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Brand Equity, Consumer Learning and Choice

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Abstract

The aim of this paper is to explore the links between brand equity, consumer learning and consumer choice processes in general and considering two recent trends in the market place: store brands and the Internet. We first review the advances that have occurred in brand equity research in marketing in the past decade, with particular emphasis on integrating the separate streams of research emanating from cognitive psychology and information economics. Brand equity has generally been defined as the incremental utility with which a brand endows a product, compared to its non-branded counterpart. We amplify this definition: we propose that brand equity be the incremental effect of the brand on all aspects of the consumer's evaluation and choice process. We propose an agenda of research based on this amplified definition.

Key words: Brand equity, dynamic choice, consumer learning, brand management, brands on the Internet, store brands

1. Introduction

The concept of brand equity has interested academics and practitioners for more than a decade, primarily due to the importance in today's marketplace of building, maintaining and using brands to obtain strategic advantage. The concept refers to the basic idea that a product's value to consumers, the trade and the firm is somehow enhanced when it is associated or identified over time with a set of unique elements that define the brand concept. Clearly, such equity endowments come from current or potential consumer learning which influences how the product is encoded and acted upon by consumers. It stands to reason that such learning is dynamic and influences consumer choice processes and outcomes either directly or indirectly by influencing the effectiveness of the branded product's marketing mix elements. This paper attempts to integrate some of the key recent perspectives on brand equity and provide an agenda for future brand equity research in an environment where the internet and store brands represent a new reality.

Different definitions of brand equity have been offered in the literature. Aaker (1991) defined brand equity as a set of brand assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service to a firm and/or to the firm's customers. Keller (1993) offered a cognitive psychology perspective, defining customer-based brand equity as the differential effect that brand knowledge has on consumer response to the marketing of that brand. Adopting an information economics view, Erdem and Swait (1998) argue that consumer-based brand equity is the value of a brand as a credible signal of a product's position. More generally, brand equity is often referred to as the added value to the firm, the trade, or the consumer with which a brand endows a product (Farquhar 1989); or similarly, as the difference between the value of the branded product to the consumer and the value of the product without that branding (McQueen, 1991).

These definitions share the view that the value of a brand to a firm is created through the brand's effect on *consumers*. Most brand equity conceptualizations are further linked to consumers by emphasizing consumer-based concepts such as brand associations (Aaker 1991), brand knowledge (Keller 1993), perceived clarity and credibility of the brand information under imperfect and asymmetric information (Erdem and Swait 1998). It is clear that brand equity accrues over time via consumer learning and decision making processes. Thus, there is a need to know how consumer learning and choice processes shape and drive brand equity formation.

Our analysis of these different research streams shows that the brand equity concept may be understood better if examined in a broader framework that assesses the incremental effect of the brand at each of the various stages of the consumer's choice process. Thus, brand equity could play a role in how information (e.g. attributes) are learned and encoded and then retrieved and used in decisions and choice. These information processing effects would influence part-worth evaluation and combination rules, choice set generation and finally the decision rules used in choice. This broader definition extends the aggregate conceptualization inherent in the "additive" brand impact notion of brand equity (i.e. enhanced attractiveness captured in the utility function) to a more comprehensive approach

that focuses on the brand's role across the multi-stage and dynamic consumer choice process.

This paper (1) initiates an integration of the multiple extant streams of research in branding, brand equity, consumer learning and brand choice, (2) proposes the incorporation of consumer learning theories into models of brand choice and brand equity measurement, and (3) suggests a possible synthesis of different brand equity perspectives, particularly the signaling and cognitive psychology views. Our purpose is to develop a more coherent framework to drive future research on brand equity. The framework incorporates the new realities, such as the rise of store brands and electronic commerce, which will influence the linkage between brand equity, consumer learning, and choice.

2. A Model of the Consumer Choice Process and Brand Equity

Although any specific sequential characterization (see e.g., Lynch, Chakravarti and Mitra 1991) of consumer choice processes is fundamentally limited, the elements belonging to a multi-staged and dynamic characterization of consumer choice may be defined fairly generally. Thus, product attributes are selectively encoded and represented in consumer memory in a learning stage. These representations may also be selectively retrieved for subsequent use, for example, in a choice situation. The retrieved attribute representations are assessed evaluative content as in partworths. The utility of the product/service may be derived by combining these partworths using weights that could be idiosyncratic to the individual, product or situation. This process, described above for a single product or service, can work similarly for other products in a category that could belong in a choice set. Choice among the members of this set would depend on the specific decision rule invoked by the consumer.

The multi-staged process described above allows for dynamic consumer learning over time. Such learning could stem from choice-event feedback or from the impact of brand marketing actions on any stage of the choice process. Consumer learning inherent in brand equity may influence any or all of these choice process stages. Since most definitions of brand equity relate to the incremental effect of the brand on product value, it stands to reason that the effects accrue at each component stage of the consumer's choice process. While the specific ordering of the component processes may change how the effects propagate, the key point is that each component process may be a locus of the effects.

In other words, a variety of brand equity conceptualizations can be unified in the context of a dynamic brand choice model with a behaviorally motivated and process-oriented utility specification. We make such an effort below.

Multi-attribute utility theory implies that the main building blocks of the consumer choice process are consumer attribute perceptions or beliefs (X^*), which involve encodings of actual product attributes (X), and consumer taste or utility weights (β). This basic proposition may be extended by incorporating consumer uncertainty about product attributes, so that beliefs about attribute levels are characterized as distributions with mean (μ) and variance (σ^2). The mean represents the perception of the expected value of an attribute level, whereas the variance reflects the consumer's uncertainty about that level,

thus capturing perceived risk associated with the attribute. Consumers may also be uncertain about the attribute weights to use in evaluating attribute partworths or in combining the partworths to evaluate utility. Finally, in the presence of consumer uncertainty, consumer utility will also depend on information costs associated with attribute perceptions and the taste weights. This individual utility or assessment of the product/service attractiveness is decomposable into two parts, systematic (V_i) and stochastic (ε_i) utility. According to a combination rule, consumer perceived attribute levels (X^*) and tastes (β) are combined to form the systematic utility, V_i . A similar process for other products (or brands, i) defines the choice set C of objects.

Since utility is measured with error, we model choice probabilistically rather than in a deterministic framework. We view the choice stage in the light of random utility choice theory (McFadden 1981, 1986). The stochastic utility component, which gives the framework its name, is usually thought of as capturing analyst-based observation errors (e.g., random taste shocks). In this framework, choice is assumed to be exercised from among the choice set C of objects, which can itself be latent (see Manski 1977; Swait and Ben-Akiva 1987a,b). As depicted in Figure 1, at any point in time certain brands may be in the choice set C_t (brands i, j and k are included) and others excluded (brand l is excluded), partly as a function of brand-related activities.

Figure 1 suggests that the various elements of the choice process are individual- (p), brand- (i) and time- (t) specific. Not only will consumers have different tastes and perceptions but also a particular consumer's perceptions and tastes may evolve over time. Even though cognitive psychological and information economics views of brand equity focus on different aspects of the choice process, Figure 1 accommodates a broad set of phenomena associated with brand equity. For example, Keller (1993) suggests that brand equity arises from two major elements, awareness and associations. Awareness, whether assessed in terms of recall or recognition, rests essentially on the brand's salience, i.e., the consumer's ability to retrieve the target brand with or without associated cues. Awareness is also one of the four components of brand equity in Aaker's (1991) framework. It can best be captured by a more detailed formulation of the choice set formation process in Figure 1. Consideration may be modeled as contingent on awareness, which in turn is a function of exposure to, and the credibility of, information, as well as the importance of communicated attributes. Since such processes occur as information is encountered initially, and also from choice-event feedback, the picture of consumer learning invoked here is consistent with a dynamic, information-theoretic framework.

The other major source of brand equity in Keller's framework, and a major component of brand equity in Aaker's framework, is the associations that the consumer holds about the brand. Keller suggests that valuable brand associations are those which are strong, favorable, and unique. Strength and favorableness are aspects which have received considerable attention in multi-attribute utility modeling. Belief strength may be loosely related to the consumer's perception of the products' attribute levels (X_{jm}^* in a standard multi-attribute model where m stands for attribute m and j denotes the brand) and favorableness is represented in the sign and size of the importance weight in a multi-attribute utility model (β_m). In this representation, the overall utility of a brand would be represented as $V_j = \sum_m \beta_m X_{jm}^*$. The new element introduced by Keller is uniqueness,

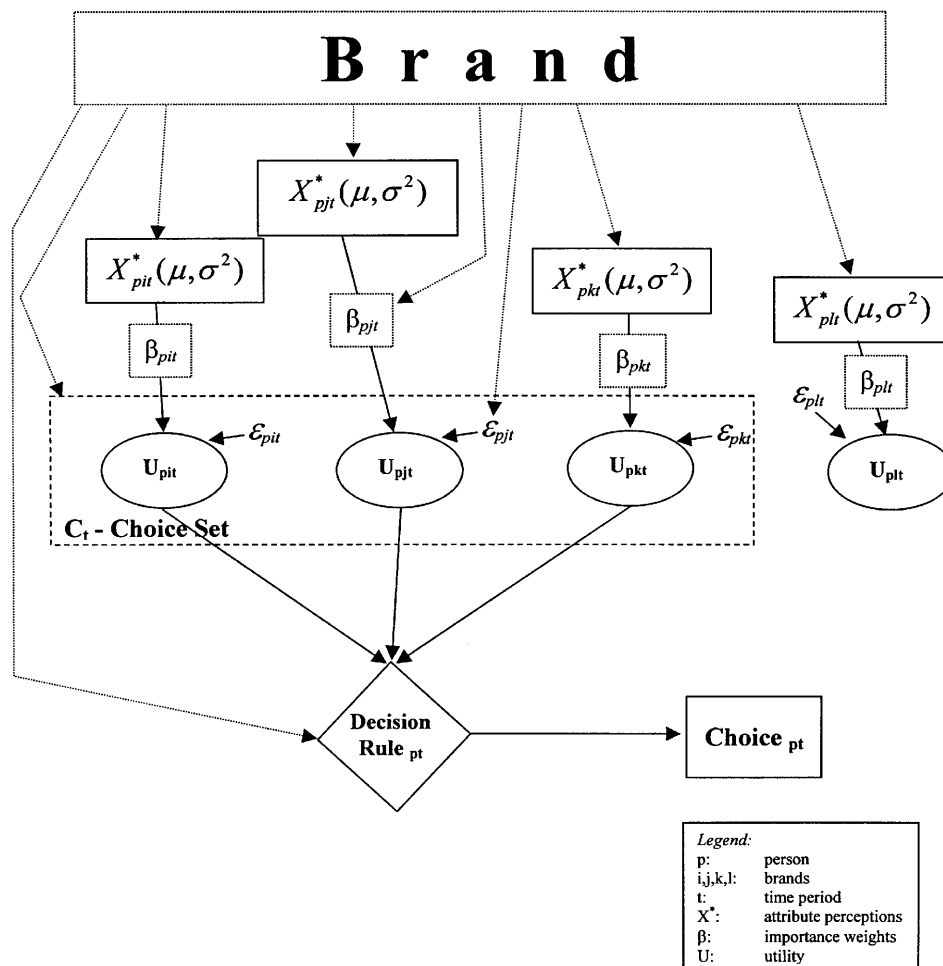


Figure 1. Brand Equity—Generalized Impact of the Brand on Choice

which is not directly captured by most multi-attribute utility models. This is an important aspect to branding, with brand strength stemming from points of parity and competitive advantages being generated by points of difference. Krishnan (1996) provides theoretical and empirical evidence of the importance of uniqueness in brand evaluation. In the present framework, one might accommodate uniqueness notions through an increase in the weights attached to the attributes that are perceived to be unique, or by adopting a factor-analytic approach to multi-attribute utility theory. For example, Elrod and Keane (1995) estimate a factor-analytic probit model that includes between-brand common factors (attributes), whose levels differ among brands but are shared by all brands, and a unique brand factor (attribute).

Figure 1 therefore includes many of the key constructs used in cognitive psychology views of brand equity. At the same time, the framework also incorporates the basic information economics constructs such as consumer uncertainty about preferences and tastes, and the associated perceived risk and information costs. Erdem and Swait (1998) suggest that a) brand investments and b) consistency of marketing actions over time and across marketing mix elements, increase the credibility of a brand as a signal of a product's position. This may increase perceived quality and decrease perceived risk and information costs. Similarly, consistency may also affect the clarity of the brand signal. Finally, constructs such as credibility may affect consumer utility weights, e.g. by reducing price sensitivity (Erdem, Swait and Louviere 1998). The brand investments and consistency constructs (Erdem and Swait 1998) also fit into Figure 1 as exogenous variables that affect consumer perceptions (both mean and variance), as well as utility weights and information costs. As Morrison and Roberts (1998) show, consistency between the distribution elements of a financial service and its features is more important than either mix element in isolation.

The complementary nature of the cognitive psychological and information economics views of brand equity is also illustrated in Figure 1. In the cognitive psychology view, brand equity stems from awareness of brand features and associations that drive attribute perceptions, whereas the information economics view emphasizes consumer uncertainty and its impact on consumer choice via perceived risk and information costs. The two perspectives also share similar ideas regarding the market consequences of brand equity (Erdem and Swait 1998) or what Keller terms the "outcomes" of brand equity (Keller 1993). In the information economics framework, a brand's added market performance (greater consumer loyalty, more aggressive pricing, enhanced capability for extensions, etc.) are the results of increased perceived quality and reduced risk and information costs. In the cognitive psychology perspective, these marketplace outcomes are attributed to the existence of strong, favorable and unique associations in the minds of consumers.

To recapitulate, Figure 1 shows that the brand can affect each component of the choice process. For example, suppose a brand undertakes an advertising campaign that raises doubts about a competitor's ability to deliver on product claims. Such advertising may not affect consumer tastes, attribute evaluation and combination rules, or decision rules, but could influence how consumers encode the attributes and form choice sets. In contrast, if a brand is the first to introduce a new attribute into a product category, the brand's advertising and consumer experience with the pioneering product should influence consumer tastes, perhaps to the advantage of the pioneering brand (Carpenter and Nakamoto 1989).

Finally, one of the more intriguing possibilities created by this framework is the incorporation of choice consistency over time and within segments. A recent research stream suggests that the random utility component of choice models can capture a number of effects that are related to utility variance rather than utility mean (see, e.g., Louviere and Swait 1996; Swait and Adamowicz 1998; Hensher, Louviere and Swait 1999). In other words, the credibility of a brand's positioning information can promote consistent choice behavior within and across consumers by reducing perceived risk and information search costs (Erdem and Swait 1998). The random utility framework can represent such effects by

specifying the scale of the error term as a function of appropriate individual characteristics, context variables, and experimental manipulations (Swait and Louviere 1993).

3. Consumer Learning, Consumer Choice Process and Brand Equity Modeling

Most conceptualizations of brand equity revolve around consumer learning about brands. Figure 1 suggests that attribute perceptions, tastes, choice sets and decision rules are part of a consumer's learned repertoire. It is therefore important to examine consumer learning processes in order to capture the formation of brand value in the context of the dynamics of consumer choice processes.

3.1. Learning Theories From Cognitive Psychology

Keller (1993) views brand knowledge as a brand node that is linked to its respective associations: product attributes and benefits, user imagery, as well as affective associations. Figure 1 suggests the need to focus on how brand knowledge is created over time. Some researchers (e.g. Hoch and Deighton 1989) conceptualize learning as a hypothesis testing process whereby new information is assessed in terms of existing beliefs. The premise is that existing beliefs form a working hypothesis that biases the exposure, encoding and integration of new information. Consistent with this view of learning, confirmatory biases may lead initial brand beliefs to exert a dominant influence on future brand learning and induce consistent brand behavior over time.

Hypothesis testing theory suggests that consumers do not favor generating new hypotheses unless there is overwhelming and unambiguous evidence that the existing hypothesis is false (Getty and Fisher 1979). Hoch and Deighton (1989) persuasively argue that the probability of encountering such falsifying evidence is low. This is because a predominant strategy in hypothesis testing is to investigate the sufficiency rather than the necessity of the hypothesis (Klayman and Ha 1987). Such a testing strategy leads individuals to engage in greater search for hypothesis consistent, as opposed to inconsistent, information (Snyder and Swann 1978, Wason 1960). Furthermore, this confirmatory bias is likely to persist even when search costs are reduced and consumers are presented with full information (i.e., both hypothesis consistent and hypothesis inconsistent information). In such cases, limited attentional resources will lead to biased information exposure, with consumers selectively attending to data that support the hypothesis (Broniarczyk and Alba 1994a, Crocker 1981).

Also, the perception of data is labile. Unless consumers have a structure with which to learn new information, they may have difficulty encoding it (West, Brown, and Hoch 1996). The brand may serve as an effective organizer of product information and help define the meaning and value of product attributes. The hypothesis put forth by the brand is likely to be confirmed through product experience (Hoch and Ha 1986). Hoch and Deighton (1989) contend that many consumer product experiences are ambiguous, making multiple interpretations possible. For instance, the quality of a polo shirt (Hoch and Ha

1986), the tartar-fighting ability of a toothpaste, or the moisturizing provided by hand creams (Muthukrishnan 1995) are open to subjective interpretations of product performance. Decision ambiguity may also be caused by product differentiation that results in non-overlapping attributes designed to deliver the same product benefit (Muthukrishnan 1995). In these ambiguous data environments, consumers have been found to favor data interpretation in line with the hypothesis (Hoch and Ha 1986, Muthukrishnan 1995): data encoding is subjective in favor of the hypothesis.

These findings on consumer learning represent systematic departures from rationality axioms and the traditional tenets of Bayesian updating mechanisms. Moreover, there is other evidence that suggests that consumers can learn, retain and act on information via unconscious and implicit learning processes (Krishnan and Chakravarti 1999). Taken together, these literatures suggest the possibility that brand learning may occur through mechanisms that are not directly accessible via conscious processes (i.e., in the awareness and associative forms discussed by Keller 1993). Moreover, acquired brand knowledge can be impervious to new information and may persist even when the environment contains information to the contrary. These behavioral findings represent modeling challenges for the brand equity researcher working in both the cognitive psychology and information economics frameworks.

3.2. Learning in Econometric Modeling

Learning about product attributes or consumer tastes can be modeled by developing and estimating dynamic structural models of consumer choice processes. Econometric models that are explicitly based on the consumer's maximization problem and whose parameters are those of the consumers' utility functions and/or of their constraints, are referred to as structural models. (These are not to be confused with linear structural equation models, such as LISREL, PLS, etc.) Structural modeling and estimation require the researcher to specify explicit behavioral models of consumer behavior, derive the implied relationships among choice probabilities, past purchases and marketing mix variables, and then estimate the behavioral parameters of the model. Thus, a reduced-form choice model may use a lagged-purchase variable to capture the impact of past purchases on current purchase (as it has been the case in many choice models estimated on scanner panel data); a structural model, however, requires specification of why past purchases affect current purchases in a specific context (e.g., is attribute learning, habit persistence or some other process driving state dependence?). Similarly, if consumers form forward-looking expectations in a given context, the structural model must also specify the impact of expectations of future events on current choices, which implies expected utility maximization over the planning horizon (e.g., Erdem and Keane 1996, Gönül and Srinivasan 1996).

One advantage of structural models is that the estimated parameters are policy invariant (Lucas 1976). For example, assume that consumers have forward-looking price and promotion expectations. If a firm promotes frequently, consumers will eventually learn that the brand will be on deal at some expected point of time. This may influence consumers' purchase timing, brand and quantity decisions and increase consumer price

sensitivity. Under such a scenario, if one estimates a reduced-form model without modeling how consumers form forward-looking price expectations, the parameter estimate for price cannot be used to evaluate possible changes in brand choice probabilities under alternative pricing strategies. This is because every change in pricing strategy will also alter price sensitivity (i.e., price sensitivity is not policy-invariant). However, in a structural model that explicitly incorporates the impact of price expectations on consumer behavior, the price sensitivity parameter will have captured the underlying mechanism. Hence, the estimated parameter can be used to evaluate alternative pricing strategies.

Given that learning plays a key role in the dynamic generalization of Figure 1, a structural modeling approach should provide a more complete representation of how brand equity develops over time in a dynamic consumer choice process. To date, the marketing literature has reported some structural learning models with myopic (short-run utility maximizing) consumers learning about product attributes in durable goods markets (Roberts and Urban 1988) or about product quality for umbrella brands in frequently purchased categories (Erdem 1998). Erdem and Keane (1996) estimate a structural model with forward looking customers who learn about quality levels through sampling and use experience, as well as advertising. The dynamic structural learning model they estimate shows how advertising and positive use experience can increase perceived quality, as well as how consistency in advertising messages and use experiences may decrease perceived risk, both of which increase brand utility. These structural models capture some of the phenomena depicted in Figure 1.

For mathematical tractability reasons, such models have typically used a Bayesian updating mechanism to represent how consumers learn (e.g., about product quality). However, such mechanisms cannot directly handle the reality of consumer learning in which attribute perceptions and tastes may be learned implicitly, biased initially and, furthermore, updated in a mechanism susceptible to confirmatory biases.

In order to develop and estimate structural models of the type represented in Figure 1, we need to better understand consumers' learning processes. This involves understanding the mechanisms involved in attribute encoding as well as the manner in which attribute perceptions and tasks are updated. To be useful, this new knowledge must be specific enough to support mathematical and statistical specification of different encoding and updating mechanisms.

As an example, implicit learning phenomena and biased attribute encoding may be represented in our structural models by estimating psychophysical transformations of objective levels, if such data are available, into subjective perceptions. Furthermore, the possibility of confirmatory biases can be incorporated into our current models by allowing Kalman gain coefficients (weights attached to new pieces of information) to be asymmetrically affected by confirmatory versus disconfirmatory information. Moreover, one may explicitly model an anchoring and adjustment process, which involves more conservative updating of priors than in a Bayesian updating mechanism. Comparing such enriched structural models to those incorporating traditional assumptions (e.g. Bayesian updating) in terms of their ability to explain data allows us to gauge the extent to which the cognitive phenomena influence choice. The results may then guide future experimental research.

4. Consumer Choice Processes and Brand Equity Measurement

Efforts to measure brand value have focused on the sources or causes of brand equity (located in the customer's mind) as well as on the outcomes of brand equity (i.e. brand-related marketplace behaviors that create value to the firm). These efforts are not mutually exclusive because brand equity outcomes may be traced back to the mental processes (encoding, storage and retrieval, preference formation, etc.) that serve as equity drivers. Brand equity measurement systems can also be differentiated by whether they are component-based or holistic. Component-based systems first define and then calibrate all of the individual elements of consumer brand equity, while holistic systems have as their objective an overall evaluation of the brand. These approaches can also be easily linked since the total value of the brand may be modeled in terms of its constituents. This classification scheme is illustrated in Table 1.

Measurement efforts that focus on the sources of brand equity often stress an exploratory and qualitative understanding of the various components of brand equity. At the same time, both Aaker (1996) and Keller (1998) have discussed the importance of calibrating these components more precisely using traditional knowledge and awareness measures (e.g., recall and recognition) as well as the beliefs and attitudes that underlie brand image. However, these measurement efforts to date primarily assume conscious processes where consumers have access to the mental activity in which brand equity has its genesis. However, as recent research shows, many aspects of brand equity may stem from non-conscious mental processes that cannot be readily accessed by traditional awareness measures. Indirect measures that capture implicit varieties of brand memory (see Krishnan and Chakravarti 1993, 1999) therefore remain an important priority for future research. Such memories may be the basis of brand predispositions that influence marketplace outcomes for the brand. It is therefore particularly important to understand the circumstances under which these memory traces may be activated (e.g., on in-store choice occasions).

In regard to holistic approaches, Swait et al. (1993) used random utility theory to calibrate the reservation price of consumers as an indicant of how much the brand name is worth. Central to their concept of brand equity is the idea of an equalization price $EP = P - V/\beta_p$, where P is the price, V is the utility of its constituent attributes (measured

Table 1. Extant Approaches to Brand Equity Measurement

	Sources	Outcomes
Component Based	Keller (1993, 1998) Aaker (1991, 1995, 1996)	Keller (1993, 1998)
Holistic	<i>Utility based (cross-sectional):</i> Swait et al (1993) Park & Srinivasan (1994)	<i>Financial Value (Inter-firm analysis):</i> Simon & Sullivan (1993)
	<i>Utility based (time series):</i> Kamakura & Russell (1991)	<i>Financial Value (Intra-firm analysis):</i> Farquhar et al (1991)

in objective terms) and β_p is the consumer's price sensitivity. In this analysis, equalization price is a normalized measure of the net value of a brand relative to the value of all brands in the consumer's consideration set. Swait et al. show that EP can be divided into three components: (1) an intangible brand effect, (2) the utility due to objective attributes and (3) the utility due to perceptions of brand positions. Thus, while they study the overall value of a brand on a holistic basis, it is also broken down into its component parts. This approach, which permits mapping of brand perceptions, brand by price interactions, and attribute by price interactions, provides managerial diagnostics not only about the strength of the brand, but also where that strength lies (see also Rangaswamy et al., 1993).

Park and Srinivasan (1994) took a similar approach to measuring the total equity of a brand. They partitioned brand equity effects on utility into attribute-based and non-attribute-based components. Attribute-based benefits are those provided by a consumer inferring attribute levels higher than objectively measured levels on the basis of the brand name. Non-attribute-based equity expresses the value that the brand provides to the consumer, over and above the utility of its component attributes. By establishing a dollar metric through the incorporation of price in a choice model, Park and Srinivasan established how much the consumer would be prepared to pay for each of these components. Like Swait et al. (1993), this approach also provides specific managerial guidance about the area in which a brand is weak or strong.

In contrast to the above measurement approaches which use cross-sectional data, brand equity for different brands may be inferred from studying brand choices over time. Kamakura and Russell (1991, 1993) used a choice model to understand the transformation between a consumer's utility for a product and choice on a given occasion. They then postulated brand equity as the residual utility of the brand after accounting for objective attribute levels. One interesting aspect of the Kamakura and Russell study is that they examined different components of brand value: (1) the perceived value of the brand (i.e. its component utility) and (2) the intangible utility (i.e. the residual utility after accounting for objective attributes). Another managerially useful concept in the study is a brand's dominance value, defined as the ratio of the brand's vulnerability (to attack by other brands) to its clout (its power to attack other brands). Kamakura and Russell also argue that if brand equity represents what a brand owns of the customer's mind, no brand is likely to own the same part of all customers' minds. Similarly, consumers' awareness and perceptions of the brand's competitors will also vary across consumers. In other words, Kamakura and Russell argue that if brand equity refers to the power of the brand in the marketplace, one must understand how that power varies across market.

There is a strong tradition in both marketing and accounting of studying the value of the brand in the market place on a holistic basis. Simon and Sullivan (1993) regard the value of the firm to be the value of its tangibles and intangibles. They break up the value of the intangibles into brand intangibles (demand-enhancing and efficiency-producing intangibles), non-brand firm-specific intangibles, and industry intangibles. The demand-enhancing brand intangibles accrue as a result of marketing activity (e.g., order-of-entry advantages and advertising share), and thus represent brand equity on the balance sheet. Simon and Sullivan do a cross-sectional analysis across different companies, decomposing brand equity into share advantage, age, and advertising. This enables an examination of the

relative value of brand intangibles, which they then monitor over time. Farquhar et al. (1991) adopt a similar approach but look within the firm to identify the financial implications of brand equity. They introduce the term "momentum accounting" to study the enduring value of the brand over time, after smoothing out the short term fluctuations due to company and environmental factors. This momentum is the cumulative value of the marketing impulses to the brand by advertising, promotion and other marketing activity. The concept provides a useful link between the accounting view of brand valuation through the balance sheet and marketing methodology for calibrating the value of brand activity (e.g. knowledge of decay rates of advertising effects on consumer behavior), see Kapferer (1997, Chapter 13) for a discussion of the link between brand marketing activity and accounting practices.

As discussed in previous sections, the dynamic nature of brand equity and of the behavioral processes that underlie the formation and evolution of brand equity, suggest that it is important for brand equity measurement models to capture dynamics. This is true for both individual-level choice-theoretic models of brand equity (e.g., Park and Srinivasan 1994, Swait et al. 1993), as well as aggregate models of brand equity (e.g., Simon and Sullivan 1993). In the context of choice-theoretic approaches, one useful future avenue for future research is to develop and estimate dynamic structural models of consumer brand choices to measure consumer-based brand equity.

5. Managerial Implications of Brand Equity

We address three topics in this section (brand and brand equity management, the equity of store brands and brand equity on the Internet) and mention a number of research needs that were identified in the workshop.

5.1. Brand Equity Management

Senior executives responsible for managing corporate brands are also often in charge of advertising. This may reflect an assumption that management of corporate communications will also result in proper brand management because firms' primary brand management goal is often thought to be increased market awareness of the brand, associated with strong brand identity. The broader definition of brand equity that we have adopted in this report implies, however, that a successful management of the brand assets must involve more than just advertising and consider all the aspects of product strategy and marketing mix. This implies, among other things, that communications between firm and consumers must be designed to enhance brand equity by improving consumers' perceptions of the firm's credibility to deliver what is promised (Erdem and Swait 1998).

Further research is needed on the issue of consumer learning in the presence of brands to guide brand managers through the process of defining long-term brand management strategies. Existing research makes us realize that knowledge of consumer dynamic choice processes are integral to creating a strong brand. Brand extension research suggests that

brands should extend to product categories where the brand's unique association is relevant (Broniarczyk and Alba 1994b). Co-branding research suggests that one mechanism for a brand to maintain a consistent positioning and broaden its appeal is to partner with another that possesses associations on which the first brand fares poorly (Park, Jun, and Shocker 1996). Many of the same issues that affect the transfer of brand benefits to line extensions and brand associations (e.g. co-branding) also affect the branding decisions of merging institutions. "Which brand do we go with?" is a question often heard in firms going through mergers. Everyone realizes this is an essential question, but there is little theoretical or empirical research to guide decision making in this area.

Approaches to brand equity measurement that are choice-based (see Section 4) have shown the feasibility and usefulness of measuring consumer-based brand equity in monetary terms. However, they do beg the question of calculating the dollar value of umbrella brands or of multiple products under a portfolio of brands. Research is needed into the mechanisms that govern the aggregation of brand equity across products and/or brands.

5.2. The Equity of Store Brands

In many markets, private labels or store brands have become a dominant feature. For a discussion of factors behind the emergence and success of store brands in Western markets see Quelch and Harding (1996) and Steenkamp and Dekimpe (1997). In spite of the emergence and growing importance of store brands, academic research has largely concentrated on the equity of national brands. However, a number of important differences between national brands and store brands require that further and separate attention be given to the latter. First, apart from being a source of profitability, carrying a store brand in a particular category also strengthens the retailer's negotiating position vis-à-vis manufacturers. Second, store brands can be used to encourage consumer loyalty to the chain rather than to national brands. Third, the marketing of store brands has been done differently than that of national brands (e.g. advertising for store brands, although substantial and increasing, is still much less than for national brands).

Below, we identify a number of key issues which we believe require future research. 1) How does store brand positioning (e.g., reasonable quality/low price, high quality/reasonable price, premium quality/premium pricing) impact the ability of a retail chain to use the store brand as a means to differentiate itself from other chains and thus build store equity? 2) Should a consistent positioning be used for all product categories? If so, is this desirable as the competitive context differs across categories? What are the implications of the consistency of the positioning (or lack of it) across different product categories for store credibility and store equity? 3) Several studies have documented the asymmetry in effects of price promotions: price cuts by national brands hurt store brand sales more than vice versa (Allenby and Rossi 1991, Blattberg and Wisniewski 1989, Sethuraman 1995). Since a key competitive weapon of many store brands is its price, price promotions may even strengthen their value positioning. Research is needed on the long-term effects of price promotions on the equity of store brands and national brands. 4) To what extent

are findings of research on store brands generalizable across countries? Much of existing research has been conducted in the US. However, the position of store brands is much stronger in other Western countries. Known differences between these markets indicate that findings of research conducted in the US may be less applicable to other Western countries. Indeed, we believe that the relative success of store brands in Europe *vis à vis* their counter parts in U.S. can at least be partially explained by answering some of the questions we raised above. For example, it can be said that “store brands” as a category delivers more clear and credible information (similarly, it evokes more favorable and unique associations) in Europe than it does in U.S.

5.3. Brand Equity on the Internet

There is an ongoing a debate among practitioners and business academics about whether brands will retain their importance on the Internet. In Figure 1 we suggested that brands affect consumer decision rules, choice set formation, perceptions, tastes, perceived risk and information costs; we surmise that each is also differentially affected by the changes that result from the Internet.

To understand the effect of the Internet on these different roles of brands, we need to understand the differences between the Internet and conventional communications, sales and distribution channels. The Internet 1) changes the cost for firms to communicate with their customers, which includes lowering the costs of providing consumers with product information and providing firms with opportunities to do market research at lower cost; 2) it changes the costs for customers to communicate with firms and other consumers by lowering consumers’ costs of searching for product information and of participating in discussions with other consumers, and by making it easier for consumers to communicate their preferences to firms; 3) it also changes the form of communication between customers and firms by allowing consumers, for example, to interact about the product both with the firm and with other product users; and 4) the Internet enhances transactional efficiencies (e.g. the cost of executing a trade through the Internet in the brokerage industry is an order of magnitude cheaper than through traditional brokers).

We now illustrate how the Internet differentially affects various roles of brands. We consider a brand in its role of 1) reducing perceived risk and 2) introducing and keeping a product in consumers’ consideration set. First, the Internet lowers consumers’ costs of searching for product information. As a result, we expect consumers to be better informed about the quality of search goods. Such consumers may no longer require a brand as a guarantee for product quality since they can assess quality before purchasing the product. Consequently, we expect that for search goods the Internet reduces the importance of a brand in its role of reducing perceived risk. For experience goods, i.e. where the quality of the product can only assessed after consumption of the product, we expect that the Internet will not reduce (and may well increase) the importance of a brand in its role of reducing perceived risk.

Now think about a brand in its role of introducing and keeping a product in consumers’ consideration sets. The Internet is widely considered a poor medium for creating product

awareness. This is partly due to the low concentration of web sites on the Internet (even the most frequented web sites account for only a few percent of Internet traffic), but primarily because the Internet changes the form of communication between firms and consumers. On the Internet consumers are always actively engaged with content and thus rarely focus exclusively on an advertising message. Additionally, in comparison with the physical world, in cyberspace consumers are less exposed to sets of products as a basis for browsing. Instead, they are more frequently required to engage in search. This makes it more likely that the Internet will increase the importance of brands in their role of introducing and keeping a product in consumers' consideration set.

6. An Agenda for Brand Equity Research

We have made a first attempt to draw the links between consumer learning, consumer brand choice processes and brand equity. In particular, we explored the implications of various approaches to brand equity, such as cognitive psychology and information economics, on the various stages of consumer choice processes. More specifically, we explored the differential impact brands have on consumer product consideration, attribute perception, tastes, decision rule formation and consumer perceived risk and information costs. We also discussed the implications of the impact of brands on consumer choice processes for brand equity measurement and management. In this context, we stressed the importance of understanding the process by which consumers learn about brands and how these processes can be modeled and captured in measurement models. Finally, we also briefly explored the rise of store brands and its implication for "brand equity", as well as the implications of the Internet for the different roles brands play.

There are many avenues for future research. First, both information economics and cognitive psychological approaches can be integrated to explore several issues, such as how consumers decode signals sent by firms. Explicit attention to information asymmetries in the market place, along with a detailed analysis of consumer cognitive psychological processes, would enhance our understanding of the links between consumer learning, consumer choice and brand equity. Additionally, a holistic consumer-based brand equity measurement in the context of a choice theoretic framework can be accomplished by the use of dynamic structural models of consumer choice processes. This will require special attention to be paid to learning theories in consumer research and flexibility in the modeling approach to capture effects conjectured in the consumer research literature.

In the context of brand equity measurement, there is also a need to develop a link between consumer-based brand equity and brand equity to the firm or the outcomes of consumer-based brand equity. More specifically, a comprehensive measurement approach is needed to link the two constructs with the umbrella of a general market performance model.

In regard to brand equity management, we have called for further research into store brands and the impact of the Internet on brand equity. A more detailed set of recommended research topics on store brands was presented and discussed in Section 5, but at a general

level we sense the need for extending current theoretical developments in brand equity and its measurement into the complex realm of store brand development and its relationship to chain brands. With respect to the Internet, we have argued that it is less likely that it will have any one given effect on the importance of brands and their value to consumers. Instead, the Internet will affect brands depending on the role that these brands fulfill. We have suggested the key roles that brands play and listed some of the changes in marketing variables that we expect to result from the Internet. A systematic analysis of how these changes affect each role of a brand should provide testable hypotheses about when and how the Internet changes the importance of brands and, as a result, their brand equity.

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