

# 품질 상황에서의 청바지 제품 소비자의 상표전환 행동

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## Blue Jean Consumers' Brand Switching Behavior in Out-of-stock Situation

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### Abstract

본 연구는 청바지 제품 소비자가 쇼핑시 제품이 품질된 상황에 접했을 때 보여주는 상표 전환행동에 관한 것이다. 의류 매장 관리자의 적시 적량의 제품 입고 관리 능력이 부족할 때 발생하게 될 손실을 유추해 보고 어떤 유형의 소비자가 상표 전환을 쉽게 일으키는지를 규명하는 것은 더욱 효과적인 매장 운영, 소비자 만족과 고객 관리를 위해 의미있는 일일 것이다.

본 연구는 다음과 같은 목적을 가진다.

- 1) 제품 품질시 소비자들은 어떤 상표전환 행동을 보이는지 밝힌다.
- 2) 제품 품질시 대체 상표제품을 구매할 경우 대체 상표 제품의 가격의 영향력이 상표전환 행동과 어떤 관련을 보이는지 밝힌다.
- 3) 소비자의 쇼핑지향성, 상표 충성, 애고 행동, 인구통제적 특성(성별)이 상표전환 행동에 미치는 영향력을 밝힌다.

이러한 목적을 위해 본 연구는 1997년 3월, 버지니아주 블랙스버그에 소재한 버지니아 주립대학교 110명의 학생들을 대상으로 설문조사를 이용한 양적연구를 실시하였다. 남녀학생 모두가 소비자로서의 역할을 담당할 수 있는 청바지를 선택하여 상표전환 행동에 대한 설문에 답하게 한 후 t-test와 카이 분석을 실시하였다. 그 결과 20%의 응답자가 품질시 상표전환 행동을 보이는 것을 나타냈다. 쇼핑시간과 편의성을 덜 중요하게 여기거나, 강한 상표 충성을 보이고, 의류 전문 매장이나 백화점을 주로 이용하는 여성 소비자들의 경우 상표전환을 쉽게 하지 않는 것으로 나타났다. 연구 결과를 바탕으로 의류제조업자 및 소매업자의 제품입고에 관한 제언을 하였다.

**Key words:** Brand switching, Stockout, Shopping orientation, Brand loyalty, Patronage behavior;  
상표전환, 품질 상황, 쇼핑 지향성, 상표 충성, 애고 행동

## I. Introduction

Apparel consumers' brand switching behavior is directly connected with the loss of profits. The

more easily consumers change their mind in choosing apparel brand, the more often firms experience fluctuations in sales. Firms need to be aware of the losses caused by brand switching behavior. One of the situations in which

consumers switch brands is when a product is out of stock in size, color, or style. If the product is not in stock, the bond between consumer and brand is reduced if not destroyed. Firms should have a thorough grasp of how easily consumers would switch brands in out-of-stock situations. To understand this situation, firms need to know: (a) how many consumers will switch brands when out of stock, (b) how much of the profitability of competing brands results from brand switching behavior due to untimely distribution, and (c) what kind of consumers easily change their mind in a stockout situation and what kind of consumers do not change their mind and stick to their first decision. To be more specific, shopping orientation, brand loyalty, patronage behavior, and gender, were selected to identify the profiles of consumer groups, which were segmented according to the willingness of brand switching.

## II. Review of Literature

Consumers are always supposed to make a decision concerning which products or services to buy. Engel and Blackwell(1982) developed a model that integrated the steps that consumers pass through in making choices and identified the factors that influence this process. These integrated steps are called "Consumer Purchase Decision Process." Every act of consumer behavior is assumed to fit into this process or modified ones. Brand switching behavior which will be discussed in this study is one of these consumer behaviors. The out-of-stock situations is one of the influential factors that make consumers behave differently in their marketing choices. In order to explain the variance of brand switching behavior in out-of-stock situations, literature relevant to the brand switching behavior, the

out-of stock situations, and three psychological characteristics(i.e., shopping orientation, brand loyalty, and patronage behavior), were reviewed.

### 1. Brand Switching Behavior

Consumers have varying motives for their brand switching behavior which is one of the consumer behaviors. Many reasons exist for individuals to vary their choices among brands along time and to buy multiple brands. McAlister and Pessemeir (1982) provided an extensive taxonomy of motives for varied consumption behavior. The motives include needs for social distinction and affiliation, psychological needs, market changes and constraints(i.e., changes in the feasible set, stockouts), and marketing mix activity(i.e., price changes, deals, advertising). Stephan and Tannenholz(1994) reported that brand switching occurs because of consumers' fluctuating desires, promotional changes, and lack of product availability. Givon and Muller(1994) proposed that most consumers switch among a few brands regularly and also suggested two types of brand switching: structural switching and transient switching. The former type of switching behavior is expected to persist without any external effects. However, it may be interrupted by the latter switching that is caused by shocks to the environment, like promotional activity, new brands and stockouts. Keaveney's(1995) study that examined the customer switching behavior in service industries revealed that the customers' reasons for switching services were classified into eight general categories: (1) pricing, such as high price and unfair pricing; (2) inconvenience, such as location and long waiting for service; (3) core service failure, such as billing errors and service mistakes; (4) service encounter failure including impoliteness and unresponsiveness; (5) response to service failure for example, no response and

reluctant response; (6) competition such as finding better service; (7) ethical problems including cheating and conflict of interest; and (8) involuntary switching when customers moved or providers closed. Except for the research on switching behavior for service products that are irrelevant to stockouts, previous studies indicated that stockout is one of the reasons that causes consumers to switch brands.

Many studies on consumers' brand switching behavior have dealt with various product categories. For example, Colombo and Morrison (1989) selected automobiles for their study. Givon and Muller(1994) used aluminum foil, facial tissues, cold remedies, liquid detergents, and waxed paper in their cyclical brand choice model study. Morgan and Dev(1994) chose lodging service, and Keaveney(1995), forty-five different retail services including beauty salons, auto mechanics, insurance agents, dry cleaners, restaurants, medical services, clothing stores, and travel agents. Though these previous studies were involved in brand switching behavior, the product categories used in the studies were not apparel products. The

product-specific nature of these studies necessarily limits the generalizability of the findings.

### 2. Out-of stock Situation

A study for Progressive Grocer(1968, p. S-22) states, "A product of any brand, size, shape, flavor, color or type is out-of-stock if the item is usually carried in the store, but is not found on the shelf at a given time. This includes items which are missing from the shelf as the result of careless or faulty ordering practices, so-called 'lost items.'" Mason and Mayer(1978) defined stockout to be a situation in which a retail store does not have enough items of a particular kind to meet customer demands; thus, the product is not available when consumers come into the store for the purpose of purchasing the item. Nederpelt (1984) insisted that the definition should include the situation in which a customer asks for a item that a retailer does not carry for strategic reasons which are not results of faulty ordering practices. In this case, stockout refers to a situation which occurs when a customer is unable to buy a

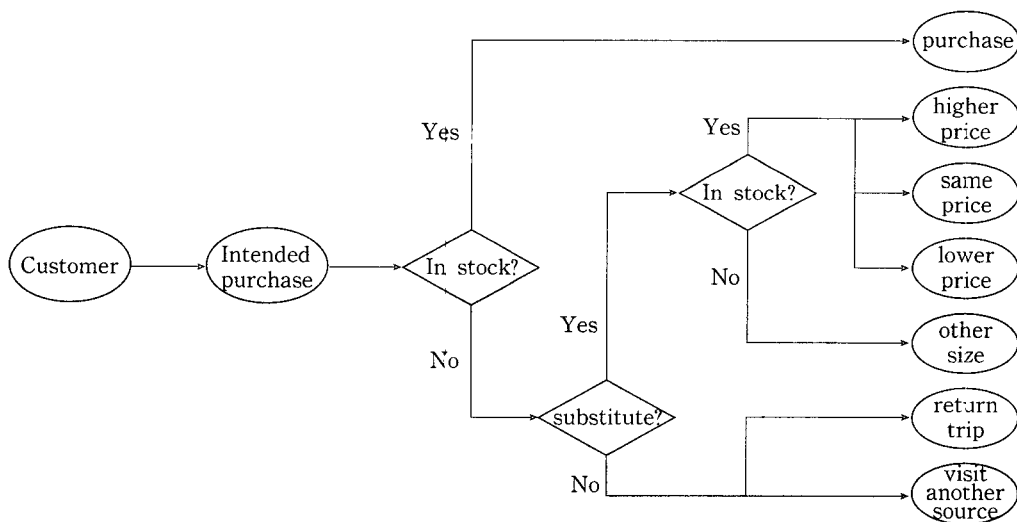


Fig. 1. Walter's basic stockout model(walter & Grabner, 1975)

wanted item due to the lack of product availability in that particular outlet. In Kim's(1991) study, which examined the stockout cost, a shortage or stockout was defined as a demand that cannot be supplied from inventory of production.

Many studies with purpose to investigate the impact of stockouts, focused on the stockout costs, loss of market share and the damage of store image(Walter & Grabner, 1975; Schary and Becker, 1978; Schary & Christopher, 1979).

In brief, stockout refers to the situation in which consumers demand cannot be met because of the lack of product availability that results from a firm's faulty inventory control or strategic misjudgment in product assortment. When stockout occurs, market share of the product is supposed to decrease, store image related to product quality, product availability, and convenience will be damaged, and firms will go through revenue loss.

Walter and Grabner(1975) provided a basic stockout model that exhibit consumers' responses in out-of-stock situation as shown in Figure 1. The finding of this study was that 59.1% of respondents would switch brands, staying in the same price range. But this study dealt with liquor products. Bowerbox' study(1978) implied three general alternative results in out-of-stock situation: (1) the customer postpones the purchase; (2) the customer purchases the product elsewhere; (3) the customer purchases the product elsewhere and ceases to patronize the original outlet. Schary and Christopher(1979), in their stockout model study with liquor products, reported shoppers' reactions in stockout situations: (1) to buy same brand in different size, (2) to buy different brands, (3) to buy different product, (4) to postpone purchase until next visit to same store, (5) to decide not to buy, and (6) to decide to search in other stores. M. A. Emmelhainz, L. W.

Emmelhainz, and Stock(1991)'s study on consumers' responses to stockouts of grocery products indicated that 32% of consumers purchased a different brand, 41% purchased a different size or variety of the same brand, 13% delayed purchase, and 14% went to another store. Another study(Cassill, 1996) involved with apparel item revealed that if an out-of-stock occurs, consumers switch stores remaining brand-loyal rather than change brands remaining store-loyal. Types of responses to stockout situations suggested by many researchers appear to fit into the taxonomy of Walter and Grabner's study(1975).

In most previous studies on consumers responses in stockout situations, consumers appeared to change brands remaining store-loyal rather than change stores remaining brand-loyal. Cassill's (1996) study on apparel consumers' responses in this situation is very suggestive for future study involved with a clothing product category. Because clothing products are regarded to be high-involvement products that need consumers' intensive purchase decision process, the findings concerning the impact of the apparel stockouts on consumers' brand switching behavior may not be the same as those in previous studies which studied the stockouts with other product categories. Thus, a research on clothing consumer's responses in stockout situations which focuses on the brand switching behavior is needed.

### 3. Influential Factors of Brand Switching Behavior

According to authors(Engel & Blackwell, 1982; Berkowitz, Kerin, Hartley, & Rudelius, 1997, chap. 6), many influences affect the consumer purchase decision process. Those influences include psychological, sociocultural, situational influences, and marketing mix influences. Vilcassim and Jain's (1991) study examined brand-switching

patterns and purchase-timing decisions of households, while incorporating the effects of marketing mix variables, household-specific characteristics, and unobserved heterogeneity across households. One of the findings of this study revealed that price and store display have a greater impact on the rate of brand switching. Massad and Reardon(1996) studied North American's propensity for change in the context of consumer switching behaviors: channel surfing, brand loyalty and political loyalty. One of the findings was that young women appear to exhibit greater risk propensity and less brand loyalty than young males, though males tend to channel surf more. Nederpelt's study(1984) that discussed the findings of consumers' reactions concerned with store switching behavior in stockouts of apparel items, revealed that consumers would change stores for which they were looking in out-of stock situations and people under 25 years old were less willing to switch stores. In brief, it is likely that consumers' psychological characteristics(i.e., brand loyalty, store loyalty), demographics(i.e., gender, age), and market condition(i.e., price, store display), influence whether consumers switch brands in out-of-stock situations or not. Shopping orientation, brand loyalty, patronage behavior among the consumers' psychological characteristics appear to have a strong impact on consumers' clothing choice behavior, consequently on brand switching behavior. Though shopping orientation is the concept which encompasses brand loyalty and patronage behavior, in this section brand loyalty and patronage behavior were reviewed separately from shopping orientation.

Shopping orientation refers to a shopper's style with particular emphasis on a shopping specific lifestyle, it encompasses shopping activities, interests, and opinions and reflects a view of

shopping as a complex social, recreational, and economic phenomenon(Shim & Kotsiopoulos, 1992).

Brand loyalty is a favorable attitude toward and consistent purchase of a single brand over time. Brand loyalty results from the positive reinforcement of previous actions(Berlowitz, et al., 1998). In a study of consumers' brand loyalty to various product categories, the brand-loyal shopper would characteristically search the product which they intended to purchase in other stores, substitute a different size in the same brand, or postpone the purchase(Schary & Christopher, 1979). Lee's(1995) study of brand orientation of Korean apparel consumers revealed that female consumers tend to be significantly more brand loyal, have more knowledge on apparel brands than male consumers.

Patronage behavior refers to a store choice behavior which represents an individual's preference for a particular store for purchasing apparel products(Shim & Kotsiopoulos, 1992). Huddleston and Cassill(1990) found that brand choice behavior was influenced by the type of store shopped. Consumers were more likely to purchase brand-name apparel at specialty stores, followed by department stores, discount stores, and mail order.

In summary, if consumers are faced with out-of-stock situations, they may display brand switching behavior. Most of the literature that discussed the switching behavior were concerned with store switching rather than the brand switching. In addition, most studies on the brand switching behavior, are not concerned with apparel products. Thus, the objective of this study is to investigate how apparel consumers respond to out-of stock situations. The second objective is to examine the relevance of the price of substitutes to brand switching behavior. And the last objective is to identify the profile of consumers

who switch brands in that situation.

### Hypotheses

Hypotheses were built on the basis of the objectives of the study as following:

- H1 Apparel consumers can be segmented into distinct groups that exhibit different brand switching behavior when the product they wanted to purchase is out of stock.
- H2 Consumers who switch brands in out-of-stock situations will buy alternative brand products from various price ranges.
- H3 Brand switching segments differ in: shopping orientation, brand loyalty, patronage, behavior, and gender.

## III. Methods

Descriptive research was used to describe market conditions and consumers segmentation involving consumers' brand switching behavior. First, hypotheses were built, then to test hypotheses a questionnaire was developed. After sampling and collecting data, results and conclusion were obtained by statistical analyses. Based on the findings, implication for marketers were provided.

### 1. Instrument

The dependent variable is brand switching behavior, and the independent variables are shopping orientation, brand loyalty, patronage behavior, and gender. To measure these variables, a questionnaire was developed. The apparel item used in this research was blue jeans for which both male and female college students would be potential customers.

Apparel shopping orientations, selected from Shim and Kotsiopoulos(1993), included confident shopper, convenience/time-conscious shopper, economic/price conscious shopper, and apathetic toward "made in USA". These orientations are

formed from 12 Likert-type statements that asked respondents to check on a five-point scale ranging from "strongly disagree (1)" to "strongly agree (5)". Other shopping orientations, such as brand-conscious/loyal shopper, local store-oriented shopper, shopping mall-oriented shopper, catalog-oriented shopper suggested by Shim and Kotsiopoulos(1993) were excluded because of its overlap with the concepts of brand loyalty and patronage behavior. Two nominal scale questions were developed by the researcher to measure brand loyalty. Brand loyalty is not only a mere repeated purchase behavior. For a true state of brand loyalty to exist, there must be some degree of psychological commitment to the brand (Horton, 1984.). Thus, the concept of brand loyalty used in this research was a consumer's tendency to purchase the same brand products repeatedly for which they have a preference. Patronage behavior was measured by asking subjects to respond on the type of store they usually purchase their apparel. The type of store was adopted from a previous study(Ko, 1994) that gave examples of store names in blacksburg, Virginia to each type of stores given in the questionnaire.

Brand switching behavior was measured by asking respondents to choose one probable reaction to stockouts, given an assumed purchase condition. The probable reactions to apparel product stockouts may be depicted as shown in Figure 2, adopted from Walter's basic stockout model. Consumer reactions expected in out-of-stock situations were (1) switching brands and selecting alternative products from other brands at various price ranges, (2) not switching brands: selecting a different style products or adhering to the same brand and postponing the purchase.

A question was devised to measure the maximum and minimum prices of alternative

brand blue jeans for which consumers would pay when their desired brand of blue jeans, which cost \$40 is out of stock. Demographics included gender only in this study.

## 2. Sampling and Data Collection

To obtain data quickly and economically, convenience sampling was adopted. The population was college students who attend Virginia Tech, one of the major universities in the U.S., with 24,812 students including graduate students. This university is located in a rural area, southwestern part of Virginia. Questionnaires were sent to 117 subject via on-line survey and 55 paper questionnaire were put into students' mailboxes randomly in two departments (i.e., Clothing and Textiles, and Housing, Interior design, and Resource Management) of the university by the researcher in March, 1997. Approximately 400 students are enrolled in these two departments as of 1997, Fall, including graduate students. The e-mail address list was obtained by contacting the secretaries of several departments and student organizations. One hundred and three questionnaires were returned by e-mailing and 18 by hand-delivery. The return rates were 88.0% and 32.7% respectively. Of those returned, 110 were deemed usable and included in the data analysis.

## 3. Respondents' Characteristics

The sample covered female and male students from freshman to graduate level student, including international students. Respondents turned out to come from seventeen countries including the United States. Example countries are China, German, India, Japan, Norway, South Korea, Thailand, and United States. The majority of respondents were white (50.9%) and were in the over 29 age category (49.1%). Approximately 54% were U. S. citizens, and 57% were female. As compare to Virginia Tech population, the profile of respondents was slightly older, and included more international students. Therefore, these characteristics should be considered when interpreting the results of the study and generalizing the findings beyond the sample.

## 4. Statistical Analyses

After collecting data, statistical analyses were conducted using SPSS 7.5 for Windows. First, subjects were divided into two segments, whose members exhibited the same brand switching behavior in an assumed out-of-stock situation. The second step was to determine whether the segments differed with respect to shopping orientation, and a t-test was conducted. Finally, chi-square statistics were used to analyze

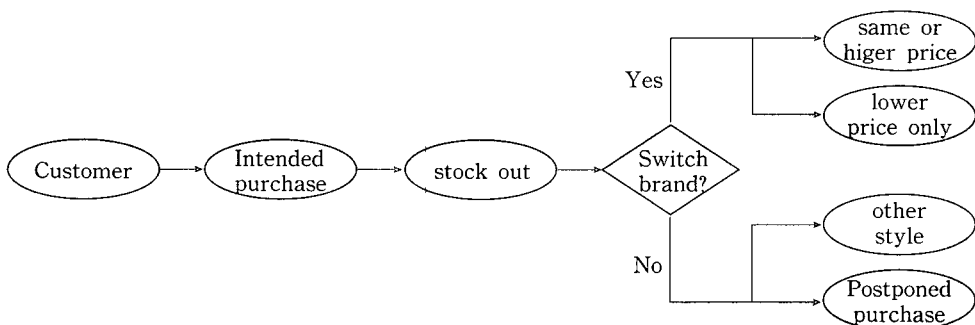


Fig. 2. Brand switching behavior in stockouts

categorical variables(i.e., brand loyalty, patronage behavior, gender).

#### IV. Results and Discussions

##### 1. Brand Switching Behavior in Out-of-stock Situations

Of the 110 respondents, 89 people responded that they would not switch brands and 21 people responded that they would switch brands in out-of-stock situations. Two groups of switching behavior segments were identified based on the different responses to the assumed stockout situation. Group 1 consists of people who would not switch brands, while Group 2 consists of people who would switch brands in out-of-stock situations. In detail, in Group 1, 80 people indicated that they would wait for several days and buy the desired brand blue jeans of the same style, and 9 respondents would buy the same brand blue jeans by changing the style. Group 2, 19.1%(n=21) of the respondents, would buy a pair of blue jeans from another brand. This result implied that when a stockout occurs, about one-fifth customers will give up buying the desired brand blue jeans. Of Group 1 people who switch brands in out-of-stock situations, 47.6%(n=10) displayed their willingness to buy higher price alternative of another brand blue jeans, while 52.3%(n=11) would buy only lower price alternatives. Hypothesis 1, which stated that

consumers could be segmented based on brand switching behavior, was accepted. Table 1 presents the frequencies and percentages of each group divided by brand switching behavior.

##### 2. Maximum Price of Alternative Branded Blue Jeans

In the questionnaire, respondents who would switch brands in out-of-stock situations from the desired blue jeans that cost \$40, were asked to state the probable price range of an alternative brand of blue jeans. If marketers are aware of the maximum price of the price range that would be paid by the consumers willing to switch brands (i.e., Group 2), it is possible for them to calculate how much of sales would accrue to competitors because of a failure in timely distribution. Table 2 presents the frequency of maximum price that respondents in Group 2 would be willing to pay for a alternative brand of blue jeans. Hypothesis 2, which stated consumers who would switch brands in out-of-stock situations will buy substitutes at various price range, was accepted.

The average of maximum prices of alternative brand blue jeans would become \$39.0. This price was calculated by dividing the sum of each maximum price times each frequency by total number:  $(19X1 + 25X3 + \dots + 55X2 + 61X1)/21$ . Most responses were dispersed around the center value of \$40. These results imply that, when blue jeans' stockouts occur, customers tend to buy substitutes

Table 1. Segments based on different brand switching behavior

segments	frequency	percentage(%)		frequency	percentage(%)
Group 1					
not switching	89	80.9	return trip	80	72.7
			changing	9	8.2
Group 2					
switching	21	19.1%	higher price	10	9.1
			lower price	11	10.0
total	110	100.0		110	100.0



Table 2. Maximum Price of Alternative Brand Blue Jeans

Maximum price (p)	\$19	25	31	37	43	49	55	61	total
Frequency (n)	1	3	4	3	4	3	2	1	21

at a similar price to the desired ones.

### 3. Differences Across the Segments

1) Shopping Orientations: Table 3 presents the results of t-test on shopping orientations.

Shopping orientations used in this study were composed of four dimensions derived from the previous study (Shim & Kotsiopoulos, 1993): Confident Shopper, Economic/Price Conscious Shopper, Convenience/Time Conscious Shopper, and Apathetic toward "Made in USA". Scores of items loading on each dimension to develop a scale score ranging from 1 to 5. These scale scores were then used in t-tests. The size difference between two groups (i.e., non-switching vs. switching) should be carefully considered when interpreting the statistical results. When the sizes of two groups compared are extremely unequal, the underlying assumption of t-test that the samples come from populations with equal variances can be undermined. The t-test results in Table 3 were not different from the results of t-test when estimated variances between the two groups were assumed to be unequal.

There was a significant difference between the groups only in Convenience/Time Conscious Shopper. As compared to those in Group1, Group2

subjects had higher mean score on this shopping orientation (M=3.46). No significant differences were identified in the other three shopping orientations: Confident Shopper, Economic/Price Conscious Shopper, and Apathetic toward "made in USA". The people who would switch brands in out-of-stock situations tended to be more time conscious and value convenience in shopping.

To determine whether the two groups differed with respect to brand loyalty, patronage behavior and gender, chi-square statistical analyses were conducted. Respondents, who responded to have a favorite blue jeans brand and to buy the same brand blue jeans next purchase, were regarded to be brand-loyal, while respondents who responded to not have a particular favorite brand and those who responded to have a favorite brand but not consider repurchase of that brand, were regarded not to be brand-loyal.

The results revealed that two groups divided by the distinct brand switching behavior were significantly different in brand loyalty and gender. Patronage behavior did not display as strong relationship with brand switching groups as brand loyalty and gender. People in Group 1, those who would not switch brands in out-of-stock situations, tended to be more brand loyal and shop

Table 3. T-test : Differences in Shopping Orientation Across the Segments

Dimensions	Group1	Group2	t-values
	not switching (means)	switching (means)	
Confident Shopper	3.78	3.86	-.431
Economic/Price Conscious Shopper	3.29	3.41	-.675
Convenience/Time Conscious Shopper	2.95	3.46	-2.730**
Apathetic toward "made in USA"	3.13	3.06	-.370

\*\*p<.05

at specialty chain stores. In terms of gender, this group included more females. People in Group 2, those who would switch brands in out-of-stock situations, tended not to be brand-loyal and to shop at discount stores. This group included more males. The results of the Chi-Square analysis is shown in Table 4.

In summary, shopping orientation, brand loyalty, and gender were significantly different between the two groups with patronage behavior approaching the significant level. Hypothesis 3 was accepted.

### V. Conclusion and Implications

The purpose of this study was to examine the consumers' brand switching behavior in out-of-stock situations of blue jeans and to identify the profiles of consumer segments who display different brand switching behaviors. The variables which were selected to describe each segment were shopping orientation, brand loyalty, patronage behavior, and gender. The results of this study revealed that about one-fifty of the blue jeans customers would switch brands when they find out that the desired item is out of stock. The probability of consumers' switching brands of blue jeans is rather low compared to the probability of

59.1% for liquor products(Walter & Grabner, 1975). The consumers who responded to switch brands would pay not much money on alternative brand blue jeans. It is likely that they would buy alternatives at almost same price. One may infer that because apparel items such as blue jeans are categorized to be a high-involvement product that needs consumers' intensive purchase decision processes, switching brands, that is, trying unfamiliar brand products is involved with high risks.

Two groups that revealed separate brand switching behavior have different characteristics in term of shopping orientations, brand loyalty, patronage behavior, and gender. The bigger group, Group 1, was composed of shoppers who would not switch brands in out-of-stock situations. This group was characterized by feeling less pressure from shopping convenience or shopping time, having strong brand loyalty, preferring shopping at specialty chain stores or department stores to discount stores, and including more female consumers. The fact that this group includes more females who have strong brand loyalty supports previous studies where female consumers are more brand-loyal(Lee, 1995). Contrary to Goup 1, Group 2, which is relatively

Table 4. Chi-square Analysis for Brand Loyalty, Patronage Behavior, and Demographipes

	Group1 (n)	Group2 (n)	$\chi^2$		Group1 (n)	Group2 (n)	$\chi^2$
Brand Loyalty			13.37***	Patronage Behavior			8.49
Loyal	60	5		Specialty chain store	38	3	
Not-loyal	29	16		Department store	33	9	
total	(89)	(21)		Discount store	11	7	
				Small independent store	3	1	
Gender			3.90**	Catalog or mail order	4	1	
Male	34	13		total	(89)	(21)	
Female	55	8					
total	(89)	(21)					

\*p<.10    \*\*p<.05    \*\*\*p<.001

small in size but has significance in its role to marketers, is characterized by feeling stornng pressure from shopping convenience and shopping time, having weak brand loyalty, preferring shopping at discount stores, and including more male customers.

This study found that Walter's basic stock-out model that describes expected consumers' responses to the stockouts, is applicable to apparel products, however, the model needs slight modification in that substitutes of apparel products are not usually different in size. The finding concerned with the price of alternative brand products is consistent with theory that the high-involvement product such as designer brand jeans displays different consumer purchase decision processes from low-involvement products such as grocery products. The study supported the hypothesis that consumers' brand switching behaviors are influenced by psychological(i.e., brand loyalty, shopping orientation, and marketing mix factors(i.e., price)

The findings of the study provide several implications for apparel products suppliers and retailers who are concerned with replenishment and order-reordering apparel products. The immediate impact of a stockout is a direct loss of revenue both to the supplier and retailer. If the product is not in stock, the bond between consumer and brand is reduced: therefore suppliers and retailer should make an every effort to reduce the stockouts. To minimize the loss of sale due to inevitable stockouts, building consumers' brand loyalty is important. Epspecially, it is more likely that suppliers and retailers who deal with men's casual wear or active wear will lose more revenue due to stockouts than those in women's wear. To prevent sales loss, it is necessary that retailer have a related assortment of brand products. Some consumers do not stick

to one brand when they are shopping clothing. The assortment of two or more brands that deliver similar brand images to consumers will help a complete assortment.

## VI. Limitation and Recommendation

Certain limitations have to be recognized for a realistic interpretation of the research result. first, the sample was not designed to be representative of the population of college students because the sampling was conducted in a University in the rural area where a shopping environment may be different from that in urban areas.

Another constraint concerns the apparel item used in this study, blue jeans. The degree to which consumers would switch brands and have brand loyalty may be influenced by the unique characteristics of blue jeans such as availability in various price ranges from cheap to very expensive ones. For some consumers, this product may have high-involvement, for other consumers they may not. The generalization of the findings of this study into other apparel product categories may be limited.

In general, improvements on the limitations as mentioned are already suggestions for future studies; however, there are some more suggestions for future studies in the are of stockouts. First, this study focused on out-of-stock situations. Usually, retailers are suffering from overstocks. The study on comparison between the influences of these two failures in inventory control on the brand image and the loss of profits wil provide further insighs for apparel product retailers and suppliers in running business. Furthermore, studies that investigate the optimum quantity production and distribution processes for suppliers and retailers are recommended to reduce the loss of revenues due to stockout or overstock.

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