

THE RELATIONSHIP OF BRAND ATTITUDES AND BRAND PERFORMANCE: THE ROLE OF BRAND LOYALTY

ARJUN CHAUDHURI, *Fairfield University*

Path Analysis is used to analyze the direct and indirect influences of brand attitudes and brand loyalty on brand performance measures (shelf facings and price). A model concerning these relationships is developed and tested in two separate studies. Results indicate that brand attitudes are directly and indirectly related to shelf facings and price, with the indirect path occurring through brand loyalty. The results are shown to replicate adequately when using different samples of shoppers and products. The implications of the study are discussed in terms of their significance for managers.

INTRODUCTION

What is the nature of the relationship between customer-based brand equity (attitudinal associations, etc.) and brand performance measures from the point of view of the firm? It has been suggested that consumer associations of a brand, such as brand attitudes, account for brand performance measures such as price (Aaker 1996; Bello and Holbrook 1995; Keller 1998). However, the role that brand loyalty plays in the relationship of brand attitudes to brand performance measures has not been explicitly considered in the literature. It is suggested in this paper that brand loyalty is a separate construct from brand attitudes and that it plays a crucial intervening role in the relationship of customer-based brand equity to brand performance measures such as shelf facings and price.

Brand loyalty is a concept whose importance has been recognized in the marketing literature for many years. Howard and Sheth (1969) pointed out that greater brand loyalty among consumers leads to greater sales of the brand (p. 232). Aaker (1991) discussed the role of brand loyalty in the brand equity process and he specifically noted that brand loyalty leads to certain marketing advantages such as reduced marketing costs, more new customers and

greater trade leverage. Additionally, Dick and Basu (1994) suggest other marketing advantages as a result of brand loyalty such as favorable word of mouth and greater resistance among loyal consumers to competitive strategies. Thus, brand loyalty is obviously an important element in the brand equity process. Yet, our present conceptualizations of brand loyalty mainly emphasize only the behavioral dimension of the concept and there is generally a need to understand in more detail its relationship with other variables at both the consumer and market levels. To cite Dick and Basu (1994):

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. (p. 99)

Thus, it is the goal of the present study to explore the relationship between consumer level variables (specifically, brand attitudes) and firm level brand performance measures (shelf facings and price), and to also understand the role of brand loyalty in this regard. More specifically, the objectives of this study are first, to determine the direct effects (if

any) of brand attitudes on both shelf facings and price; and second, to determine the indirect effects (if any) of brand attitudes on shelf facings and price with the indirect path occurring through the concept of brand loyalty. If these relationships exist, then consumer level measures can be included in the assortment of current brand valuation techniques. Also, marketing managers can justify expenditures on promotions which create long term attitudinal effects, such as brand loyalty, on consumers. Moreover, our overall understanding of brand equity is enhanced if we are able to better relate the consumer and market based aspects of the construct.

This paper will, first, define the constructs of interest and develop a model of the relationships between the constructs. Then the methods, measures and results of two studies designed to test the hypotheses will be presented. Finally, the results will be discussed in terms of their implications for managerial activity.

DEFINITIONS AND MODEL

Brand equity 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). In consonance with this perspective, brand performance measures are defined here as the profit potential of a brand, as expressed through shelf facings, price and other outcomes at the market level. Further, these outcomes are a function of influences at the consumer level such as brand attitudes and brand loyalty. Brand attitudes are defined as consumers' overall evaluations of a brand (Keller 1993). Brand loyalty is a consumer's preference to buy a single brand name in a product class; it is a result of the perceived quality of the brand and not its price. Although brand loyalty may be indicated by brand attitudes (Jacoby and Kyner 1973), it is also conceptually distinct from attitudes.

Brand loyalty is a separate construct from brand attitudes, because brand attitudes could be highly positive for more than one brand and, thus, result in multiloyalty or loyalty towards more than one brand (Jacoby 1971). However, high levels of brand loyalty

would be indicated by a *lack* of such multiloyal buying behavior and a tendency to buy only a single brand in a product class. Further, good attitudes toward a brand would not preclude variety seeking behavior (Howard and Sheth, 1969), but such behavior in the product class would reduce the level of brand loyalty towards a single brand. Aaker (1991) also clearly distinguishes between brand loyalty and brand associations such as attitudes. He considers these to be separate "assets" that comprise brand equity.

FIGURE 1:
Model in Study One

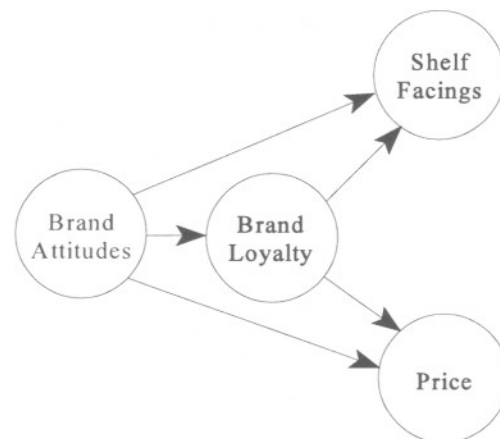


Figure 1 suggests that the consumer level variables of brand attitudes and brand loyalty are related to brand performance measures at the market level such as shelf facings and price. It is also suggested that brand attitudes are both directly and indirectly related to brand performance measures, with the indirect path occurring through brand loyalty. The model presented in Figure 1 is parsimonious in that it considers relationships between only a few critical constructs in the process of brand equity. The model does not, for instance, consider the effect of product class effects (such as perceived risk) on brand loyalty (Chaudhuri 1998; Cox 1967) or the effect of marketing mix variables (such as advertising) on brand loyalty and brand equity (Aaker and Biel 1993; Cobb-Walgren, Ruble and Donthu 1995).

However, the model does contribute to our understanding of the brand equity process since it explicitly considers brand loyalty as a separate construct from brand attitudes whereas other, more detailed, conceptualizations (Keller 1993; Dick and Basu 1994) do not do so. The rationale for considering brand loyalty as a separate construct has already been provided in the previous section. Moreover, this conceptualization is corroborated in the empirical results of the present study (discussed later) in which very different outcomes were evidenced for brand attitudes on the one hand, and brand loyalty on the other.

There appears to be sufficient theoretical justification for the relationships specified in the model based upon previous work. For instance, proponents of "double jeopardy" effects (Ehrenberg, Barnard and Scriven 1997; Ehrenberg, Goodhardt and Barwise 1990) insist that brands high in positive brand attributes and attitudes are also high in sales, market share and shelf facings. Other research has also found that attitudinal responses are positively related to high selling brands (Smith and Park 1992). Additionally, double jeopardy effects have been observed for attitudinal responses in other studies as well, since people evaluate popular (high selling) products more highly than they do less popular ones (Donthu 1994; McPhee 1963). Accordingly, it is expected in this study as well that there will be a significant, direct and positive relationship between brand attitudes and shelf facings.

Winters (1991) and Aaker (1996) both reviewed different ways of assessing brand equity and both authors came to the conclusion that the price of a brand in the marketplace was a critical indicator of the brand's equity. Thus, since brand attitudes constitute the overall evaluation of a brand at the consumer level these should also, then, be positively related to the overall evaluation of the brand (its brand equity as represented by its price) at the market level. Further, Bello and Holbrook (1995) define brand equity as the price premium that the associations of a brand name contribute to the brand's price. The definition of brand equity by the Marketing Science Institute, as provided earlier, also defines brand equity as the set of consumer associations about the brand that lead to greater

margins for the brand. Finally, to cite Keller (1993), "Consumers with a strong, favorable brand attitude should be more willing to pay premium prices for the brand" (p. 9). Thus, based on the past literature on brand equity, it is expected that there will be a significant, direct and positive relationship between brand attitudes and price.

The brand loyalty literature (Dick and Basu 1994; Jacoby, 1971; Jacoby and Chestnut 1978; Jacoby and Kyner 1973) generally supports the contention that favorable brand attitudes are determinants of brand loyalty. For instance, Jacoby and Chestnut (1978) maintained that brand loyalty is a function of both behavioral and psychological (attitudinal) processes. More recently, Dyson, Farr and Hollis (1996) explained the variation in brand loyalty based on persons' attitudes toward the brand and Cobb-Walgren, et al. (1995) showed that brand perceptions (such as brand awareness and brand associations) are linked to brand preferences. Most importantly, Baldinger and Robinson (1996) clearly demonstrated that brand loyalty depends on brand attitudes. They conducted a loyalty analysis for 27 brands and found that highly loyal consumers were also consistently higher in their attitudes to the brand. Consequently, the effects of attitudinal components are expected to positively influence brand loyalty in this study.

Aaker (1991) states that brand equity "assets" such as brand loyalty could produce price premiums and other brand equity outcomes for the brand. Indeed, there appears to be sufficient justification to expect a relationship between brand loyalty and brand equity outcomes such as shelf facings and premium prices. If we view brand equity outcomes as "the profit potential of a brand", then there are basically three outcomes by way of which such profits might accrue -- lower costs, greater sales and higher prices. Consider that these three outcomes are also the result of manifest brand loyalty towards a brand. First, brand loyal users are willing to search for their favorite brand (Cunningham 1967) and they require less advertising frequency, resulting in lower costs for advertising and distribution (Aaker 1991). Second, brand loyalty leads to greater and continual sales since the same brand is repeatedly purchased, irrespective of situational constraints (Assael 1992).

Also, consumers may use more of the brand to which they are loyal, since they may "like" using the brand or because they identify with the image of the brand (Upshaw 1995). Finally, brand loyal consumers are willing to pay more for a brand because they perceive some unique value in the brand that no other alternative can provide (Jacoby and Chestnut 1978; Pessemier 1959). Price premiums have also recently been closely associated with the notions of brand loyalty and brand equity (Aaker 1996; Bello and Holbrook 1995; Park and Srinivasan 1994; Winters 1991). In sum, it is expected in this study that there will be a significant and positive relationship between brand loyalty and shelf facings and between brand loyalty and price.

STUDY ONE

The objective in study one was to determine whether brand attitudes were directly related to the consequences of brand loyalty (shelf facings and price) or whether brand loyalty mediated the effect of brand attitudes on brand performance measures such as shelf facings and price. It was expected that brand attitudes would be related to brand loyalty and that brand loyalty would, in turn, be related to brand performance.

Sample and Data Collection

Two grocery products (shampoo and synthetic sweeteners) from two disparate product classes were chosen. Two interviewers were trained in mall intercept interviewing techniques. Their work was supervised and checked to verify the authenticity of the interviews. Thirty completed consumer surveys were obtained for each of six brands in the two product categories. A total of 596 approaches were made to obtain 180 completed surveys. Nonparticipation was due either to non usage of the product category or a lack of time to complete the survey. Seventy-six percent of the completed surveys were from female respondents. Respondents ranged from 16 to 78 years of age (mean = 34 years).

Interviews for synthetic sweeteners were conducted in two adjacent malls in Long Island, New York over a period of two days. Interviews for shampoo were conducted in three closely located malls in Branford,

Milford and New Haven, Connecticut over a period of three days. Respondents were screened for participation based on their usage of the product. When respondents replied in the affirmative to a question pertaining to their usage of the product, they were requested to participate in a non-profit study of the product. If they agreed, they were asked which brands of the product they used. They were then asked the questions in the survey with reference to one of the brands they mentioned. If the interviewer had completed his/her "quota" (thirty interviews) on the first brand mentioned, then the interview was conducted with reference to the second brand mentioned, and so on. In this manner, a field survey of thirty actual users was conducted for each of six brands in the two product categories.

Data on brand performance for the six brands were collected from retail outlets which were located in the vicinity of the malls in which the consumer surveys were conducted. In all, ten different retail outlets were used: five outlets for sweeteners and five for shampoos. Data were then averaged across five stores for each brand.

Measures

Brand Attitudes was measured by two items each using a seven-point rating scale of agreement (1 = very strongly disagree; 7 = very strongly agree) with the following statements: "This brand is pleasant" and "This brand is likeable". Researchers in the past (Gardener 1985; Gresham, Bush and Davis 1984; Mitchell and Olsen 1981) have used similar items to measure brand attitudes. The correlation between the two items was .74.

Brand Loyalty was measured by three similarly rated items: "I am committed to this brand"; "I would be willing to pay a higher price for this brand over other brands"; and "I would recommend this brand to others." These items are consistent with Aaker's (1991; 1996) assertion that, at the highest level of brand loyalty, consumers are highly committed to the brand, will pay higher prices for the brand and also have the confidence to recommend the brand to others. "The value of the committed consumer is not so much the business he

or she generates but, rather, the impact upon others and upon the market itself" (Aaker 1991, p. 41).

Coefficient alpha for the three items was .76. Principal Components Analysis of the three items also revealed a single factor structure which explained 68.7% of the variance and had an eigenvalue of 2.06. All the items loaded .77 or higher on the single factor.

Brand performance was measured as follows. Price was used as the first measure of brand performance. The number of shelf facings for each brand was used as the second measure of brand performance. Specifically, the number of shelf facings for each brand and its price were noted by the interviewers at the point of purchase. Data for all brand performance measures were averaged across five stores (see previous section).

The use of shelf facings and price as brand performance measures can be supported by the previous literature in marketing on brand equity (Aaker 1991, 1996; Bello and Holbrook 1995; Winters 1991). To cite Aaker (1991) once again, "...brand equity can provide leverage in the distribution channel. ... A strong brand will have an edge in gaining both shelf facings and cooperation..." (p. 18).

Results

The model in Figure 1 was tested using LISREL8.14 (Joreskog and Sorbom 1996). Only one model improvement was made to improve the fit of the model (one of the three brand loyalty indicators was dropped). When this was done, an acceptable model fit was obtained (Chi-Square = 7.42, d.f. 5, $p = .19$, GFI=.99, AGFI=.94, RMSR=.027). As Table 1 shows, all five paths were statistically significant (t -values > 1.96 ; $p < .05$) and all the structural relationships were of sufficient magnitude to warrant attention. Interestingly, the paths from brand attitude to price and from brand loyalty to shelf facings both had negative coefficients. Thus, brand attitudes were both directly and indirectly related to shelf facings and price with the indirect path occurring through brand loyalty.

TABLE 1
Structural Coefficients
(Completely Standardized Solution)

Paths	Study One	Study Two
Attitude-->Shelf Facings	1.05 ^a	.31
Attitude-->Price	-.57	-.31
Attitude-->Brand Loyalty	.79	.12 ^b
Brand Loyalty-->Shelf Facings	-.48	-.43
Brand Loyalty-->Price	.62	.52
Attitude-->Intention to Buy	(-)	.37
Intention to Buy-->Shelf Facings	(-)	.27
Intention to Buy-->Price	(-)	-.30

Notes. 1. ^a denotes a Heywood case.

2. ^b denotes a non-significant parameter (t -value > 1.96 ; $p < .05$).

3. (-) denotes paths not tested in study one.

STUDY TWO

Purpose

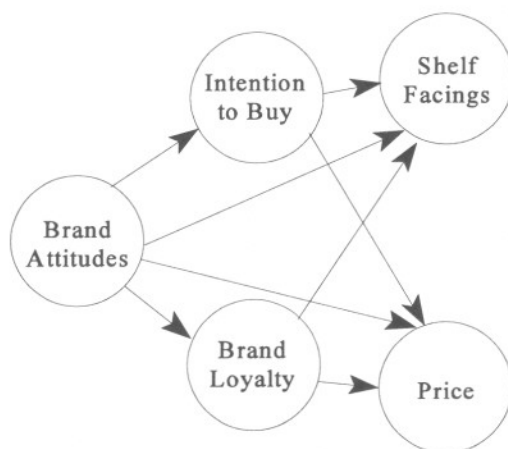
Study one demonstrated, among other things, that brand loyalty was a negative mediator of the effect of brand attitudes on shelf facings. It still remained, then, to establish a positive mediating link between brand attitudes and shelf facings. Study two was, thus, deemed necessary to investigate the possibility of an omitted variable in the model in study one.

Ehrenberg, Barnard and Scriven (1997) discuss "salient" brands (brands high in the consumer's consideration set) and state that for such brands intention to buy should be correlated with positive brand attributes or attitudes. Since salient brands are also associated by these authors with greater distribution, shelf space and display, it would seem that a route from brand attitude to brand performance via intention to buy is altogether feasible and potentially fruitful. In other words, when consumers develop good attitudes towards a brand, they also develop greater propensities to buy the brand on their next purchase of the product category. Further, such brands also have greater numbers of buyers (Ehrenberg, Barnard and Scriven, 1997) and, thus, greater sales and shelf space than other brands.

Thus, study two was a replication with extension whose intention was twofold: (1) to demonstrate the linkages of brand performance with brand attitudes

and brand loyalty using a different sample and a different product from the one in study one; (2) to extend the results of study one so as to understand the relationship of brand attitudes and brand performance with a new mediating variable, "intention to buy". Accordingly, study two investigated a causal model in which brand attitudes was once again modeled as an antecedent of brand loyalty and brand performance measures (price and shelf facings) were considered to be the consequences (see Figure 2). However, both intention to buy and brand loyalty were modelled as mediators of brand attitude on shelf facings and price.

FIGURE 2
Model in Study Two



Sample and Data Collection

A new product category (canned soft drinks) was chosen for study two. One hundred and twenty consumer surveys for four brands of canned soft drinks were collected. A total of 195 total approaches were made to obtain the 120 completed surveys. Fifty-three percent of the completed surveys were from female respondents. The mean age of the respondents was 30.6 years.

Interviews were conducted in a single mall in Massachusetts on the day after Thanksgiving. Typically, this is one of the busiest shopping days of the year in the U.S. Other aspects of the data collection for study two remained the same as in study one.

Measures

All the measures used in study one were also used in study two. In addition, *Intention to Buy* was measured in study two by two items each using a seven-point rating scale of agreement (1 = very strongly disagree; 7 = very strongly agree) with the following statements: "I intend to keep purchasing this brand"; and "I will buy this brand the next time I buy canned soft drinks". The correlation between the two items was .79.

Results

LISREL8.14 (Joreskog and Sorbom 1996) was once again used to identify the relationships between the constructs of interest. The model in Figure 2 was tested. As in study one, one of the brand loyalty indicators had to be dropped to obtain a good model fit (Chi-Square = 18.34, d.f. 12, $p = .11$, GFI = .96, AGFI = .89, RMSR = .079). As Table 1 shows, all but one of the eight paths were statistically significant (t -values > 1.96 ; $p < .05$).

As in study one, brand attitudes were positively and significantly ($p < .05$) related to shelf facings. Moreover, brand loyalty and price were also positively and strongly related. However, unlike study one, the relationship of brand attitudes and brand loyalty was non-significant ($p < .05$). With this one difference, the results adequately replicate the findings in study one. Note, for instance, that once again the paths from brand attitude to price and from brand loyalty to shelf facings both had negative coefficients. These results replicate well with the findings in study one. Additionally, there are interesting new findings with regard to the newly introduced construct of intention to buy. As expected, brand attitudes were positively related to intention to buy and intention to buy was positively related to shelf facings. However, the relationship of intention to buy and price was negative.

Thus, the relationships of intention to buy and brand loyalty with brand performance are exactly opposite. While intention to buy is positively related to shelf facings and negatively related to price, brand loyalty is negatively related to shelf facings and positively related to price. The two mediating constructs have very different effects in terms of brand performance.

DISCUSSION

The results of both studies were largely in accordance with prior expectations. On the one hand, when brand performance was operationalized as shelf facings, brand attitudes influenced shelf facings directly and also indirectly through intention to buy. Thus, good attitudes towards the brand and intention to buy were both found to be capable of predicting high shelf facings, even without considering the nature of brand loyalty in the marketplace. However, strong and favorable brand attitudes in conjunction with brand loyalty were also found to be strongly capable of predicting shelf facings. Most interestingly, brand loyalty was found to be negatively related to shelf facings. Thus, high brand loyalty was associated with low shelf facings brands and low brand loyalty was associated with high shelf facings brands. This is in contrast to the findings with price as brand performance, where brand loyalty had a positive relationship with price and, therefore, was associated with high priced brands.

In both studies brand attitudes were negatively related to price. Thus, strong brand attitudes were associated with low-priced brands. However, strong brand attitudes were also strongly associated with high brand loyalty and high brand loyalty, in turn, was associated with high-priced brands. Thus, once again, we see that the notion of brand loyalty functions quite differently for sales-related brand outcomes (such as shelf facings) as contrasted to premium-related outcomes such as price. Brand loyalty is associated with brands which are low in sales-related outcomes but high in premium-related outcomes such as price. Also, the results clearly show that brand attitudes and brand loyalty are different constructs since they have markedly different effects on brand performance. While brand attitudes and intention to buy were positively related to shelf facings and negatively related to price, the effects are

exactly opposite for the brand loyalty construct which was negatively related to shelf facings and positively related to price.

In short, there are two routes to brand performance: the first is derived through brand attitudes and intention to buy and leads to sales related outcomes such as shelf facings. The second is routed through brand attitudes and brand loyalty and leads to premium related outcomes such as higher prices in the market. Consequently, the effects of both brand attitudes and brand loyalty influence brand performance. The implications of this are discussed below.

Implications for Managers

The results of both studies indicate that managers may choose to position their brands as "liked" brands towards which consumers have an overall favorable disposition but no strong sense of commitment. Such brands will obtain high sales, market share and trade leverage. However, such brands will usually have to be competitively priced and will also need to be heavily supported by sales promotion and advertising. Previous research (Zajonc 1980) has shown that mere familiarity creates liking and, accordingly, continuous mass media advertising that creates and maintains brand awareness is an appropriate and necessary strategy for such brands. High share of voice will lead to high share of market. Otherwise consumers may switch brands since they do not possess any true commitment to the brand.

The results also indicate that managers may choose an alternative position in which consumers have a strong sense of loyalty and commitment in addition to their overall liking for the brand. Such brands will obtain higher prices, more positive word of mouth and lower advertising costs in the long run. Committed consumers do not need to be continuously reminded to purchase the brand. However, such brands will have lower sales volume, lower market share and high research and development costs in producing a unique product. The promotion and advertising for the product should also stress brand differentiation in selective media which promote a unique brand personality for

the brand. Quality and not quantity of advertising will be the key to building brands under this scenario. Consumers must see something in the brand's functional or image attributes that is not matched by any other brand. They will be willing to pay a premium to obtain this and they will not readily switch brands.

Additionally, the results encourage managers to include measures of both consumer brand attitudes and brand loyalty into present brand valuation techniques, so that such techniques can be validated from the perspective of the consumer. The present study has provided some useful measures of the constructs. With more work, it should be possible to arrive at even better measures.

REFERENCES

- Aaker, David A. (1996), "Measuring Brand Equity Across Products and Markets," *California Management Review*, 38 (2), 102-120.
- Aaker, David A. (1991), *Managing Brand Equity: Capitalizing on the Value of a Brand Name*, New York, NY: Free Press.
- Aaker, David A., and Alexander L. Biel (1993), "Brand Equity and Advertising: An Overview," in David A. Aaker and Alexander L. Biel, (Eds.) *Brand Equity and Advertising* (pp. 1-8), Hillsdale, NJ: Lawrence Erlbaum.
- Baldinger, Alan L., and Joel Robinson (1996), "Brand Loyalty: The Link Between Attitude and Behavior," *Journal of Advertising Research*, 36 (6), 22-34.
- Bello, David C., and Morris Holbrook (1995), "Does an Absence of Brand Equity Generalize Across Product Classes?," *Journal of Business Research*, 34, 125-131.
- Chaudhuri, Arjun (1998), "Product Class Effects on Brand Loyalty," *Journal of Marketing Management*, 8(2), 66-75.
- Cobb-Walgren, Cathy J., Cynthia A. Ruble and Naveen Donthu (1995), "Brand Equity, Brand Preference, and Purchase Intent," *Journal of Advertising*, 24(3), 25-40.
- Cox, D. F. (1967), *Risk Taking and Information Handling in Consumer Behavior*, Cambridge, MA: Harvard University Press.
- Dick, Alan S., and Kunal Basu (1994), "Customer Loyalty: Toward an Integrated Conceptual Framework," *Journal of the Academy of Marketing Science*, 22, 99-113.
- Dyson, Paul, Andy Farr, and Nigel S. Hollis (1996), "Understanding, Measuring, and Using Brand Equity," *Journal of Advertising Research*, 36 (6), 9-21.
- Ehrenberg, Andrew S. C., Neil Barnard, and John Scriven (1997), "Differentiation or Salience," *Journal of Advertising Research*, 37 (6), 82-91.
- Ehrenberg, Andrew S. C., Gerald Goodhardt, and T. Patrick Barwise (1990), "Double Jeopardy Revisited," *Journal of Marketing*, 54 (3), 82-91.
- Farr, Andy and Nigel Hollis (1997), "What Do You Want Your Brand to Be When It Grows Up: Big and Strong?," *Journal of Advertising Research*, 37 (6), 23-36.
- Gardener, Meryl P. (1985), "Does Attitude Toward the Ad Affect Brand Attitude Under a Brand Evaluation Set?," *Journal of Marketing Research*, 22, 192-198.
- Gresham, L. G., Bush, A. J., and Davis, R. A. (1984), "Measures of Brand Attitude: Are Cognitive Structure Approaches Really Needed?," *Journal of Business Research*, 12, 353-361.
- Howard, John and Jagdish Sheth (1969), *The Theory of Buyer Behavior*, New York, NY: John Wiley.
- Jacoby, Jacob (1971), "A Model of Multi-Brand Loyalty," *Journal of Advertising Research*, 11 (3), 25-31.
- Jacoby, Jacob, and Robert Chestnut (1978), *Brand Loyalty Measurement and Management*, New York, NY: John Wiley.
- Jacoby, Jacob, and Kyner, D. B. (1973), "Brand Loyalty Versus Repeat Purchasing," *Journal of Marketing Research*, 10, 1-9.
- Joreskog, Karl, and Dag, Sorbom (1996), *LISREL8: User's Reference Guide*, Chicago, IL: Scientific Software International, Inc.
- Keller, Kevin L. (1998), *Strategic Brand Management*, Upper Saddle River, NJ: Prentice Hall.
- Keller, Kevin L. (1993), "Conceptualizing, Measuring and Managing Customer Based Brand Equity," *Journal of Marketing*, 57 (1), 1-22.

- Leuthesser, Lance (1988), *Defining, Measuring and Managing Brand Equity: A Conference Summary*, Cambridge, MA: Marketing Science Institute.
- Mitchell Andrew A., and Olsen, J. (1981), "Are Product Attribute Beliefs the Only Mediator of Advertising Effects on Brand Attitudes?," *Journal of Marketing Research*, 18, 318-31.
- Park, Chan S. and Srinivasan, V. (1994), "A Survey-Based Method for Measuring and Understanding Brand Equity and its Extendibility," *Journal of Marketing Research*, 31 (May), 271-288.
- Upshaw, L. B. (1995), *Building Brand Identity*," New York, NY: John Wiley.
- Winters, Lewis C. (1991), "Brand Equity Measures: Some Recent Advances," *Marketing Research*, 3, 70-73.
- Zajonc, Robert B. (1980), "Feeling and Thinking: Preferences Need No Inferences," *American Psychologist*, 35, 151-175.