Arjun Chaudhuri & Morris B. Holbrook

The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty

The authors examine two aspects of brand loyalty, purchase loyalty and attitudinal loyalty, as linking variables in the chain of effects from brand trust and brand affect to brand performance (market share and relative price). The model includes product-level, category-related controls (hedonic value and utilitarian value) and brand-level controls (brand differentiation and share of voice). The authors compile an aggregate data set for 107 brands from three separate surveys of consumers and brand managers. The results indicate that when the product- and brand-level variables are controlled for, brand trust and brand affect combine to determine purchase loyalty and attitudinal loyalty. Purchase loyalty, in turn, leads to greater market share, and attitudinal loyalty leads to a higher relative price for the brand. The authors discuss the managerial implications of these results.

Price premiums and market share have been closely associated with the increasingly salient concept of brand equity (Aaker 1996; Bello and Holbrook 1995; Holbrook 1992; Park and Srinivasan 1994; Winters 1991). These outcomes, which in turn drive brand profitability, depend on various aspects of brand loyalty. Specifically, brand-loyal consumers may be willing to pay more for a brand because they perceive some unique value in the brand that no alternative can provide (Jacoby and Chestnut 1978; Pessemier 1959; Reichheld 1996). This uniqueness may derive from greater trust in the reliability of a brand or from more favorable affect when customers use the brand. Similarly, brand loyalty leads to greater market share when the same brand is repeatedly purchased by loyal consumers, irrespective of situational constraints (Assael 1998). Furthermore, because of various affective factors, loyal consumers may use more of the brand—that is, may like using the brand or identify with its image (Upshaw 1995). In summary, superior brand performance outcomes such as greater market share and a premium price (relative to the leading competitor) may result from greater customer loyalty. This loyalty, in turn, may be determined by trust in the brand and by feelings or affect elicited by the brand.

The importance of brand loyalty has been recognized in the marketing literature for at least three decades (Howard and Sheth 1969, p. 232). In this connection, Aaker (1991) has discussed the role of loyalty in the brand equity process

and has specifically noted that brand loyalty leads to certain marketing advantages such as reduced marketing costs, more new customers, and greater trade leverage. In addition, Dick and Basu (1994) suggest other loyalty-related marketing advantages, such as favorable word of mouth and greater resistance among loyal consumers to competitive strategies. Yet despite the clear managerial relevance of brand loyalty, conceptual and empirical gaps remain. Specifically, with some exceptions (Oliver 1999; Zeithaml, Berry, and Parasuraman 1996), our conceptualizations of brand loyalty emphasize only the behavioral dimension of that concept, thereby neglecting its attitudinal components and its relationship with other variables at both the consumer and market levels. Therefore,

> Even though many marketers have emphasized the need to define brand loyalty beyond operational measures (mostly sequence of purchases), the nomology of brand loyalty in behavioral theory (i.e., its relationships with other concepts in the expanding vocabulary of marketing research) requires stronger integration. (Dick and Basu 1994, p. 99)

The present study explores the relationship among brand trust, brand affect, and brand performance outcomes (market share and relative price) with an emphasis on understanding the linking role played by brand loyalty. Toward this end, we further examine the effects of two general product-level, category-related control variables (hedonic and utilitarian value) on brand trust and brand affect and the effect of two brand-level control variables (brand differentiation and share of voice) on market share and relative price. If these relationships exist, measures of brand trust and brand affect can be included (along with existing measures of brand loyalty and brand equity) in our assortment of brand-valuation techniques (Keller 1993). Moreover, marketing managers can justify expenditures on promotions to create such long-

term consumer effects as brand trust and brand affect. Furthermore, our understanding of the process of brand loyalty and brand performance will benefit from an empirically supported explanation for these crucial marketing concepts.

We use brands—that is, specific branded versions of particular product classes—as the units of analysis in this study. This enables us to bring consumer-level notions of trust and affect toward brands into the same plane as market-level measures of brand performance such as market share and relative price, which are at the level of the brand. We do this by averaging across consumer responses and thus arriving at single brand-specific scores for the notions of brand trust, brand affect, and brand loyalty. We then merge these scores with data on market share and relative price to create a single data set at the level of brands as the units of analysis. We do not mean to suggest in any way that brands themselves are capable of affect or trust, but rather that brands have the response potential to elicit affect and trust from consumers. The brand scores thus represent the average response potential of the brand in terms of the trust, affect, or loyalty that it is capable of eliciting from consumers. These brand scores also include data on the product-category characteristics of the brand. As explained in the "Methods" section, these product-level, category-related scores control for the effect of the product category on the theoretical relationships of interest. This helps us extricate the relationships that are at the level of the brand alone.

In what follows, we begin by defining the constructs of interest and developing a model of the relationships among these constructs. To develop our hypotheses, we draw from the new and emerging concepts of relationship marketing, brand equity, and double jeopardy. Here, we propose that instead of representing separate, competing, or antithetical orientations, these conceptualizations can be reconciled and integrated as crucial aspects in an overall process of brand development and brand performance. In this direction, we present the methods, measures, and results of three surveys designed to test the hypotheses of interest. We discuss the results in terms of their managerial relevance and implications for further research.

Model

Background

Oliver (1999, p. 34) defines brand loyalty as

> a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same-brand-set purchasing, *despite* situational influences and marketing efforts having the potential to cause switching behavior.

This definition emphasizes the two different aspects of brand loyalty that have been described in previous work on the concept—behavioral and attitudinal (Aaker 1991; Assael 1998; Day 1969; Jacoby and Chestnut 1978; Jacoby and Kyner 1973; Oliver 1999; Tucker 1964). Behavioral, or purchase, loyalty consists of repeated purchases of the brand, whereas attitudinal brand loyalty includes a degree of dispositional commitment in terms of some unique value associated with the brand. We propose in Figure 1 that brands high in consumer trust and affect are linked through both attitudi-

nal and purchase loyalty (also among consumers) to greater market share and premium prices in the marketplace.[1]

Consider, for example, a diner who patronizes only one restaurant. One explanation for this behavior could involve a lack of knowledge of other restaurants and thus habituation to a single place of patronage. Another possible explanation is that the consumer has visited other restaurants; has found that restaurants differ in quality, convenience, service, and so forth; has discovered a particular restaurant that can be trusted and relied on in terms of these criteria; and now chooses to frequent this restaurant rather than other, less trustworthy places. Another scenario is that the customer might have developed strong emotional ties with the restaurant or with its staff. This brand affect leads to greater commitment in the form of attitudinal loyalty and a willingness not only to revisit the restaurant but also to pay a premium price for the pleasure involved. Moreover, the loyal consumer may even increase his or her usual frequency of eating out every week (instead of cooking at home), thus providing the favorite restaurant with increases in sales. The consumer may now also find other uses for the restaurant, such as ordering take-out food when in a hurry, encouraging group visits with friends, asking the staff to cater a party, and so on. All this will generate additional sales and consequent profitable brand outcomes for the restaurant.

In the present study, brand affect is defined as a brand's potential to elicit a positive emotional response in the average consumer as a result of its use. In consonance with the definition of trust provided by Moorman, Zaltman, and Deshpande (1992, p. 315) and Morgan and Hunt (1994, p. 23), we define brand trust as the willingness of the average consumer to rely on the ability of the brand to perform its stated function. Moorman, Zaltman, and Deshpande (1992) and Doney and Cannon (1997) both also stress that the notion of trust is only relevant in situations of uncertainty (e.g., when greater versus lesser differences among brands occur). Specifically, trust reduces the uncertainty in an environment in which consumers feel especially vulnerable because they know they can rely on the trusted brand.

Doney and Cannon (1997, p. 37) suggest that the construct of trust involves a "calculative process" based on the ability of an object or party (e.g., a brand) to continue to meet its obligations and on an estimation of the costs versus rewards of staying in the relationship. At the same time, Doney and Cannon point out that trust involves an inference regarding the benevolence of the firm to act in the best interests of the customer based on shared goals and values. Thus, beliefs about reliability, safety, and honesty are all important facets of trust that people incorporate in their operationalization of trust, as we discuss subsequently. Overall, we view brand trust as involving a process that is well thought out and carefully considered, whereas the development of brand affect is more spontaneous, more immediate, and less deliberately reasoned in nature.

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[1]This framework draws on assumptions made at the level of individual consumers, whereas the data in the study are compiled at the level of aggregated responses. This is not uncommon. As Fox, Reddy, and Rao (1997, pp. 253–54) point out, "The conceptual basis for most observed aggregate (macro) phenomena is at the disaggregate, individual (micro) level." See also the other references cited by these authors in defense of this treatment.

FIGURE 1
A Model of Brand Loyalty and Brand Performance

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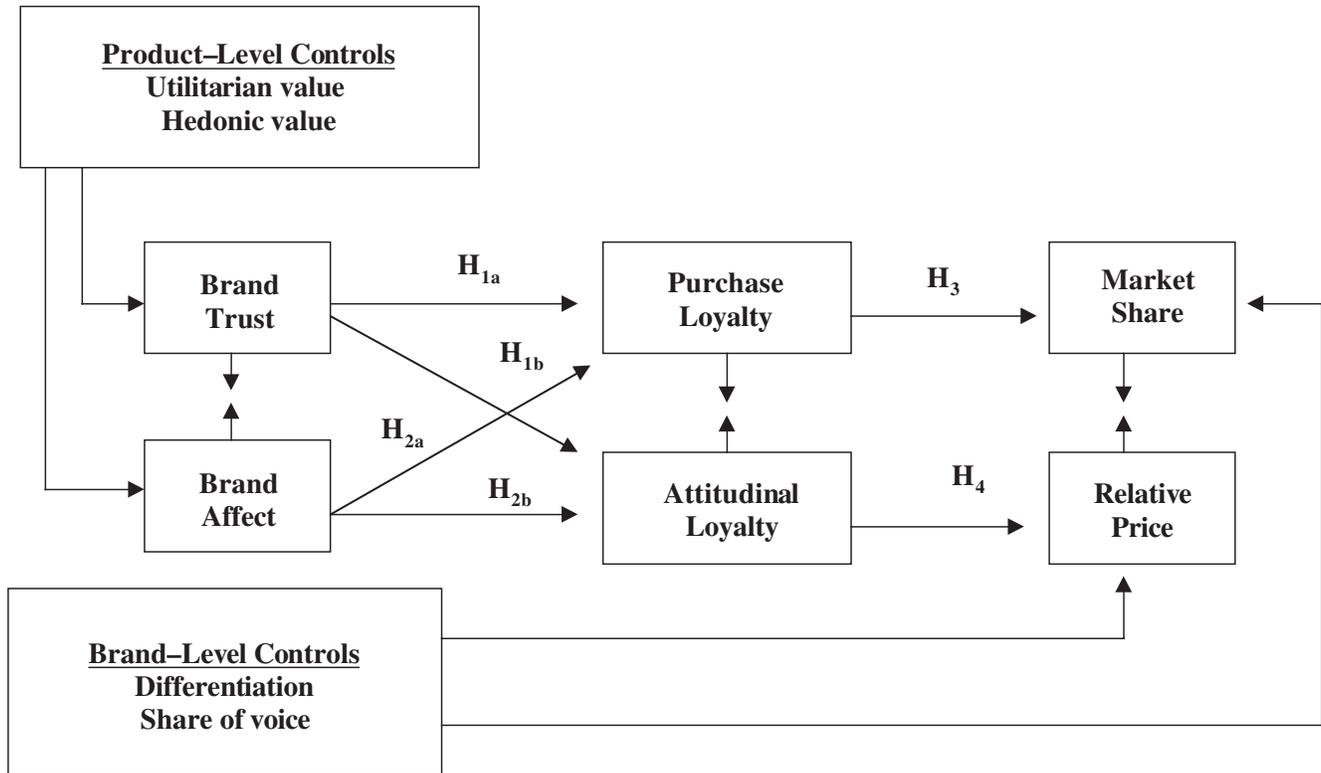
The model in Figure 1 also includes certain product-level, category-related control variables (hedonic and utilitarian value) and certain brand-level control variables that are discussed fully in a later section (see "Control Variables"). Researchers have suggested that the product-category characteristics will influence brand-level effects (such as brand trust, brand affect, brand loyalty, or brand performance). Categorization and schema theory (Lurigio and Carroll 1985; Sujan 1985) appears to bear this out. These theories both suggest that product-category cognitions are likely to precede thoughts and feelings about brands within the product category. According to categorization theory (Sujan 1985), people form categories of the stimuli around them, and new stimuli (e.g., brands) are understood according to how they fit into these existing categories. Thus, prior knowledge of the product category determines the type of evaluation that a brand stimulus will evoke. Similarly, schema theory (Lurigio and Carroll 1985) suggests that people form abstract schemata from prior knowledge and experience and then use these schemata (say, product categories) to evaluate new information (say, on brands). Hedonic and utilitarian values can thus be conceived of as abstractly representing two types of knowledge gathered from prior experience with the product category for use in evaluating individual brands within that product category.

Hypotheses

As mentioned previously, it has been suggested that brand loyalty includes some degree of predispositional commitment toward a brand (Aaker 1991; Assael 1998; Beatty and Kahle 1988; Jacoby and Chestnut 1978). Therefore, our notion of brand loyalty in this study includes both purchase loyalty and attitudinal loyalty (Figure 1). Purchase loyalty is defined as the willingness of the average consumer to repurchase the brand. Attitudinal loyalty is the level of commitment of the average consumer toward the brand.

We propose that brand trust and brand affect are each related to both purchase and attitudinal loyalty. This proposition stems from the emerging theory of brand commitment (similar to brand loyalty) in relationship marketing (Fournier 1998; Gundlach, Achrol, and Mentzer 1995; Moorman, Zaltman, and Deshpande 1992; Morgan and Hunt 1994; Webster 1992). Brand trust and brand affect appear to serve as key determinants of brand loyalty or brand commitment, consistent with the concept of one-to-one marketing relationships.

Brand trust leads to brand loyalty or commitment because trust creates exchange relationships that are highly valued (Morgan and Hunt 1994). Indeed, commitment has been defined as "an enduring desire to maintain a valued relationship" (Moorman, Zaltman, and Deshpande 1992, p. 316). Thus, loyalty or commitment underlies the ongoing process of continuing and maintaining a valued and important relationship that has been created by trust. In other words, trust and commitment should be associated, because

trust is important in relational exchanges and commitment is also reserved for such valued relationships. In this connection, Moorman, Zaltman, and Deshpande (1992) and Morgan and Hunt (1994) find that trust leads to commitment in business-to-business relational exchanges. Thus, we suggest that brand trust will contribute to both purchase loyalty and attitudinal loyalty. Trusted brands should be purchased more often and should evoke a higher degree of attitudinal commitment.

> H_1: Brand trust is positively related to both (a) purchase loyalty and (b) attitudinal loyalty.

In the context of maintaining brand relationships, the emotional determinants of brand loyalty or commitment need to be considered separately. Gundlach, Achrol, and Mentzer (1995) suggest that commitment is associated with positive affect and that though this may prevent the exploration of other alternatives in the short run, steady customer benefits are likely to accrue from such affective bonding in the long run. In particular, these authors view such a relationship or "affective attachment" (p. 79) to be most beneficial in uncertain environments. Our expectation of a positive relationship between brand affect and brand commitment or loyalty is further predicated on the ties between positive emotional feelings and close interpersonal relationships (Berscheid 1983). In this connection, Berscheid (1983) isolates two critical aspects of a close emotional relationship—namely, the magnitude of the affect (intensity) and its hedonic sign (positive/negative). We suggest that the close relationship of a brand with its consumers (i.e., commitment) also tends to reflect the level of positive affect generated by that brand. Strong and positive affective responses will be associated with high levels of brand commitment. Similarly, Dick and Basu (1994) have proposed that brand loyalty should be greater under conditions of more positive emotional mood or affect. Thus, brands that make consumers "happy" or "joyful" or "affectionate" should prompt greater purchase and attitudinal loyalty. People may not always purchase the brands they "love" for reasons of high price and so forth. In general, however, brands that are higher in brand affect should be purchased more often and should encourage greater attitudinal commitment. Therefore,

> H_2: Brand affect is positively related to both (a) purchase loyalty and (b) attitudinal loyalty.

Figure 1 further suggests that the variables of purchase loyalty and attitudinal loyalty contribute to brand outcomes such as market share and relative price. Here, as elsewhere, market share is defined as a brand's sales taken as a percentage of sales for all brands in the product category. We expect that brands higher in purchase loyalty will also be higher in market share because of higher levels of repeat purchases by the brand's users. This expectation is predicated on the theory of double jeopardy (McPhee 1963), which has been advanced as one of the few "lawlike" generalizations in marketing (Ehrenberg, Goodhardt, and Barwise 1990, p. 90) and is supported by a considerable body of evidence (see also Donthu 1994; Fader and Schmittlein 1993).

The double-jeopardy theory specifies that brands with smaller market share are at a disadvantage compared with brands with larger market share in two ways: First, they have fewer buyers; second, they are purchased less frequently by these few buyers. In contrast, more popular brands with larger market shares have more buyers and are purchased more often by these buyers. In short, relevant to our present concerns, brands with greater purchasing loyalty should and do exhibit greater market shares, with a correlation of approximately r = .60 for frequently purchased products (Ehrenberg, Goodhardt, and Barwise 1990, p. 83). Accordingly, we can expect a positive relationship between a brand's market share and the purchase loyalty of its buyers. The caveat must be made that increasing purchase loyalty results in increased market share only if the size of the targeted segment is large enough and if other segments (e.g., present heavy users of the brand) are not alienated by any changes in marketing strategy. Also, this discussion may be more appropriate for national or international brands than for regional or local brands. These caveats notwithstanding,

> H_3: Market share increases as purchase loyalty increases.

Relative price is defined as the price of a brand relative to that of its leading competitor. We use relative price as an aspect of brand performance with the caveat that in evaluating this performance, price should be considered in conjunction with the costs of maintaining the brand (which, in the present case, we assume to be roughly equal among competitors and/or held constant by partialing out share of voice as a control variable, as described subsequently).

Consumers' price perceptions of brands have been found to be unrelated to brand loyalty (Yoo, Donthu, and Lee 2000). However, when actual rather than perceived relative price measures are used, we propose that brands higher in attitudinal loyalty will command higher relative prices. This proposition draws on the theory of brand equity, which has been described by the Marketing Science Institute as "the set of associations and behavior on the part of a brand's customers, channel members, and parent corporation that permits the brand to earn greater volume or greater margins than it could without the brand name" (Leuthesser 1988, p. 31). Winters (1991) and Aaker (1996) have reviewed different ways of assessing brand equity, and both authors reach the conclusion that the price of a brand in the marketplace is a critical aspect of its brand equity. Furthermore, Holbrook (1992; Bello and Holbrook 1995) defines brand equity operationally as the price premium associated with a given brand name across a range of product categories. Moreover, to cite Keller (1993, p. 9), "Consumers with a strong, favorable brand attitude should be more willing to pay premium prices for the brand." In other words, greater attitudinal loyalty should lead to greater willingness to sacrifice by paying a premium price for a valued brand. Therefore, on the basis of the literature, we expect a significant and positive relationship between a brand's attitudinal loyalty and its relative price in the marketplace.

> H_4: Relative price increases as attitudinal loyalty increases.

Control Variables

Although they are not of primary theoretical interest to our study, we include in our model control variables that have been found in prior research to affect brand outcomes.

Beyond whatever substantive interest these control variables possess in their own right, their major purpose here is to help remove statistical noise due to omitted-variables bias in a case in which we can capture effects that have been shown elsewhere to make a difference.

Brand-level control variables. Smith and Park (1992) find that the degree of brand differentiation is significantly related to market share. With some exceptions, the brand's share of voice has also tended to account for market share (Jones 1990). Furthermore, brand differentiation may justify a higher relative price. Also, share of voice may reflect differences in advertising expenditures and therefore may also tend to affect relative price. Thus, controlling for these variables statistically by including them with the other independent variables of interest provides for a stronger test of our hypotheses regarding the impact of brand loyalty on the relevant brand performance outcomes (while brand differentiation and share of voice are held constant).

Product-level, category-related control variables. In presenting an alternative to the usual decision-oriented perspective on consumer behavior, Holbrook and Hirschman (1982) advocate research on the experiential aspects of human consumption in which emotions and feelings of enjoyment or pleasure are key outcomes. They also propose two different types of consumption: utilitarian products with tangible or objective features and hedonic products with nontangible or subjective features that produce a pleasurable response from consumers. More recently, other researchers have attempted to measure the hedonic versus utilitarian aspects of consumption (Babin, Darden, and Griffin 1994; Batra and Ahtola 1991; Mano and Oliver 1993; Spangenberg, Voss, and Crowley 1997). Viewed broadly, these two aspects of hedonic and utilitarian value correspond to the archetypal constructs of emotion and reason. In this connection, it has been found that affect and reason meaningfully describe a variety of product categories (Buck et al. 1995). In a similar spirit, we adopt the hedonic and utilitarian value of products as basic and fundamental descriptors of product-category characteristics. We define hedonic value as the pleasure potential of a product class and utilitarian value as the ability to perform functions in the everyday life of a consumer. Note that hedonic value and utilitarian value are not considered in this study to represent two ends of a single continuum. Instead, we view them as two potentially orthogonal types of value, and we suggest that products are best conceived as offering some degree of both.[2]

Hedonic and utilitarian value reflect two contrasting paradigms in consumer behavior theory. Specifically, the information-processing paradigm (e.g., Bettman 1979) regards consumer behavior as largely objective and rational and as oriented toward problem solving. Thus, brand trust (which involves a calculative process, as described previously)

toward a particular favored brand may be greater when the utilitarian value in the product category is high in terms of tangible product attributes, such as quality or convenience. In contrast, in the experiential paradigm, consumer behavior pursues the more subjective, emotional, and symbolic aspects of consumption (e.g., Hirschman and Holbrook 1982; Holbrook and Hirschman 1982). More hedonic products have nontangible, symbolic benefits and are likely to encourage a greater potential for positive brand affect. When the emotional elements of pleasure are high and positive for a product category, consumers should experience more favorable affect toward the brand consumed.

Allowing for these kinds of relationships helps control for that part of the trusting or affective response to a brand that depends on the product category itself rather than the brand alone. Some of the benefits of a brand may indeed accrue from the product category it belongs to, and accordingly we control for both hedonic and utilitarian aspects of products, which may account for certain tangible and nontangible aspects of brands. This helps ensure that whatever brand-related effects appear in this study are due to the brand and not to its product-category characteristics.

Method

The Unit of Analysis

This study used brands, rather than individuals, as the units of observation. This approach, which aggregates across consumers to produce scores for (in this case) brands or (elsewhere) advertisements (Holbrook and Batra 1987; Olney, Holbrook, and Batra 1991; Smith and Park 1992; Stewart and Furse 1986), avoids the pitfalls of experimental manipulations that examine only two or a few cases across people (thereby giving rise to alternative hypotheses) while carrying greater significance for practitioners (who must consider the effects of their decisions on individual brands).

Independent Measures

The aggregate-level, brand-specific data for the study were compiled from three separate surveys conducted in three phases. Collecting these responses independently for almost every stage in the model ensures that linkages between any two variables are not artifacts of consistency bias due to asking the same respondents to provide both sets of answers in a single questionnaire. The use of three separate samples guards against this kind of consistency bias and thereby provides a more valid test of the key relationships (Holbrook and Batra 1987; Olney, Holbrook, and Batra 1991; Smith and Park 1992).

In Phase 1, the data on utilitarian and hedonic value were collected in the form of product-level data (i.e., ratings of product categories that pertain to the particular brands surveyed later in Phases 2 and 3). Note that no brand-specific data were collected in Phase 1. In Phase 2, measures of brand performance (market share, relative price) were obtained from a survey of product managers. In Phase 3, the data on brand trust, brand affect, and brand loyalty were gathered by a survey of consumers who were users of the brands in the study.

Phases 2 and 3 were completed during a three-month period in the year immediately following Phase 1. The aggregate-level data generated during each phase were then

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[2]As one of the reviewers of this article points out, the distinction between hedonic and utilitarian value may depend on whether the relevant satisfaction is immediate (utilitarian value) or in the future (hedonic value). Pharmaceuticals, for example, may be considered utilitarian in their initial use but result in relief from pain, which may be viewed as a gratifying and pleasurable end result. Here and elsewhere, a given product category potentially contributes to both types of customer value.

merged to form a single brand-specific data set for the study. Details regarding the procedures and measures used in the three phases are described in the remainder of this section.

Phase 1

Data collection. A sample of 146 products was randomly selected from the Standard Industrial Classification (SIC) manual (1987). Four-digit SIC codes were selected at random from the manual's index of manufacturing and nonmanufacturing industries. Next, a specific subdivision was randomly selected from within each industry, and its good or service was taken as a unit of observation. Industrial products were not included in the selection, so that commonly known brands for consumer products could be surveyed in the later phases of data collection. As discussed subsequently, the final data set consisted of 107 brands in 41 of these product categories.

A field survey of 30 actual users was conducted for each of the 146 products, requiring an overall sample of $30 \times 146 = 4380$ respondents (mean age = 32.2 years). Respondents were first asked if they were users of the good or service and, if thus qualified, were then invited to participate. If they agreed, they were shown the survey and asked to complete it. Reasons for nonparticipation were mostly either nonusage of the product or lack of time to complete the survey. Overall, 11,139 total approaches were made in the Northeastern United States, mostly in Massachusetts, Connecticut, New York, and New Jersey. Insofar as possible, surveys were conducted at places where the product was consumed or purchased. Thus, for example, the surveys for hair tonics were conducted at a hairstyling salon, potato chips at a grocery store, electric fans at the appliance section of a department store, and so forth.

The surveys consisted of a self-administered paper-and-pencil questionnaire that contained the scales for the measures relevant to the present study and for some other measures not relevant to this study. The surveys began with an introductory statement that asked respondents to administer their own responses, assured them of confidentiality, and so forth. This was followed by the measures and a request for demographic information. The surveys were distributed and immediately collected by 49 college students enrolled in two sections of an upper-level marketing course at a private university in the Northeastern United States. The students volunteered for the task (in place of completing alternative class assignments) and received course credit on successful collection of 30 consumer interviews for each of three product categories (i.e., 90 completed responses per student). Their work was carefully supervised, and they were well rehearsed in the procedures to be followed in the distribution and collection of the questionnaires.

The individual-level responses of consumers were combined to produce aggregate-level scores by averaging across the 30 respondents in each of the 146 product categories. An aggregate data set for a representative sample of 146 randomly selected products was thus compiled.

Measures of product-level control variables: hedonic and utilitarian value. Hedonic and utilitarian value were each measured on indices composed of two items accompanied by seven-point scales of agreement (1 = disagree, 7 = agree). For hedonic value, the two items were "I love this product" and "I feel good when I use this product." For utilitarian value, the two items were "I rely on this product" and "This product is a necessity for me." Coefficient alphas for the two-item indices were .74 (hedonic) and .95 (utilitarian), respectively.

Phase 2

Data collection. Of the original 146 products in Phase 1, 50 were included in Phase 2 by virtue of (1) having easily identifiable branded alternatives and (2) representing commonly used offerings for which it would be feasible to locate 30 users of a brand in Phase 3. Questionnaires were mailed to product managers of 372 brands in these 50 product categories.[3] Only one manager was used for each brand. Three weeks later, a second mailing was sent out. A personalized cover letter stating the academic purpose of the study and promising absolute confidentiality was enclosed. Follow-up personal telephone calls were made to encourage participants to complete the survey. Through this approach, 160 completed surveys were obtained, for a response rate of 43%, which was judged quite satisfactory, given the sensitivity of the data requested.

Despite this healthy response rate, it was important to rule out nonresponse bias. In this connection, 42 of the original 50 product categories were represented in the returned surveys. The eight products that were not represented included canned soft drinks, shampoos, synthetic sweeteners, ballpoint pens, women's underwear, cigarettes, flashlights, and razor blades. Our best efforts to contact these managers and to persuade them to complete the surveys were not successful. In general, we were told that the information was confidential and not publicly available. The eight product categories appear to group together as frequently purchased and widely distributed consumer goods. Therefore, their absence was likely to be compensated by the large number of similar products that remained in the data set (e.g., bottled iced tea, hair tonic, candy, coffee, hosiery, laundry soap, chewing gum, suntan lotion, cereal, bacon, beer, margarine, ice cream). A full list of product categories in the final data set appears in Table 1. In general, this table reveals a wide representation of brands drawn from a variety of product categories.

Care was also taken that the sample was not biased toward any one viewpoint or opinion. For example, bias could result from managers with poor outcome measures for their brands not responding to the survey. However, examination of sample statistics on brand outcomes shows that the sample contains a substantial representation of brands with both low and high scores.

Finally, the sample was split into early and late respondents (Armstrong and Overton 1977). The two were compared in terms of the key brand performance outcomes, market share and relative price. This comparison showed no difference in means or variances between the early and late

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[3]These brands were derived from an extensive search through both secondary information sources and personal observation at points of purchase for each of the 50 relevant product categories. Examination of the data provided by the product managers in the final data set reveals that 79% of the brands were nationally distributed in 50 states. The remainder of the brands were regionally or locally distributed brands. No dealer brands were used in the study.

TABLE 1
Products in the Study

Personal computers (3)	Macaroni (3)
Women's handbags (3)	Hotels (3)
Chewing gum (3)	Men's underwear (1)
Mattresses (3)	Potato chips (1)
Analgesics (3)	Hair tonic (1)
Cameras (3)	Margarine (2)
Ice cream (3)	Electric fans (3)
Cottage cheese (1)	Salad dressing (1)
Suntan lotion (3)	Microbrews (3)
Children's wear (3)	Laundry soap (3)
Cereal (3)	Room air conditioners (2)
Microwave ovens (3)	Vegetable cooking oil (2)
Perfume (3)	Golf clubs (3)
Bacon (3)	Kitchen utensils (3)
Barbecue grills (3)	Boys/men's slacks (1)
Gasoline (3)	Bottled iced tea (3)
Canned fruit (3)	Cooking ranges (3)
Beer (3)	Candy (3)
Trucks (3)	Coffee (3)
Hosiery (3)	Automotive tires (2)
Light bulbs (3)	

Notes: Numbers in parentheses indicate the number of brands for each product category in the final data set of 107 brands.

respondents, which further suggests that nonresponse bias in Phase 2 is unlikely to distort the findings of the present study.

Measures: market share, relative price, and brand-level control variables. All measures in Phase 2 were obtained from the questionnaire responses provided by the product managers. Specifically, these product managers were asked to define the served market of their brand and answer a series of questions on this brand while keeping its served market in mind. For example, market share was measured by asking respondents directly for the brand's market share within its served market. Relative price was constructed as the ratio of retail price per unit of the brand (numerator) to the retail price of the brand's leading competitor (denominator). The leading competitor was defined as the market share leader in the product category. If the brand itself was the market leader, the next strongest brand was taken as the leading competitor. It was deemed preferable to obtain market share and relative price information directly from the brand managers rather than to try to obtain these data through published secondary sources (e.g., *Market Share Reporter*). Such secondary sources do not report all the brands of interest to the study and report market shares from different years and different markets. Thus, obtaining reliable secondary data on these variables (especially relative price) proved to be impossible.

Furthermore, data on brand-level control variables were also collected from the brand managers. Share of voice was estimated as the ratio of a brand's annual advertising expenditures to those for the entire industry (all brands). Brand differentiation was operationalized as the sum of two questions, which asked the managers to give five-point ratings of (1) how different their brand was from all other brands in its category in terms of actual product attributes, defined as "those features of the brand which can be physically identified by touch, smell, sight, taste, etc.," and (2) how different their brand was in terms of

overall perceived quality, defined to include nontangible, psychological perceptions that consumers have about the brand in addition to its physical attributes. Coefficient alpha for these items was .75.

Phase 3

Data collection. Interviews to collect data on brand trust, brand affect, and brand loyalty were conducted by 50 students enrolled in a senior-level market research course at a private university in the Northeastern United States. Interviewers volunteered for the task (again, in place of alternative class assignments) and received course credit on successful completion of 30 consumer interviews for each of three brands in a single product category. One interviewer was assigned to each of the 50 product categories. Interviewers were trained on data collection using a mall-intercept technique. Their work was carefully supervised and checked for accuracy by random callbacks (to telephone numbers obtained in the interviews).

Overall, 47 interviewers collected data from 30 different respondents for each of three brands, and two interviewers obtained data for four brands (one interviewer was omitted because of errors), which resulted in a total of 149 brands in 49 product categories represented by $149 \times 30 = 4470$ respondents (mean age = 35.8 years). To obtain this sample, interviewers made a total of 13,386 approaches in Connecticut, Massachusetts, New Jersey, and New York. They conducted surveys mostly in shopping centers and malls. For some products, such as barbecue grills, this approach was not viable for producing actual users of the product. In these instances, interviewers found users in places where the product was purchased or consumed. For example, the barbecue grill interviewer went to a hardware store to obtain the requisite number of users per brand. Interviews were conducted around the middle of the semester and mostly during the midsemester break.

After qualification for product usage and willingness to participate, respondents were asked which brands of the product they used. They were then interviewed with reference to the first target brand mentioned. If respondents did not use any of the targeted brands from Phase 2, their responses were taken for the brand they did use, but these responses were not included in the final data set, as is discussed subsequently. In this manner, a field survey of 30 actual users was conducted for each of 149 brands in 49 product categories. The means across the 30 responses were calculated for each item on the survey, which resulted in a data set with 149 brands as the units of observation.

Measures: brand trust, brand affect, and brand loyalty. Brand trust was measured as a four-item index based on seven-point ratings of agreement (1 = very strongly disagree, 7 = very strongly agree) with the following four statements: "I trust this brand," "I rely on this brand," "This is an honest brand," and "This brand is safe." Coefficient alpha for this four-item index of brand trust was .81. Brand affect was measured by the sum of three similarly rated items: "I feel good when I use this brand," "This brand makes me happy," and "This brand gives me pleasure." Coefficient alpha for brand affect was .96. In general, brand loyalty was measured by agreement with four statements constructed to reflect either the purchase-related or attitudinal aspects of

brand commitment (Jacoby and Chestnut 1978). Specifically, purchase loyalty was measured by agreement with the following two statements: "I will buy this brand the next time I buy [product name]" and "I intend to keep purchasing this brand." Coefficient alpha for purchase loyalty was .90. Attitudinal loyalty was measured by two statements: "I am committed to this brand" and "I would be willing to pay a higher price for this brand over other brands." Coefficient alpha for attitudinal loyalty was .83.

Note that at least one of the measures for brand trust and brand affect corresponds closely to the measures cited previously for utilitarian and hedonic value. This correspondence was introduced intentionally to control for the variance due to the product category when effects due to the brand alone are examined. Thus, for example, we capture the variance due to affect toward the product category with the hedonic value item cited previously ("I feel good when I use this product"), and we separately estimate the variance due to affect toward the brand with the brand affect item ("I feel good when I use this brand"). As stated previously, the product-level, category-related variables of hedonic and utilitarian value act as control variables in the sense that they capture product-category effects that might otherwise be subsumed in the brand-level data. By relating the product-category variables to the brand-level variables of trust and affect, we can isolate the variance that is due to the brand alone from the variance that is due to the product category.

As a test of discriminant validity, Fornell and Larcker (1981) have suggested that the average variance extracted for each construct should be higher than the squared correlation between that construct and any other construct. To demonstrate this for the four constructs just described, we conducted a confirmatory factor analysis with LISREL 8.14 (Jöreskog and Sörbom 1996) using the aggregated data for the 149 brands in Phase 3. Fornell and Larcker's (1981) test of discriminant validity held for all four constructs considered separately; specifically, the largest squared correlation between any two of the constructs was .46, whereas the average variance extracted ranged from .67 to .88. Accordingly, we then summed the relevant items to form multi-item indices of brand trust, brand affect, purchase loyalty, and attitudinal loyalty.

Final Data Set

To construct the final data set, we merged the aggregated consumer-survey data set (Phase 3) based on the means of 30 responses for each of 149 brands with the data set from the managerial survey (Phase 2) for the corresponding brands in the 41 product categories covered by both sets of responses. Next, we entered the appropriate product-category data (Phase 1) on hedonic and utilitarian value for each brand in the data set. This resulted in a combined data set for 107 brands with complete observations on all variables except, in a few cases, one or more of the final brand performance outcomes. These brand performance variables were not always provided by the product managers. In Table 1, we provide a list of the 41 product categories in the final data set of 107 brands (with the number of brands in each category shown parenthetically). Confidentiality agreements with the product managers prevent us from divulging the specific brand names in the final data set.

In Table 2, we provide the full set of correlations among the constructs of interest in the study. Note that the two brand performance outcomes, market share and relative price, were essentially independent (r = .03, n.s.), with a vanishingly small shared variance (r^2 = .0009).

Results

Path analysis (LISREL 8.14) was used for testing the model and hypotheses shown in Figure 1. In this path analysis, the multiple indicators were summed together for each construct, and the resulting summated score was used to represent that construct in the simultaneous equation model.[4] Path analysis (LISREL 8.14) testing the proposed model (Figure 1) resulted in the following fit statistics: $\chi^2(18)$ = 20.32, p = .32, root mean residual (RMR) = .036, goodness-of-fit index (GFI) = .96, adjusted goodness-of-fit index (AGFI) = .89, normed fit index (NFI) = .94, nonnormed fit index (NNFI) = .96, comparative fit index (CFI) = .99, incremental fit index (IFI) = .99. Fourteen structural paths and 13 correlations were estimated for the model containing the ten constructs in Figure 1.

Three of the paths in the proposed model (utilitarian → trust, hedonic → trust, and differentiation → market share) were not statistically significant (p < .05). These departures

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[4]The path-analytic procedure used here is becoming common in studies in which a small sample size restricts the use of the full structural equation model. For a similar use of the technique, see Li and Calantone (1998) and the references cited by these authors in defense of this approach.

TABLE 2
Correlations Among Constructs

Constructs	1	2	3	4	5	6	7	8	9	10
1. Utilitarian value	1.00									
2. Hedonic value	.07	1.00								
3. Brand trust	.15	.06	1.00							
4. Brand affect	−.24	.30	.66	1.00						
5. Share of voice	−.17	−.07	.04	−.05	1.00					
6. Differentiation	−.13	.11	.04	.07	.06	1.00				
7. Purchase loyalty	.02	−.09	.63	.55	.03	−.03	1.00			
8. Attitude loyalty	−.02	.08	.52	.51	−.03	−.03	.64	1.00		
9. Market share	−.03	−.01	.19	.08	.35	.02	.22	.12	1.00	
10. Relative price	−.03	.14	.17	.05	.33	.31	.12	.22	.03	1.00

from the model refer to relationships involving control variables not represented by H_1 to H_4 (i.e., not of specific theoretical interest in the present study). The statistically nonsignificant χ^2 indicates a good fit of the model with the data, and the other indices of fit further confirm this. Note that the final model explained 16% of the variance in market share and 24% of the variance in relative price, respectively.

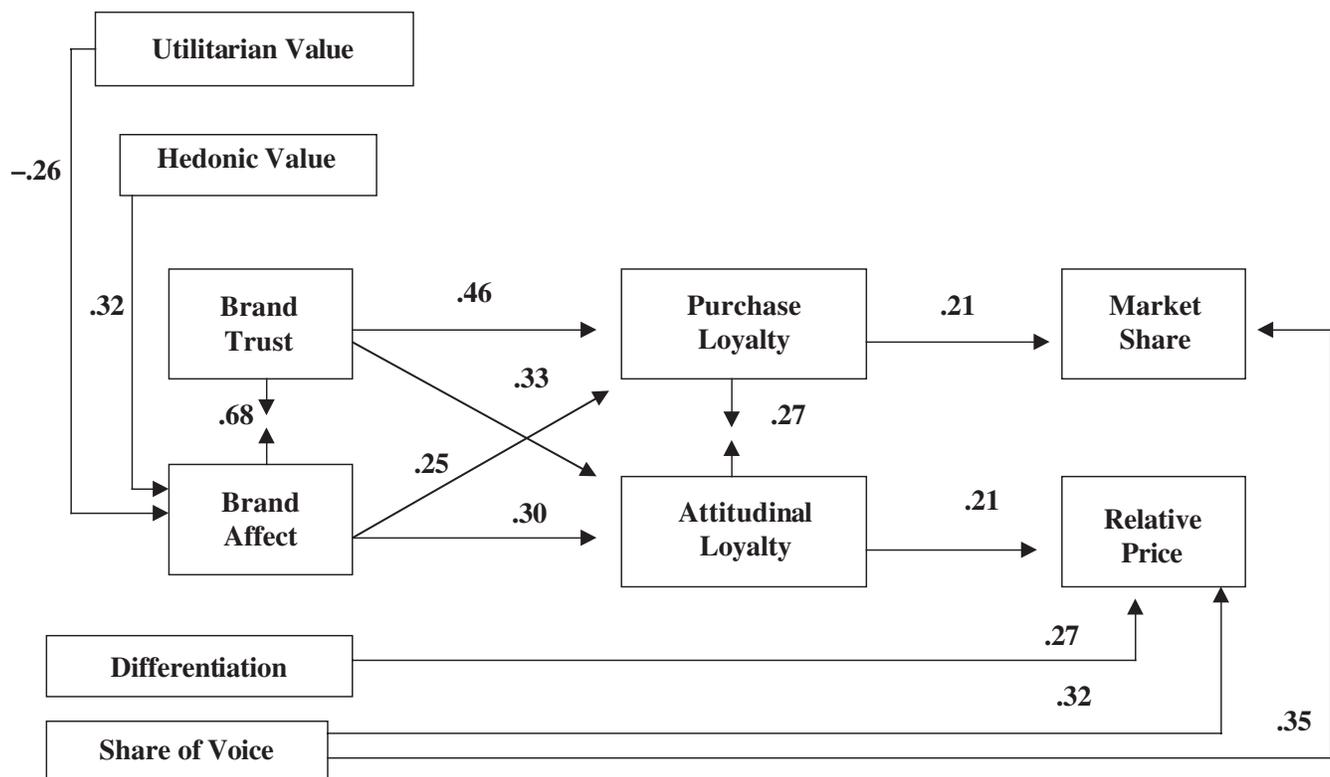Standardized path coefficients for the model appear in Table 3, which shows that the results support all four hypotheses at $p < .05$ or better. As diagrammed in Figure 2, these results also indicate that brand trust and brand affect are both indirectly related to market share and relative price, and the indirect linkage occurs through the constructs of purchase loyalty and attitudinal loyalty. Note also that as expected the two components of loyalty have different outcomes in terms of brand performance. Purchase loyalty explains market share but not relative price, whereas attitudinal loyalty explains relative price but not market share.

To check for reverse causality, we also tested a nonrecursive model that freed the paths from market share back to purchase loyalty and from relative price back to attitudinal loyalty. Both feedback effects were nonsignificant (t-value < 1.96, $p > .05$).

To determine the robustness of the model to variations among specific groups of products, we ran the same model on durable and nondurable product categories within the final data set. Path analysis (LISREL 8.14) to test the model for durable product categories resulted in the following fit statistics: $\chi^2(18) = 34.34$, RMR = .05, GFI = .94, AGFI = .82, NFI = .92, NNFI = .89, CFI = .96, IFI = .96. With the exception of H_{2a} and H_{2b}, all hypotheses in the study were supported again. Only the paths from brand affect to attitudinal and purchase loyalty were not significant at $p < .05$. However, both paths were positive in direction, as hypothesized. It appears likely that with a larger sample of products, these relationships would become significant.

Path analysis (LISREL 8.14) was also used to test the model for nondurable product categories and resulted in the

TABLE 3
Standardized Path Coefficients

	Hypothesis	Coefficient
Hypothesized Links		
Brand trust → purchase loyalty	H_{1a}	.46
Brand trust → attitudinal loyalty	H_{1b}	.33
Brand affect → purchase loyalty	H_{2a}	.25
Brand affect → attitudinal loyalty	H_{2b}	.30
Purchase loyalty → market share	H_3	.21
Attitudinal loyalty → relative price	H_4	.21
Control Variables		
Utilitarian value → brand affect		−.26
Hedonic value → brand affect		.32
Share of voice → market share		.35
Share of voice → relative price		.32
Differentiation → relative price		.27

Notes: All coefficients are significant (t-value > 1.96, $p < .05$).

FIGURE 2
Significant Paths and Correlations

following fit statistics: $\chi^2(18) = 50.45$, RMR = .06, GFI = .92, AGFI = .75, NFI = .87, NNFI = .76, CFI = .90, IFI = .91. Here, two of the six hypothesized paths (H_{1b} and H_3; brand trust → attitudinal loyalty and purchase loyalty → market share) had standardized coefficients of .15 but were not significant at $p < .05$. However, both paths again were positive in direction, as hypothesized, and it seems likely that with a larger sample size, these relationships would prove to be significant.

We further tested the robustness of the model by running it separately on utilitarian and hedonic product categories within the final data set. Path analysis (LISREL 8.14) to test the model for utilitarian product categories resulted in the following fit statistics: $\chi^2(18) = 68.69$, RMR = .06, GFI = .90, AGFI = .69, NFI = .84, NNFI = .67, CFI = .87, IFI = .88. All the hypotheses in the study were supported ($p < .05$) in this version of the model.

The fit statistics for hedonic product categories were $\chi^2(18) = 51.94$, RMR = .08, GFI = .92, AGFI = .74, NFI = .86, NNFI = .75, CFI = .90, and IFI = .91. Three of the six hypothesized paths (H_{1a}, H_{1b}, and H_3; brand trust → purchase loyalty, brand trust → attitudinal loyalty, and purchase loyalty → market share) were not significant at $p < .05$. However, all paths were positive in direction, as hypothesized, and would be expected to become significant with larger sample sizes.

In summary, we are confident that the model also applies at the level of more specific product categories, perhaps with a need for some variations in the paths included (to be determined in further research). Such deviations from the norm when testing for segments within the overall "population" of product categories are not uncommon (for a vivid description of the issue, see Wells 1993). However, pending further research, they do not appear to pose a serious threat to the validity of the present findings.

Discussion

Empirical Findings

Almost all conceptualizations of brand equity agree that the phenomenon involves the value added to an offering by consumers' perceptions of and associations with a particular brand name (Aaker 1996; Baldinger 1990; Baldinger and Rubinson 1996; Bello and Holbrook 1995; Dyson, Farr, and Hollis 1996; Holbrook 1992; Keller 1993; Park and Srinivasan 1994; Winters 1991; see also the special issue of the *Journal of Advertising Research* [1997] on brand equity). Therefore, there are two aspects to brand equity—from the viewpoints of the firm and the consumer. The firm-related side of brand equity emphasizes such brand-related outcomes as relative price and market share, whereas customer-based brand equity appears to hinge at its core on psychological associations with the brand (Keller 1993, p. 1). Furthermore, several authors have suggested that these psychological associations with a brand name account for brand equity outcomes such as greater market share or differential consumer responses to marketing-mix variables such as relative price (Aaker 1996; Baldinger and Rubinson 1996; Bello and Holbrook 1995; Keller 1993; Smith and Park 1992). It also has been noted that brands with high market share tend to have high levels of repeat purchase among

their users (Ehrenberg, Barnard, and Scriven 1997; Ehrenberg, Goodhardt, and Barwise 1990). However, in this large and growing literature, the role that brand trust and brand affect play in the creation of brand loyalty as a determinant of brand equity outcomes has not been explicitly considered. In the latter connection, our findings suggest that brand trust and brand affect are separate constructs that combine to determine two different types of brand loyalty—purchase loyalty and attitudinal loyalty—which in turn influence such outcome-related aspects of brand equity as market share and relative price, respectively.

This conceptualization has been corroborated by our empirical results, in which very different outcomes were evidenced for brand trust and brand affect as opposed to brand loyalty. Although brand trust and brand affect were each directly related to both purchase and attitudinal loyalty (Table 3), they were indirectly related to market share and relative price. Specifically, brand trust and brand affect contributed to both purchase loyalty and attitudinal loyalty, which in turn contributed significantly to market share and relative price, respectively. From this, it follows that brand loyalty may be viewed as a link in the chain of effects that indirectly connects brand trust and brand affect with the market performance aspects of brand equity.

Brand trust, brand affect, and brand loyalty are also relevant constructs in the relationship marketing literature, which considers trust and commitment or loyalty to be "key mediating variables" in relational exchanges (Morgan and Hunt 1994). As contributors to brand loyalty, brand trust and brand affect have distinct antecedents. In this connection, our results show that different product-category characteristics influence brand trust and brand affect differently. For example, hedonic value in the product category was significantly and positively related to brand affect. Conversely, the utilitarian value of the product category was significantly but negatively related to brand affect. In summary, we find that every level in our model (Figure 1) is necessary to understand fully the chain of effects from the product-level, category-related control variables at one end to the brand performance outcomes at the other.

Although they are not of theoretical interest to the present study, some of the nonhypothesized findings relevant to the purely endogenous variables, market share and relative price, bear repeating. For example, the lack of any correlation between market share and relative price is an interesting finding. Perhaps this relationship is moderated by other variables. Also, it appears from the findings that brand differentiation does not lead to greater market share for the brand but does influence the brand's relative price.

Managerial Implications

One goal of our study was to explore the relationship between the concepts of brand loyalty (purchase loyalty and attitudinal loyalty) and firm-level brand outcomes (market share and relative price) in ways that would tie the roles of brand trust and brand affect to the overall structure of brand equity. If the relevant relationships can be replicated in other studies, measures of these constructs can be included in our assortment of brand valuation techniques (Keller 1993). Accordingly, the results tentatively encourage managers to include measures

of brand trust, brand affect, purchase loyalty, and attitudinal loyalty in performing brand valuation analysis. Our study has shown the potential importance of brand loyalty in general and as a link in the determination of brand performance outcomes in particular, while also providing some useful measures of the construct. These measures appear to be reliable and valid predictors of brand performance outcomes. With more work, it should be possible to arrive at even better brand loyalty indices, which can then be combined for use as one among other crucial methods of brand valuation.

Also, marketing managers can interpret these results as helping to justify expenditures on design, communication, and merchandising strategies that create such long-term effects on consumers as brand trust, brand affect, and brand loyalty insofar as these consumer-level constructs contribute to profitable brand performance outcomes. Moreover, as we better relate the consumer and market levels on which brands perform, our overall understanding of the antecedents to brand performance should improve, which will lead to more effective marketing-mix strategies. Brand communication strategies might also be designed with special regard to the product-level, category-related determinants of brand outcomes. For example, understanding that favorable brand affect may be more prevalent in certain product categories—those associated with low utilitarian value and high hedonic value—suggests different advertising themes and strategies for these product categories.

Our study has distinguished among brand trust, brand affect, and brand loyalty while also suggesting that brand loyalty includes components related to both repeat purchase and attitudinal commitment (Jacoby and Kyner 1973). Thus, the results provide managers with evidence for theories of both double jeopardy (through purchase loyalty) and brand equity (through attitudinal loyalty). On the one hand, the evidence suggests that higher brand trust and brand affect, working through higher purchase loyalty to the brand, lead to sales-related brand outcomes such as market share. On the other hand, the evidence also suggests that brand trust and brand affect, working through attitudinal loyalty, lead to premium-related outcomes such as higher relative prices in the marketplace. Most important, there is evidence from this study that brand trust and affect are only indirectly related to market share and relative price through their combined impacts on purchase loyalty and attitudinal loyalty, respectively (Table 3 and Figure 2). Thus, in both cases, the roles of brand loyalty in general and of its attitudinal or purchase-related aspects in particular are critical in understanding the contrasting brand performance outcomes.

Limitations and Further Research

As previously discussed at length, the results of this study are largely in accord with our theoretical expectations. However, as in any study, further research is needed to replicate and extend our findings. In general, these findings should be replicated with different product categories and brands. To assess the generalizability of the model, we have provided fairly consistent results for different product categories. Studies on other product classes, such as luxury goods, services, and impulse purchases, might reveal findings that corroborate or extend our approach. Also, the present study did not examine such personal factors as product involvement, vari-

ety seeking, impulsiveness, and so forth. Such individual differences or consumer-based segmentation variables should be incorporated in future studies. Overall, we still need to develop a more detailed understanding of the relationship between brand loyalty and other marketing-related variables.

Furthermore, additional measures of brand trust, brand affect, purchase loyalty, and attitudinal loyalty should be developed, which would lead to a better explanation of brand performance outcomes. Despite the importance of the concept, brand loyalty measurement has not flourished in the marketing literature. For example, there is only one brand loyalty scale included in the 1305 pages of the *Marketing Scales Handbook* (Bruner and Hensel 1992) published by the American Marketing Association, and that lone scale is specific to soft drinks. Scales for both types of brand loyalty (purchase and attitudinal) exist (for some examples, see Jacoby and Chestnut 1978), but they generally are not used in conjunction with one another. Most often, we measure brand loyalty—neglecting its attitudinal component—according to the past purchasing patterns of consumers. The present study has moved toward considering both purchase and attitudinal loyalty, but there is room for further development in that direction and beyond. Similarly, in addition to our measures of market share and relative price, other brand performance outcomes, such as the brand's direct contribution to profits, should be assessed.

Our aggregate-level model using brands as the units of analysis has depicted paths from purchase loyalty to market share and from attitudinal loyalty to relative price. We also checked for possible feedback paths from the brand performance outcomes to the two components of brand loyalty. As mentioned in the "Results" section, we found these feedback effects to be nonsignificant in our data. However, such nonrecursive effects might emerge when people rather than brands are used as the units of analysis. In other words, reverse causality is always a possibility and should continue to be considered in future studies that use different methodological designs. For example, we have suggested that brand trust and brand affect are key determinants of brand loyalty, but this does not preclude the possibility that continuous brand loyalty in turn may also create additional brand trust and brand affect. Indeed, it is likely that studies over time will find that these relationships are ongoing and reciprocal.

Finally and perhaps foremost, we recognize that other determinants of brand loyalty and performance outcomes might supplement the variables included here. In the present study, 16% of the variance in market share and 24% of the variance in relative price were accounted for. This leaves room for potential improvements in explanatory power achieved by more comprehensive models. As researchers increasingly probe the area of relational exchanges between brands and their consumers (Fournier 1998), other constructs that are prevalent in the literature on interpersonal relationships, such as similarity, attraction, love, familiarity, or power, should be examined for their potential relevance to brand loyalty and brand outcomes (e.g., Ahuvia 1999). Also, topics such as sex differences in the development of these constructs should be explored in studies that use group-level brand scores as the units of analysis. We have shown that brand trust and brand affect may differ according to the type of product, but do men and women also differ in their responses to brands or in their

subsequent brand loyalty? Furthermore, additional aspects of brand affect abound with research potential. For example, now that the role of emotions has been energetically researched in advertising studies related to marketing and consumer behav-

ior, there remains a need to examine emotional experiences that arise from other product- and brand-related aspects of consumption (Holbrook 1995, p. 14; Mano and Oliver 1993).

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