Product-class effects on brand commitment and brand outcomes: The role of brand trust and brand affect

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Abstract

The authors extend the study of relational exchanges to consumer markets using brands as the units of analysis. They propose certain product-class determinants (perceived differences between brands, hedonic and utilitarian values, brand-choice risk) as determinants of brand commitment and brand outcomes (market share, advertising-to-sales ratio). With special relevance to the phenomenon of relational exchange, brand trust and brand affect are modelled as intervening variables in the process. Aggregate data based on 137 brands are compiled from four separate surveys of consumers and brand managers. Controls in the study include the brand's age, share of voice, level of differentiation and number of competitors. Hypotheses are tested and largely supported for the effects of interest, leading to implications for the formulation of marketing strategy.

INTRODUCTION

> 'The concept of commitment may very well become a focal point of explanation in marketing, as the discipline moves further away from the transactional view of exchange and embraces the relational view. This is true whether we are talking about consumer relationships with companies or interorganisational commitment.'[1]

Researchers studying the role of complexity in the management of organisations have emphasised the decisive impact of relationships among the agents involved.[2] In a similar spirit, relationship marketing has been defined as 'all marketing activities directed toward establishing, developing and maintaining successful relational exchanges'.[3] Most empirical work to date in relationship marketing has been directed toward understanding the relational exchanges in business-to-business marketing such as the relationships between users and providers of market research[4] or between industrial buyers and sellers[5] as well as the reasons underlying strategic alliances between manufacturers and retailers.[6] We would suggest, however,

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that this topic of relationship marketing also demands a concern for the relationships that brands have with consumers. The brand constitutes a primary locus of meaning whereby the typical consumer-goods company forges lasting exchange relationships with its customer base.

Some recent research has begun to address this area of brands and their relationships with consumers.[7] For example, central to the concept of brand-customer relationships, Chaudhuri and Holbrook[8] formulated the concepts of brand trust and brand affect, showing the impact of these constructs on purchase and attitudinal loyalty with ultimate effects on such brand outcomes as market share. *En route* to explaining brand commitment and market outcomes, however, these authors did not specifically test hypotheses on the antecedents of brand trust and brand affect. Thus, in understanding the basis for commitment-grounded relational exchanges, key questions remain concerning the influence of product-class characteristics on brand trust and brand affect. What is the role, for instance, of product-class variables such as perceived risk and perceived differences between alternative offerings in determining the relationship-related variables of brand trust, brand affect and brand commitment? How do these aspects of the customer-brand relationship, in turn, affect such brand outcomes as market share and advertising efficiency?

In sympathy with this focus, it has been suggested that relational exchanges in the consumer market involve effects such as those resulting from the level of perceived risk in the product category.[9] Accordingly, we further suggest in this study that the relationship-related constructs of brand trust, brand affect and brand commitment depend on aspects of brand-choice risk, while these risk factors, in turn, depend on such specific product-class determinants as perceived differences between brands and the ratio of hedonic to utilitarian value associated with the product category. Obviously, the ultimate brand outcomes also hinge on such brand characteristics and brand strategies as advertising, level of differentiation, competitive climate and so forth. To reduce these 'noise' factors, we control for some of these variables as well.

Based on all of the considerations just mentioned, a model of the linkages between these various brand-customer relationship-related constructs is developed. The authors test hypotheses concerning linkages in the model using data compiled from four separate surveys. Two of these surveys have previously been explored by Chaudhuri and Holbrook,[10] who dealt with brand-level data in their study of brand loyalty. Two more have appeared earlier in work by Chaudhuri,[11] who dealt with product-level data in his study of emotion and perceived risk. In the present study, these four data sets are merged into one newly constituted overall data set in which brands serve as the units of analysis with observations aggregated across independently surveyed respondents. This use of independently obtained measures helps to guard against distortions caused by consistency biases. Further, the focus on brand-customer relationship-related effects should interest brand managers and others more concerned with brand management decisions that relate to brands than with individual-level differences.

The authors maintain that the product-level data, now assimilated within the brand-level data, represent a characteristic of brands just as, with people, individual-level data often includes group-level data belonging to the group of which the individual is a member. This would also appear to be the only way to understand the effect of product-class variables on brand-level variables. Forty-five product classes were examined among the 137 brands included in the final data set, with only two product categories represented by as many as four brands. Forty-three product classes were each represented by three brands in the product category, just as three individuals might be assigned the same score on some group-level variable in a data set using people as the units of analysis.

Despite the fact that the present data are obtained from two previously published sources, none of the eight hypotheses in this study has been tested previously. In fact, of the nine variables of theoretical interest in the present study, only three correspond to variables found in earlier work.[12] Thus, all of the relationships examined in the present study are newly postulated and tested. Accordingly, this study makes contributions to the literature that have not appeared before. The single largest contribution of the present study lies in its ability successfully to relate product-level variables to brand-level variables relevant to the customer-brand relationship, as postulated in the model described in what follows. The scope of the present study is much larger than that of the work undertaken previously. It thereby represents the culmination and fruition of a long and arduous research programme focused on the relationship between customers and brands.

MODEL AND CONSTRUCT DEFINITIONS

Model

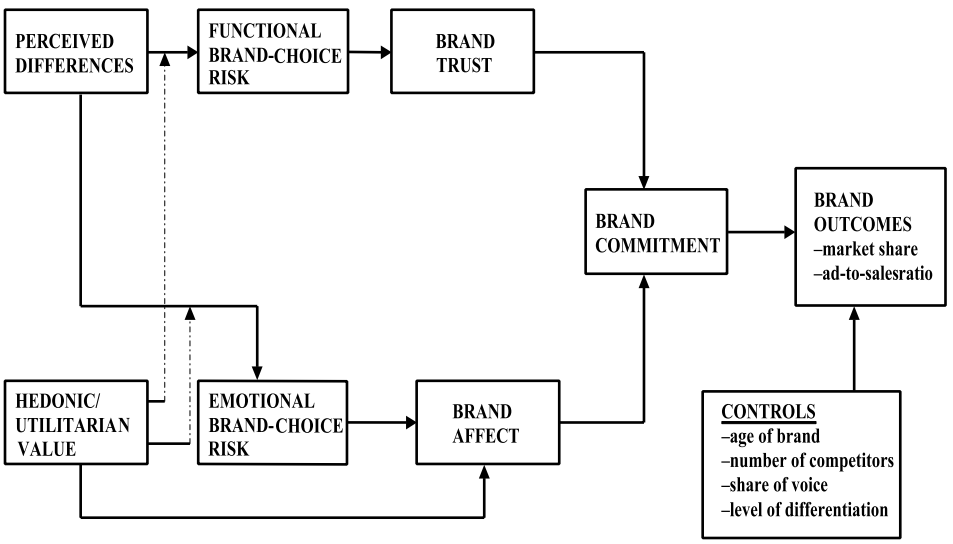
Figure 1 presents our model of brand outcomes as a function of relationship-related brand commitment. In this model, brand commitment depends on such brand-level constructs as brand trust and brand affect, which in turn reflect such product-class determinants as brand-choice risk broken down into its functional and emotional components. These product-level components further hinge on perceived differences among alternative brands within the product class, as moderated by the product category's balance between hedonic and utilitarian value.

In a related context, Van Trijp *et al.*[13] found that similar product-category variables affected variety-seeking behaviour. The authors attempt to understand whether comparable logic applies to the broader range of consumer behaviour in general, involving brand-customer relationship-related commitment in particular. Further, the process by which brand commitment may be related to product-class effects is examined. In this direction, the authors arrive at certain key construct definitions and hypotheses spelled out more fully in the material that follows.

Construct definitions

Perceived differences

Perceived differences is a product-class characteristic that refers to the extent to which brands in a product category are perceived to differ in terms of



Note: dashed lines indicate moderator effects

Figure 1 A model of brand commitment and brand outcomes

quality, reliability or other key performance-related attributes.

Hedonic/utilitarian value

In presenting an alternative to the usual decision-oriented perspective on consumer behaviour, Holbrook and Hirschman[14] advocated research on the experiential aspect of human consumption, in which emotions and feelings of enjoyment or pleasure are key components. They also proposed two broadly different types of products — primarily utilitarian products with tangible, objective features that offer functional benefits, and primarily hedonic products with subjective, non-tangible features that produce enjoyment or pleasure. (Obviously, some product categories might be high or low on *both* functional and hedonic components, but here it is the *relative balance* between the two that is of major interest.) More recently, other researchers have attempted to measure these 'hedonic' and 'utilitarian' aspects of consumption.[15] 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 a ratio of emotion to reason complements the role of involvement in a variety of product categories.[16] Addis and Holbrook[17] have argued at length for a conceptualisation based on the relative balance of hedonic and utilitarian benefits in the consumption experience. Accordingly, in a similar spirit, we adopt the ratio of hedonic to utilitarian values of products as a basic and fundamental descriptor of product-class characteristics. The authors define this construct of hedonic/utilitarian value as the pleasure potential of a product class relative to its ability to perform everyday functions in the life of a consumer. Thus, products may be placed on a hedonic/utilitarian

continuum ranging from high to low in their potential for pleasurable versus functional benefits.

Functional and emotional brand-choice risk

Bettman[18] has distinguished between two types of risk: inherent and handled. Inherent risk is the latent risk a product class holds for a consumer — the innate degree of conflict the product class is able to arouse. Handled risk is the amount of conflict the product class is able to arouse when the buyer chooses a brand from a product class in his usual buying situation.

It is the latter type of 'handled' risk (risk in choosing among brands in the product class) that is conceptualised as a consequence of perceived differences among brands and as a determinant of brand trust and brand affect. This is called brand-choice risk and suggests that the five types of brand-choice risk previously identified in the literature — financial, social, psychological, physical and performance1[19] — group into two predominant types: functional and emotional. Specifically, functional brand-choice risk refers to risky aspects of choosing a brand in a product class where brands differ in their financial aspects (eg cost), physical safety (eg healthiness) or other tangible characteristics (eg performance). By contrast, emotional brand-choice risk refers to risky aspects of choosing among brands that differ in their psychological consequences (eg self-image) or in their social implications (eg status).

Brand trust

In consonance with the definition of trust provided by Moorman *et al.*,[20] the authors define brand trust as the willingness of the average consumer to rely on the ability of the brand to perform its stated function. Other definitions of trust also emphasise the notion of reliance as crucial to trust.[21]

Brand affect

Brand affect is defined here as the potential in a brand to elicit a positive emotional response in the average consumer as a result of its use.

Brand commitment

The cognitive (rational) and affective (emotional) elements in the present model come together in the final brand-customer-relationship-related construct of brand commitment. According to Morgan and Hunt,[22] trust and commitment are key relational variables that encourage the respective partners in a relationship (a) to work at preserving the relationship, (b) to avoid alternative relations with other partners, and (c) to reduce the perception of risk in the environment. Gundlach *et al.*[23] warn that these relational constructs can be very complex and overlapping, but they do view commitment as essential to a long-term, successful relationship.[24] By analogy, brand commitment reduces uncertainty and saves a customer the cost of seeking new relational exchanges with other brands. It has been suggested that brand loyalty includes some degree of commitment toward the quality of a brand[25] — ie that brand loyalty is a function of both positive attitudes and repetitive purchases. Analogously, we consider brand commitment to occur when both attitudinal devotion to the brand and brand-purchasing intentions are present. In keeping with the extensive review of

the literature on commitment by Gundlach *et al.*,[26] we define brand commitment as an average consumer's long term, behavioural and attitudinal disposition toward a relational brand.

Brand outcomes

Brand outcomes refer to the market-level results attained by specific brands in their respective product categories. In particular, brand outcomes such as market share and the advertising-to-sales ratio have been found to relate to corporate profitability,[27] and are, therefore, worthwhile dependent variables for a study using brands as the primary units of analysis.[28] Market share is defined as the sales of a brand expressed as a percentage of the total sales for all brands in its product class. Meanwhile, the efficiency of advertising spending has been defined in the literature in terms of the advertising-sales (A/S) ratio — that is, the ratio of a brand's advertising cost to its sales revenue.[29] As this ratio drops (rises), the efficiency of advertising spending for the brand increases (decreases).

HYPOTHESES

Hypothesis H_1: Effects of perceived differences among brands on brand-choice risk

Earlier work has theorised that brand commitment[30] or brand loyalty[31] is greater under conditions of high perceived differences among brands in a product class. The model in Figure 1 suggests one explanation why this relationship may hold. Specifically, perceived differences among brands (in terms of quality, reliability, etc) lead to higher perceptions of risk in choosing a brand of that product category. This perceived risk, in turn, leads to greater commitment to a particular brand or brands as a result of greater trust and/or greater brand affect. In other words, brand commitment is related to perceived differences among brands in the product class, because of greater perceived risk involving the danger of choosing the wrong brand in that product category.

With respect to functional brand-choice risk, consider a diner who patronises only one restaurant (eg Jack Nicholson in the film *As Good as it Gets*). One possible explanation for this behaviour is that the consumer has visited other restaurants, realises that all restaurants are not the same in terms of quality, reliability etc, perceives risk in trying new and varied restaurants in terms of taste, physical safety of the food, service etc. has discovered a particular restaurant that can be trusted and relied on in terms of quality, safety and service, and now chooses to frequent this restaurant rather than to take chances with other less trustworthy places. Such a consumer may even be willing to pay a price premium at this favourite restaurant. Certainly, this consumer does not need heavy doses of advertising in order to be persuaded to visit the chosen restaurant. Moreover, as a result of brand trust, the committed consumer may even increase his/her usual frequency of eating out (instead of cooking at home), thus providing the favourite restaurant with increases in sales volume and market share. The committed consumer may now also find other uses for the brand such as ordering take-out food when in a hurry, encouraging group visits with

friends, asking its staff to cater a party, etc. All this will generate additional sales and consequent profitable brand outcomes for the restaurant, such as greater market share and a lower advertising-to-sales ratio (advertising costs as a percentage of sales). In short, these favourable brand-specific outcomes result from greater brand trust and brand commitment in a product category where consumers perceive significant differences among brands and consequent risk in choosing an unfamiliar or 'wrong' brand.

With respect to emotional brand-choice risk, a complementary scenario might involve a consumer who sees significant differences in the social and/or psychological consequences of using the 'wrong' brand. In the case of our restaurant illustration, a customer might develop strong emotional ties with the restaurant or with one of its staff members (eg Helen Hunt in *As Good as it Gets*), leading to perceptions of differences from other restaurants and consequent emotional risk in dealing with other restaurants. Or the customer might associate status implications with being seen in public at the right places. To pursue another example, a well-known advertisment by the clothing manufacturer Hart Schaffner & Marx declared that 'the wrong suit could certainly slow you down' from reaching the top of the corporate ladder, and then presented the advertised brand as the 'right suit'. Clearly, advertising messages of this nature incorporate 'emotional' brand-choice risk (dress for success), as opposed to functional brand-choice risk (dress for warmth or comfort), by emphasising the social or psychological consequences of making a mistake (failure in the workplace). Such social and psychological dimensions of risk may be especially relevant in our present-day environment of parity products where very few brands can command true long-term technological superiority in terms of actual tangible product features. Rather, perceptions of differences in social, psychological, emotional or non-tangible risk may be more operative for brands in many or most product classes today.

In sum, both the functional and the emotional aspects of brand-choice risk should reflect perceived differences among brands in a product category, leading to our first hypothesis.

H_1: Perceived differences among brands have a positive effect on (a) functional brand-choice risk and (b) emotional brand-choice risk.

Hypothesis H_2: Moderating effect of hedonic/utilitarian value

It is predicted further that, as a key moderating effect, the impacts of perceived differences among brands on functional and emotional brand-choice risk are even greater as the ratio of hedonic to utilitarian value in the product class increases. In other words, certain product-class characteristics associated with the relative balance between hedonic and utilitarian value should tend to increase the effect of perceived differences on brand-choice risk, both functional and emotional. The basis for this hypothesis requires some development, as follows.

Freud's[32] introduction of the pleasure principle into the study of mental processes is echoed in motivational

theories concerning people's needs for objects that sustain our survival. According to Branden:[33]

> 'The pleasure-pain mechanism of man's consciousness — the capacity to experience joy and suffering — performs a crucial function in regard to man's survival. This function involves the motivational aspect of man's psychology.'

This search for pleasure as a paradigm of human motivation and action has also been addressed in marketing and consumer behaviour theory.[34] In keeping with the previous literature in the field, it is submitted here that the relative potential for pleasure as opposed to instrumental functionality in the product class is a basic motivational force governing consumer purchasing, via its impact on brand affect, and, further, that this hedonic/utilitarian balance interacts with the processing of differences between brands so as to determine the subsequent level of risk in choosing between brands in the product class. In other words, hedonic/utilitarian value should moderate the effect of perceived differences on brand-choice risk of both types.

Accordingly, it would be expected that the effect of perceived differences on functional brand-choice risk is higher for products high in hedonic/utilitarian value because perceptions of differences between brands and the consequences of choosing the wrong brand may be heightened for products with a highly involving level of motivation due to their potential for greater hedonic/utilitarian value as opposed to more mundane products that are used on a regular basis. Typically, high hedonic/utilitarian products are not 'everyday' products but products that are used occasionally and, thus, cherished more by most consumers (eg luxury goods or culinary delicacies). Some of these products are high in price so that perceptions of financial and functional risk are likely to be magnified if perceptions of differences are also high. Similarly, such products may be high not only on their pleasure potential but also on their 'pain' potential in terms of the physical dangers (functional disadvantage) present in choosing the wrong brand. Thus, even low-priced but highly pleasurable products (say, ice cream) can have undesirable consequences in their aftermath; here, choosing the right brand is important from a functional risk point of view. Similarly, perfumes, fashion wear, sweets and alcohol not only provide potential pleasure, but may also have the potential for undesirable functional consequences. Finally, such products may be closely associated with the consumer's self-concept and social identity, so that perceived differences in quality among brands may translate into greater risk in the social and psychological consequences of choosing the wrong brand. Overall, consumers are likely to be more deliberate and circumspect in their choice of such products. Hence, information processing on the level of differences between alternatives and consequent risk is likely to be higher as well.

In short, the authors would expect that the balance of hedonic/utilitarian value would enhance the effect of differences between brands on perceptions of risk in the buying situation, because a stimulus with greater motivational potential (ie hedonic/utilitarian

value) should prompt greater appraisal and evaluation. Therefore:

H_2: The effect of perceived differences between brands on (a) functional brand-choice risk and (b) emotional brand-choice risk is greater when the ratio of hedonic to utilitarian value is higher.

Hypothesis H_3: Effect of hedonic/utilitarian value on brand affect

Also, as a main effect, a higher level of hedonic/utilitarian value in the product class is likely to translate into a higher level of positive emotional affective response to the brands in the product class, as compared with brands in another product category where the hedonic/utilitarian balance is lower. There will be more positive affect towards all brands in a product category for which potential pleasure is higher. Allowing for this relationship helps to control for that part of the affective response to a brand that depends on the brand's membership in a particular product class. This suggests:

H_3: Brand affect increases as the ratio of hedonic/utilitarian value increases.

Hypotheses H_4 and H_5: Effects of functional and emotional brand-choice risk on brand trust and brand affect

The authors propose that emotional and functional elements of brand-choice risk will have different effects on brand trust and brand affect. More specifically, functional brand-choice risk should exert a direct positive effect on brand trust, whereas emotional brand-choice risk should be positively related to brand affect. On the surface, this prediction might sound paradoxical, but it hinges on the distinction between constructs conceptualised at the level of the product class as a whole (functional and emotional brand-choice risk), and those defined at the level of the brand actually used (brand trust and brand affect). Logically, if the functional elements of risk are high for a whole product category, it would be expected that consumers would attribute greater trust to the brand in this product class that they normally use. Similarly, when the emotional elements of risk are high for an entire product class, it would be expected that consumers would derive more affect from the brand they regularly choose.

Moorman *et al.*[35] and Doney and Cannon[36] both also stress that the notion of trust only applies in situations of uncertainty. Trust copes with the risk or uncertainty in an environment where the consumer feels especially vulnerable, because the consumer knows that the trusted brand can be relied upon. This argument supports our earlier claim that brand trust (for a chosen brand) will be higher in cases where the product class has high levels of functional brand-choice risk (for the product in general). In particular, brand trust is expected to increase when the functional elements of risk are high (ie when the ability of other brands to provide the relevant instrumental benefits is uncertain).

The literature on trust in relationship marketing suggests that the construct involves a 'calculative process'[37]

involving the ability of the other agent (in this case, the brand) to continue to meet its obligations and also reflecting each agent's estimation of the costs and rewards of staying in the relationship. Following this logic, we suggest that, whereas brand trust should be positively related to the more ratiocinative, analytical, functional dimension of brand-choice risk (as just argued), we would expect higher levels of brand affect to result when the emotional consequences of choosing the wrong brand are high. Overall, we view brand trust to involve a process that is well thought out and well considered, whereas the development of brand affect is a more spontaneous, immediate and intuitive process. In this spirit, Sheth and Parvatiyar[38] also consider social risk separately as a determinant of relational exchanges. High levels of uncertainty in the social and psychological appropriateness of other brands in the product class are likely to raise the level of emotional bonding with the present brand of choice.

In sum, the combined considerations described in this subsection lead us to propose:

H_4: Brand trust increases as functional brand-choice risk increases.

H_5: Brand affect increases as emotional brand-choice risk increases.

Hypothesis H_6: Effect of brand trust on brand commitment

Brand trust leads to brand commitment, because trust creates exchange relationships that are highly valued.[39] In fact, commitment has been explained as 'an enduring desire to maintain a valued relationship'.[40] Thus, commitment is part of the ongoing process of continuing and maintaining a valuable and important relationship that has been created by trust. In other words, trust and commitment should be related because trust is important in relational exchanges and because commitment is reserved for such valued relationships.

Further, brand commitment entails vulnerability, in the sense that committed consumers forsake all other alternatives and rely on a single brand that they expect will not let them down. Thus, only trustworthy partnerships lead to committed relationships, since such partnerships are perceived to reduce risk by being more reliable. In this connection, Moorman *et al.*[41] and Morgan and Hunt[42] both found that trust leads to commitment in relational exchanges. Indeed, the path coefficient between trust and commitment was 0.53 in the study by Morgan and Hunt.[43] Thus, in brand relationships as well, it is suggested:

H_6: Brand commitment increases as brand trust increases.

Hypothesis H_7: Effect of brand affect on brand commitment

In the context of maintaining brand relationships, the emotional determinants of brand commitment need to be considered separately. Gundlach *et al.*[44] suggest that commitment is associated with positive affect, and that, though this may prevent the exploration of other alternatives in the short term, steady benefits are likely to accrue from this 'irrational' bonding in

the long run. In particular, such a relationship of 'affective attachment'[45] is viewed as more beneficial in more uncertain environments.

Our expectation of a positive relationship between brand affect and brand commitment is further predicated on the ties between positive emotional feelings and close relationships drawn from the literature on interpersonal relationships:

> 'The landscape of close relationships presents so vivid a panorama of human emotion that the very phrase 'close relationship' carries the implication of passions spent or anticipated, of feelings of every size, shape and description, of, at the very least, some experience of affect — an antiseptic term, but one that encompasses without prejudice the entire range of quality and intensity of human emotion and feeling .... Many do not consider a relationship between two people to be 'close' unless there are strong positive affective ties between the participants.'[46]

In this connection, Berscheid[47] isolated two critical aspects of a close emotional relationship, namely, the magnitude of the affect (or affective intensity), and the hedonic sign of the affective component (positive/negative). The authors suggest that the close relationship of a brand with its consumers also depends on 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[48] proposed that brand loyalty would be greater under conditions of greater positive emotional mood or affect. Thus, brands that make consumers more 'happy', 'joyful' and so forth should be associated with greater commitment. While feelings of love may not be prevalent in supplier–buyer relationships, we submit that positive emotional feelings such as happiness, joy or even love are very much a part of the relationship that brands have with consumers. Hence:

H_7: Brand commitment increases as brand affect increases.

Hypothesis H_8: Effect of brand commitment on brand outcomes

Because our concept of brand commitment includes both behavioural and attitudinal components, we should obtain the same brand outcomes as have always been predicted for brands with high levels of loyalty.[49] Thus, Howard and Sheth[50] pointed out that greater brand loyalty among consumers leads to greater sales of the brand. Aaker[51] has discussed the role of brand loyalty in the brand-equity process, noting specifically that brand loyalty leads to certain marketing advantages such as reduced marketing costs, more new customers and greater trade leverage. Additionally, Dick and Basu[52] have suggested other marketing advantages resulting from brand loyalty, such as favourable word of mouth and greater resistance among loyal consumers to competitive strategies.

Consistent with the past literature cited, Figure 1 suggests that the consumer-level variables of brand trust, brand affect and brand commitment are related to brand outcomes at the market level such as market share and the advertising-to-sales ratio. It is expected that brands high in brand commitment will also be high in market share due to higher levels of repeat purchases by the brand's users.

Brands with greater market share have, indeed, been shown to possess greater levels of repeat-purchasing behaviour among their buyers. In fact, the correlation between market share and number of purchases per buyer is around 0.6 for frequently purchased products.[53] Additionally, since people appear to like popular (high market share) brands more than less popular ones, attitudinal effects have also been observed for brands with greater market share.[54] Other research has found that attitudinal responses are positively related to market share.[55] Since brand commitment is viewed in the present study as indicating both attitudinal commitment and repetitive purchasing behaviour, we posit:

H_{8a}: Brand commitment has a positive effect on market share.

Further, more committed consumers of the brand should need less exposure to advertising.[56] Thus, a negative relationship between brand commitment and the advertising-to-sales ratio is predicted.

H_{8b}: Brand commitment has a positive effect on the efficiency of advertising spending such that, as brand commitment increases, the ratio of advertising costs to brand sales decreases.

CONTROL VARIABLES

Although they are not of theoretical interest to our present study, we include in our model a set of control variables that have been found in past research to affect brand outcomes. Though these control variables are not altogether without substantive interest in their own right, their primary purpose here is to help remove statistical noise due to omitted-variables bias in cases where we can capture effects that have been shown elsewhere to make a difference. For instance, Smith and Park[57] found that the level of differentiation and the age of the brand were significantly related to its market share. Additionally, the number of competitors of the brand also affected market share. Gatignon *et al.*[58] also found that the competitive structure of the market was significantly related to market share for new brands of pharmaceutical products. With some exceptions, the brand's share of voice has also tended to account for market share.[59] Thus, controlling for these variables statistically by including them in the same equation with the other independent variables of interest, provides for a stronger test of our hypotheses concerning the impact of brand commitment on the relevant brand outcomes.

METHOD

Our model and hypotheses, as just described, draw on assumptions made at the level of individual consumers, whereas the data in our study are compiled at the level of aggregated responses. This aggregative mode of testing is not uncommon. As Fox *et al.*[60] 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 defence of this treatment.

Specifically, the aggregate-level data

for the study were compiled from four independent consumer surveys conducted in four phases, and previously explored separately in research for different purposes reported by Chaudhuri[61] and by Chaudhuri and Holbrook.[62] Collecting the responses independently for almost every level of the model ensures that the linkages between variables are not artifacts of asking the same respondents to provide multiple responses in a single questionnaire. The use of four separate samples guards against this kind of consistency bias, and thereby provides more valid tests of the relationships under investigation.[63]

In phase one, data on hedonic and utilitarian value and on perceived differences among alternatives were collected. In phase two, data for functional and emotional brand-choice risk were gathered. Phase three obtained data on brand outcomes (market share and advertising-to-sales ratio) from a survey of product managers. Lastly, phase four collected data on brand trust, brand affect and brand commitment via a survey of consumers who were users of the brands in the study.

Phases one and two were completed during a single calendar year. Phases three and four were completed during a three-month period in the year immediately following the first two phases. The product manager surveys were conducted during the first two months (phase three), and the consumer surveys during the third month (phase four). The aggregate-level data generated during each phase were then merged together to form a single data set used in the present study. Building on work previously described by Chaudhuri[64] and by Chaudhuri and Holbrook,[65] procedures and measures for the four phases of the newly combined data set are discussed in the remainder of this section.

Phase one

Data collection

A sample of 150 products was randomly selected from the standard industrial classification (SIC) manual.[66] First, four-digit SIC codes were chosen at random from the manual's index of manufacturing and non-manufacturing industries. Next, a specific subdivision was randomly selected from within each industry, and its key product or service was identified. Four of the selected products (ski resorts, backpacks, beer and men's formal jackets) were later dropped from the study because the data on these products were incomplete.

A field survey of 30 actual users was successfully completed for each of the remaining 146 products, requiring an overall sample of $30 \times 146 = 4{,}380$ respondents (mean age = 32.2). Respondents were first qualified as users of the product or service, and were then invited to participate. If they agreed, they were asked to complete the survey. Reasons for non-participation were mostly either non-usage of the product or a lack of time to answer the survey questions. Overall, 11,139 total approaches were made in the northeastern USA (Massachusetts, Connecticut, New York and New Jersey). Insofar as possible, surveys were conducted at places where the product was consumed or purchased. For example, the surveys for hair tonics were conducted at a hair-styling salon, crisps at a grocery store, electric fans at

the appliances section of a department store, and so forth.

The 'individual'-level responses of consumers were replaced by an 'aggregate' level response (averaged across consumers for each product category). More specifically, 30 users for each of 146 products were surveyed on all the variables of interest, and the mean of the 30 responses was taken as the aggregate 'score' of each variable for a particular product. An aggregate data set was thus compiled for a total of 146 product categories.

Measures: Hedonic/utilitarian value and perceived differences

Hedonic and utilitarian value were each measured on indices composed of three items accompanied by seven-point scales of agreement (1 = 'disagree', 7 = 'agree'). For hedonic value, the three items were: 'I love this product', 'I feel good when I use this product', and 'This product is a luxury for me'. For utilitarian value, the three items were: 'I use this product frequently', 'I rely on this product', and 'This product is a necessity for me'.

Principal components analysis of the six items produced two factors with eigenvalues greater than 1.0, explaining 82 per cent of the variance. The three utilitarian items loaded 0.88, 0.96 and 0.92, respectively, on the first factor. The three hedonic items loaded 0.80, 0.90 and 0.87, respectively, on the second factor. None of the cross-loadings was higher than 0.20. Coefficient alphas for the three-item indices were 0.91 (utilitarian) and 0.83 (hedonic), respectively.

As a test of discriminant validity, Fornell and Larcker[67] have suggested that the average variance extracted for each construct should be higher than the squared correlation between that construct and any other construct. In order to demonstrate this for the two constructs, a confirmatory factor analysis was conducted using LISREL 8.14.68 The two-factor model provided an acceptable fit, with $\chi^2(8) = 42.34$ ($p < 0.01$), but with goodness of fit (GFI) = 0.92, adjusted goodness of fit (AGFI) = 0.79, and comparative fit index (CFI) = 0.94. All factor loadings were significant at $p < 0.05$ or better. Fornell and Larcker's test held for both constructs. Indeed, the squared correlation between the two constructs was 0.026, whereas the average variances extracted were 0.80 (utilitarian) and 0.64 (hedonic). Thus, there is evidence that the two constructs are unidimensional and empirically distinct. Accordingly, the relevant measures were summed to create the two three-item indices. Next, the hedonic and utilitarian indices were standardised across the 146 products with their ratio taken as an operationalisation of hedonic/utilitarian value.[69]

Our measure of perceived differences was based on eight common attributes of products: quality, value, convenience, efficiency, reliability, economy, dependability and price. A seven-point scale (1 = 'not at all', 7 = 'a lot') was used with the question, 'Do you think that there are differences between alternative [product name]s in terms of [attribute name]?' Principal components analysis of the items revealed a single-factor structure, explaining 67.1 per cent of the variance with an eigenvalue of 5.36. All items loaded higher than 0.50 on this single factor. Coefficient alpha for the eight-item index was 0.92.

Accordingly, the summative index was judged satisfactory for purposes of further analysis.

Phase two

Data collection

In phase two, the two types of brand-choice risk were measured by a telephone survey of 30 respondents for each product category. Once again, an aggregate level of analysis was used, this time with 92 of the 146 products and services from phase one selected for inclusion, so as to represent a diversity of branded alternatives. Among these 92 products, 30 complete user surveys could not be obtained for cigarettes, smoking tobacco, or cruise ships despite continued efforts in this direction. For this reason, ultimately, only 89 products were available. As in phase one, the mean responses across 30 users for each product were taken as the relevant aggregate scores, and were compiled to form the aggregate data set for the 89 products in phase two.

Overall, the telephone survey in phase two sampled $30 \times 89 = 2{,}670$ respondents (mean age = 42.6). To reach these users, 7,729 total telephone approaches were randomly made from 61 different telephone directories in the northeastern USA (Massachusetts, Connecticut, New York and New Jersey). Respondents were first qualified as users of the relevant product category and were then interviewed. Callbacks were selectively made to verify the authenticity of the interviews and the reported reasons for non-participation. The major reason given for non-participation was a lack of time to answer the survey.

Measures: Functional and emotional brand-choice risk

The scale developed by Jacoby and Kaplan[70] was used to measure functional and emotional brand-choice risk. This scale deals with five components of brand-choice risk: financial, performance, physical, psychological and social. The five relevant items — each accompanied by a nine-point assessment of likelihood (1 = 'very low chance', 9 = 'very high chance') — were as follows:

1. What are the chances that you stand to lose money if you try an unfamiliar brand of [product name], either because it will not work at all or because it costs more than it should to keep it in good shape?
2. What are the chances that there will be something wrong with an unfamiliar brand of [product name] or that it will not work properly?
3. What are the chances that an unfamiliar brand of [product name] may not be safe, that is, it may be harmful or injurious to your health?
4. What are the chances that an unfamiliar brand of [product name] will not fit in well with your self image or self concept or the way you think about yourself?
5. What are the chances an unfamiliar brand of [product name] will affect the way others think of you?

Principal components analysis of the five items produced two factors with eigenvalues greater than 1.0, explaining 84.2 per cent of the variance. The three items dealing with functional brand-choice risk — financial, performance and physical — loaded on the first factor at 0.90, 0.91 and 0.71,

respectively. The two items dealing with emotional brand-choice risk — psychological and social — loaded on the second factor at 0.95 and 0.96, respectively. None of the cross-loadings was higher than 0.26. Coefficient alphas for the three- and two-item indices were 0.82 (functional) and 0.95 (emotional), respectively. Confirmatory factor analysis indicated that the two-factor model provided a good fit, with $\chi^2(6) = 3.17$ ($p = 0.79$), GFI = 0.99, AGFI = 0.97, and CFI = 1.00. The average variance extracted for functional brand-choice risk (0.73) and emotional brand-choice risk (0.93) exceeded the squared correlation between these two constructs (0.20), providing evidence for discriminant validity. Accordingly, the three- and two-item indices of functional and emotional brand-choice risk were regarded as satisfactory for use in the main study.

Phase three

Data collection

Forty-five of the original 146 products were included in phase three by virtue of having easily identifiable branded alternatives and representing commonly used consumer products for which it would be feasible to locate 30 users of a brand in phase four. These brands were derived from an extensive search through both secondary information sources and personal observation at points of purchase for each of the 45 product categories. Examination of data provided by product managers in the final data set (discussed later) reveals that 79 per cent of the brands were nationally distributed in 50 states. The remaining brands were regionally or locally distributed brands. No dealer brands were used in the study.

Questionnaires were mailed to product managers of 328 brands in the 45 product categories. Three weeks later, a second follow-up mailing was sent out. A personalised cover letter stating the academic purpose of the study and promising absolute confidentiality was enclosed. Subsequent personal telephone calls were made to encourage participants to complete the survey. Via this approach, 149 completed surveys were obtained for a response rate of 45 per cent.

Despite the healthy response rate, given the sensitive nature of the questions asked, it was important to rule out non-response bias. In this connection, 38 of the original 45 product categories were represented in the returned surveys. The seven products that were not represented included canned soft drinks, shampoos, synthetic sweeteners, ball-point pens, women's underwear, flashlights and razor blades. Our best efforts to contact these managers and to persuade them to complete the surveys were unsuccessful. In general, we were told that the information was confidential and not publicly available. The seven product categories appear to group together as frequently purchased and widely distributed consumer nondurables. Hence, their absence was likely to be compensated for by the number of similar products covered by the data set (bottled iced tea, hair tonic, sweets, hosiery, laundry soap, light bulbs, etc). A full list of all 45 product categories included in the final data set appears in Table 1. In general, this table reveals a wide representation of brands drawn from a variety of consumer products and industries.

Care was also taken to see that the

Table 1 Products in the study

1. analgesics	15. cottage cheese	29. men's underwear
2. automotive tyres	16. crisps	30. microwave ovens
3. bacon	17. electric fans	31. perfume
4. barbeque grills	18. petrol	32. personal computers
5. bottled iced tea	19. golf clubs	33. petrol
6. boys'/men's trousers	20. hair tonic	34. room air conditioners
7. cameras	21. ice cream	35. salad dressing
8. canned fruits	22. kitchen utensils	36. suntan lotion
9. canned soft drinks	23. laundry soap	37. sweets
10. cereals	24. light bulbs	38. tights
11. chewing gum	25. lorries	39. vegetable cooking oil
12. children's wear	26. macaroni	40. women's handbags
13. coffee	27. margarine	41. women's underwear
14. cookers	28. mattresses	

Note: There were three brands for each product in the final data set, except for bottled iced tea and canned soft drinks, which had four brands each. Thus, the final data set contained 137 brands.

sample was not biased toward any one viewpoint or opinion. For instance, bias could result if managers with poor outcome measures for their brands did not respond to the survey. Examination of sample statistics on brand outcomes shows, however, that the sample contains a substantial representation of brands with both low and high outcome measures.

Further, the sample was split into early and late respondents.[71] The two were compared in terms of the key brand outcomes, market share and advertising-to-sales ratio. This comparison showed no difference in either means or variances between the early and late respondents, again suggesting that non-response bias in phase three is unlikely to distort the findings of the present study.

Measures

All measures in phase three were obtained from information provided by product managers in the questionnaire. Specifically, these product managers were asked to define the served market of their brands and to answer a series of questions keeping this served market in mind. For instance, market share was measured by asking respondents directly for the brand's market share within its served market. The advertising-to-sales ratio was constructed as the ratio of the brand's dollar advertising expenditures to its sales revenue. Further, data on control variables such as age of brand, number of competitors in the served market, the brand's share of voice and the brand's level of differentiation were also collected. Age of brand and number of competitors were measured by asking respondents 'How old is the brand (in years)?' and 'How many brand competitors does the brand have in its served market?'. Share of voice was constructed as the ratio of the brand's annual advertising expenditures to those for the entire industry (all brands). Brand differentiation was operationalised as the sum of two questions asking 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 non-tangible, psychological perceptions that consumers have about the brand in addition to its physical attributes. Coefficient alpha for these items was 0.75.

Phase four

Data collection

Interviews to collect data on brand trust, brand affect and brand commitment were conducted by 45 students enrolled in a senior-level market-research course at a private university in the northeastern USA. Interviewers volunteered for the task 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 45 product categories described in phase three. Interviewers were trained on data collection using a mall-intercept technique. Their work was supervised and checked by callbacks to verify accuracy.

Overall, 43 interviewers obtained data for three brands, and two interviewers obtained data for four brands in the 45 product categories, each for 30 respondents, yielding a data set for 137 brands based on $137 \times 30 = 4{,}110$ respondents (mean age = 35.8). To obtain this sample, a total of 12,542 approaches were made in Connecticut, Massachusetts, New Jersey and New York. Surveys were conducted mostly in shopping centres and malls. In some cases, such as barbecue grills, this approach was not viable in terms of producing actual users of the product. In these instances, users were found in places where the product was purchased or consumed. For example, the barbecue-grill interviewer went to a hardware store in order to obtain the requisite number of users per brand.

After qualification for product usage, respondents were asked which brands of the product they used. They were then interviewed with reference to the first target brand mentioned. In this manner, a field survey of 30 actual users was conducted for each of 137 brands in 45 product categories. The means, typically based on 30 responses per brand (with minor exceptions due to occasional missing data), were calculated for each item in the survey, resulting in a data set with 137 brands as the units of observation.

Measures: Brand trust, brand affect and brand commitment

Brand trust was measured as a three-item index based on seven-point ratings of agreement (1 = 'very strongly disagree', 7 = 'very strongly agree') with the following three statements: 'I trust this brand', 'I rely on this brand', and 'This brand is safe'. Coefficient alpha for this three-item index of brand trust was 0.77. 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 0.93. Brand commitment was measured by agreement with the following four statements constructed to reflect both attitudinal and behavioural dimensions of brand commitment (cf. Jacoby and Chestnut[72]): 'I am committed to this brand', 'I would be willing to pay a higher price for this brand over other brands', 'I will buy this brand the next time I buy [product name]', and 'I

Table 2 Descriptive statistics and correlations among constructs

Constructs	Means	S.D.	Simple correlations 1	2	3	4	5	6	7	8	9
1. Perceived differences	0.00	6.24	1.00								
2. Hedonic/utilitarian	0.00	3.54	0.01								
3. Functional brand risk	10.92	3.11	0.60*	–0.21*							
4. Emotional brand risk	4.54	2.08	0.35*	0.05	0.41*						
5. Brand affect	12.40	2.44	0.12	0.21*	0.13	0.31*					
6. Brand trust	14.56	1.83	0.29*	–0.13	0.33*	0.13	0.59*				
7. Brand commitment	17.30	2.76	0.09	0.22*	0.08	0.01	0.57*	0.56*			
8. Market share	15.15	16.06	0.03	–0.05	0.03	0.07	0.05	0.17	0.22*		
9. Ad-to-sales ratio	0.04	0.07	–0.22*	0.06	–0.18	–0.03	0.06	–0.07	–0.15	–0.05	1.00

Notes:
n = 137 for constructs 1–7, n = 65 for market share, n = 68 for ad-to-sales ratio, n = 87 for correlation of market share and ad-to-sales ratio Constructs 1 and 2 were mean centred
*= p <0.05.

intend to keep purchasing this brand'. Coefficient alpha for brand commitment was 0.87.

As a check on the dimensionality of these constructs, principal components analysis of the ten items revealed a three-factor structure, explaining 78.7 per cent of the variance with all three eigenvalues greater than 1.0. All items loaded higher than 0.50 on their respective factors. As before, Fornell and Larcker's[73] test of discriminant validity held for all the constructs; specifically, the largest squared correlation between any two of the constructs was 0.44, whereas the average variance extracted ranged from 0.59 to 0.83. Accordingly, the relevant items were summed to form the multi-item indices of brand trust, brand affect and brand commitment.

Final data set

In order to construct the final data set, the consumer-survey data (phase four) based on the means of 30 responses for each brand were merged with the managerial-survey data (phase three) for the corresponding brands. Next, the product-class data (phases one and two) on perceived differences between alternatives, hedonic/utilitarian value and brand-choice risk were entered for each brand in the data set. This compilation process resulted in a data set of 137 brands with complete observations on all variables except the final brand-outcome measures. The latter variables were not always provided by the product managers so that the sample size for these dependent variables in the final analysis fell to 65 (market share) and 68 (advertising-to-sales ratio). Table 1 provides a list of the 41 product categories represented by the final data set of 137 brands. Confidentiality agreements with the product managers prevent us from divulging the brand names in the final data set.

RESULTS

Table 2 provides descriptive statistics and correlations among the constructs of interest in the study. Note that the average brand had a market share of approximately 15 per cent and spent roughly 4 per cent of its sales dollars on

Table 3 Standardised regression coefficients

	Dependent variables						
Independent variables	**Functional risk**	**Emotional risk**	**Brand trust**	**Brand affect**	**Brand commitment**	**Market share**	**Ad-to-sales ratio**
1. Perceived differences	0.57**	0.25**	0.21	–0.03*	–0.09*	0.12	–0.17
2. Hedonic/utilitarian	–0.26**	–0.07**	–0.03	0.20	0.18	–0.45	0.43
3. Perceived differences* hedonic/utilitarian	0.08	0.28	–0.14	0.02	0.14	(–)	(–)
4. Functional brand risk			0.21*	0.07**	0.04*	–0.06	-0.09
5. Emotional brand risk			0.02	0.27	–0.18**	0.10	0.03
6. Brand trust					0.28**	–0.31	0.40
7. Brand affect					0.46	–0.11**	0.15*
8. Brand commitment						0.59**	–0.58
9. Share of voice						0.37	0.02
10. Age of brand						0.04	–0.10
11. Number of competitors						–0.12	0.10
12. Differentiation						0.17	–0.01
Total variance explained	0.41	0.18	0.14	0.14	0.49	0.28	0.17

Notes:
n = 137 for all dependent variables, except market share (n = 65) and advertising-to-sales ratio (n = 68)
(–) Denotes a non-significant (dropped) interaction effect
*p <0.05, **p <0.01
Results for market share and advertising-to-sales ratio are from the final step.

advertising. Note also that the two brand-outcome measures were essentially independent ($r = -0.05$, n.s.).

In general, our procedures for hypotheses testing followed those used by Moorman *et al.*[74] Table 3 shows results for a series of regressions conducted to test the hypotheses developed earlier. Prior to performing these regressions, perceived differences and hedonic/utilitarian value were mean centred, a method commonly used to reduce multicollinearity between two main-effect variables and their multiplicative interaction term.[75] This interaction term (perceived differences × hedonic/utilarian value) was needed to test H_{2a} and H_{2b} (as discussed later).

In support of H_{1a} and H_{1b}, Table 3 shows strong and significant main effects of perceived differences on both functional brand-choice risk ($\beta = 0.57$, $p < 0.01$) and emotional brand-choice risk ($\beta = 0.25$, $p < 0.01$). The interaction of perceived differences and hedonic/utilitarian value was, however, positive and significant only for emotional brand-choice risk ($\beta = 0.28$, $p < 0.01$) and not for functional brand-choice risk ($\beta = 0.08$, n.s.), thereby supporting H_{2b} but not H_{2a}. Note that an unexpected negative main effect of hedonic/utilitarian value on functional brand-choice risk ($\beta = -0.26$, $p < 0.01$) suggests that products with a high utilitarian/hedonic value ratio (ie the inverse of the hedonic/utilitarian ratio) are associated with an elevated functional risk in choosing among brands.

The same three independent variables were used in the regressions to explain brand trust and brand affect as the dependent variables, with functional and emotional brand-choice risk now also introduced as independent variables. As Table 3 shows, in support

of H_3, hedonic/utilitarian value contributed positively to explaining brand affect ($\beta = 0.20$, $p < 0.05$). Further, supporting H_5, emotional brand-choice risk was also strongly and positively related to brand affect ($\beta = 0.27$, $p < 0.01$). Finally, supporting H_4, functional brand-choice risk was positively related to brand trust ($\beta = 0.21$, $p < 0.05$). Consistent with our conceptual framework, functional brand-choice risk is related to brand trust but not to brand affect, whereas emotional brand-choice risk is related to brand affect but not to brand trust. This suggests, as anticipated, that brand trust and brand affect have very different product-class determinants, and that the processes governing these variables are also quite different. Note in Table 3, for example, that hedonic/utilitarian value was related to brand affect ($\beta = 0.20$, $p < 0.05$) but not to brand trust, and that the value for perceived differences was related to brand trust ($\beta = 0.21$, $p < 0.05$) but not to brand affect.

H_6 and H_7, stating that brand trust and brand affect should contribute positively to brand commitment, were both supported ($\beta = 0.28$ and 0.46, respectively, both $p < 0.01$). The only other variables that contributed significantly to brand commitment were hedonic/utilitarian value ($\beta = 0.18$, $p < 0.05$) and emotional brand-choice risk ($\beta(= -0.18$, $p < 0.05$). The latter findings will be interpreted further in the Discussion section.

The final set of regression equations considered two brand outcomes (market share and advertising-to-sales ratio) as separate (uncorrelated) dependent variables in order to test H_{8a} and H_{8b}. Certain differences from the earlier regressions applied in this case. As discussed earlier, data on market share and the advertising-to-sales ratio were not always provided by the brand managers, reducing the available sample sizes to 65 and 68, respectively. Also, because initial regression runs showed that the interaction term (perceived differences × hedonic/utilitarian value) was not significant for either market share or the advertising-to-sales ratio, this interaction term was dropped from the final analysis.

Table 3 shows the results of the regression analyses for market share and the advertising-to-sales ratio as (essentially uncorrelated) dependent variables using the standardised coefficients from the final step. Here, in support of H8a, brand commitment contributed positively and significantly to market share ($\beta = 0.59$, $p < 0.01$). Further, supporting H8b, brand commitment was negatively related to the advertising-to-sales ratio ($\beta = -0.58$, $p < 0.05$). Of all the other variables, only share of voice was significantly related to market share ($\beta = 0.37$, $p < 0.01$). Overall, 28 per cent of the variance in market share and 17 per cent of the variance in the advertising-to-sales ratio were explained by the set of independent variables. These results and others are further described in the Discussion section that follows.

DISCUSSION

The model examined in the present study postulates that brand trust and brand affect are separate constructs that combine to determine brand commitment, which in turn influences such outcome-related aspects of brands as market share and the advertising-to-sales ratio. This conceptualisation has

been corroborated by the empirical results of the present study in which very different outcomes were evidenced for brand trust and brand affect as opposed to brand commitment. Specifically, though brand trust and brand affect were both positively related to brand commitment, they were not significantly related to either market share or the advertising-to-sales ratio, with or without the inclusion of brand commitment in the predictive equation. Meanwhile, brand commitment was significantly related to both market share and advertising efficiency. From this, it follows that brand commitment may be considered to be a link in a chain of effects that indirectly connects brand trust and brand affect with market-based brand outcomes like market share and the advertising-to-sales ratio.

From the perspective of brand-customer exchange relationships, brand trust, brand affect and brand commitment are constructs highly relevant to the relationship-marketing literature, which considers trust and commitment to be 'key mediating variables' in relational exchanges.[76] Work on relationship marketing has consistently emphasised that trust and commitment carry increased relevance in situations of uncertainty and risk.[77] Comparably, we find that brand trust and brand affect reflect risk-related aspects of brand choice in a given product class. Brand trust, however, depends on functional brand-choice risk, whereas brand affect depends on emotional brand-choice risk (as well as on the balance of hedonic to utilitarian value). Thus, as contributions to brand commitment, brand trust and brand affect have very different antecedents and need to be considered separately.

As expected, the present results show that perceived differences among brands in the product class affect the levels of both functional and emotional brand-choice risk for that product category. Perceived differences among brands were also significantly and positively related to brand trust but not to brand affect. Thus, perceived differences in brands within the product class are directly and indirectly related to brand trust (through functional brand-choice risk) but only indirectly related to brand affect (through emotional brand-choice risk).

In sum, the authors find that every level in this model (Figure 1) is necessary to fully understand the impact of product-class effects on brand commitment and brand outcomes. As always, for purposes of making telling comparisons, the non-significant relationships in this study are as important as the significant ones. They facilitate our understanding of the parallel-but-separate processes that lead toward the brand outcomes of interest.

This study has also produced evidence to support the hypothesis that product characteristics involving the ratio of hedonic to utilitarian value moderate the effect of perceived differences among brands on emotional brand-choice risk. The expected moderating effect did not, however, occur for functional brand-choice risk. Specifically, it was found that the effect of perceived differences on the emotional aspect of brand-choice risk increased for products higher in their pleasure potential relative to their utilitarian value, but that functional brand-choice risk responded only to the main effects of perceived differences and hedonic/utilitarian value, and not to

their interaction. Meanwhile, functional brand-choice risk increased as the balance of utilitarian to hedonic value increased (ie varied inversely with hedonic/utilitarian value). In retrospect, though not explicitly anticipated, this finding appears to make sense. Specifically, for products with a relatively higher balance of utilitarian as opposed to hedonic value, functional risk associated with potential failures in financial, performance or physical attributes tends to escalate. Thus, not surprisingly, relatively more utilitarian products carry relatively higher functional risks.

Overall, in explaining brand-customer relationships, two clear pathways to brand commitment are found: one guided by a rational, thoughtful, deliberative process, the other geared toward emotional, instinctive, spontaneous reactions. The former begins with perceived differences that translate into functional brand-choice risk and consequent greater trust in a particular brand. The latter originates in both perceived differences and the pleasure potential inherent in the product, leads to an experience of emotional brand-choice risk, and produces greater brand affect toward a favourite brand. Brand trust and brand affect combine to foster brand commitment, which leads, in turn, to more favourable brand outcomes in the form of market share and the advertising-to-sales ratio. Thus, the two parallel pathways converge on desirable marketplace results, but have very different product-class determinants.

Implications

Marketing managers can use the present findings to justify expenditures on strategies that create favourable long-term effects on consumers. For instance, communication strategies might be designed with special regard to the product-class determinants of brand-related outcomes. One such implication would capitalise on the ratio of hedonic to utilitarian value. For products high in hedonic/utilitarian value, ads should demonstrate that all brands in the product class are not the same, and should also emphasise the positive (negative) emotional consequences from choosing the 'right' ('wrong') brand in the product category. For products low in hedonic/utilitarian value, considerations of product safety, performance standards and related financial loss become more important because the product lacks the inherent motivational potential to produce pleasure. Hence, ads should stress the functional elements of risk in the product class and should work towards building trust in the advertised brand.

In either case — high or low hedonic/utilitarian value — the concepts of emotional or functional brand-choice risk and of perceived differences among brands are clearly relevant. What varies is whether brand affect or brand trust provides the more effective route through brand commitment to favourable brand outcomes.

Limitations

The findings of this study are expected to be particularly robust due to the additional effort spent on a data-collection process wherein four different surveys with independently obtained measures of key variables led to an aggregate data set with brands as the units of analysis. As previously

discussed at length, the results of the present study are largely in accord with our theoretical expectations. As in any study, however, future research is needed to replicate, refine and extend our findings. Specifically, these findings should be replicated using different product categories and brands. Similarly, other brand outcomes should be tested, such as the brand's direct contribution to profits or to customer satisfaction (as opposed to these measures of market share and the advertising-to-sales ratio). Further, additional measures of trust, affect and commitment should be developed, as well as other potential determinants of market success, leading to better explanation of brand outcomes.

In the present study, 28 per cent of the variance in market share and 17 per cent of the variance in the advertising-to-sales ratio were accounted for. These levels of explained variance are far from inconsequential to marketing managers concerned with improving brand performance. Nonetheless, they leave room for further improvements in explanatory power achieved by future research in the area of brand-customer relationships.

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