

LOW- AND HIGH-INVOLVEMENT PRODUCT PERSPECTIVE

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ABSTRACT

Unlike most previous price-quality studies which have been based on a broad classification scheme of lumping products into durables and non-durables, the present study has extended research in this area by investigating price-quality relations from the consumer involvement perspective. Results have provided some empirical evidence and explanation on the confusion of conflicting findings of the previous studies.

INTRODUCTION

Consumer perception of price has been a perennial concern to many marketers. During the last four decades a series of studies have investigated the relationship between product-price and its perceived quality (Scitovsky 1944-45; McConnell 1968; Gerstner 1985). Implicitly or explicitly, these studies have been based on the theory that price differentials would induce consumers to perceive differences in quality despite the homogeneity of the products involved. Central to this theory is the concept that consumers impute quality on the basis of price when no additional product-attribute cues are available to them.

Although research findings are not yet conclusive, the preponderance of evidence suggests a positive relationship between price and perceptions of product quality, at least within some price ranges and for some product categories. According to the studies of Oxenfeldt (1950), Riesz (1979), Venkataraman (1981), and Geistfeld (1982), durables have generally exhibited a stronger relationship between price and quality than non-durables which have frequently demonstrated a weak or negative relationship. These studies have concluded that quality-price relations are product-specific and weak in general. Gerstner (1985) concurred with these previous findings in a recent study and bemoaned the dearth of theories capable of explaining how such a weak quality-price relations in general could persist.

The disparity and inconsistency of the research findings may stem from the conceptual underpinnings of the previous studies. The common and underlying assumption in these studies is that, unlike non-durable goods, durable products represent to the consumer a high risk and, therefore, an important purchase situation.

Durable and non-durable dichotomy of product classification may obscure the consumer's perceived importance of certain products.

Although beer, blue jeans, coffee, and pain remedy are classified as non-durable products,

studies by Hupfer and Gardner (1971), DeBruicker (1979), and Lastovicka and Gardner (1979) in the area of involvement theory have indicated high consumer involvement with them and, therefore, these products also qualify as important items.

The concept of involvement is, therefore, consumer related, not strictly product related. Thus, a product is classified in terms of the consumer's familiarity with it, evaluation of its importance, and in terms of his or her identity with it.

In view of the relevancy of the involvement model to consumer behavior, the purpose of this study is to determine the relationship of varying price levels and product classes to perception of quality in low- and high-involvement situations.

More specifically, the following two hypotheses were tested:

- H₁ perceived quality will not vary significantly with different levels of stated price for low-involvement products.
- H₂ perceived quality will vary significantly with different levels of stated price for high-involvement products.

METHOD

Subjects

In order to inject more realism into otherwise a laboratory experiment, the study was conducted at a large shopping mall. Two hundred adult shoppers were chosen at random as the patrons were either entering or leaving the premises. The sample consisted of 105 males and 95 females.

Experimental Products

To avoid the shortcomings of defining certain products as low or high involvement by any objective characteristics of the good itself (like in any product classification system) Lastovicka (1979), homogeneous consumer perceptions and behaviors were used for determining the involvement classification of the experimental products.

Consistent with Lastovicka and Gardner's (1979) scaling approach, sixty shoppers in a pilot study were asked to agree or disagree with twenty-two statements about five products including canned beans, wine, booster cables, wrist watches, and portable stereo radios. The statements indicated involvement with the product in terms of familiarity, commitment, and normative importance dimensions: for example, "I use this product to

help express the 'I' and 'me' within myself" (normative importance or self identification); "I understand the features in this product class well enough to evaluate the brands" (familiarity); "if my preferred brand in this product class is not available at the store, it makes little difference to me if I must choose another brand" (commitment).

Factor analysis was applied to the responses to the involvement indicator statements. The product mode factor matrix is shown in Table 1.

TABLE 1

FACTOR LOADING FOR THE FIVE PRODUCTS,
K MODE (VARIMAX ROTATED)

Product Category	Factors		
	Low Involvement	High Involvement	Special Interest
Canned Beans	.435	.039	-.047
Wine	.128	.348	-.073
Booster Cables	.274	.131	.082
Wrist Watches	-.070	.637	-.038
Portable Stereo Radios	-.044	.519	.157

The analysis produced three groups of products. In the first column, the products with high positive numbers represent low involvement products: canned beans and booster cables. These products may qualify as everyday products which are not important and are not expressions of self-identity.

The high positive numbers in the second column represent high involvement products: wine, wrist watches, and portable stereo radios. Although these are everyday products, they are expressions of the life styles and identities of the shoppers surveyed.

The third column represents the special interest (or enthusiast) products. All of the items in this factor had low to negative loading. These products are not represented by importance and, therefore, they cannot be characterized as either low-or high-involvement items.

Only two products with the highest loadings were chosen for this study in an attempt to limit each interview to around 15 minutes. The product categories used in the experiment were canned beans and wrist watches representing low-involvement and high-involvement products, respectively. It was decided to restrict Ss range of choice to two levels of price, namely high and low.

To hedge against extraneous influences of brand image and Ss experiences with actual brands, two identical but fictitious brands of each product

were priced at low and high levels within the price range of the surrounding local stores and markets. The typical price for canned beans ranged from 29 to 85 cents, while the range for a non-disposable wrist watch ran from \$35 to \$380. Through the same pilot study (conducted to determine product involvement), shoppers were asked to rate five price levels for each of the pre-experimental products on a five-point scale spanning choices of responses from "very low price" to "very high price." According to the data obtained, canned beans was priced 35c for low and 75c for high price; while the wrist watch was priced \$45 for low and \$360 for high price.

Procedure

The experimental design was a 2x2 factorial. Two products were used, one representing high-involvement and another one a low-involvement product. Each of these products had a low and a high price counterpart.

Shoppers were randomly assigned to one of four treatments. The actual purpose of the research was disguised under the pretense that the respondents were providing information to help either a watch manufacturer or a food processor (as the situation dictated), select appropriate marketing strategies for their products.

Four different questionnaires were used to generate the data for the study: one questionnaire for each of the two experimental products, and one questionnaire for each of the two price levels.

The Ss were first shown the product and then its corresponding questionnaire was administered to record the Ss beliefs about the dependent variable (i.e., perceived quality) on a seven-point scale.

The questionnaire format was based on multi-attribute attitude model in which attitude toward a stimulus object was determined by the importance weight Ss assigned to the product attributes times Ss brand beliefs. In this study the selected attributes which impute quality for canned beans were water content, sweetness, tenderness, and freshness. As for the wrist watch, the attributes indexing quality included design, accuracy, durability, and dependability.

After the Ss had rated the importance of the attributes, they were asked to indicate on a separate scale the degree or amount of the attribute they believed the product possessed. For example, Ss were asked first to rate the "importance of tenderness in canned beans" on a 7-point scale ranging from "not very important," "somewhat important" to "very important." Then Ss were requested to rate the quality of the canned beans at either low or high price by indicating their responses on a 7-point scale ranging from "very tough," "fairly tender," to "very tender."

RESULTS

Perceived quality was used as the dependent variable in a series of analysis of variance. The mean scores of the four treatments are presented in Table 2.

TABLE 2

MEAN SCORES OF PERCEIVED QUALITY OF THE TWO EXPERIMENTAL PRODUCTS AT TWO PRICE LEVELS

	Price Level	
	Low	High
Low Involving	58.3	85.74
High Involving	113.68	158.52

One-way analysis of variance was applied on the attitudes toward the perceived quality of the experimental, low-involving products. Results did not indicate significant main effects for the two price treatments ($F = 0.72$, $df = 1, 98$, $P = 0.5$) as is shown in Table 3.

TABLE 3

ANALYSIS OF VARIANCE OF LOW-INVOLVEMENT PRODUCT QUALITY PERCEPTION

Source of Variation	Sum of Squares	d.f.	Mean Square	F-Ratio
Between price treatments	1005.3	1	1005.3	0.72
Unexplained	136,985.7	98	1383.69	
Total	137,991	99		

$p = .05$

There is no statistically significant difference between the two price treatments. The data, thus, supports H_1 in that perceived quality of the canned beans did not vary significantly with price in the low-involving product situation.

Another one-way analysis of variance was applied on the attitudes toward the perceived quality of the experimental, high-involving products. This time the results showed significant main effects for the two price treatments ($F = 46.77$, $df = 1, 98$, $P = 0.5$) as reported in Table 4. In other words, perceived quality varied significantly with price for the high-involving product. The high priced watch received considerably greater quality ratings than the same watch at the relatively lower price.

TABLE 4

ANALYSIS OF VARIANCE OF HIGH-INVOLVEMENT PRODUCT QUALITY PERCEPTION

Source of Variation	Sum of Squares	d.f.	Mean Square	F-Ratio
Between price treatments	18,824.48	1	18,824.48	46.77*
Unexplained	39,428.52	98	402.33	
Total	58,253	99		

* $p = .05$

Therefore, the data strongly supports H_2 .

To test whether a significant difference existed between the means of the four groups, a final analysis of variance was performed. The outcome of this analysis has further corroborated the statistical results obtained from the preceding analysis of each product category. The price treatments indicated significant main effects ($F = 99.70$, $df = 1, 196$, $P = .05$). See Table 5.

TABLE 5

ANALYSIS OF VARIANCE OF HIGH- AND LOW-INVOLVEMENT PRODUCT QUALITY PERCEPTION

Source of Variation	Sum of Squares	d.f.	Mean Square	F-Ratio
A (Price)	65,304.98	1	65,304.98	99.70*
B (Product)	205,312.32	1	205,312.32	313.47*
A B (Interaction)	3,784.50	1	3,784.5	5.79*
Error	128,371.48	196	654.96	
Total	402,773.28	199		

* $p = .05$

The analysis also produced significant difference in the perceived product quality of the experimental products ($F = 313.47$, $df = 1, 196$, $P = .05$). The interaction effect was also significant which implied that the price treatment effects were dependent on the type of products ($F = 5.79$, $df = 1, 196$, $P = 0.5$).

DISCUSSION

The results of this study based on the involvement theory indicate that price was used by shoppers as a proxy for quality in evaluating a high-involving product. Ss perceived the higher priced wrist watch as being superior in quality than its lower priced, but physically identical,

counterpart. However, in the low-involving product category, Ss did not seem to use prices for quality imputation. The quality of the higher priced canned beans was not perceived to have posed greater quality than the same, but lower priced, twin product.

Although these findings are consistent with several of the previous studies, the difference lies in the choice of theoretical framework.

Previous studies have pigeonholed products into two broad categories based on their objective characteristics either a priori or posteriori while discussing the findings. Such a classificatory approach is independent of the consumer's perception and decision process.

The degree of consumer involvement in a product category is being increasingly accepted as an important variable germane to the matrix of most marketing activities. Rothschild (1979), Vaughn (1980), Ray (1982) and a host of others have recognized the extent of consumer involvement in a product category as being vitally relevant to advertising strategy. Laurent and Kapferer (1985) have also suggested that the involvement concept can be used effectively to segment the market.

Depending on their level of involvement in a product, consumers apparently differ in their perception of its marketing mix attributes. Therefore, before formulating any price strategies, it would be essential first to determine how a target market or an experimental group view the products (i.e., low- or high-involving.)

The equivocal findings of the previous studies could be artifactual due to the inappropriateness of the theoretical foundation used. To establish reliability of results, future research investigations on price-quality relations should preferably be carried out from the consumer involvement view.

REFERENCES

DeBruicker, F. S. (1979), "An Appraisal of Low-Involvement Consumer Information Processing" in Attitude Research Plays for High Stakes, J.C. Maloney and B. Silverman, eds., Chicago: American Marketing Association, 112-130.

Geistfeld, Loren V. (1982), "The Price-Quality Relationship-Revisited," The Journal of Consumer Affairs, Vol. 16 (Winter), No. 2, 334-346.

Gerstner, Eitan (1985), "Do Higher Prices Signal Higher Quality," Journal of Marketing Research, Vol. 12, No. 2, May, 1985, 209-215.

Hupfer, Nancy T. & Gardner, David M. (1971), "Differential Involvement with Products and Issues: An Exploratory Study" in David M. Gardner, ed., Proceedings of the 2nd Annual Conference of The Association for Consumer Research, (College Park, MD: Association For Consumer Research, 1971), 262-269.

Laurent, G. & Kapferer, J. (1985), "Measuring Consumer Involvement Profiles," Journal of Marketing Research, Volume 22, No. 1, February 1985, 41-53.

Lastovicka, John L. (1979), "Questioning the Concept of Involvement Defined Product Classes," in William L. Wilkie, ed., Advances in Consumer Research, Vol. 6 (Ann Arbor: Association for Consumer Research), 174-179.

Lastovicka, John L. & Gardner, David M. (1979), "Components of Involvement" in John C. Maloney and Bernard Silverman, eds. Attitude Research Plays for High Stakes, (Chicago: American Marketing Association), p. 65.

McConnell, T. Douglas (1968), "Effect of Pricing on Perception of Product Quality," Journal of Applied Psychology, Vol. 52, No. 4, 331-334.

McConnell, T. Douglas (1968), "The Price-Quality Relationship in an Experimental Setting," Journal of Marketing Research, Vol. No. 5, 3, (August), 300-303.

Oxenfeldt, Alfred, R. (1950), "Consumer Knowledge: Its Measurement and Extent," Review of Economics and Statistics, Vol. 32, 300-314.

Ray, Michael L. (1982), Advertising and Communication Management, Prentice-Hall, Inc., Englewood Cliffs, NJ, 187-188.

Riesz, Peter C. (1979), "Price-Quality Correlations for Packaged Food Products," The Journal of Consumer Affairs, Vol. 13 (Winter), No. 2, 236-247.

Rothschild, M.L. (1979), "Advertising Strategies for High and Low Involvement Situations," in Attitude Research Plays for High Stakes, J. C. Maloney and B. Silverman, eds. Chicago: American Marketing Association, 74-93.

Scitovsky, T. (1945), "Some Consequences of the Habit of Judging Quality by Price," The Review of Economic Studies, Vol. 12, No. 2, 100-105.

Vaughn, R. (1980), "How Advertising Works: A Planning Model," Journal of Advertising Research, Vol. 20 (October), 27-33.

Venkataraman, V. K. (1981), "The Price-Quality Relationship in an Experimental Setting," Journal of Advertising Research, Vol. 21 (August), No. 4, 49-52.