%). The final factor related to financial and psychological risk (Kwon et al., 1991). These items measured respondents’ perceptions about fair prices through Internet apparel shopping.

Comparatively, the result showed both negative and positive opinions. While some consumers thought that apparel products from Internet were not at low prices or a good value, other consumers liked to shop

Table 4. Return policy difficulties (Factor 4: eigen value=1.9, % of variance = 7.5%, α=.729)

Related Questions	Factor Loadings	Frequency % (n=324)					Mean
		SD	D	N	A	SA	
- I worry that it is not easy to exchange apparel products purchased on the Internet.	.79	2.2	8.0	18.5	49.7	21.6	3.8
- Internet stores do not make it easy for me to return apparel products I do not like.	.74	1.5	9.6	15.4	52.5	21.0	3.8
- I worry that it might be difficult to get my money back when I return apparel products to Internet companies.	.55	0.9	9.9	3.8	44.1	21.3	3.7

SD: strongly disagree, D: disagree, N: neutral, A: agree, SA: strongly agree

Table 5. Fair prices (Factor: eigen value= 1.5, % of variance = 6.5%, α=.685)

Related Questions	Factor Loadings	Frequency % (n=324)					Mean
		SD	D	N	A	SA	
- My main purpose for shopping on the Internet is to get low prices.	.68	.12	18.2	59.0	20.7	0.9	3.019
- Internet stores offer apparel products at lower prices.	.67	3.4	23.8	42.6	27.2	3.1	3.028
- Prices of apparel products sold on the Internet are quite a good deal.	.64	1.5	14.5	50.7	29.4	4.9	3.207

SD: strongly disagree, D: disagree, N: neutral, A: agree, SA: strongly agree

through Internet because of low price advantages. Nearly half of respondents were neutral on this factor, suggesting that price was not their incentive for shopping on the Internet. Thus, price may not be a competitive advantage (Table 5).

4. Testing Differences in Internet Shopping Behavior with Discriminant Analysis

Differences in subjects' Internet shopping behaviors were examined through using factor scores as data for discriminant analysis in examining ability to discriminate between participants on the basis of their age or level of shopping.

Hypothesis 1 There is no difference in risk perception and Internet apparel shopping behaviors among South Korean young women university apparel majors with regard to level of Internet shopping for apparel. Subjects were classified relative to their reported Internet apparel purchasing level over a six month period: 1) Non-Purchasers who answered none (29.9%); 2) Fewer-Purchasers who answered they purchased once or twice (23.1%); and 3) Many-Purchasers who answered they purchased apparel products frequently (47.0 %). This is a higher rate of purchasing apparel on the Internet than reported in the literature so demonstrates the interest level of the selected sample of apparel majors.

Non-Purchasers were most concerned with purchasing and delivery processes (Factor 2, .514), indicating inexperience and hesitation to actually try to purchase apparel on the Internet. They were also less impressed by the Internet selection (Factor 1, -.314) and fairly concerned about quality of products so perhaps were more committed to purchasing in physical stores where they could examine products prior to purchase (Factor 3, .220). Fewer-Purchasers were more neutral on Internet selection preference (Factor 1, -.002), indicating they either had little experience or it had been both positive and negative experiences. That delivery and security were of some concern (Factor 2, .108) might suggest negative experiences occurred in the purchasing and delivery processes. However, respondents were less concerned with product quality and characteristics than either of the

other purchasing groups (Factor 3, -.288). This indicates that they were more willing to take physical risks and experiment with purchasing apparel. For these purchasers, making returns and exchanges easy and inexpensive might be a competitive edge for Internet retailers. Many-Purchasers were more positive about preferring to shop for apparel on the Internet (Factor 1, .212). Since they had a great deal of experience, they appear to be reporting that Internet shopping was indeed an opportunity to find more cutting edge trends that were perhaps less available in physical stores. However, respondents were more negative on delivery and security processes (Factor 2, -.381). This result indicates that there are issues to be solved in this area. That Many-Purchasers are somewhat indifferent to product quality and characteristics (Factor 3, .002) infer that they are more interested in the novelty of new trends than in apparel that has can last a long time.

Hypothesis 2 There is no difference in risk perception and Internet apparel shopping behaviors among South Korean young women university students with regard to age.

Discriminant analysis was used to test for differences among subjects using Question 38 to group respondent by age: Age 18-21 (40.7%), Age 22-23 (45.7%), and Age 24-27 (13.6%). Anderson-Rubin factor scores were used to find the differences among these three ages groups within the factor database.

Respondents ages 18-21 showed the greatest preferences for Internet apparel selection (Factor 1, .124). This is not a strong rating so indicates they could be more impressed but are open to looking for opportunities. This age group was not very concerned about product quality and characteristics (Factor 3, -.138). Thus, for this group, better selection in terms of novelty would be the greatest competitive edge.

Among subjects ages 22-23, Internet selection preference is close to neutral (Factor 2, -.004) and thus indicates they were not as impressed by this activity as were younger purchasers. They were almost more concerned with product quality and characteristics than were younger purchasers (Factor 3, .149.)

Among purchasers ages 24-27, preference for purchasing Internet apparel was negative, indicating it

was not favored (Factor 1, $-.359$). This age group was also fairly neutral about product quality and characteristics (Factor 3, $-.009$). This result suggests they were less interested in shopping for apparel so perhaps were becoming more concerned about managing their money than purchasing apparel.

V. Conclusions and Implications

Based on findings of this study, Internet apparel marketers need to produce new strategies that reduce consumers' perceived risk through purchasing apparel products online.

To reduce shopping selection risk, Internet apparel marketers should provide highly technical attractions to enhance the shopping experience. Moreover, over 70% of participants answered they do not enjoy buying apparel products through the Internet. Thus companies should provide sufficient descriptions of merchandise and provide safe systems that bring consumers' satisfaction and reduce risks.

As a way to reduce delivery risk, Internet apparel marketers need to provide creditable delivery service ensuring exact time without wait and protection lost item or broken item. In security risk, Internet apparel marketers should relate with security companies that provide strong protection program. In this study, some Korean young women consumers trusted companies security system because they do not worry their credit card information will be stolen. However, over half of them still use payment method to transfer money to companies' bank account. Perhaps they are uncomfortable using credit cards for payment.

In order to reduce quality risk in characteristics, Internet apparel marketers should provide complete information such as accurate pictures close up, descriptions of apparel goods in size, color, fabric, and other detail factors. Most companies just provide a few pictures of slim-line models wearing apparel goods and short descriptions of merchandise. Using high technology, companies can use simulation systems that allow consumers to create their own body and try on goods in that system. Few companies are using this system in the world but it has tremendous opportunity to help consumers visualize products before buying them.

Next, companies should build consumer data base to send catalog or information book that describe merchandise with actual fabric swatches so consumers can examine the product color and texture.

The process of shopping the Internet for apparel products was not strongly limited by perceived risk. However, this variable might help reduce the perception of risk in making purchases and foster more willingness to experiment with purchasing. Specially, consumers do not want to be charged an extra fee when merchandise does not fit. A competitive edge might be offering free shipping for returns.

What is considered fair price is difficult to determine from results of this study. It appeared that younger purchasers are more concerned with novelty and less with quality so purchase more often at lower prices. On the other hand, older purchases were more concerned with getting what they paid for so made fewer purchases more carefully. That consumers have little opportunity to determine if they are satisfied with products until they are delivered makes evaluation of fair price a trial-by-error discovery process. Thus, this dimension requires more study.

Because Non-purchasers worried how to select exact size, and design that they like, Internet apparel marketers should provide in-depth information in various ways such as pictures, video, and written descriptions. Also, marketers should do promotions to attract them to purchasing apparel products through the Internet. They could offer a variety of events and sales that can bring Non-purchasers' interest. For example, purchasers who introduce someone to Internet purchasing might themselves get a 'bring-a-friend' incentive. Also, because Non-purchasers were strongly concerned with delivery and security processes, marketers should provide trust to them first.

Considering that many-purchasers have many experiences, it is not a serious problem that they still were uncomfortable in delivery and security systems. Marketers should make an effort to enhance trust of consumers through various promotions and communication with consumers to bring consumers' preference.

Further research should explore new strategies that future Internet apparel marketers can use for reducing South Korean young women consumers' per-

ceived risks in the Internet apparel shopping. They should examine what risks future South Korean young women consumers feel and how they behave through purchasing apparel products online. Recently, each generation has different characteristics and life style, and new generations are created. Thus, further research should study various target segments to examine evolving needs of each generation.

References

- Choi, J. H., Han, S. M., & Lee, Y. S. (2004). The relationship between stickiness and purchasing behavior in Internet shopping mall: The moderating role of product type. *The Journal of Marketing Research*, 19(2), 3–22.
- Cox, D. F. & Rich, S. U. (1964). Perceived risk and consumer decision making-The case of telephone shopping. *Journal of Marketing Research*, 1(4), 32–39.
- Engel, J. F., Blackwell, R. D., & Miniard, P. W. (1986). *Consumer behavior* (5th ed.). New York: McGraw-Hill.
- Goldsmith, R. E. & Goldsmith, E. B. (2002). Buying apparel over the Internet. *The Journal of Product & Brand Management*, 11(2), 89–102.
- Ha, Y. & Stole, L. (2004). Internet apparel shopping behaviors: the influence of general innovativeness. *International Journal of Retail & Distribution Management*, 32(8), 377–385.
- Hong, K. H. (2004). The influence of consumers' purchase experience and technology readiness on risk perception and satisfaction in Internet clothing shopping. *Journal of the Korean Society for Clothing Industry*, 6(1), 93–101.
- Hwang, J. S. (2003). The effect of value on clothing benefits sought by university students purchasing clothing through Internet. *Journal of the Korean Society of Clothing and Textiles*, 27(1), 154–161.
- Jenkins, M. C. & Dickey, L. E. (1976). Consumer types based on evaluation criteria underlying clothing decisions. *Home Economics Research Journal*, 4(2), 150–162.
- Kim, S. S. & Rhee, E. Y. (2003). The study about apparel shopping behavior types of Internet shopper. *Journal of the Korean Society of Clothing and Textiles*, 27(9), 1036–1047.
- Kim, Y. K. (2002). Consumer value: An application to mall and Internet shopping. *International Journal of Retail & Distribution Management*, 30(12), 595–602.
- Korea national statistical office. (2006, 8). Statistical survey report on syber shopping mall. *National Statistical Office*. Retrieved March 16, 2006, from <http://www.nso.go.kr/>
- Kwon, Y. H., Paek, S. L., & Arzeni, M. (1991). Catalog vs non-catalog shoppers of apparel: Perceived risks, shopping orientations, demographics and motivations. *Clothing and Textiles Research Journal*, 10(1), 13–19.
- Lee, Y. J., Park, K. A., & Heo, S. I. (2002). Attitude toward online stores: Difference by online shoppers' characteristics. *Journal of the Korean Society for Clothing Industry*, 4(3), 444–450.
- Park, J. H. & Stoel, L. (2002). Apparel shopping on the Internet. *Journal of Fashion Marketing and Management*, 6(2), 158–176.
- Prasad, V. K. (1975). Socio-economic product risk and patronage preference of retail shoppers. *Journal of Marketing*, 39(3), 42–47.
- Pyun, K. R. (1999). *Gender difference of perceived risks in catalog shopping: A study of college students' apparel purchase behavior*. Unpublished M.A. thesis, Washington State University, Pullman.
- Silverstein, B. (1999). *Business to business Internet marketing*. Gulf Breeze, Florida: Maximum Press.

요 약

본 연구의 목적은 한국 여대생의 인터넷을 통한 의류제품 구입에 있어서의 위험수용 정도를 알아보기 위함이다. 한국 서울 소재 대학에서 의류학을 전공하는 2학년 이상의 여학생 324명을 조사대상으로 하였다. 설문지가 조사도구로 사용되었으며, 조사는 2005년 3월에 실시되었고, 자료분석에는 요인분석, 판별 분석이 활용되었다. 구매과정에 있어서 분실제품의 추적 가능성 여부와 같은 배달의 안전성 문제가 구매자의 큰 관심사인 것으로 판단되었다. 37.7%의 응답자에게는 인터넷을 통해서만 구매가능한 의류브랜드의 선택 가능성 여부가 인터넷 구매율에 크게 작용하는 것으로 나타났다. 요인분석결과, 인지위험은 1) 인터넷 구매 선택의 선호여부, 2) 배송과정의 문제와 안전부족, 3) 제품의 질과 특성, 4) 반품의 어려움과 5) 가격의 적절성 등 5가지의 위험수용 항목으로 구성되었다. 판별분석의 결과, 비구매자, 소량구매자, 대량구매자를 분별하는데 있어서 1), 2), 3) 요인이 중요한 역할을 하는 것으로 나타났다. 또한 설문응답자의 연령대에 따라 요인 1)과 요인 3)이 다르게 나타났고, 모든 응답자에게 있어서 첨단 패션의 선택 가능성 여부와 배송 및 안전과 관련된 위험수용성 여부가 인터넷 시장 점유율에 중대한 역할을 하는 것으로 나타났다. 직접적인 제품 확인의 어려움에도 불구하고 양질의 제품배송과 충분한 고객도 정확한 제품특성 정보의 전달여부가 인터넷을 통한 의류제품 구입의 동기 부여에 크게 기여할 것으로 사료되며, 이는 인터넷 의류시장의 강력한 경쟁력 형성의 열쇠가 될 것이라 판단된다.