Perceived Risk
As A Factor In Store Choice:
An Examination Of Inherent Versus Handled Risk

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Abstract

Perceived risk as an influence on consumer behavior has been well documented. Despite the popularity of the topic, only a few studies have examined the risks consumers perceive when selecting a retail patronage mode. The study uses Bettman's concept of inherent/handled risk to isolate the risk attributable to specific retail patronage modes. The results indicate varying amounts of handled risk are associated with purchasing products from different retail modes. The study also provides evidence that risk attributable to a specific retail mode tends to differ among product categories.

Introduction

An emphasis on product and brand selection rather than store selection is common in the marketing literature. In many cases, however, consumers may select a retail patronage mode (i.e., type of retailer or particular retailer) prior to considering particular brands. This would happen when the brand carried is one of several evaluative criteria in store choice (Darden 1980). Thus, in instances where consumers move from need recognition to selecting a retail mode, attitudes toward alternative retail outlets constitute an important influence on the buying process.

Central to the study of attitudes toward retail patronage modes is the determination of the amount of risk associated with various alternatives. That consumers can be negatively biased towards some retail outlets and not others, and that this bias is transferred to products, introduces the element of risk into the retail patronage decision. Further, bias can be store-specific, whereby the consumer displays a consistent like or dislike for all products from that store, or it can be product-specific, where risk may be high for one product and lower for another. A plausible explanation for consumer bias is that it represents the end result of the perceived risk the consumer associates with purchasing products from a specific retail mode.

Perceived Risk and Retail Patronage

Bauer's (1960) initial conceptualization of perceived risk stimulated extensive research in the area. Horton (1976) points out that perceived risk research is "one of the very few research areas in consumer behavior which can properly be said to have a research tradition" (p. 694). Although perceived risk is not the sole explanatory factor in buyer behavior, it has been established as an integral part of the purchase decision. As a result, one can better understand the consumer buying process if it is examined in light of the consumer's attempt to handle the risk associated with the purchase.

There are numerous areas of research on perceived risk. Research has focused on the various types of perceived risk and its compo-

nents (Bettman 1972; 1973; Cunningham 1967; Horton 1976; Jacoby and Kaplan 1972; Roselius 1971), and the risk reduction strategies chosen by consumers (Herman and Locander 1977; Locander and Herman 1979; Roselius 1971; Seth 1968; Taylor and Rao 1980). The construct has been studied in light of its relationships to many of the functional aspects of marketing such as advertising effectiveness (Barach 1969), new product trial (Popielarz 1967; Schiffman 1972), and brand importance (Taylor and Rao 1980). Perceived risk has also been related to many familiar topics in the consumer behavior literature including group influence (Perry and Hamm 1969), personality (Schaninger 1976), and self-confidence (Zikmund and Scott 1973). Information processing has also been studied in relation to perceived risk (Nicosia 1967; Lutz and Reilly 1973). Similar to Cunningham's (1967) uncertainty/consequence framework, Kahneman and Tversky's (1979) prospect theory has been advanced to explain consumer choice under risk. For risks with high (severe) consequences, the consequences affected the risk evaluation more than the probability. Where the probability was high but consequence low, they are combined to form the risk judgement (Bettman 1986; Diamond 1988).

Despite the popularity of the topic, only a few studies have examined the risk consumers perceive when selecting a retail patronage mode. Cox and Rich (1964) examined the perceived risk associated with telephone shopping. They concluded that the higher risk associated with this shopping mode discouraged shopping by phone. Spence, Engel, and Blackwell (1970) reported that purchasing by mail was perceived riskier when compared with in-store (or direct from a salesperson) shopping across 20 product categories. Festervand, Snyder, and Tsalikis (1986) examined the perceived risk associated with buying products from a catalog. When compared to a retail store, products purchased from a catalog were perceived to be riskier along three risk dimensions: financial, performance, and time/convenience.

Hirsch, Dornoff, and Kernan (1972) examined

whether the acquisition of additional information was a more salient risk reducing tactic than repeat patronage (store loyalty). They concluded that the quality of information sought was a direct function of the patronage risk perceived. Further, store loyalty was not employed as a risk reducing tactic.

Prasad (1975) reported consumers in the upper socioeconomic strata held significantly less favorable attitudes toward purchasing products having high levels of social risk from discount stores. Similarly, Dash, Schiffman, and Berenson (1976) reported specialty store patrons experienced lower levels of perceived risk in the purchase of audio equipment. However, Granzin and Schjelderup (1980) concluded that perceived risk is a situational specific phenomenon that does not have an impact on the patronage modes selected by consumers.

Although these studies have contributed to our understanding of how risk relates to the retail patronage decision, the perceived risk area is very complex and warrants further inspection. Moreover, to date only one study has examined the perceived risk attributed to a full range of retail patronage modes including in-store methods (e.g., specialty stores, department stores, and discount stores), and non-store shopping methods (e.g., catalogs, direct mail, and media advertisements). Hawes and Lumpkin (1986) concluded that non-store shopping methods were perceived riskier than in-store shopping alternatives. However, no attempt was made to examine risk associated with retail patronage while accounting for the product category. Neither has the degree of risk attributable to different products purchased from the same patronage mode or the risk of the same products across different patronage modes been investigated. The purpose of this research is to investigate these issues.

Theoretical Framework: Inherent Versus Handled Risk

Different levels of abstraction of the perceived risk construct have been examined in the literature. For example, low level measurements

focus on the risk attributable to a single product, intermediate levels of abstraction focus on risk associated with purchasing a product or patronizing a particular store class, and high levels of abstraction are associated with individual personality traits (Dowling 1986). In order to fully understand the perceived risk construct and attain precision in its measurement, the construct must be studied at varying levels of abstraction or generality.

Bettman provides a theoretical framework which partitions risk into two classes: inherent and handled risk. According to Bettman, inherent risk is the latent risk a product class (or retail mode) holds for the consumers; the innate degree of conflict the product class arouses in the consumer (i.e., intermediate level of abstraction). Handled risk is the amount of conflict a product class engenders when the buyer chooses a brand from that product class in their usual buying situation (i.e., low level of abstraction).

Thus, handled risk includes the effects of information and risk-reduction processes as they have acted on inherent risk (Bettman 1972). Handled risk, then, includes the effect of relevant product or store information, whereas inherent risk deals with risk in the absence of any information. When the consumer has no information, handled risk and inherent risk would be the same. As information is acquired, the perceived risk may increase or decrease according to whether the information is perceived favorable or unfavorable. Handled risk can, therefore, be higher or lower than inherent risk.

The present study investigates the perceived handled and inherent risk associated with purchasing products from a full range of retail patronage modes. The research had three objectives. The first objective of this research was to determine whether the retail patronage mode significantly increased or decreased the risk for a product. The amount of risk associated with a specific retail mode (handled risk) was isolated by factoring out the inherent risk for the product. The second objective was to determine if risk differs across the patronage modes for a product

category. That is, does the perceived risk for a particular product category differ when purchased from one patronage mode versus another? The last objective investigates the differences across the product categories for each patronage mode. For a particular patronage mode, is there more risk for one product category versus another?

Methodology

Sample

The data for this study were gathered as part of a national survey in which a self-administered questionnaire was sent to a sample of 1800 households drawn from the Market Facts Consumer Mail Panel. A total of 1143 completed questionnaires were obtained.

The resulting sample, similar to other studies utilizing mail panels, contained some biases when compared with the national population (in parenthesis). For example, there were more married respondents, 82 percent (71 percent); more females, 69 percent (51 percent); and the median age is 51 (30) with 20 percent (11 percent) being 65 or older. The sample was somewhat more highly educated (high school graduates, 33 percent (37 percent); college degree or graduate work 34 percent (17 percent)); and unskilled workers represented 9 percent (28 percent) of the sample. Income levels were consistent with characteristics of the national population.

Questionnaire

Because of the desirability of investigating perceived risk with respect to a particular product category, as opposed to a generalized approach, and the high degree of risk normally associated with apparel (Taylor and Rao 1980), this product category was selected for investigation. If marketers understand the effect of the retail mode on perceived risk of their apparel products, it will allow them to develop differential strategies to capitalize on these consumer perceptions.

Nine apparel categories were used in the study: suits/dresses, sports jackets/blazers, dress slacks/skirts, dress shirts/blouses, jeans, casual slacks/skirts, women's lingerie, accessories, and shoes. It was assumed that these apparel categories would be relatively frequently purchased and thus familiar to the participants. In addition, apparel is purchased from a variety of patronage modes, and it should engender sufficient and measurable perceived risk due to its socially visible nature (Prasad, 1975). Different apparel categories should have different levels of risk (i.e., suits would be perceived as riskier than jeans). If there is no difference in perceived risk across the nine apparel categories then the general category of apparel could be used. However, the ANOVA and Scheffe tests verified a significant difference in inherent risk across all the apparel categories. The respondents were asked how many purchases were made in each category over the preceding year. Every respondent had made at least one purchase in each category.

Respondents were asked to indicate the amount of perceived risk associated with the purchase of the nine apparel categories from six different patronage modes. The patronage modes examined represented a nearly comprehensive set of retailing alternatives when purchasing apparel. Three in-store patronage modes (specialty stores, department stores, and discount stores) and three non-store patronage modes (store catalogs, other catalogs and direct mail, and media advertisements) were utilized in the study.

Inherent risk of apparel was measured by asking respondents to indicate the overall risk in buying each of the nine apparel categories on a scale from "no risk" (1) to "very high risk" (5), "keeping in mind the financial, performance, physical, psychological and social components of risk" (Jacoby and Kaplan 1972). Each of the components were defined but space did not allow measurement of risk associated with each component for each apparel category. The respondents were then asked to rate the riskiness of buying each of the types of apparel, using the same five-point scale, from each of the six patronage modes. The only additional informa-

tion the sample had was where the product was sold. The risk attributable to a specific retail mode can be derived by subtracting the overall (inherent) risk for a particular apparel category from the overall risk for the same category with the knowledge of the patronage mode (handled risk). If the difference is positive, then the handled risk is greater than the inherent risk, and the risk would have increased due to the patronage mode. If the difference is negative, the risk would have decreased. The magnitude of the difference can be used as a relative measure of the extent to which the patronage mode increases or decreases the amount of risk consumers perceive for the apparel categories.

Perceived risk has been measured in many, diverse ways (Zikmund et. al. 1982). A commonly used measure of perceived risk is that of Cunningham (1967). Cunningham viewed perceived risk as having two dimensions: the perceived certainty of a given event happening, and the consequence involved if the event should happen. Jacoby and Kaplan's (1972) 'risk components' concept, as well as other research, used rating scales similar to the ones used in this study (Berman and Kleinman 1978; Hirsch, Dornoff, and Kernan 1972; Reid, Teel, and Vanden Bergh 1976; Spence, Engle, and Blackwell 1970; Zikmund and Scott 1977). Lumpkin and Massey (1983) established the validity and reliability of both approaches.

Finally, Market Facts provided sociodemographic data on each respondent including sex, marital status, income, age and household size. These measures were included as covariates to investigate their effect on perceived risk and, if there is a relationship, to account for that effect (e.g. hold constant) when investigating differences in perceived risk.

Analysis Procedure

The first stage in the analysis was to determine whether awareness of the patronage mode significantly increased or decreased the risk for the product category. This analysis indicates whether handled risk differs significantly from

inherent risk. A t-test was performed on the perceived risk attributable to each patronage mode to determine whether the mean was significantly different from zero (i.e., no difference in inherent and handled risk).

The second stage in the analysis was to determine whether the handled risk exhibited significant differences across the patronage modes for each of the apparel categories. Multivariate Analysis of Variance (MANOVA) was employed to determine the significance of differences. MANOVA is a useful technique when there are multiple interval scaled criterion variables (perceived risk of apparel categories) and one categorical predictor variable (patronage mode) (Green 1978). MANOVA is similar to univariate analysis of variance except that differences between group centroids are examined (Cooley and Lohnes 1971).

An advantage of the MANOVA technique is the ability, through covariates, to increase the precision of the analysis by adjusting the criterion variable vector for background effects not controlled in the study. Thus, the researcher is not forced to match the groups on variables that could potentially affect the responses to the criterion variables. Rather, the Multivariate Analysis of Covariance (MANOCOVA) technique removes the influence of the covariates through regression-type analysis, and the MANOVA procedure is performed with adjusted criterion variables.

The primary focus of this study is the difference in perceived risk across patronage modes and apparel categories. However, because perceived risk may be related to sociodemographic factors, their effect can be controlled by treating them as covariates. Sex, marital status, and income levels were obtained as categorical data. While covariates are usually metric level, dummy coded categorical variables may also be used (Blalock 1960; Green 1978).

The analysis of the relationship between perceived risk and the patronage modes/apparel categories involves two steps. First, the basic

model (without covariates) is analyzed using MANOVA, and then the model, adjusted for covariates, is tested using MANOCOVA. If the basic model is significant but the covariate model is not, it would indicate that the perceived risk is influenced by the covariates. The covariates could then be analyzed to determine their specific contribution to explaining perceived risk. However, if the significance of the model does not change with the inclusion of covariates, it can be assumed the covariates do not exert a significant effect, and the more parsimonious basic model is appropriate (Wind and Denny 1974; Darden and Perreault 1975; Darden and Rao 1979).

If MANOVA/MANOCOVA indicated overall differences existed between the patronage modes, further analysis was conducted to determine the source of the differences. Univariate analysis of variance of each criterion variable is the traditional form of the test. Darden and Perreault (1975) have also demonstrated the advantages of using Multiple Discriminant Analysis (MDA) in conjunction with MANOVA to help determine the direction and intensity of each criterion variable's impact on the overall group differences. While MANOVA tests for significant departure from the null hypothesis of no differences across groups, MDA determines the weights of the combination of criterion variables which maximize the departure from the null hypothesis. Thus, evaluating the contribution of each criterion variable to the discriminant function can increase the researcher's understanding of each variable's impact on the group separation. With MDA we can compute the number of categories less one nonredundant discriminant functions. For six patronage modes, five discriminant functions will be tested for significance. Because the first function accounts for the most variance, the second function, the next highest proportion of variance, and so on, all functions may not be significant.

The relative importance of each criterion variable in discriminating among the patronage modes is provided by standardized discriminant coefficients. However, these coefficients are

sensitive to correlations between the criterion variables and may provide misleading interpretations. To minimize this problem discriminant function loadings -- the product moment correlation between each of the criterion variables and the discriminant function composite score -- can be computed (Perrault, Behrman, and Armstrong 1979). These loadings, which are analogous to factor loadings, also indicate the relative importance of the variable on that function with the sign indicating directional relationships.

Just as in factor analysis, the loadings are helpful in labeling the discriminant function by indicating which criterion variables are associated with a given significant discriminant function (Alpert and Peterson 1972). Thus, a taxonomy of variables that characterize the function (dimension) can be developed. In discriminant analysis, as in factor analysis, the structure of the matrix of loadings may be improved for interpretation by rotation. Orthogonal rotation, such as Varimax, preserves the total discrimination of the initial solution (Cliff and Krus 1976; Hall 1969).

The final stage of this research was to determine whether, for a particular patronage mode, the handled risk differed across apparel categories. The same analytical procedure was applied: a MANOVA/MANOCOVA was completed and MDA was used to identify the nature of the differences.

Results

Whether the risk attributed to the patronage mode increased or decreased when subtracting out the risk inherent to the product category was first investigated. Only 5 of the 54 risk comparisons resulted in non-significant changes: sports jackets/blazers, dress shirts/blouses, and dress slacks/skirts purchased from discount stores; and casual slacks/skirts, and accessories purchased from store catalogs. These are presented in boldface in Table 2. The risk attributed to the patronage mode for all other product categories either increased or decreased significantly (at the .05 level). For the specialty stores and department stores in all apparel categories, for most

categories purchased from discount stores, and for store catalogs in suits and dresses, the risk attributable to the patronage mode decreased. In every other instance, the risk attributable to the patronage mode increased. Risk attributed to media advertisements increased most among the patronage modes examined, and in general the risk attributed to non-store patronage modes increased risk to a greater extent when compared to in-store alternatives. The in-store alternatives tended to significantly reduce the risk associated with the apparel products. Table 2 shows the means for the risk attributable to the patronage modes across the product categories.

Differences Across the Patronage Modes

The results of the MANOVA/MANOCOVA /MDA analyses examining the handled risk across the patronage modes are presented in Table 1. The multivariate test of differences in mean risk across the modes (see Table 2) was significant (> .0001) for both the basic (MANOVA) model and the covariate (MANOCOVA) model. Consequently, it can be concluded that there were statistically significant differences in the amount of risk attributed to apparel from the various patronage modes and this difference is not affected by sociodemographics. Thus, the basic model results are presented.

MDA was conducted to examine the nature of these differences. The varimax rotated discriminant loadings are provided in Table 1. The differences are manifested in three dimensions (discriminant functions which are significant at the .001 level or better). Based on the discriminant loadings, the differences in the perceived risk associated with purchasing apparel products from the six patronage modes can be broadly classified along these three dimensions labeled as: casual clothing, dress clothing, and shoes.

An examination of the univariate F tests in Table 1 reveals all apparel categories differ across at least two of the patronage modes. In addition, the R^2 (the proportion of variance accounted for) is relatively high for each apparel category. The mean risk for each product cate-

Table 1

Differences in Perceived Risk Associated with Apparel
Categories Across Patronage Modes

| | F-Value | R^2 | Rotated Discriminant Loadings | | |
			I	II	III
Univariate					
Jeans	1032.96[a]	40.04	.7353	.2190	.3776
Casual Slacks/Skirts	999.55[a]	39.25	.6858	.3651	.2549
Accessories	868.62[a]	35.96	.6546	.4716	.4716
Sports Jackets/Blazers	1206.54[a]	43.82	.3609	.6121	.3754
Dress Shirts/Blouses	1137.68[a]	73.55	.4355	.5981	.2988
Suits and Dresses	1051.43[a]	40.46	.3102	.5629	.3777
Dress Slacks/Skirts	1170.42[a]	75.66	.4026	.5302	.4021
Lingerie	953.30[a]	37.55	.5367	.5537	.1653
Shoes	1112.58[a]	41.83	.2165	.2163	.7930

	F-Value	R^2			
Multivariate					
Multivariate F-Test (MANOVA)	163.11[a]	16.07			
Multivariate F-Test (MANOCOVA with demographic covariates)	121.86[a]				
Multivariate Chi Square (MDA)					
Function: I	6660.00[a]				
II	269.41[a]				
III	43.33[a]				
IV	4.60				
V	.52				
Percent Currently Classified[b]	36.96%				
Proportional Chance Criteria	16.67%				

[a]Probability is less than .001
[b]While relatively low in predictive power, the discriminant function performs better than expected by chance.

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gory and across patronage modes are shown in Table 2. Specific differences in the perceived risk attributable to the patronage modes for each apparel category was tested using the Scheffe' test at the .05 significance level. The results of the Scheffe' tests indicate if subsets exist among the six patronage modes.

Reading across each row (apparel category) in Table 2 reveals specialty stores and department stores did not differ significantly in any apparel category. Further, respondents indicated that handled risk of these patronage modes was significantly less than inherent risk associated with the products examined and significantly less than other patronage modes examined. That is, the risk for all apparel categories decreased for both specialty and department store to the same degree.

The Scheffe' tests determined the perceived risk attributed to each of the remaining patronage modes was significantly different with only two exceptions. There was no difference in risk between discount stores and store catalogs for sports jackets and suits/dresses. Respondents' handled risk generally increased as the personal nature of the patronage mode decreased (i.e., specialty store to media advertisements). These results, while not surprising, provide strong evidence that various shopping modes present differing amounts of handled risk when purchasing apparel products.

Differences Across Apparel Product Categories

The results of the MANOVA examining the overall perceived risk associated with each product category are presented in Table 3. The multivariate test across products was significant (> .0001) indicating significant differences in the amount of risk associated with purchasing different apparel from the same patronage mode.

The discriminant analysis examining this overall difference across the apparel categories with respect to the six patronage modes produced three functions (dimensions) that were significant at the .001 level or better. The varimax rotated

discriminant loadings are provided in Table 3. Based on these discriminant loadings, the first dimension reflects the handled risk attributable to purchasing different apparel products from specialty stores and department stores. The second and third dimensions reflects the handled risk associated with purchasing apparel products from store catalogs/direct mail/media advertisements and discount stores, respectively. These dimensions reflect the degree of risk identified earlier and presented in Table 2.

An examination of the univariate F tests reveals all patronage modes differ across at least two of the product categories (Table 3). The group means of the perceived risk measures are provided in Table 4. Specific differences in the perceived risk attributable to product types within each patronage mode was tested using the Scheffe' test at the .05 significance level

Reading across each row (patronage mode) in Table 4 indicates the handled risk associated with purchasing suits and dresses was the lowest for each patronage mode. On the other hand, shoes exhibited the highest handled risk for each patronage mode. Apparel purchased from the various patronage modes can be grouped (although some overlap occurs) into four categories: suits/blazers, dress clothes, casual clothes, and shoes.

Discussion

These results indicate varying amounts of handled risk are associated with purchasing products from different patronage modes. Apparel products in specialty stores and department stores were perceived to have less risk when compared to other patronage modes. These in-store modes were expected to have a lower perceived risk image (Spence, Engel, and Blackwell 1970; Dash, Schiffman, and Berenson 1975) and the results verify these patronage modes reduce the handled risk associated with all apparel categories. On the other hand, in-home shopping modes, in general, tended to <u>increase</u> the perceived risk associated with purchasing apparel products which supports previous re-

Table 2

Mean Perceived Risk[1] of Apparel Categories Attributable to Each
Patronage Mode: Scheffe' Tests of Differences Across Patronage Modes[2]

Product Category	Specialty Stores	Department Stores	Discount Stores	Store Catalogs	Direct Mail	Media Advertisements
Jeans	-1.329a	-1.315a	-.124b	.171c	.954d	1.282e
Casual Slacks/Skirts	-1.450a	-1.441a	-.221b	.019c	.819d	1.176e
Accessories	-1.279a	-1.294a	-.174b	.021c	.781d	1.198e
Sports Jackets/Blazers	-1.512a	-1.481a	.003b	.141b	.929c	1.234d
Dress Shirts/Blouses	-1.435a	-1.438a	-.026b	.128c	.904d	1.247e
Suits & Dresses	-2.228a	-2.207a	-.702b	-.559b	.200c	.517d
Dress Slacks/Skirts	-1.461a	-1.441a	.019b	.192c	.956d	1.275e
Lingerie	-1.323a	-1.318a	.066b	.098c	.884d	1.261e
Shoes	-1.078a	-.983a	.623b	.871c	1.496d	1.741e
Overall Mean for Mode	-1.455	-1.434	-.074	.120	.880	1.215

[1] Defined as handled-inherent risk and ranges from -4 to +4, where zero indicates no difference in inherent and handled risk due to the patronage mode. A negative number indicates a decrease in risk, and a positive number indicates an increase in risk, due to the patronage mode.

[2] For a given product category, patronage modes with the same superscripts are not significantly different from each other.

Table 3

Differences in Perceived Risk Attributable to Each
Patronage Mode Across Product Categories

| | F-Value | R^2 | Rotated Discriminant Loadings | | |
			I	II	III
Univariate					
Specialty Store	106.34[a]	6.53	.892	.213	.282
Department Store	115.40[a]	7.05	.838	.391	.242
Store Catalogs	105.86[a]	6.50	.305	.851	.328
Direct Mail	93.13[a]	5.77	.383	.669	.365
Media Advertisement	83.25[a]	5.19	.513	.523	.429
Discount Store	90.48[a]	5.61	.308	.342	.865
Multivariate					
Multivariate F-Test (MANOVA)	31.33[a]	2.02			
Multivariate F-Test (MANOCOVA with demographic covariates)	36.51[a]				
Multivariate Chi Square (MDA)					
Function: I	1486.00[a]				
II	452.74[a]				
III	38.02[a]				
IV	15.61				
V	1.67				
VI	.35				
VII	.00				
VIII	.00				
Percent Currently Classified[b]	18.03%				
Proportional Chance Criteria	11.40%				

[a]Probability is less than .001
[b]While relatively low in predictive power, the discriminant function performs better than expected by chance.

Table 4

Mean Perceived Risk[1] Attributable to Each Apparel Category: Scheffe' Test of Difference Across Apparel Categories[2]

Patronage Mode	Suits/ Dresses	Jackets/ Blazers	Dress Slacks/ Skirts	Dress Shirts/ Blouses	Jeans	Casual Slacks/ Skirts	Lingerie	Acces- sories	Shoes
Specialty Store	-2.228a	-1.512a	-1.461bc	-1.435bcd	-1.329cd	-1.450bcd	-1.323cd	-1.279d	-1.078e
Department Store	-2.207a	-1.481b	-1.441bc	-1.428bc	-1.315bc	-1.552bc	-1.318bc	-1.294c	-.983d
Discount Store	-.702a	.003a	.019c	-.026bc	-.124bc	-.221b	-.066bc	-.174bc	.623d
Media Advertisement	.517a	1.234b	1.275b	1.247b	1.282b	1.176b	1.261b	1.198b	1.741c
Store Catalogs	-.559a	.141b	.192b	.128b	.171b	.109b	.098b	.021b	.871c
Direct Mail	.200a	.929b	.956b	.904b	.954b	.819b	.884b	.781b	1.496c

[1] Ranges from -.4 to 4, where zero indicates no difference in inherent risk and handled risk due to the patronage mode. A negative number indicates a decrease in risk, and a positive number indicates an increase in risk, due to the patronage mode.

[2] For a given patronage mode, product categories with same superscripts are not significantly different from each other.

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search (Cox and Rich 1964; Festervand, Snyder, and Tsalikis 1986; Hawes and Lumpkin 1986).

From the previous research, it was expected that in-store patronage and especially specialty and department stores reduce the risk and in-home modes increase that risk. However, that specialty stores did not reduce the risk significantly vis-a-vis department stores is interesting and counter to the findings of Dash, Schiffman, and Berenson (1976). It appears department stores may be considered as viable alternative to specialty stores as their distinctions are blurred. It may be speculated that while specialty stores might reduce some components of risk, their higher prices may increase the financial risk component. Nevertheless, it is clear that, with respect to risk, department stores are competing well with specialty stores. As a result, specialty stores must reevaluate their competitive advantages over department stores if the distinction is not to blur further.

Another surprising finding is that discount stores engender the same risk as store catalogs for sports coats and suits/dresses and lower risk for all other apparel categories. Because department stores (along with specialty stores) have the lowest risk, it is interesting that store catalogs exhibit greater risk than discount stores and greater risk than their in-store counterparts. Consumers associate greater risk to purchasing a given apparel item from, say, the Sears catalog than from a Sears retail outlet. Store catalogs generally carry the same products as their store counterparts and should enjoy similiar reputation. Thus, while some additional perceived risk from catalog shopping would be expected due to relatively unknown quality, sizing, etc. and supported by Festervand, Snyder, and Tsalikis (1986), the magnitude of the difference was unexpected. Further, the perceived risk for this mode of purchasing is greater than for discount stores, which traditionally have had lower quality apparel products. Thus, it appears that discount stores are doing better and/or store catalogs are doing worse than expected with respect to perceived risk.

Direct mail (which includes catalogs not associated with retail stores) is also seen as significantly more risky than in-store modes (including discount stores) and store catalogs. Thus, the familiarity and perhaps the availability of a retail store aids the perception of store catalogs to the detriment of other catalogs and other forms of direct mail. Additional research is needed to determine if consumers reduce the risk of store catalogs by examining the apparel at the retail store before ordering. Alternatively, the availability of a retail store for recourse if not satisfactory, may provide a risk reducing benefit over catalog companies without retail sites. It may also be speculated that the existing image of the retailer is carrying over to the catalog when compared to other catalogs. If true, this carry-over perception does not overcome the advantage of in-store shopping.

If in-home shopping is to become a viable alternative, these retailers must take the steps necessary to reduce the risk associated with their shopping mode. One step is to recognize risk-taking as an integral part of consumer behavior and that the degree of risk is likely to be a deciding factor in purchasing apparel. Thus, retailers must take the perceived difference among patronage modes into consideration when formulating their strategies.

For those patronage modes perceived as having high risk for a particular product, a strategy of risk reduction should be implemented to improve the overall risk image of the retailer. Actual retail stores may serve as indicators of stability and consequently reduce risk. Otherwise, steps should be taken to reduce the consequences of the product's failure to meet consumers' needs as is suggested by Prospect Theory (Kahneman and Tversky 1979). Money-back guarantees, better-than-average warranties, improved product assortments, and acceptable prices to encourage retail patronage and to keep dissonance to a minimum are all possibilities. Rather than assuring satisfaction against the "negatives," another approach is to provide positive information about the product and the mode.

With products offered by patronage modes which have less perceived risk, the image of the retail store could be stressed in marketing communications. A premium-pricing strategy might be implemented, possibly enhancing the favorable product image as well as taking advantage of lower perceived risk to earn additional profits.

The study also found that risk attributable to a specific patronage mode tends to differ among the apparel categories. In general, the risk for shoes remains relatively high regardless of the patronage mode. Specialty and department stores reduce the risk somewhat while other modes increase the risk. Shoes just seem to engender a great deal of risk. This is probably due to physical discomfort of shoes that do not fit correctly, the general unalterability of incorrectly fitted shoes and the sometimes non-standard sizing of shoes. The risk for suits and dresses, on the other hand, can be changed by the patronage mode.

For specialty and department stores, the risk is changed (reduced) for all apparel categories even though to differing degrees. Discount stores increase risk for shoes and decrease risk for all other apparel categories but to differing degrees. Store catalogs mirror discount stores on suits/dresses and shoes but increase the risk for all other categories. Media ads and direct mail increase risk for all apparel categories.

In sum, specialty and department stores reduce risk regardless of apparel category and media ads and direct mail increase risk for all categories. Discount stores and store catalogs are perceived the same on suits/dresses and shoes but discount stores engender less risk on all other categories.

It is essential for retailers to fully understand the degree of perceived risk associated with a given patronage mode and individual product offerings. Moreover, decision-makers must examine the interaction effects of perceived risk associated with specific product categories and patronage modes. For example, marketing high risk products (i.e. shoes) in high risk outlets (i.e., catalogs, media advertisements) could compound the impact of perceived risk on the buying process. This dual (product and patronage mode) examination could lead to more appropriate risk reduction strategies directed at the more salient aspects of perceived risk. Failure to recognize that consumers distinguish between apparel offerings on the basis of inherent product attributes and patronage mode will result in less than optimal strategies.

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