

The Role of Perceived Risk in the Quality-Value Relationship: A Study in a Retail Environment

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This study extends previous research on perceived value by including the role of perceived risk within a model of the antecedents and consequences of perceived value. The model was tested in a retail setting using a sample of consumers actively looking for an electrical appliance. The mediating impact of perceived risk on the quality-value relationship was specifically examined. Empirical results confirmed that not only do perceived product and service quality lead to perceived value for money in a service encounter but that these quality components reduce perceived risk. Perceived risk was found to play an important role in the perceived product and service quality-value for money relationship and was found to be a significant mediator of this relationship. Perceived value for money was also found to be a significant mediator of perceived quality, price and risk and willingness-to-buy. The results obtained have major implications for retailers as well as for future research in this strategically important area of consumer research.

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INTRODUCTION

Both marketing practitioners and scientists have come to recognize the major influence that perceived value has on consumer behavior. This identification has evolved to the point where control over the *provision of value* to customers has become a strategic imperative for the 1990s, rivaling satisfaction for management attention. Many leading companies now feel that the creation of outstanding consumer value is the only secure route to achieving sustainable financial and market success (Coopers and Lybrand, 1998). Researchers, such as Vantrappen (1992); Rust and Oliver (1994); and Woodruff (1997) forecast a continuation of this role well into the twenty-first century.

Despite the strength of this concept, managers who must deliver superior customer value still raise questions as to how consumers measure value and the activities their organizations should implement in order to secure a value advantage (Woodruff, 1997). In this research, we examine four largely unexplored issues of major significance to the management of the consumer goods channel and one related to research methodology.

The first examines the relative importance of the antecedents to perceived value. The traditional factors studied in the last two decades of the 20th century have been primarily limited to two basic functions of product quality and price. We seek in this research to determine whether these two should be augmented by the construct of transaction risk.

When consumers buy a product, they take the chance that the purchase will deliver the satisfaction they expect over time. In this context, risk represents a potential sacrifice. The higher the perceived risk, the more consumers must *gamble* in buying the product. If the risk that consumers perceive impacts their view of product value, then managers all along the consumer goods channel must understand fully how such perceptions are determined.

A second domain of investigation links to the first. It lies in the role of service provision at retail and whether this has an impact upon consumer perceptions of product quality. More specifically, there has been no linking of consumer perceptions of transaction risk, when buying at retail, and how this might be reduced through perceptions of product and service quality.

Several questions may illuminate this issue. For example:

- While seeking the provision of advice by a salesperson is often regarded as a risk reduction strategy (e.g., Hugstad, Taylor, and Bruce, 1987; Settle and Alreck, 1989), does the provision of this information actually reduce risk? Does the manner by which the staff offers service affect consumer risk perceptions?
- Does the provision of quality service contribute to perceived value directly? Or, if it has an effect, does it work to reduce risk and influence value perceptions indirectly?
- Would extending service quality at retail reduce risk to the same degree as extending product quality?

Third, we seek to determine whether perceived value and risk act as a mediating influences upon the product-service quality→behavioral-intention relationship. Perhaps these perceptions are not really necessary and could be omitted in favor of antecedent conditions. This view reflects concern as to whether the concepts of value and risk represent the phe-

nomena that need to be measured and that the more basic antecedents would both suffice and simplify the analytical challenge of maintaining a competitive advantage with a brand.

Toward these three ends, we propose and test a model of the quality→willingness-to-buy relationship. For this test, we move out of the classroom employed by much of perceived value research where students are typically asked to consider a specific product in an experimental setting (e.g., Dodds, Monroe and Grewal, 1991; Ostrom and Iacobucci, 1995). Wells (1993) argues that the laboratory misrepresents the real world in several important ways and argues that realistic and natural settings are vital to the future of marketing inquiry. We sample real world consumers who have just made, or are in the process of making a purchase decision. By insuring that our measures reflect the actual decision processes of consumers, we hope that they will prove more sensitive to forces that generate them.

We commence this research report with a brief literature review about previously explored antecedents of perceived value. Following this, the model proposed in the present study is presented next along with related hypotheses, constructs within the model, and our research approach. We then set forth our empirical results, obtained from a survey of consumers choosing an electrical appliance. The study's implications and directions for future research are discussed in the final section.

LITERATURE REVIEW

Conceptualization of Perceived Value

The most common definition of product value is the ratio or trade-off between quality and price (e.g., Chain Store Age, 1985; Cravens, Holland, Lamb and Moncrief, 1988; Monroe, 1990), a value-for-money conceptualization. Of the more sophisticated conceptualizations that have been proposed (Thaler, 1985; Zeithaml, 1988; Monroe, 1990), Zeithaml's has been the most common basis for previous research on perceived value.

Zeithaml describes value in terms of a tradeoff of salient 'give' and 'get' components. This can be described as a cognitive or rational model of decision making. It considers perceived value as "the customer's assessment of the utility of a product based on perceptions of what is received and what is given." This is similar in concept to Bilkey's (1953; 1955) utility model, described by Peter and Tarpey (1975), that takes into account positive (perceived return) and negative valences (perceived risk).

Peter and Tarpey (1975) identified three broad, strategy-based consumer decision-making frameworks. The first is a perceived risk framework that characterizes the consumer as motivated to minimize the expected negative consequences, or utility, of a purchase. The second is an attitude framework that is oriented to positive evaluations. The third is a valence framework. The last assumes that consumers perceive a product as having both positive and negative attributes. Consumers act to maximize the overall or 'net' valence resulting from negative and positive attributes of an act. The so-called net valence, additive utility model is the arithmetic difference between the positive valences and the negative valences.

Peter and Tarpey (1975) found the third framework to be superior in explaining brand preference. While this finding may not be surprising, since the model takes into account both positive and negative expectations, the explained variance in brand preference was, on average, twice as much as either of the other models. Zeithaml's (1988, p. 14) construct of perceived value fits this net valence framework.

Previous Research on Perceived Value

Several empirical explorations of the antecedents of perceived value were helpful in providing a basis for our model. A study by Dodds, Monroe and Grewal (1991) found that price had a negative effect on a product's value for money and people's willingness-to-buy durable goods, but a positive effect on perceived product quality. This useful finding of a dual role of price had been suggested by Monroe (1990). The Dodds et al. study also found that perceived quality had a significant effect on perceived value. Rangaswamy, Burke, and Oliva (1993) found that product value was enhanced by promotions of quality, durability, style and reputation.

Kerin, Jain, and Howard (1992) investigated the effect price, product quality and shopping experience had on value perceptions of a retail store (rather than a product), concluding that the shopping experience had a greater effect on store value than did price or product quality. Bolton and Drew (1991) proposed and found that, while price and service quality contributed to perceived service value, the components of quality (performance, expectation, and disconfirmation) were weighted differently when assessing value than when assessing quality.

Smith Gooding (1995) compared the predictive power of quality with the predictive power of perceived value, defined in terms of both quality and sacrifices (travel time/distance and out of pocket costs), on the choice of a service. Perceived value was found to be a better predictor of the choice of a service than was quality. Further, Ostrom and Iacobucci (1995) found that price, quality, service friendliness, and service customization had a significant influence on perceived service value under different conditions.

Various other models have included perceived value but not as a focal construct. For example, Richardson, Jain, and Dick (1996) included perceived value in a framework of private grocery brand proneness, concluding that the perceived value for money of private brands was related to private brand proneness.

The Relevance of Perceived Risk to Perceived Value

Empirical modeling of the antecedents of perceived value has been limited to benefits and sacrifices at the time of purchase. However, when consumers make a purchase decision, particularly when purchasing a durable good, they consider not only immediate situational factors, such as price and service, but also the longer-term implications of the ownership of the product. Thus, future expectations of benefits and sacrifices, as well as

current perceptions of benefits and sacrifices, need to be considered in any model of perceived value.

Spreng, Dixon, and Olshavsky (1993) conceptualized expected or pre-purchase perceived value as a consumer's anticipation about the outcome of purchasing a product or service based on future benefits and sacrifices. They suggested that pre-purchase sacrifice expectations would include purchase, use, repair and psychological costs and the time to purchase, use and repair. However, while some of these costs could be evaluated at the time of purchase, some will not be known.

Thus, prior research finds that price, product quality and in-store service quality factors identified at time of purchase influence perceived value. However, consumers also consider the potential of longer-term losses when evaluating value relative to the purchase price. When making a purchase decision, consumers are always faced with some concern over the performance of the product since perfect information regarding future performance is never known. Consumers consider these consequences a component of risk (Bauer, 1960) when developing perceptions of value. The inclusion of perceived risk in a value model may help to explain how perceived value is evaluated in a retail setting.

A MODEL OF QUALITY, RISK, AND VALUE

Our model is presented in Figure 1. In this model, we argue that perceived product quality, price, service quality and risk contribute directly and indirectly to the perceived value (for money paid) of a durable good in a retail setting. In the following section, each of the constructs in the proposed model is described and the theoretical support for the hypothesized relationships is set forth.

Perceived Risk

Following Stone and Gronhaug's (1993) conceptualization, we define perceived risk as the *subjective expectation of a loss*. While a number of risk dimensions have been suggested, only two are included, financial and performance risk. Each risk dimension can be viewed as an expectation of a future cost that contributes to a good's perceived value for money at the time of purchase. Financial risk is defined as a net financial loss to a customer, including the possibility that the product may need to be repaired, replaced or the purchase price refunded (Horton, 1976). This is an extension into the future (future dollar costs) of the perceived price paid at the point of purchase (current dollar cost). Performance risk is defined as the loss incurred when a brand or product does not perform as expected (Horton, 1976). This integrates the future quality of the product to the point of purchase.

Clearly these risk types are interdependent. For example, a product that needs to be repaired, will also incur additional expenditure. Previous factor analyses of the various risk measures have found two dimensions; one relating to financial, performance, physical and time risks and another relating to social and psychological risks (Peter and Tarpey, 1975;

Brooker, 1983). The former has been termed expected performance (Peter and Tarpey, 1975) or non-personal (Brooker, 1983) risk and the latter psychosocial (Peter and Tarpey, 1975) or personal (Brooker, 1983) risk. We consider the first type of risk only, 'performance/financial' risk. Given that risk is viewed in this study as the subjective expectation of a loss or sacrifice, we hypothesize that:

H1: *The greater the perceived performance/financial risk, the less is the perceived value (for money) of the good.*

Warranties are typically offered for durable goods. However, a warranty does not remove performance or financial risk entirely (Bearden and Shimp, 1982). Indeed, Dowl-

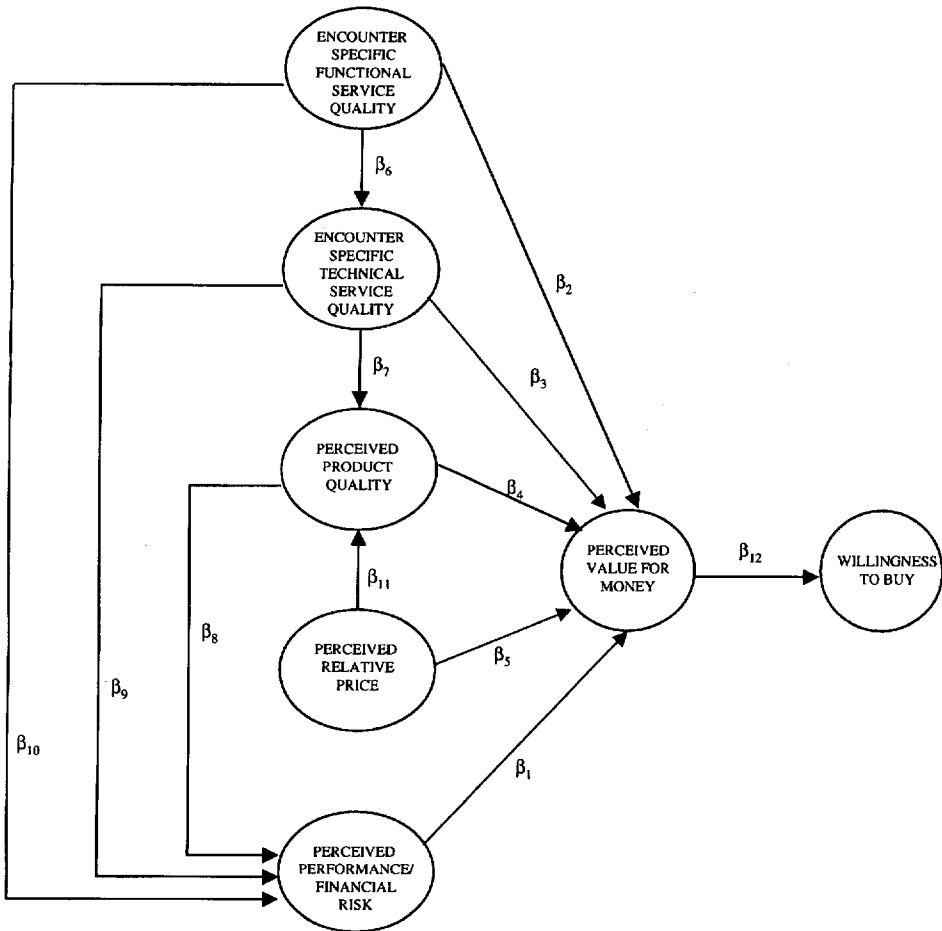


FIGURE 1

Conceptual Model of Perceived Value

ing (1985) found that information on warranties in advertisements had no effect on perceived risk. The existence of warranties, therefore, is not expected to reduce performance or financial risk to zero. It is likely that consumers will still experience risk when shopping for electrical appliances.

Retail Factors Influencing Perceived Value (for Money)

Service quality has long been recognized as an important strategic retailing weapon, particularly in developing defensive marketing strategies (Fisk, Brown and Bitner, 1993). Berry (1986) has suggested that many successful goods retailers differentiate themselves, not through the goods they sell, since the goods sold are often nearly identical, but through the service they offer. The favorable perceptions generated by a store offering a high standard of service may be transferred to perceptions of the quality of the merchandise offered (Kerin, Jain and Howard, 1992). Davidow (1988, p. 18), in discussing the importance of service quality to corporate survival, defined service as "...those things which, when added to a product, increase its utility or value to the customer."

Gronroos (1984; 1990) identified two aspects of service quality, a service's functional and technical components. Functional service quality concerns the process or the way in which service is delivered, while technical service quality relates to the outcome, or what is received from service, and "...is obviously a result of the know-how which a firm has" (Gronroos, 1984, p. 43). Gronroos has argued that technical quality is a necessary but not sufficient condition for high service quality, suggesting that functional quality is more important than technical quality if the latter meets a minimum standard.

While service quality is traditionally viewed as a global judgement or attitude (Parasuraman, Zeithaml, and Berry, 1988, 1994), it can also be conceived at the time of transaction or *encounter* level (Fisk, Brown, and Bitner, 1993; Oliver, 1993; Parasuraman, Zeithaml, and Berry, 1994). Hence perceptions of service quality can relate to a specific incident. The term *encounter-specific* (ES) service quality refers to the consumer's quality perceptions derived from a transaction service experience. The following hypotheses were developed from this discussion:

- H2** *The greater the ES functional service quality (the way in which the service is delivered) the greater is the perceived value.*
- H3** *The greater the ES technical service quality (what is received from the service) the greater is the perceived value.*
- H4** *The greater the perceived product quality the greater is the perceived value.*
- H5** *The greater the perceived relative price the less is the perceived value.*

As argued by Blake and Morton (1980), salespeople must comprehend what customers think and feel before they can help customers understand the benefits of the product. In

other words, for encounter service to be useful, the salespeople must focus upon perceived benefits regarded by the consumer as relevant. The offering of product knowledge by sales staff may also improve consumers' perceptions of product quality by revealing attributes that they may not have otherwise noticed. This frame suggests the following:

- H6** *The greater the ES functional service quality, the greater is the ES technical service quality.*
- H7** *The greater the ES technical service quality, the greater is the perceived product quality.*

Retail Factors that Reduce Perceived Risk

In addition to their impact upon perceived value, quality offerings may also reduce perceived risk. Many risk reduction models have been suggested, including word-of-mouth, warranties, brand image, a price-quality association and salesperson assurance (Hawes and Lumpkin, 1986; Settle and Alreck, 1989). However, in comparison to other potential risk relievers, service-related risk relievers have been relatively unexplored.

In consumer goods, studies that have looked at salesperson assurance have found but a small influence for the selection of products such as breakfast food (Mitchell and Boustani, 1992), apparel (Hawes and Lumpkin, 1986), and lower risk goods in general (Hugstad, Taylor, and Bruce, 1987). The role of sales advice, however, may be more important in higher risk situations. In industrial buying situations, Henthorne, LaTour, and Williams (1993) found that external salespeople were one of the most important informal, personal sources of information.

However, salespeople's advice has been noted as one of the least effective means of financial risk reduction, leading several authors to warn against the use of salespeople as a source of information (Settle and Alreck, 1989; Mitchell, 1990). Nonetheless, the use of the salespeople as a risk reduction strategy in purchasing high-risk products has been recognized. In addition to salespeople's advice, other aspects of the service, such as how the service is delivered (functional service quality), may also reduce risk. If a customer views a service interaction favorably, this may reduce risk perceptions, suggesting that:

- H8** *The greater the perceived product quality, the less is the perceived performance/financial risk.*
- H9** *The greater the perceived ES technical service quality, the less is the perceived performance/financial risk.*
- H10** *The greater the perceived ES functional service quality, the less is the perceived performance/financial risk.*

We do not hypothesize that perceived relative price directly reduces either risk component. We believe the inference of price on product quality, rather than relative price itself reduces perceived performance risk. Further, as initially conceived by Jacoby and Kaplan

(1972), we assume that perceived financial risk is determined by longer-term costs, not the purchase cost itself. Perceived relative price is, therefore, hypothesized as reducing risk only indirectly through its impact on perceived quality.

Product Quality, Price, Value – The Traditional Model

Monroe (1990) regarded perceived value as antecedent to a person's willingness-to-buy and as an outcome of perceived product quality and perceived sacrifice. He also viewed both product quality and sacrifice as influenced by perceived price. Thus perceived price has a dual effect. Price is, first, a financial sacrifice and contributes negatively to value. However, perceived price also influences perceptions of quality and has a positive influence on value.

While this latter relationship has been widely discussed in the literature, the relationship may not be generalized across all product types (Zeithaml, 1988). Rao and Monroe's (1989) meta-analysis concluded that the phenomenon had only been supported for moderately priced, frequently purchased goods as opposed to higher priced, infrequently purchased goods. We test these relationships through the following hypotheses:

H11 *The greater the perceived price, the greater is the perceived product quality.*

Finally, for completeness, perceived value is hypothesized to influence consumers' inclination to make the purchase:

H12 *The greater the perceived value for money the greater is the willingness-to-buy.*

Perceived Value as Mediator of the Quality-Risk→Willingness-to-Buy Relationship

While perceived value has been hailed as a critical factor in the consumer decision making process (Rust and Oliver, 1994), its additional contribution to understanding consumer behavior, beyond the previously acclaimed pivotal constructs of product quality and more recently service quality, needs to be examined. The concepts of service quality and product quality have been shown to have a strong influence on consumer intentions and business performance. Why then, is it necessary to consider perceived value at all?

A wide body of research has highlighted the behavioral outcomes or organizational consequences of product quality or service quality. For example, the PIMS (Profit Impact of Marketing Strategy) data base has shown that higher levels of product quality improve business performance through fetching higher prices, earning higher premiums and improving profitability (Gale, 1994).

An explosion of interest in service quality and the related concept of satisfaction have also demonstrated the behavioral implications of these constructs. For example, Boulding, Kalra, Staelin, and Zeithaml (1993) and Zeithaml, Berry, and Parasuraman (1996) found that service quality affects behavioral intentions. Fornell (1992) and Anderson, Fornell and Lehmann (1994) also illustrated the financial implications of quality and customer satisfaction across many industries in a large-scale Swedish study.

Given these studies, the inclusion of the perceived value construct as an intermediate processing stage between quality evaluations and behavioral intentions or business outcomes could be questioned. Therefore, we test the role of perceived value as a mediator that explains or accounts for the relationship between the antecedents and outcome variables (e.g., service quality and willingness-to-buy) by suggesting:

H13 *Perceived value for money is a true mediator of the various antecedents (quality, price and risk factors) and willingness-to-buy.*

Similarly, the use of perceived risk as a mediator of the relationship among various quality components and perceived value for money needs to be tested. Hence:

H14 *Perceived performance/financial risk is a true mediator of the various quality components (product quality, ES technical service quality, ES functional service quality) and value.*

METHODOLOGY

Use of Real Consumers

While students are useful surrogates when modeling underlying behavioral processes, "as everyone knows students are not typical consumers" (Wells, 1993, p. 491). Several studies focussing on perceived value have used students in an experimental setting (e.g., Dodds, Monroe, and Grewal, 1991; Ostrom and Iacobucci, 1995). Wells (1993) argues that the laboratory is not a fair representation of the world and that research in realistic and natural settings is critical for the future of consumer behavior research. Kerin, Jain and Howard (1992) surveyed local residents about their generalized value perceptions of their supermarket. However, these authors did not survey residents about a specific purchase but rather about their overall views of the store.

Ideal participants for research examining the cues that affect consumer pre-purchase perceptions and purchase behavior are active shoppers close to the final purchase decision. This closeness should provide more reliable responses. However, such participants can be difficult to qualify and expensive to obtain (Mehrotra and Palmer, 1985). Consequently little research has been conducted in a retail setting with shoppers in the process of making a real decision. The present study overcomes this limitation by sampling such consumers in the field.

Data Collection

Data were collected from different samples of active shoppers in two cities in Australia. The first sample was an *exploratory* sample from which the model's parameters, Figure 1, were estimated. The second sample was a *confirmatory* sample that was used to test the validity of the model established in the first data set. The use of two samples to test a model is in line with Jöreskog's (1971) and Anderson and Gerbing's (1988) recommendations.

Both samples included shoppers who satisfied the following criteria:

- They had actively purchased or shopped for a specific product and were able to identify it by the brand, model and price,
- They had just purchased the item, or were reasonably serious about purchasing the product type in the next year, and
- They had received service in the store through inquiring about the product.

These selection criteria insured that participants were responding to their impressions of product quality, service and price for a specific incident in the store on the day of the interview.

Eligible consumers comprised 42% of the total shoppers approached in the exploratory sample, drawn from a major city, and 69% in the confirmatory sample, drawn from a regional center with a more relaxed lifestyle. Non eligible respondents included a large number of browsers and people who did not receive service or rejected an approach by sales staff. This group included consumers only checking prices. The samples were subsets of consumers who were serious shoppers and who had received some in-store service.

The questionnaire used to collect the data was tested twice to ensure that questions were understood as intended and to assess the feasibility of the survey approach. Interviews were then undertaken at ten stores that represented the major electrical appliance chain stores in the cities surveyed. Questionnaires were distributed in each store to qualified shoppers. Data were collected on busier weekdays in order to reach as many electrical appliance shoppers as possible within the allocated fieldwork budget. Within this time frame, all qualified shoppers were selected for interview.

Shoppers were approached as they left the store in which they had looked at a particular electrical appliance. Those who satisfied the criteria were asked to return a completed questionnaire within ten days in a postage-paid envelope. Names and telephone numbers of respondents were collected permitting a follow-up to enhance the response rate. A small cash prize was offered to encourage responses.

Of the 1016 and 732 questionnaires distributed to shoppers in the exploratory and confirmatory stages, 609 (60%) and 459 (63%) were returned, respectively. This represented 32% and 51% of the total number of eligible customers initially approached.

The representativeness of the two samples of consumers shopping for electrical appliances was assessed by comparing the profile of those who returned their questionnaire to the profile of all eligible respondents (including those who were eligible for an interview but refused) in the stores. This could only be done in terms of age and gender, the two variables that could be estimated by observation from those who refused. There was no signif-

icant difference between the two groups and it was concluded that the sample was representative of eligible shoppers in these stores in terms of age and gender. In all, 54% of the exploratory sample and 57% of the confirmatory sample were female and more than two thirds in each sample were aged from 20 to 49 years.

Measurement

Scales from prior research were used as the source of measures for the constructs defined in the model tested in the present study. Perceived price was defined as the consumer's perception of the product's price compared to other brands of the same product with similar specifications (e.g., a 68-centimeter television). The measures were two items derived from Conover (1986) that compared the price of the good to other brands with equivalent features.

This permitted perceived price to be measured independent of quality. Such independence is critical. This mechanism also permitted perceived price to be independent of the actual dollar price of the good. If relative price is measured in response to a product/given quality, the price judgment may only reflect a judgment of value (Emery, 1969). A study by Baker (1990) found that perceived price measures, derived in terms of expensiveness and fairness, and value were found to be indistinguishable constructs.

Within the category of electrical appliances reported by our respondents there was a wide range of dollar prices reported (e.g., a hairdryer for \$30 and a stereo television for \$2,000). Even within product type (e.g., televisions), prices varied substantially due to differences in size and other features. The relevance of price to perceived value for money in a retail situation is likely to be derived from comparing the price of the given brand with competitive brands with the same features, size and functions. Hence, perceived relative price was considered more relevant to the purchase decision than any dollar metric.

Product quality (four items), perceived value (three items), and willingness-to-buy (three items) were measured using Dodds, Monroe and Grewal's (1991) scales. Perceived ES service quality was measured using assurance, responsiveness and empathy items derived from the SERVQUAL Scale (Parasuraman, Berry and Zeithaml, 1991). While these scales were developed to measure overall perceptions of service quality, the assurance, responsiveness and empathy items relate to the process of the service, rather than to the outcome. Hence, we believe that they are appropriate in evaluating encounter specific service, the context of the present study.

Items selected from the SERVQUAL scale represent Gronroos's (1984, 1990) functional service quality and technical service quality (SQ). Functional SQ was measured by the manner in which the service was delivered. Technical SQ was measured as customer knowledge derived from interaction with the salesperson. Five items were selected to represent ES functional service quality and two to represent ES technical service quality.

Two types of perceived risk (financial and performance) were included in the model. Two items were employed to measure each risk type. The first was based on Jacoby and Kaplan's (1972) and Stone and Winter's (1987) conceptualization of risk and reflected certainty of loss. The second used a holistic approach similar to that discussed by Spence,

TABLE 1

Scales Used to Represent Constructs

Scale	Number of Items	Source of Measure	Reliability (Coefficient Alpha)
Perceptions of value for money	3	Dodds, Monroe and Grewal (1991)	0.85
Perceptions of product quality	4	Dodds, Monroe and Grewal (1991)	0.93
Willingness-to-buy	3	Dodds, Monroe and Grewal (1991)	0.95
Encounter specific functional service quality	5	Items from responsiveness, assurance and empathy dimensions of SERVQUAL (Parasuraman, Berry and Zeithaml 1991)	0.93
Encounter specific technical service quality	2	One item from original competence dimension of SERVQUAL, one similar item developed (Parasuraman, Berry and Zeithaml 1991)	0.96
Relative price	2	Conover (1986) measure, second developed using similar wording but different end points	0.76
Performance/Financial risk	2	Adapted from Spence, Engel and Blackwell (1970), Jacoby and Kaplan (1972) and Stone and Winter (1987)	0.82

Engel, and Blackwell (1970). Product and service quality, perceived value for money and willingness-to-buy were each measured using seven point Likert scales. Perceived risk and perceived relative price scales used numerical ratings with selected end point descriptors.

An initial exploratory factor analysis using principal axis factoring found that ES functional service quality, ES technical service quality, relative price, product quality, value for money and willingness-to-buy were unidimensional. The risk construct was also found to be unidimensional, comprising a single performance/financial factor. This corresponds with Brooker's (1983) and Peter and Tarpey's (1975) findings of a non-personal risk factor comprising financial, performance, physical and time risks. Table 1 provides details on the source of the scales. Table 2 contains descriptions of the specific items.

RESULTS

Preliminary Analysis

We tested our model of perceived value using LISREL VIII since the model has both latent constructs and multiple indicators. As already noted, our data were collected by iden-

TABLE 2

Composite Indicators

<i>Construct</i>		<i>Items</i>	<i>Loading on Latent Construct</i>
ES Functional service quality	Indicator 1 (y ₁)	<ul style="list-style-type: none"> The employees in this store were courteous The employees in this store were willing to help 	0.99
	Indicator 2 (y ₂)	<ul style="list-style-type: none"> This store gave me personal attention The employees in this store gave me prompt service This store gave me individual attention 	0.91
ES Technical service quality	Indicator 1 (y ₃)	<ul style="list-style-type: none"> The employees in this store had the knowledge to answer my questions 	0.96
	Indicator 2 (y ₄)	<ul style="list-style-type: none"> The employees in this store knew what they were talking about 	0.96
Product quality	Indicator 1 (y ₅)	<ul style="list-style-type: none"> This product would be reliable This product would be dependable 	0.92
	Indicator 2 (y ₆)	<ul style="list-style-type: none"> This product would be durable The workmanship on this product would be good 	0.92
Relative price	Indicator 1 (y ₇)	<ul style="list-style-type: none"> Considering the price of the product, would you say the price is very low or very high compared to a (PRODUCT TYPE) with similar features? 	0.84
	Indicator 2 (y ₈)	<ul style="list-style-type: none"> Considering 1 as the least expensive (PRODUCT TYPE) with similar features available and 7 as the most expensive (PRODUCT TYPE) with similar features available, how would you rate the (PRODUCT TYPE) you looked at/purchased? 	0.74
Performance/ financial risk	Indicator 1 (y ₉)	<ul style="list-style-type: none"> There is a chance that there will be something wrong with this product or that it will not work properly There is a chance that I will stand to lose money either because it won't work at all or costs more than it should to maintain it. 	0.69
	Indicator 2 (y ₁₀)	<ul style="list-style-type: none"> This product is extremely risky/not risky in terms of how it would perform This product is extremely risky/not risky in terms of its long term costs 	0.81
Perceived value for money	Indicator 1 (y ₁₁)	<ul style="list-style-type: none"> This product is good value for money At the price shown this product is economical 	0.88
	Indicator 2 (y ₁₂)	<ul style="list-style-type: none"> This product is a good buy 	0.81
Willingness-to-buy	Indicator 1 (y ₁₃)	<ul style="list-style-type: none"> I would consider buying this product at this store I will purchase this product at this store 	0.99
	Indicator 2 (y ₁₄)	<ul style="list-style-type: none"> There is a strong likelihood that I will buy this product at this store 	0.91

Note: NB: ES = Encounter-specific

tical methods for the same product class in two different cities. An initial analysis found that the data produced similar results in both cities. Specifically, a test of the equality of the correlation matrices of the exploratory and confirmatory samples, constraining variances and covariances to be equal, suggested that this constraint fitted the data. Hence, we concluded that the covariance matrices were similar ($\chi^2 = 292.8$ df = 105 RMSEA = 0.053, GFI = 0.95, NFI = 0.97, CFI = 0.98, sample size = 1068).

As noted by many authors (e.g., Jöreskog and Sorbom, 1993; Bagozzi and Foxall, 1996), reliance on the chi-square test as the sole measure of fit in a structural equation model is not recommended due to its sensitivity to sample size. For large sample sizes, such reliance could lead to the rejection of a model differing in a trivial way to the data. The normed fit index (NFI) (Bentler and Bonett, 1980) and, more recently, the comparative fit index (CFI) (Bentler, 1990) have been recommended to counteract the influence of sample size. A rule of thumb is that both indexes should be greater or equal to 0.90. Models with values less than 0.90 have variance that remains to be explained (Bentler and Bonett, 1980). Given the relatively good fit, the data from the two cities were combined to form one data set.

The proposed model was examined in four stages. First, the reliability and validity of the constructs were assessed. Second, the overall fit of the model to the data was tested. Third, the measurement and structural parameters were examined to determine if the data supported the proposed hypotheses. Lastly, the appropriateness of perceived value and risk as mediating constructs in the model was examined.

Reliability and Validity

Construct reliability was assessed using Cronbach alpha coefficients, as shown in Table 1. Reliabilities range from 0.76 (perceived relative price) to 0.96 (ES technical service quality), suggesting that the constructs could be used with some confidence. The discriminant validity of the constructs was assessed in two ways. First, using LISREL VIII, we undertook a confirmatory factor analysis based on a partial disaggregation approach on all items for all constructs. This approach is a compromise between the most aggregate approach, in which all items are summed to form one composite for a construct, and the most disaggregate. In the latter, each item is treated as an individual indicator of the relevant factor (Bagozzi and Heatherton, 1994; Bagozzi and Foxall, 1996). The former approach suffers from a loss of information as the distinction between items is lost, while the latter is unwieldy due to high levels of random error in items and the many parameters that need to be estimated (Bagozzi and Heatherton, 1994; Bagozzi and Foxall, 1996).

The partial disaggregation approach allows the researcher to combine items into composites to reduce random error, yet retain the multiple measure approach to structural equation modeling. In practice, the items representing a construct are selected at random to form two or three combined indicators rather than using a large number of single item measures. Since all indicators of a construct should correspond in the same way to that latent variable, different random combinations should lead to the same fit. Specific items used in the constructs and their allocation to composite indicators are shown in Table 2. The confirmatory factor analysis indicated a good fit ($\chi^2 = 269.66$ df = 56, RMSEA = 0.05, GFI =

0.97, NFI = 0.98, CFI = 0.98). Modification indices did not suggest any major improvements.

Fornell and Larcker's (1981) approach to examining discriminant validity was also used. In using this approach, the average variance extracted per construct should be greater than 0.50. Here, the variance due to the construct is greater than the variance due to measurement error. In addition, for each pair of constructs the average variance extracted per construct should be greater than the squared structural path coefficient between the two constructs. These requirements were met for all pairs of constructs with the average variance extracted ranging from 0.56 to 0.91. These exceeded the squared path coefficient in all cases (e.g., when the average-extracted variance was at its minimum of 0.56, the square of the path coefficient was 0.46). These results support the distinction of the constructs included in the model, even when measurement error is considered.

Overall Model Fit

Model coefficients show that the proposed model does well. The squared multiple correlation for the perceived value construct is 0.62 (Table 4), indicating that nearly two thirds of the variance in the perceived value construct is explained by its quality, price and risk antecedents. Overall, the data fitted the model well ($\chi^2 = 211.35$ df = 65, RMSEA = 0.045, GFI = 0.97, NFI = 0.98, CFI = 0.99).

Hypotheses Tests

The measurement coefficients are shown in Table 2, while structural coefficients for the model are shown in Figure 2 and Table 3.

Perception of performance/financial risk was the dominant antecedent of value perceptions (H1: $\beta_1 = -0.50$). The two service components had a small but significant influence on perceived value, (H2: $\beta_2 = 0.08$, $\beta_3 = 0.08$). Perceived product quality and perceived relative price, the commonly accepted antecedents, both had a significant effect on perceived value for money; the former having a positive effect (H4: $\beta_4 = 0.25$) and the latter a negative influence (H8: $\beta_5 = -0.35$), as expected.

ES functional service quality was found to influence ES technical service quality (H6: $\beta_6 = 0.73$) positively. This, in turn, influenced product quality perceptions (H7: $\beta_7 = 0.38$). Product quality, had a strong negative effect on perceived performance/financial risk (H8: $\beta_8 = -0.58$) although ES functional service quality also had a significant, but far smaller effect in reducing risk (H10: $\beta_{10} = -0.10$). The effect of ES technical service quality on risk was of similar magnitude to that of functional service quality although of marginal significance (H9: $\beta_9 = -0.09$).

Perceived relative price had a small but significant positive effect on perceived product quality (H11: $\beta_{11} = 0.13$). Also, as expected, perceived value was positively related to willingness-to-buy (H12: $\beta_{12} = 0.57$).

TABLE 3

Path Estimates for Proposed Model

Relationship	Proposed model	
	Standardized Coefficient	t-value
H1: Performance/financial risk→Value for Money	-0.50 (β_1)	-10.20
H2: ES functional Service Quality→Value for Money	0.08 (β_2)	1.97
H3: ES technical Service Quality→Value for Money	0.08 (β_3)	1.86
H4: Product quality→Value for Money	0.23 (β_4)	5.60
H5: Relative price→Value for Money	-0.35 (β_5)	-10.30
H6: ES functional Service Quality→ES technical Service Quality	0.73 (β_6)	29.53
H7: ES technical Service Quality→Product quality	0.38 (β_7)	12.34
H8: Product quality→Performance/financial risk	-0.58 (β_8)	-14.20
H9: ES technical Service Quality→Performance/financial risk	-0.09 (β_9)	-1.93
H10: ES functional Service Quality→Performance/financial risk	-0.10 (β_{10})	-2.16
H11: Relative price→Product quality	0.13 (β_{11})	3.86
H12: Value for Money→Willingness-to-buy	0.57 (β_{12})	18.94
Model fit:		
Chi square		211.35
Df		65
RMSEA		0.045
RMR		0.054
GFI		0.97
NFI		0.98
CFI		0.99

Note: NB: ES = Encounter-specific

In order to fully understand the relative importance of the constructs in developing perceptions of value for money, the total effects of each construct on endogenous variables such as perceived performance/financial risk, perceived value for money and willingness-to-buy were examined. These are shown in Table 4. In each cell, the direct effect (as in Table 3), the indirect effect and the total effect (direct plus indirect) of one construct on another is shown. An example of the derivation of the indirect effects is given at the foot of the table.

A comparison of coefficients showed that perceived product quality and perceived performance/financial risk had major effects on perceived value for money (0.52 and -0.50 respectively). Perceived product quality had a positive direct effect (0.23), but also an indirect effect through its power to reduce perceived performance/financial risk (0.29), while the influence of perceived performance/financial risk was direct.

ES functional service quality had a significant influence on perceived value (0.36), having a small direct effect (0.08) but a substantially larger indirect effect (0.28). Similarly, ES technical service had a small direct effect on perceived value for money (0.08) but a much larger indirect effect (0.24). However, further analysis shows that half of the total effect of the service components on perceived value was generated through risk reduction. This was due to the ability of the service components to reduce risk both directly, as well as indi-

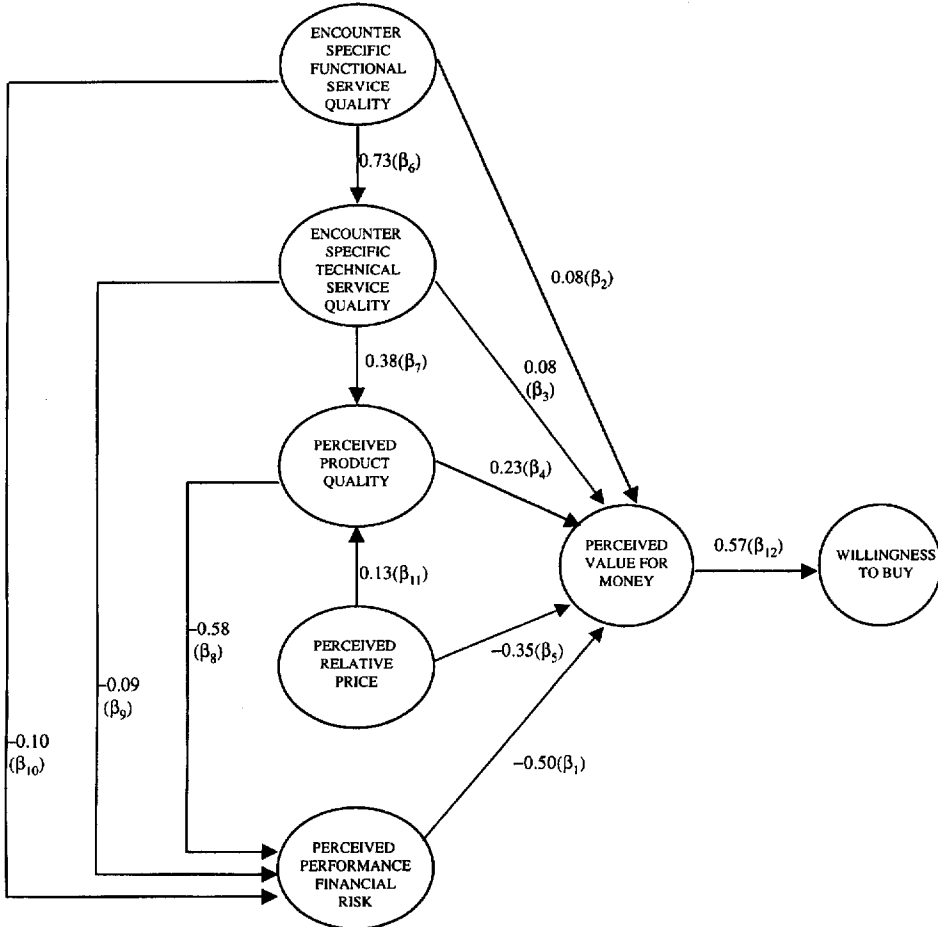


FIGURE 2
Structural Path Coefficients (Standardized Values)

rectly through their positive effect on received product quality. Thus, the important role played by the service components in creating perceived value took place largely through their reduction of perceived risk. The remainder of the effect of service quality on perceived value was obtained through direct effects of the service components on perceived value or indirectly through their impact on product quality.

Perceived relative price not only had a direct negative effect on perceived value but also a positive role through its influence on product quality. This is consistent with Monroe's (1990) conceptualization of the dual role of price. Consequently, the overall effect of relative price was lower than the direct negative path to perceived value. Nonetheless, the

TABLE 4
Effects on Endogenous Constructs
a) Direct b) Indirect c) Total

Effect of ⇒ on ↓	ES Functional Service Quality	ES Technical Service Quality	Product Quality	Relative Price	Performance/ Financial Risk	Value for Money	SMC* for Structural Equations
ES technical Service Quality	0.73						0.54
	-						
	0.73 (29.53)						
Product quality	-	0.38		0.13			0.16
	0.28	-		-			
	0.28 (11.56)	0.38 (12.34)		0.13 (3.86)			
Performance/financial risk	-0.10	-0.09	-0.58	-			0.44
	-0.23	-0.22	-	-0.08			
	-0.33 (-9.36)	-0.31 (-6.23)	-0.58 (-14.20)	-0.08 (-3.74)			
Value for money	0.08	0.08	0.23	-0.35	-0.50		0.62
	0.28	0.24	0.29	0.07	-		
	0.36 (12.07)	0.32 (7.37)	0.52 (16.18)	-0.28 (-7.98)	-0.50 (-10.20)		
Willingness-to-buy	-	-	-	-	-	0.57	0.33
	0.21	0.18	0.30	-0.16	-0.29	-	
	0.21 (10.62)	0.18 (6.99)	0.30 (13.10)	-0.16 (-7.52)	-0.29 (-9.28)	0.57 (18.94)	

Notes: *SMC=squared multiple correlation for structural equations (i.e. the measure of strength of the linear relationship between the dependent variable and independent variables)
 Cell entries are a) effects due to direct path; b) effects due to indirect paths and c) the total of the two. For example, the effect of ES technical service on performance/financial risk comprises the direct effect ($\beta_9 = -0.09$) plus the indirect effect through product quality ($\beta_7 * \beta_8 = 0.38 * -0.58 = -0.22$). Figures in brackets are t-values for total effects

TABLE 5
Regression Equation Tests for Perceived Value Mediation
(in the Quality, Price and Risk–Willingness-to Buy Relationships)

Independent Variable:	Equation 1: *Mediator = f(**independent)		Equation 2: ***Dependent = f(independent)		Equation 3: Dependent = f(independent and mediator)	
	Coefficients for the Independent Variables		Coefficients for the Independent Variables		Coefficients for the Independent Variables	Coefficients for the Mediator Variable
ES functional service quality#	0.40 (11.66)		0.37 (11.72)		0.17 (5.52)	0.50 (14.49)
ES technical service quality	0.40 (12.68)		0.34 (10.85)		0.12 (4.06)	0.52 (14.69)
Performance/financial risk	-0.69 (-15.88)		-0.35 (-10.00)		0.05 (1.00)	0.60 (12.26)
Relative price	-0.29 (-6.88)		-0.29 (-6.11)		-0.14 (-4.13)	0.52 (15.22)
Product quality	0.57 (16.89)		0.27 (8.17)		0.09 (2.60)	0.62 (15.39)

Notes: Figures in brackets are t-values

*The mediator (equations 1 and 3) is perceived value for money

**The independent variable for each row is as specified in the left-hand column

***The dependent variable (equations 2 and 3) is willingness-to-buy.

Read figures on this row as follows: Eq. 1, the coefficient for the regression of functional service quality on perceived value is 0.40; Eq. 2, the coefficient for functional service on willingness-to-buy is 0.37; Eq. 3, the coefficients for function service quality and perceived value on willingness-to-buy are 0.17 and 0.50, respectively.

TABLE 6
Regression Equation Tests for Perceived Risk Mediation (in the Quality-Value for Money Relationships)

Independent Variable:	Equation 1: *Mediator = f(**independent)	Equation 2: ***Dependent = f(**independent)	Equation 3: Dependent = f(independent and mediator)
	Coefficients for the Independent Variables	Coefficients for the Independent Variables	Coefficients for the Independent Variables
ES functional service quality#	-0.38 (-9.39)	0.40 (11.66)	0.18 (5.48)
ES technical service quality	-0.39 (-9.91)	0.40 (12.68)	0.18 (5.43)
Product quality	-0.65 (-15.77)	0.57 (16.89)	0.21 (4.68)
			-0.63 (-14.37)
			-0.63 (-14.35)
			-0.56 (-10.71)

Notes: Figures in brackets are t values
 *The mediator (equations 1 and 3) is perceived performance/financial risk
 **The independent variable for each row is as specified in the left-hand column
 ***The dependent variable (equations 2 and 3) is perceived value for money
 #Read figures on this row as follows: Eq. 1, the coefficient for the regression of functional service quality on perceived risk is 0.38; Eq. 2, the coefficient for functional service on perceived value is 0.40; Eq. 3, the coefficients for the function service quality and perceived risk on perceived value are 0.18 and 0.63, respectively.

effect of perceived relative price on perceived value was heavily negative, the negative impact being five times greater than the positive impact.

The magnitude of the effect of the various antecedent variables on willingness-to-buy was less than that on perceived value. However, the ranking was the same (product quality, perceived performance/financial risk, ES functional service quality, ES technical service quality, and perceived relative price). These results suggest that perceived value mediates the relationship with willingness-to-buy. Overall, the model explained a substantial proportion of variance, 62%, in the perceived value construct.

To formally assess the relevance of perceived value's role, we employed the mediator conditions proposed by Baron and Kenny (1986). For this purpose, three regression equations were estimated: 1) the mediator on the independent variable, 2) the dependent on the independent variable, and 3) the dependent on both the independent and mediating variable together. For mediation to be established, equations 1 and 2 must be significant and the mediator must significantly effect the dependent variable in the third equation. In addition, the effect of the independent variable in the third equation should be less than its effect in the second equation. These mediation tests were conducted on each of the proposed antecedents (independent variables) of perceived value (ES functional service quality, ES technical service quality, product quality, relative price, performance/financial risk) separately (Equations 1, 2, and 3 in Table 5).

Each of the antecedents was found to affect the latent perceived value construct significantly (Equation 1). Each of the antecedents of perceived value also separately significantly effected willingness-to-buy (Equation 2). Third, perceived value for money was found to affect significantly a willingness-to-buy when both perceived value and each antecedent were included as predictors of willingness-to-buy (Equation 3). The effect of the antecedents on willingness-to-buy was less in Equation 3 (willingness-to-buy regressed on value for money and each antecedent) than in the Equation 2 (willingness-to-buy regressed on each antecedent). The perceived value construct thereby satisfied all of Baron and Kenny's (1986) mediating conditions, implying that perceived value for money accounts for a considerable amount (but not all) of the variance in the quality→willingness-to-buy relationships.

In regard to the above findings, one should also note that the effect of perceived risk on willingness-to-buy is reduced to insignificance when perceived value is included in the equation (Col. 3, Row 3 of Table 5). This shows the important role of perceived value in the perceived risk→willingness-to-buy relationship. Perceived value is an important mediator between quality, price and willingness-to-buy. But, it is a full mediator of the perceived risk→willingness-to-buy relationship. Hypothesis thirteen is thereby supported.

We employed the same procedure to assess the validity of perceived risk as a mediator in the quality→perceived value relationships. Table 6 shows that perceived risk here, by the logic employed in Table 5, is a potent mediator of the relationship for the three quality antecedents. As may be seen in Column 3, perceived risk accounted for a major share of the explained relationships between all quality variables and perceived value. Hypothesis fourteen is also supported.

DISCUSSION

Marketers spend billions of dollars annually seeking to enhance consumers' perceptions of value associated with their brands. Because of the size of these expenditures, it is critical that they have a clear understanding of the role of perceived value and its key determinants. Toward this end, we have presented in this research report a model of perceived value for relatively expensive, durable consumer goods; specifically electrical appliances. In this model we include the traditional antecedents of product quality and relative price. We augmented these antecedents with constructs of encounter specific service quality and perceived performance/financial risk in order to assess their contribution, if any, to perceived value.

These additions are of particular importance to the retail channel. They serve to include the retailer directly in the process of creating product value, a role largely thought to be performed by the brand supplier.

Our central finding is that perceived risk, as measured by elements of performance and financial risk, has a more powerful, direct effect on perceived value than the traditional antecedents of perceived relative price or perceived product quality. While relative price and product quality remain of importance, these results indicate that more attention needs to be paid to the issue of how consumers' perceptions of risk in the future use of durable products can be mitigated.

In this context, we also show that relative product price does not have a purely negative influence on perceived value. We find that it also has a positive effect on perceived product quality, as many have speculated. However, with respect to the electrical appliances that we studied, this positive element was swamped by the negative impact of higher relative price upon perceived product value.

Our second major finding is that retailers play a key role in maintaining consumer perceptions of quality in durable goods. Perceived product quality was the dominant factor in reducing perceived performance/financial risk. Further, ES functional service (the way in which the service is delivered by the retail sales force) and ES technical service (the retail salesperson's knowledge) quality components only had small direct effects. However, the indirect effects of the two service-quality components on perceived performance/financial risk were twice as large as the direct effects.

This shows that technical service quality, identified here as salespersons' knowledge, plays a particularly important role in reducing risk perceptions. This occurs largely through the offering of favorable product knowledge that led to positive, product quality perceptions. Our data shows a similar pattern by the negative effect of ES functional service, measured as the manner of service delivery, on perceived risk. The implication is that consumers may believe that a store with good quality service is likely to stock and recommend quality products that will perform well over time (Jacoby and Mazursky, 1984, 1985).

What is clear from these findings is the pivotal role played by salespeople, both directly and indirectly. Much has been said about the importance of customer service in recent years (e.g., Carlzon, 1987; Berry, 1995) and the present study highlights why both suppliers and retailers should view these discussions with particular interest.

Salespeople exercise an influence by reassuring customers that a product will perform in the long term, thereby avoiding repairs and the cost and time associated with these. This may be accomplished through a personal recommendation or providing information about previous customers' post purchase experiences (e.g., 'none of these products have been returned in the last year,' 'a friend of mine has had one of these for years and finds it to be...').

Salespeople have often been held in low esteem by customers (Mitchell, 1990). However, with the trend towards more sophisticated buyers, the wider adoption of the marketing concept at retail, and better training of salespeople (Johnson, Kurtz, and Scheunig, 1987), developing the effectiveness and prestige of this information source should be given closer consideration.

Our last substantive objective involved the testing of the roles of perceived value and risk. Here we found perceived value to be an appropriate mediator of the quality, price and risk components (antecedents of perceived value) and willingness-to-buy (the outcome of perceived value). Since the effects of price, the service quality components and product quality were not eliminated when perceived value for money was introduced, perceived value can be described as a 'potent,' but not dominant, mediator of the quality and relative price→willingness-to-buy relationships. That is, perceived value is not a necessary and sufficient mediator for these relationships and information on antecedent conditions must be sought.

However, perceived value for money can be considered a strong and dominant mediator of the perceived risk→willingness-to-buy relationship, since the effect of perceived performance/financial risk on willingness-to-buy is effectively reduced to zero when value for money is introduced (Baron and Kenny, 1986). Thus, the effect of perceived performance/financial risk on willingness-to-buy is entirely mediated by perceived value, highlighting the critical role of value for consumers in evaluating risk.

Our tests for the role of perceived risk in the quality→value relationship bore similar fruit. Perceived risk was found to be a potent mediator of this relationship as perceived risk explained considerable variance in value. This finding further highlights the close relationship between risk and perceived value and how risk can be used conceptually and practically in generating perceptions of perceived value for money.

Finally, we note that the use of Zeithaml's (1988) and Monroe's (1990) frameworks in our realistic and natural retail settings adds to our knowledge of consumer behavior. In addition, the extensions to the quality-risk-value for money paradigm were found to be consistent with the *real world* data collected. Overall, the model explained 62% of the variance in the perceived value for money construct. This indicates not only a strong analytical support for the framework, but that the surveying of actual consumers regarding products they are in the process of making purchase decisions about provides a robust methodology for resolving these research issues.

IMPLICATIONS FOR FUTURE RESEARCH

Because our results are directly relevant only to electrical appliances sold in traditional retail stores, generalizations to other products (including durable goods) or other retail sce-

narios should be made with care. For example, these findings cannot be extended to other retail scenarios, due to differences in the shopping process (e.g., the current role of certain services is only present for retail store shopping). Indeed, some shopping methods, such as mail order, are perceived as inherently more risky than other methods (Spence, Engel, and Blackwell, 1970; Hawes and Lumpkin, 1986). Web-based shopping, for example, may increase performance/financial risk due to the remoteness of the transaction, which may result in less knowledge about the quality of the product and its long-term performance.

Additionally, some consumers may be more sensitive to one or more of the constructs in the model. For example, some consumers are more likely to perceive risk than are others (e.g., Bauer, 1960; Dash, Schiffman, and Berenson, 1976; Horton, 1976). Innovators are prepared to accept more risk in adopting a new product than followers (Venkatraman, 1991). Product and service quality elements may play a lesser role for such consumers, since risk reduction is less critical. While some consumers may be less concerned about risk and willing to trade off price for increased risk, others may be simply price averse. In the latter case, consumers may be motivated entirely by the short-term loss of the cost of the good. Hence, their purchase process may differ from other consumers who are more concerned about quality or a balance between quality and price. This suggests the need for segmentation studies to identify the potential for different model solutions. Tellis and Gaeth (1990) have suggested three purchase strategies that parallel these priorities where quality is not fully known. Further research is needed to estimate the model for such different consumer segments and to identify the roles of the various constructs, in particular risk, for these segments.

This research focussed on performance/financial risk and the role of in-store variables in reducing such risk. Roselius (1971) and Settle and Alreck (1989) argued that different risk relievers, such as warranty and brand image are more appropriate to different types of risk, such as time loss risk, social risk and psychological or ego risk. To what extent does functional or technical service reduce different types of risk? Is functional service quality more important in reducing personal types of risk (e.g. psychological, social) than non-personal risk types (performance, financial, physical and time)?¹ Recent research by Greatorex and Mitchell (1994) has tentatively suggested that the risk-reliever relationship is not generalizable across product groupings. Further research should clarify the extent to which the relationships we have found will broadly hold.

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NOTES

1. The model tested in the present study was initially conceptualized as including social risk as well as performance and financial risks. An exploratory factor analysis of risk items found two risk

factors (social risk and performance/financial risk), consistent with findings of Peter and Tarpey (1975) and Brooker (1983). Initial results showed that functional service quality had a greater role to play when social risk was included in the model. While social risk had a high correlation with perceived value for money (-0.44), when it was considered in the same model as performance/financial risk, its path coefficient was insignificant. The perceived social risk construct was therefore dropped from the model. Perceived social risk may be more important for conspicuous products than for the electrical appliances considered in this study (Bearden and Etzel, 1982).

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