

The Product Information in Online Jeans Shopping by Consumers' Evaluation Criteria

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Abstract

The purpose of this study was to find differences in evaluation criteria and product information based on jeans products consumers. The participants of this study were women age of 19 to 30 years. This study was implemented by descriptive survey method using questionnaires. A total 182 questionnaires were analyzed in this study. The subjects were grouped by the evaluation criteria of purchasing jeans through an online shopping. Finding of the study showed that, Group 1 was high involvement group. They conscious of both style feature and practicability of jeans when they bought jeans. Group 2 was low involvement group. They are not conscious of those features. The important factors were different by groups. The most important factors of purchasing jeans for Group 1 were fashion trend and practicality. Price was the most important factor for Group 2. They bought jeans at extremely low or high price. On the other hand, Group 1 bought jeans of diverse prices range. The popular shopping sites were different between two groups. The department store was the most important place purchasing jeans for both groups. The second important place was specialty stores for Group 1, and online shopping for Group 2. The usefulness of product informations were also examined when they evaluated the jeans at online shopping. The most useful product informations were leg cut style and rise length. Fit information was very important for Group 1. Group 1 considered that the function of zoomming the picture image was important. The material characteristic and name of brand were also useful than Group 2. But the size and care instruction were not highly useful.

Key words: jeans, product information, style feature, online shopping.

1. Introduction

The value of jeans has changed during the past decades. Originally jeans were nothing more than simple blue work pants. However, jeans have survived every fashion trend. Today many people wear jeans regardless of their age and gender. Jeans are the main spring of fashion trend itself (Hang, 2006). The sales volume of fashion jeans for women in Korea has been fast growing

since 1990 (Song, 2008). The Korean casual wear industry has shown steady growth over the past few years with a rapid embrace by its consumers of foreign fashion brands. Increasingly, wider varieties of jeans are sold in the marketplace and evolving industry marketing channels. Most jean brands in Korea have targeted consumers in the age range between the early 20s to and 30s. Jeans are sold at various stores including e-commerce.

The high priced jeans, premium jeans, brands are very popular of women in their mid 20s to

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early 30s who have great buying power. By economic recession, the sale volume of women's wear has decreased, but the sale volume of high price jeans had steadily increased (Premium Jean Market, 2005).

The explosive growth of the Internet changed consumers' purchasing patterns. Consumers ages 20 to 30 purchased jeans through off-line stores as well as e-commerce. Many people purchase products or services through world wide website. Consumers can easily access the Internet for searching, browsing, and shopping (Park & Kang, 2005). They can buy the products or services at anytime and anywhere by online shopping. The fashion product sale rate in online shopping site is growing rapidly.

Online shopping has merit to consumers. They perceived that it saves their time and money compared to traditional retail shopping. Despite the convenience of shopping, consumers are still anxious about online shopping for garments because of the inability to inspect or try on the garment. When consumers bought apparel, they wanted to examine the physical features of the products to assess color, size, fit, detail, and fabric. Hence, apparel products have been categorized as high-risk items (Bhatnagar et al., 2000). Online shopping consumers consider apparel products to be a risky purchase on the Internet because of the uncertainty about color, fabric, and fit (Hawes & Lumpkin, 1986).

To minimize these weakness features, the online shopping sites provide product information through various methods. For example, they provide written information about style, size of product, and price. Also the website provides various picture images and detailed descriptions of the products, and those information features may affect the consumer's purchase decision-making.

Consumer benefits are related to product attributes when evaluating products. Product evaluation is likely to be important in making purchase decision and consumer' evaluation criteria of apparel product would be useful information for developing products (Rhee, 2001).

The purpose of this study was to find useful product information in evaluation criteria among

women, who had purchased fashion product through online shopping. The research questions were as follows:

1. What is the useful product information when consumer purchasing jeans through online shopping?
2. Is there any difference in usefulness of product information by consumer's jeans purchasing behavior related to the pursuing benefit?

II. Literature Review

1. Product Features of Jeans

Originally jeans were simple sturdy pants worn by workers and made of a dark blue, all-cotton, denim fabric. Nowadays jeans are fashionable clothes around the world and are available in many styles and colors (Alexander, 1977). It was not that long ago when women started wearing jeans as a fashion item for everyday wear. In the 1960s, young women began to wear jeans. In the 1970s, women's jeans began to be made of various styles and decorations, such as leg cut, embroidery and colors. The most memorable jeans styles from the 1960s and 1970s era were bell bottoms leg cut and low rise jeans, so-called hip-hugger jeans (70's Clothes-The Early 1970's, 2009).

The style features of jeans are classified into fit style, leg cut style and rise length. The fit style is a pair of jeans refer to how the garment sits on the body, especially at the seat and thigh area. The leg cut style is a pair of jeans refers to how the leg shaped. The rise length is distance between the crotch and the waist band.

Women's fashion jeans are available in various fit styles. For example, relaxed fit, skinny fit, baggy fit. Various names of fit styles were created by jeans brands all over the world. For example, over-sized pants were called 'Baggy fit'. The leg cut styles also called with various names. The jeans with straight legs were widely flared at the bottom. It was called 'Bell-Bottoms' (Hang, 2006). They were also cut to fit the normal waist line or low on the high hips. Consumers may check the style features to determine the preferable garment fit.

The evolution of jeans was not limited to style

changes. The material for jeans was diversified as well. With an added percentage of stretching material such as, Lycra®, the comfort of denim jeans was enhanced. With the usage of stretchy material, it gave a more comfortable fit than before, especially at the hips and thighs.

In the 1980s, many well-known designer brands started making various styles of jeans. Since 1980, jeans have become important item in casual wears. Apparel brands, such as Calvin Klein, Ralph Lauren, and Guess, have become famous jeans apparel brands (Premium Jean Market, 2005). Jeans have reached an iconic stage in fashion: washes, embellishments, leg cut, and labels fluctuate with fashion. This culminated jeans finally becoming high fashion clothing.

Jeans have evolved into something very chic and comfortable. In the past five years, the Korean jean market has been transformed, with so-called premium jeans, which provides a superior fit and style. It is becoming one of the hottest segments of the apparel industry (Marking Milestone, 2005). The recent jean fashion trend was the prevalence of premium jeans (Premium Jean Market, 2005). Premium jeans had an infinite selection of washes and fits. Jean brands specialized their products with their own signature design and brand character (Wrangler, Premium Denim, 2006). Women in their 20's have particularly embraced premium jeans as a fashion staple, dressing them up or down to suit the occasion.

2 Online Apparel Shopping

Non-store retailing has grown phenomenally for a variety of reasons, including a change in lifestyles, technological advances in communication, availability of consumer credit, and increases in both consumer income and educational level (Ward & Lee, 2000). Lately non-store retailing along with the Internet has grown substantially. Among the different types of non-store retailing, online shopping has been growing rapidly. The market of Internet shopping is growing rapidly in Korea. The growth of Internet users is the most significant factor for predicting an increase in Internet retail sales. According to the National Internet

Development Agency of Korea (NIDAK), the number of Internet users was 7.31 million in 1996. It rose to 33.01 million in 2005. In other words, three out of four Koreans are using the Internet. Over half the Internet users used online shopping. That translates into about 17 million users buying something at an online shopping website. The explosive growth of the Internet has revolutionized many aspects of our daily lives (Rutledge, 2000).

Consumers can easily access the Internet for searching, browsing, and shopping. They can search or purchase products anytime and anywhere via the Internet. The Internet has become a very important channel for the retail industry.

Purchasing soft goods over the Internet is one of the most rapidly expanding channels of shopping (Ha & Stoel, 2004). Online shopping is a fast-growing application of the Internet. According to the Matrix Research Agents' Internet survey in 2005, 73.4% of consumers are actually making purchases for fashion products, such as clothing and miscellaneous goods (Online Shopping Mail User Survey, 2005). In spite of the convenience of online shopping, consumers are still wary of shopping online (Kau et al., 2003). Some consumers are still reluctant to purchase products on the Internet, especially for apparel (Park & Stoel, 2002). Consumers may not buy products due to the risks associated with online shopping, such as the inability to touch or feel something before buying it, problems with returning products that fail to meet their expectations, uncertainty about product quality, and a distrust of the retailer (Wee & Ramachandea, 2000).

Therefore, consumer's trust and feeling of security is an integral part for successful online marketing. If the online retailer provides accurate product information, the consumers' perception of risk will decrease.

3 Product Information Searching in Online Shopping

Online shoppers indirectly examine products. They explore the features of products by interactively controlling contents through the website. When

interactive features are efficiently used in online shopping contexts, the user may have a clear understanding of the products (Schlosser, 2003). Online shoppers evaluate products based on the product information provided in the website. The product images or detailed description of the products may affect the consumers' purchasing decision.

Searching for information is the key factor for a consumer's decision-making process. Price, color, fiber content, garment care instruction and brand name were the most frequently sought information. Consumer has alternative in the purchasing decision making process and evaluate information according to specific criteria. Consumers are consuming product based on objective criteria such as style and usability. Evaluation criteria for jeans were design, fit, size, color, and fabric quality (Park & Lee, 1999).

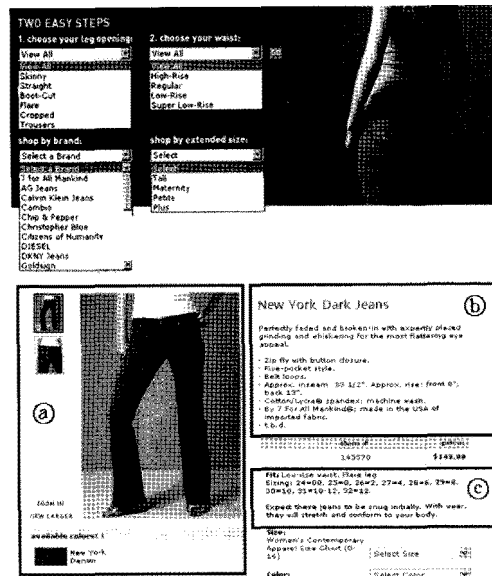
In online retailing of apparel shoppers may seek additional information to reduce uncertainty and risk in decision-making because of their inability to inspect or try on the garment. Thus, consumers may rely heavily on information stated or the visual product image on the screen. Consumers browsing online shopping websites were most interested in written information about fiber content or garment care instructions (Then & De-Long, 1999).

To be successful in generating sales, consumer would expect a retailer's website to provide detailed product information to reduce perceptions of risk. Product information such as price, color, fiber content, garment care instructions, and brand name are useful in reducing perceptions of economic and performance risk.

III. Method

1 Questionnaire

The purpose of this experiment was to measure the usefulness of the product information. The questionnaire was developed to measure respondents' jeans purchasing experiences and their online purchase behavior. The subjects answered the questionnaires in hypothetical condition and perception of purchasing experience of jeans through an online



<Fig. 1> Example of Website Page Design.

shopping mall. Design of the two example web-site pages were developed in Korean (Fig. 1).

The first website page included informations such as leg cut style, rise length, brand name and size. The second website page included picture image, written descriptions (e.g. material, fabric, product information), and size (e.g. body measurement). The respondents evaluated their pursuit of value of jeans in their purchasing experience and the usefulness of components of Web site product information. A 5-points Likert scale was used. 1 point meant "Strongly disagree" and 5 points meant "Strongly agree".

2. Data Collection and Analysis

The data were collected from October 30 to November 10, 2006. A total of 240 questionnaires were distributed in Seoul, Korea. The participants were Korean women in aged 19 to 30 years. They were students in universities or a fashion institute. 233 questionnaires were retrieved. Among the subjects of the 233, 78.1% (n=182) of them purchased fashion products on online shopping websites, and 21.9% (n=51) did not purchase any fashion products by online shopping. Those who never purchased fashion products from online

<Table 1> Characteristics of Subjects (n=182)

Variable	Classification	N	%	Total (%)
Age (Year)	19	35	19.2	182 (100)
	20-24	86	47.2	
	25-29	47	25.8	
	30-35	14	7.7	
Education	High School	11	6.0	182 (100)
	College/University	143	78.6	
	Graduate School	28	15.4	

shopping channels (n=51) were excluded from further analysis. Among the subjects, who made online purchases of fashion goods, 73% (n=133) were women ages of 20 to 29 years. The majority of them had a bachelor degree (78.6%, n=143) (Table 1).

The data were analyzed using the SPSS 12.0 package. Factor analysis, cluster analysis and *t*-test were used to examine statistically significant differences in groups. A factor analysis was conducted for the question regarding the elements when purchasing jeans. The respondents were classified by their purchasing evaluation criteria of jeans (Table 3).

IV. Result and Discussion

1. Online Shopping Behavior

<Table 2> Characteristics of the Respondents' Online Shopping

Variable	Classification	N	%	Total (%)
Number of Purchasing Fashion Products	1-4	89	48.9	182 (100)
	5-10	56	30.8	
	Over 11	37	20.3	
Frequency of Browsing Shopping Sites	At Least Once a Day	45	24.7	182 (100)
	2 to 3 Times per Week	57	31.3	
	Once a Week	50	27.5	
	2 to 3 Times per Month	30	16.5	
Duration of an Online Shopping Browsing	Less than 30 min.	40	21.9	182 (100)
	30-60 min.	82	45.1	
	Over 60 min.	60	33.0	

With the purpose of evaluating the respondents based on their apparel buying behavior in online shopping, frequency of online browsing and purchasing, and the time spent for online browsing were measured. Among the 182 respondents, who had experience purchasing fashion products through online shopping, 48.9% (n=89) had purchased garments 1 to 4 times through online shopping. 30.8% (n=56) of them had purchased garments 5 to 10 times through online shopping. 24.7% (n=45) of them browsed an online shopping Web site every day. 31.3% (n=57) of them browsed an online shopping website 2 to 3 times per week. 33% (n=60) of them navigated through online shopping Web sites for over one hour, during their time on the Internet (Table 2).

2. Evaluation Criteria for Purchasing Jeans

Consumer has alternatives in the purchase decision making process and evaluate them according to specific criteria.

The pursuit evaluation criteria of jeans purchasing experience of the subjects was measured. Subjects were grouped by their pursuit value. The factors were categorized using principal components analysis with a Varimax rotation. During factor analysis low score variables were eliminated. Two factors were emerged: physical practicability consciousness (Factor 1) and style consciousness (Factor 2). These factors accounted for 52.6% of total variance for the factor of the variable (Table 3).

<Table 3> Factors Considered with Purchasing Jeans

Variables	Factor 1	Factor 2
Factor 1: Physical Practicability		
Easy to Put on and Take off		-0.101
Comfortable Style for Everyday Activity		-0.074
Fabric Durability		0.205
Sewing Quality		0.229
Factor 2: Style Consciousness		
Diversity in Wear	-0.013	
New Fashion Style	-0.047	
Easy to Mix and Match	0.277	
Eigen Value	2.024	1.659
% of Total Variance	28.915	23.696
Reliability	0.657	0.556

These two factors were used for classifying subjects. Two clusters were obtained by a K-means clustering method. K-means clustering is a procedure that follows a simple and easy way to classify a given data set through a certain number of clusters.

As a result of the K-means cluster, 182 subjects were categorized into two groups: Group 1 (n=102) and Group 2 (n=80). The *t*-test was run to investigate differences between two groups. The result of the *t*-test shows that each group was significantly different at the level of $p < 0.001$ (Table 4). Group 1 (n=102) was concerned about both fashion styles feature and practicability. Group 1 named high involvement. Group 2 (n= 80) was not seriously concerned with physical practicability nor fashion style. Group 2 named low involvement.

The *chi*-square test was run to determine if there were significant differences between the two

<Table 4> Cluster Analysis for Subjects

Factor \ Group	Group 1 (n=102)	Group 2 (n=80)	<i>t</i> -value
1. Practicability	0.2785	-0.3558	0.415***
2. Style	0.6455	-0.8231	1.496***

Note) Group 1: high involvement, Group 2: low involvement *** $p < 0.001$

<Table 5> Characteristics of Respondents' Purchasing of Jeans

n (%)

Item		Group	Group 1 (n=102)	Group 2 (n=80)	Total	χ^2
Pursuing Product Feature	Design/Style		13 (12.7)	12 (15.0)	25 (13.7)	18.89***
	Price		22 (21.6)	40 (50.0)	62 (34.1)	
	Fashion Trend		38 (31.3)	16 (20.0)	54 (29.7)	
	Practicality		29 (28.4)	12 (15.0)	41 (22.5)	
	Total		102 (100.0)	80 (100.0)	182 (100.0)	
Price (₩)	Less than 50,000		22 (21.6)	28 (35.1)	50 (27.5)	10.13*
	50,000-Less than 80,000		23 (22.5)	10 (12.5)	33 (18.1)	
	80,000-Less than 110,000		20 (19.6)	12 (15.0)	32 (17.6)	
	110,000-Less than 150,000		24 (23.5)	12 (15.0)	36 (19.8)	
	More than 150,000		13 (12.8)	18 (22.5)	31 (17.0)	
	Total		102 (100.0)	80 (100.0)	182 (100.0)	
Store	Online Shopping		19 (18.6)	22 (27.5)	41 (22.5)	3.97
	Department Store		46 (45.1)	34 (42.5)	80 (44.0)	
	Specialty Store		25 (24.5)	15 (18.8)	40 (21.9)	
	Discount Store		12 (11.8)	9 (11.3)	21 (11.6)	
	Total		102 (100.0)	80 (100.0)	182 (100.0)	

* $p < 0.05$, *** $p < 0.001$.

groups on their consuming traits of jeans. The price ($\chi^2=10.13$, $p<0.05$) and pursuing product features ($\chi^2=18.89$, $p<0.001$) were significantly different between the two groups (Table 5). The distribution of jeans price level was different between two groups. Group 1 purchased jeans of various price levels. They considered that, the most important factor was fashion trend (31.3%). They also considered practicality (28.4%) and price (21.6%). The price (50%) was the most important factor for Group 2.

For the purchasing frequency there aren't any significant different between two groups. For the purchasing place, department store was the most important place purchasing jeans for both groups. The second important place was specialty stores for Group 1 (24.5%) and online shopping (27.5%) for Group 2.

The usefulness of product informations were also examined when they evaluated the jeans at online shopping. The usefulness of product variables were categorized into size, style, picture image, material, care instruction, and brand name. In style feature, leg cut style (4.15) or rise length (4.05), was the most useful information. Among the style feature, Group 1 had significantly higher need for fit information (3.74) than Group 2 (3.43) ($p<0.05$).

In picture image, zoom function (4.21) was very useful for Group 1 ($p<0.05$). Group 1 also considered that material and fabric information (3.36) were useful than Group 2 ($p<0.05$). The brand name was very useful information (3.92) for Group 1 ($p<0.001$) (Table 6).

V. Conclusion and Limitations

This study analyzed the perception of the usefulness of the product information and evaluation criteria of purchasing jeans through online shopping. The participants of this study were women age of 19 to 30 years. The respondents were differentiated by their pursuit criteria of jeans. The Group 1 was conscious of both style feature and practicability of jeans. Group 2 was not conscious with practicality or style feature of jeans. For Group 1, fashion trend and practicality were the most important factors of purchasing jeans. Price is the most important factor for jeans purchasing. The prices are evenly distributed for Group 1, they bought jeans through diverse range of prices. On the other hand, Group 2 bought jeans at extremely low or high price. The majority of subjects purchased jeans at department stores. Online shopping site was the second important shopping place for the Group 2.

<Table 6> The Usefulness of Product Information in Online Shopping

Variable	Item	Mean	Group 1 (n=102)	Group 2 (n=80)	t-value
Style	Leg Cut	4.15	4.16	4.14	0.15
	Rise Length	4.05	4.09	4.01	0.62
	Fit	3.58	3.74	3.43	2.16*
Picture image	Product Image	4.06	4.11	4.04	0.53
	Zoom Function	4.10	4.21	3.96	2.00*
Size	Product Measurement	3.53	3.64	3.43	1.22
	Body Measurements	3.77	3.84	3.69	1.64
Material and Fabric		3.25	3.36	3.10	2.09*
Care Instruction		3.03	3.16	2.99	0.29
Brand Name		3.59	3.92	3.18	5.07***

* $p<0.05$, *** $p<0.001$.

The most useful product information was style feature including leg cut style and rise length. Picture image, size information or material information was also considered as useful information. The finding of this study suggests that the style feature could be important information for online jeans purchasing.

It can be claimed that online retailers of the fashion garments should emphasize product style through online shopping website. For jeans, leg cut style, rise length, body measurement and description for fit will help online shoppers to find the right style. Online shopping website should provide style information with zoom function for picture image. The descriptions of size and fit are also useful.

The results of this study imply that online retailers must provide useful style feature information to attract their expected customers. The visual presentation might be important in making purchasing decision on jeans. Due to the exploratory nature of the study, the finding from this study should be generalized with caution.

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