

# The Moderating Effects of Message Framing and Source Credibility on the Price-perceived Risk Relationship

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One factor that research has identified as a critical determinant of consumers' willingness to buy a new product or brand is the perceived risk associated with the purchase. Consequently, a better understanding of the factors affecting consumers' perceptions of the financial and performance risk entailed by the purchase of a new brand is of both theoretical and pragmatic importance. Previous research has suggested that a new product's price affects consumers' perceptions of risk. The current article extends and integrates previous research by proposing that the effect of price on consumers' perceptions of risk is moderated by two communication factors: message framing and source credibility. The results of an experiment support the predictions that the influence of price on consumers' perceptions of performance risk is greater when the message is framed negatively or the credibility of the source is low. In addition, the results support the prediction that the effect of price on consumers' perceptions of financial risk is greater when the message is framed positively.

The issues surrounding consumers' decisions to try new brands and adopt innovative products are of both theoretical interest and pragmatic importance. Thus, it is not surprising to find that a considerable amount of marketing research has been devoted to understanding the factors affecting these decisions (see, e.g., Arndt 1967; Bearden and Shimp 1982). One factor that research has identified as a critical determinant of consumers' willingness to buy a new item is the perceived risk associated with the purchase. This article is designed to provide further insight into the way in which marketing communications affect consumers' perceptions of the financial and performance risk entailed by the purchase of a new brand.

Previous research suggests that a new product's price and the way advertised information is communicated

affect consumers' perceptions of the performance risk of a new product (see, e.g., Shimp and Bearden 1982). Perceived performance risk refers to the possibility that the product will not function as expected and/or will not provide the desired benefits (Bauer 1960; Oglethorpe 1988). It is interesting that some research suggests that a relatively high price will reduce a consumers' perception of the performance risk associated with the purchase of a particular product (Peterson and Wilson 1985), while other studies report little or no effect of price on perceived performance risk (see, e.g., Shimp and Bearden 1982; White and Truly 1989). We suggest that these conflicting findings may be due to the fact that a positively framed message was (implicitly) used in some cases, whereas a negatively framed message was (implicitly) used elsewhere. Therefore, the current research draws on prospect theory (Kahneman and Tversky 1979) to resolve this apparent inconsistency in the literature and to explain why the strength of the relationship between a product's price and perceived performance risk depends on the way advertised information is communicated. We complement this conceptual contribution with an empirical study that indicates that the framing of an advertised message does, in fact, moderate the price-perceived performance risk relationship.

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In addition to message framing, a second communication factor that researchers have examined in the context of consumers' perceptions of performance risk is the credibility of the message source. For example, a study by Bearden and Shimp (1982) found that the source's credibility (operationalized via warrantor reputation) was negatively related to consumers' perceptions of the risk of purchasing several new products. However, past research in advertising and persuasion (Eagly and Chaiken 1975; Kelly 1967; Mizerski, Golden, and Kernan 1979) suggests that the relationship between source credibility and perceived performance risk may be more complex. Specifically, we propose that source credibility will interact with price to affect consumers' judgments of the performance risk associated with an advertised product. We then make a further contribution by providing empirical evidence that source credibility moderates the relationship between price and perceived performance risk.

Another important type of risk perception that has been examined in the context of consumers' decisions to adopt new products is perceived financial risk (Shimp and Bearden 1982). Several previous studies have proposed and found a positive relationship between price and perceived financial risk (Kaplan, Szybillo, and Jacoby 1974; White and Truly 1989). This article makes an important conceptual distinction between perceived financial risk and perceived performance risk in order to better explain the relationship between price and perceived financial risk. Specifically, the concept of life-cycle cost (Hutton and Wilkie 1980) suggests that financial risk should be defined in terms of the potential monetary outlay associated with the initial purchase price as well as the subsequent maintenance and repair costs of a product. Thus, a fundamental distinction between financial risk and performance risk is that the price of the product is an inherent component of financial risk (via initial outlay), whereas price is not necessarily related to perceived performance risk. This distinction suggests that the effect of price on consumers' perceptions of the respective types of risks is likely to differ. In a similar way, the joint effect of message framing and price on the aforementioned types of perceived risk is proposed and found to differ.

In the next section of the article, the relevant literature is reviewed and the conceptual foundation for the study's three hypotheses is presented. The research methodology employed to study this set of issues is described. The empirical results of an experiment are then presented. The study manipulated price, message framing, and source credibility and measured their effects on consumers' perceptions of performance risk and financial risk. The concluding discussion notes the limitations of the study, offers suggestions for future research, and discusses the implications of the findings.

## BACKGROUND

### Message Framing and Price-perceived Performance Risk

Past research has hypothesized that price has a negative influence on perceived performance risk (see, e.g., Shimp and Bearden 1982; White and Truly 1989). However, the empirical results pertaining to this relationship have been mixed. In this context, it is interesting to note that studies of the price-perceived performance risk relationship have implicitly used both negative and positive message frames.

Positively framed messages are defined as communications that emphasize a brand's advantages or the potential gains to consumers in a situation. For example, a positively framed message might indicate that a company's product is superior to its competitor's (e.g., AT&T might advertise that an AT&T call is clearer than an MCI call). Similarly, in a study by Bearden and Shimp (1982), a product (a plastic automobile tire) was described as "having advantages over conventional tires by being longer lasting and safer while providing a more comfortable ride" (p. 231). These researchers appear to have used a positive frame in their study and did not find a significant effect of price on performance risk. Similarly, White and Truly (1989) used the same operationalization as Bearden and Shimp (1982) and failed to detect the expected relationship between price and perceived performance risk.

In contrast, negatively framed messages are defined as communications that point out a brand's disadvantages or the potential losses to consumers in a situation. For example, a negatively framed message might suggest that a competitor's product is inferior to the company's own product (e.g., AT&T might advertise that an MCI call is typically less audible than an AT&T call). In an alternative manner, in Peterson and Wilson (1985) the respondents were presented with information about the failure rate of products (i.e., a negative frame). Their results suggest that there is a negative relationship between a product's price and a consumer's perception of the performance risk associated with the purchase of that product. An observation that can be induced from past research is that the effect of price on perceived performance risk seems to be greater when a message is framed negatively than when a message is framed positively.

A possible explanation for the role that message framing plays in moderating the relationship between price and perceived performance risk is provided by prospect theory. Prospect theory predicts that consumers are likely to be more risk averse in order to secure potential gains when a message is framed positively than when a message is framed negatively (Kahneman and Tversky 1979). For example, Puto (1987) found that industrial buyers made a greater proportion of risk-averse choices when the message was framed positively

(i.e., they were told they would gain an important cost advantage) than when the message was framed negatively (i.e., they were told they would avoid losing an important cost advantage). Moreover, past research (see, e.g., Garner 1986) indicates that consumers who are more risk averse conduct a more thorough analysis of the available information prior to decision making. A proposed consequence of performing a more thorough analysis is that consumers make relatively less use of price to judge a product's performance risk; this is expected to occur for two distinct reasons.

First, consumers who have conducted a thorough analysis of the attribute information provided in a marketing communication are expected to rely more heavily on these intrinsic cues to judge the performance risk associated with the product.<sup>1</sup> Since price is an extrinsic cue for the purpose of judging a product's expected performance (Dodds, Monroe, and Grewal 1991) and associated risk, consumers who are more risk averse are expected to make relatively less use of price to judge performance risk. Second, the consumers who analyze more thoroughly the multiple cues provided in a marketing communication are expected to be less affected by any individual cue, such as price (Dodds et al. 1991).

In sum, prospect theory can be applied to predict that the framing of an advertised message influences the level of consumers' risk aversion. In turn, the consumers' level of risk aversion influences the thoroughness with which they examine a marketing communication and the extent to which they use price to judge performance risk. The results reported by Peterson and Wilson (1985), Shimp and Bearden (1982), and White and Truly (1989) can be explained by using prospect theory as a unifying theoretical framework. The foregoing theory and empirical evidence provide a basis for predicting that the effect of price on perceived performance risk will be less (greater) for consumers who are exposed to a positively (negatively) framed message.

**H1:** There will be an interaction effect of price and message framing on perceived performance risk. Specifically, the effect of price on perceived performance risk will be greater when the message is framed negatively than when the message is framed positively.

### Source Credibility and Price-perceived Performance Risk

A spokesperson's credibility is determined by both the source's trustworthiness and expertise (Dholakia and Sternthal 1977). Attribution theory (Kelly 1967) suggests that consumers who are exposed to an adver-

tisement act as naive scientists in attempting to assess whether the message provides an accurate representation and/or whether the source of the message lacks credibility (see, e.g., Folkes 1988; Mizerski et al. 1979). The persuasive impact of the message is typically lessened whenever consumers attribute reporting or knowledge bias to the source (Eagley, Wood, and Chaiken 1978).

When source credibility is low, attribution theory suggests that consumers will discount the arguments in a message (Eagly and Chaiken 1975). As a result, the product attribute claims made by a low-credibility source in an advertisement are perceived as less useful for judging performance risk. However, price is a particularly unambiguous cue (Scitovsky 1945) that may be useful for making judgments about a product's performance or quality when other cues are unavailable or unreliable (Dodds et al. 1991; Shimp and Bearden 1982). The price cue is expected to have a greater effect on perceived performance risk when source credibility is low. In contrast, consumers are more inclined to accept message arguments when source credibility is high (Mizerski et al. 1979). In this case, consumers are more likely to use attribute information to judge performance risk. Consequently, the impact of price on consumers' assessment of perceived performance risk will be reduced. The previous discussion suggests the following hypothesis:

**H2:** There will be an interaction effect of price and source credibility on perceived performance risk. Specifically, the effect of price on perceived performance risk will be greater when source credibility is low than when source credibility is high.

### Price, Message Framing, and Differences between Performance Risk and Financial Risk

This section begins by making an important conceptual distinction between perceived performance risk and perceived financial risk. The nature of this difference suggests that the relationship between price and the types of perceived risk will differ. The theoretical foundation for the study's hypothesis regarding the joint effects of price and message framing on perceived financial risk is then presented before turning to the study of these issues.

The concept of life-cycle cost (Hutton and Wilkie 1980) suggests that there are two components underlying the long-term cost of a product—the initial outlay and subsequent maintenance and repair costs. Thus, as previously noted, a fundamental distinction between financial risk and performance risk is that the price of the product is an inherent component of perceived financial risk (via initial outlay), whereas price is not necessarily related to perceived performance risk. As a

<sup>1</sup>Intrinsic cues are defined as the product's inherent characteristics; in contrast, extrinsic cues refer to nonphysical product characteristics, such as the price, that can be changed without altering the fundamental nature of the product (Jacoby, Olson, and Haddock 1971).

consequence, risk-averse consumers, who process product attribute information more thoroughly, are not expected to rely heavily on price to judge the product's *performance risk*. In contrast, even consumers who process product attribute information thoroughly may remain inclined to weigh price heavily in their judgments of the *financial risk* associated with purchasing a product.

The rationale for predicting an interaction effect of message framing and price on perceived financial risk builds on prospect theory. As mentioned earlier, prospect theory suggests that consumers who are exposed to a positively framed message will engage in a more thorough information search and analysis prior to decision making than consumers who are exposed to a negatively framed message (see above). This additional analysis by risk-averse consumers is expected to lead to greater use of price to judge financial risk than is used by less risk-averse consumers for two reasons. First, in the context of decisions for many new products and brands, consumers who do a thorough analysis are more inclined to recognize that the magnitude of the initial dollar outlay (i.e., price) is likely to exceed the expected stream of maintenance and repair costs. Second, risk-averse consumers who perform a thorough analysis are more likely to recognize and incorporate the fact that the financial outlay associated with a product's price is *certain* in contrast to the uncertainty (i.e., low likelihood) that maintenance and repair costs will be incurred. Both of the aforementioned arguments suggest that the effect of price on perceived financial risk will be greater when consumers are exposed to a positive, rather than a negative, message frame.

An additional reason for predicting an interaction effect of message framing and price on perceived financial risk is as follows. For consumers exposed to either the positive or negative message frame, the relationship between price and the initial outlay for a product is inherently positive. However, price is proposed to reduce the expected repair costs (via a reduction in performance risk, as noted in Hypothesis 1) to a greater extent for those consumers who are exposed to the negatively framed message. This provides a third reason for predicting that the effect of price on consumers' perceptions of financial risk (i.e., initial outlay plus subsequent repair costs) will be greater for consumers exposed to the positively framed message.

**H3:** There will be an interaction effect of price and message framing on financial risk. Specifically, the effect of price on perceived financial risk will be greater when the message is framed positively than when the message is framed negatively.

## METHOD

### Overview

A  $2 \times 2 \times 2$  between-subjects factorial design was used in the experiment. The product category used was

a VCR. The independent variables consisted of message framing (positive and negative), source credibility (high and low), and price (high and low). Subjects were randomly assigned to treatments.

### Independent Variables

A fictitious brand name (Hito) was created and compared with an established brand (Toshiba) in each of eight advertisements. Comparative print advertisements were used to test the hypotheses because they facilitated the manipulation of positive versus negative framing of attribute information. The two brands of VCRs were compared on each of the following attributes:

- Sharp, clear picture quality
- New highly sensitive, low-distortion tuner that gives better sound
- Easy-to-use fast-forward and rewind
- Easily programmed
- Picture-sharpness control
- High-fidelity sound
- One-touch recording
- All 139 channels preset

In the positively framed treatments, the presentation indicated "Hito rated superior to Toshiba" on seven of the eight attributes. On the eighth attribute the advertisement indicated "Hito rated equal to Toshiba." In the negatively framed treatments, the same seven attributes were presented as "Toshiba rated inferior to Hito." On the eighth attribute, the advertisement indicated "Toshiba rated equal to Hito."

Source credibility was manipulated by describing the source (spokesperson) in the advertisements as being either an electrical engineer (high credibility) or a car salesman (low credibility). Both sources were presented as satisfied buyers of the Hito brand VCR who had compared Hito with Toshiba.

An examination of advertisements for VCRs in a major metropolitan area indicated that \$699 was a high price. Therefore, in the high price treatment the Hito brand was priced at \$699. Furthermore, a commonly used price differential for the low price treatment is 50 percent less than the high price treatment (see, e.g., Della Bitta, Monroe, and McGinnis 1981). On the basis of this information, the Hito brand was priced at \$349 in the low price treatment. The Toshiba brand was always priced at \$699.

### Sample and Procedures

It was important to ensure that all subjects included in the experiment were familiar with the product category and could relate to the conditions being tested. Only one subject indicated nonuse of a VCR within the past year. These results indicate that using a VCR as the test product is appropriate and consistent with previous research that has shown that student subjects are

TABLE 1  
ANALYSIS OF VARIANCE RESULTS

Effect	MANOVA Wilks's $\lambda$ ( $p$ -value)	df	ANOVA performance risk $F$ -value ( $\eta$ )	ANOVA financial risk $F$ -value ( $\eta$ )
Price (PR)	.93 (.01)	1	5.72 (.20)	3.41 (.09)
Frame (FR)	.99 (.94)	1	.03 (.00)	.11 (.02)
Source credibility (SC)	.99 (.80)	1	.42 (.07)	.00 (.01)
PR $\times$ FR	.92 (.01)	1	5.85 (.22)*	7.26 (.24)**
PR $\times$ SC	.96 (.06)	1	4.50 (.19)*	.18 (.04)
FR $\times$ SC	.97 (.19)	1	.36 (.06)	3.41 (.17)
PR $\times$ FR $\times$ SC	.99 (.57)	1	1.03 (.09)	.37 (.05)
Error		123		

NOTE.—There is a significant correlation between performance risk and financial risk perceptions ( $r = .30$ ,  $p < .01$ ). The  $F$ -values indicated above pertain to the Type III sums of squares.

\* $p < .05$ .

\*\* $p < .01$ .

familiar with this product category (Biswas and Blair 1991).

Prior to the experiment, the treatment booklets were randomized. All subjects were students enrolled in business classes at a large urban university ( $n = 131$ ). Participation in the study was voluntary. Subjects were told that they were participating in a "survey of consumer reading habits." They were then asked to "please read each page as you normally would if you were reading a newspaper or magazine." Subjects first read an actual magazine advertisement as a control and then were exposed to one of the treatment advertisements. They then responded to the dependent variables and the manipulation checks (see Appendix).

### Reliability and Validity of Measures

The study employed multi-item seven-point measures of performance risk and financial risk (see Appendix). The results indicated that the scales were reliable ( $\alpha$ 's greater than .75). In addition, confirmatory factor analysis of the performance and financial risk scales indicated that the fit of the two-factor correlated model ( $\chi^2 = 8.53$ ,  $df = 8$ ,  $p = .38$ , goodness of fit index [GFI] = .98) was significantly better than the fit of the one-factor model ( $\chi^2 = 108.76$ ,  $df = 9$ ,  $p < .01$ , GFI = .77). The chi-square test of the difference in fit between the two models provides evidence of discriminant validity ( $\chi^2 = 100.23$ ,  $df = 1$ ,  $p < .01$ ). Next, the variance extracted for the two constructs individually (.76 for performance risk and .53 for financial risk) was greater than the square of the parameter estimate between them ( $\phi^2 = .27$ ), which provided further evidence of discriminant validity. Finally, the correlation between the two perceived risk constructs was significantly less than unity—a further indication of their discriminant validity.

### Manipulation Checks

In order to check the manipulation of price, subjects were asked to rate the price of the Hito VCR on a seven-

point scale (very low to very high). The results support the price manipulation ( $F(1,127) = 67.45$ ,  $p < .001$ ,  $\eta = .59$ ). Source credibility was measured using a multi-item scale taken from Harmon and Coney (1982). The results indicated that the source credibility manipulation was effective ( $F(1,126) = 31.21$ ,  $p < .001$ ,  $\eta = .45$ ). Subjects were given an aided-recall question to test their awareness of the framing manipulation. They were asked to recall how the Hito VCR was rated in the ad to which they were exposed ("Hito rated superior to Toshiba" or "Toshiba rated inferior to Hito"). The percentage of correct responses (88 percent) was compared with the proportion that one would have expected to be correct if the subjects had been merely guessing (i.e., 50 percent). These results support the message-frame manipulation ( $Z = 8.69$ ,  $p < .001$ ,  $\eta = .76$ ).<sup>2</sup>

### Results

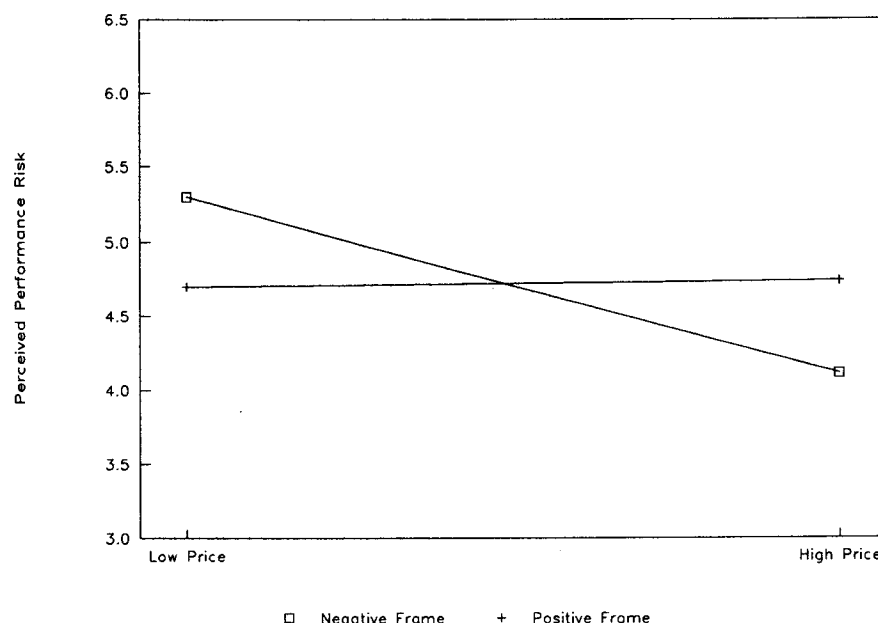
The MANOVA results indicate significant interactions of price by message framing ( $p < .01$ ) and price by source credibility ( $p < .10$ ; see Table 1).

**Hypothesis 1.** There was a significant interaction effect of message framing and price on perceived performance risk ( $F(1,123) = 6.23$ ,  $p < .05$ ,  $\eta = .22$ ). In accord with Hypothesis 1, price had a significant effect on perceived performance risk when the message was framed negatively ( $\bar{X}_{\$349} = 5.30$  vs.  $\bar{X}_{\$699} = 4.11$ ,  $F(1,123) = 11.28$ ,  $p < .01$ ,  $\eta = .29$ ) but not when the

<sup>2</sup>The results of a follow-up study ( $n = 42$ ) further support the fact that the manipulation of message framing was effective. In the follow-up study, subjects were provided the same ad booklets as in the experiment. The subjects were asked to recall as much of the ad for the Hito VCR as possible. The recalled attributes were coded by an independent judge. The ANOVA results indicate that the positively framed message resulted in a significantly higher number of recalled ad attributes (positively framed:  $\bar{X} = 4.67$  [ $n = 21$ ]; negatively framed:  $\bar{X} = 3.19$  [ $n = 21$ ];  $F(1,40) = 8.33$ ,  $p = .006$ ). This suggests that the positive frame led to more thorough analysis of the ad in accord with the prospect-theory-based predictions.

FIGURE 1

THE EFFECT OF PRICE ON PERCEIVED PERFORMANCE RISK AS A FUNCTION OF MESSAGE FRAME



message was framed positively ( $\bar{X}_{\$349} = 4.70$  vs.  $\bar{X}_{\$699} = 4.74$ ,  $F(1,123) = 0.01$ ,  $p > .50$ ,  $\eta = .01$ ; see Fig. 1).

**Hypothesis 2.** There was a significant interaction effect of source credibility and price on perceived performance risk ( $F(1,123) = 4.45$ ,  $p < .05$ ,  $\eta = .19$ ). In accord with Hypothesis 2, price had a significant effect on perceived performance risk when source credibility was low ( $\bar{X}_{\$349} = 5.37$  vs.  $\bar{X}_{\$699} = 4.25$ ,  $F(1,123) = 9.39$ ,  $p < .01$ ,  $\eta = .27$ ) but not when source credibility was high ( $\bar{X}_{\$349} = 4.67$  vs.  $\bar{X}_{\$699} = 4.56$ ,  $F(1,123) = 0.11$ ,  $p > .50$ ,  $\eta = .03$ ; see Fig. 2).

**Hypothesis 3.** There was a significant interaction effect of message framing and price on perceived financial risk ( $F(1,123) = 7.53$ ,  $p < .01$ ,  $\eta = .24$ ). In accord with Hypothesis 3, price had a significant effect on perceived financial risk when the message was framed positively ( $\bar{X}_{\$349} = 4.44$  vs.  $\bar{X}_{\$699} = 5.24$ ,  $F(1,123) = 6.88$ ,  $p < .05$ ,  $\eta = .23$ ) but not when the message was framed negatively ( $\bar{X}_{\$349} = 4.95$  vs.  $\bar{X}_{\$699} = 4.62$ ,  $F(1,123) = 1.62$ ,  $p > .10$ ,  $\eta = .11$ ; see Fig. 3).

## GENERAL DISCUSSION

### Summary and Implications

Previous research suggested that prospect theory could help explain decisions under conditions of risk but had not examined whether prospect theory could explain how consumers use ad information to assess the risk associated with new products or brands. This article used prospect theory as a conceptual framework

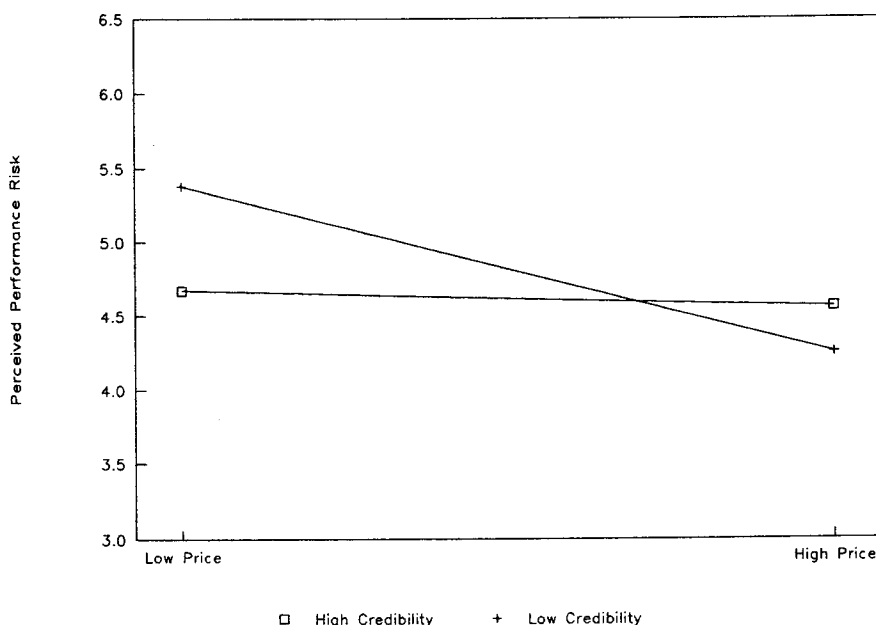
to resolve an inconsistency in the literature on the relationship between price and perceived performance risk. In accord with the proposed theory, the strength of the relationship between a product's price and perceived performance risk depends on the way advertised information is communicated. Specifically, the effect of price on consumers' perceptions of the performance risk associated with the purchase of a new brand was greater when a message was framed in a negative fashion.

In addition, this study is among the first to investigate the effects of price and message framing in the context of a comparative advertisement. The absence of research attention to message framing in this context is not particularly surprising because the primary issue in this domain has been whether comparative advertising is more effective than noncomparative advertising. However, comparative advertising does provide a different message frame from noncomparative advertising. This study extends previous research by suggesting that there are different message frames within comparative ads. Our results indicate that message framing moderates the effects of price in comparative advertisements.

In addition to message framing, a second communication factor was proposed and found to moderate the effect of price on the perceived performance risk of a new brand: the credibility of the message source. The negative effect of price on consumers' perceptions of the performance risk associated with the purchase of a new brand was greater when the credibility of the source was low. Likewise, this interaction indicates that the effect of credibility on consumers' perceptions of the

FIGURE 2

THE EFFECT OF PRICE ON PERCEIVED PERFORMANCE RISK AS A FUNCTION OF SOURCE CREDIBILITY



performance risk associated with the purchase of a new brand was greater when the price was low. When viewed from the latter perspective, this finding has a direct implication for the choice of spokesperson to be used in the advertising of a new brand. Since new brands are often introduced at prices that are lower than those of the market leaders, it is essential that a highly credible spokesperson be used to reduce the performance risk that would otherwise be implied by the low price.

A final contribution of this article is that it makes an important conceptual distinction between performance risk and financial risk, which suggests that the effect of price on consumers' perceptions of the respective types of risks differ. The results indicate that the effect of price on consumers' perceptions of the financial risk associated with the purchase of a new brand is greater when a message is framed positively.

### Limitations and Suggestions for Future Research

This study found that price affects consumers' judgments of a product's performance risk when either the message is framed in a negative fashion or the credibility of the source is low. Future research should try to determine whether other factors, such as the level of consumers' knowledge (Rao and Monroe 1988) or the purchase situation, moderate the relationship between price and perceived performance risk. In addition, the subjects in this study had direct experience with the product category. It is conceivable that inexperienced consumers

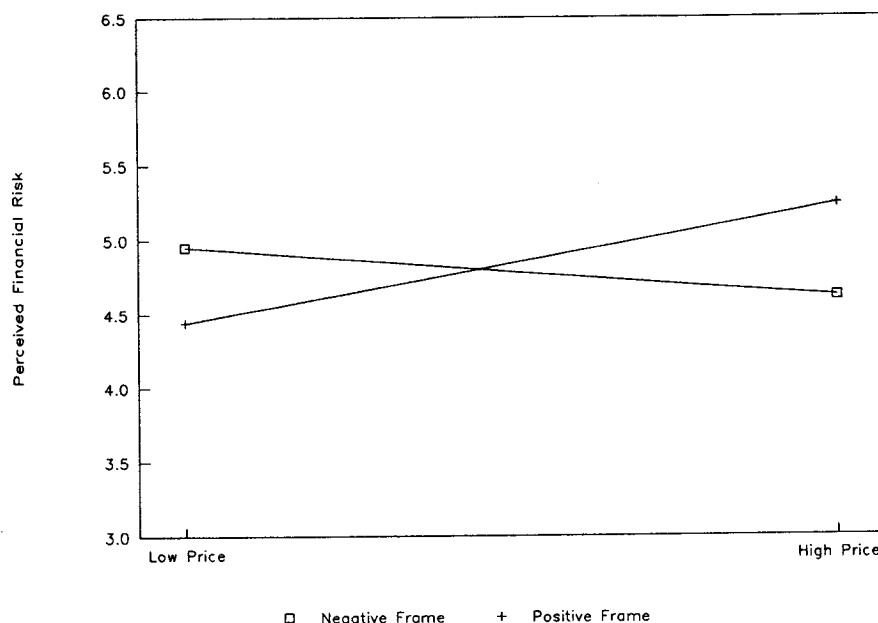
would rely more heavily on a product's price to assess the risk associated with its purchase.

Another possible limitation of this research was that the guise of "a study of consumer reading habits" may have engendered a low-involvement situation (see Petty and Cacioppo 1986).<sup>3</sup> On a scale adapted from Zaichowsky (1985), respondents were found to have a low to medium level of involvement. Since involvement can moderate the effect of message framing (Maheswaran and Meyers-Levy 1990), future research might manipulate involvement to examine whether the price by message framing interaction of performance risk and financial risk depends on the level of this background variable. One should also note that the study was conducted in a laboratory setting with a student sample; thus, the generalizability of these results across other conditions remains to be examined.

Finally, this study limited its focus to perceived performance risk and perceived financial risk. Similar research into additional types of risk (e.g., social risk, time risk, safety risk) remains to be conducted. For example, public policy researchers have attempted to identify the most effective format for warning labels and public service announcements that communicate the risks of using specific products (e.g., drugs, cigarettes, and alcohol; see, e.g., Mazis, Morris, and Swasy 1991). The current findings suggest that additional research should examine how message framing and source credibility affect consumers' use of information provided in warning labels

<sup>3</sup>We thank a reviewer for pointing out this limitation.

FIGURE 3  
THE EFFECT OF PRICE ON PERCEIVED FINANCIAL RISK AS A FUNCTION OF MESSAGE FRAME



on the perceived risks of products. In addition, the interrelationships among the various types of perceived risk need to be examined both conceptually and empirically.

## APPENDIX

### Measures Used in the Study

*Source Credibility Manipulation Check.* Six-item seven-point scale used by Harmon and Coney (1982) ( $\alpha = .88$ )

The subjects were asked to rate the spokesperson on each of the following:  
trustworthy—not trustworthy  
open-minded—not open-minded  
good—bad  
expert—not expert  
experienced—not experienced  
trained—untrained

*Perceived Financial Risk.* Three-item seven-point scale based on Shimp and Bearden's (1982) scale ( $\alpha = .77$ )

Considering the potential investment involved, for you to purchase the Hito VCR would be:  
not risky at all—very risky  
I think that the purchase of the Hito brand VCR would lead to financial risk for me because of the possibility of such things as higher maintenance and/or repair costs.  
improbable—very probable  
Given the potential financial expenses associated with purchasing the Hito brand VCR, how much

overall financial risk is associated with purchasing the Hito brand VCR?  
very little risk—substantial risk

*Perceived Performance Risk.* Three-item seven-point scale based on Shimp and Bearden's (1982) scale ( $\alpha = .90$ )

How confident are you that the Hito brand VCR will perform as described?  
very confident—not confident at all  
How certain are you that the Hito brand VCR will work satisfactorily?  
certain—uncertain  
Do you feel that the Hito brand VCR will perform the functions that were described in the advertisement?  
do feel sure—do not feel sure

*Message Framing Manipulation Check.* Subjects were provided an aided-recall question

How did the source in the advertisement rate most of the features of the Hito VCR?  
Hito rated superior to Toshiba  
Toshiba rated inferior to Hito

*Price Manipulation Check.* A seven-point scale

The price for the Hito VCR is:  
very high—very low

The measures are reported in the Appendix in the order they were collected in the questionnaire.

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