

Creating New Brand Names: Effects of Relevance, Connotation, and Pronunciation

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Field research and a laboratory study were conducted to empirically examine the effects of brand relevance, connotation, and pronunciation on consumers' preferences for new brand names. The context theory of memory retrieval and the simplicity principle provided the foundation for our research hypotheses. In both cases, study results supported the main effects of relevance, connotation, and pronunciation of brand names on consumers' brand preference. In addition, results showed that the contribution of connotation will be attenuated if the brand name is difficult to pronounce.

WHEN A COMPANY DECIDES on a brand name for a new product or service, it establishes the foundation of the brand's image (Kohli and LaBahn, 1997). The selection of the proper brand name is one of the most vital marketing decisions an organization will make because it is typically the centerpiece of introductory marketing programs (Keller, 1993; Lee and Ang, 2003). While there is little doubt the brand name is an integral piece of an organization, its precise contribution to the organization is usually difficult to quantify. Indeed organizations are often befuddled when attempting to understand the incremental utility or value added to a product by its brand name (Farquhar, Han, and Ijiri, 1991; Park and Srinivasan, 1994; Yoo, Donthu, and Lee, 2000). But the potential potency of a brand name is undeniable, as evidenced from John Stuart, former Chairman of Quaker Oats Ltd.: "If the business were split up, I would take the brands, trademarks, and goodwill, and you could have all the bricks and mortar—and I would fare better than you" (Dyson, Farr, and Hollis, 1996). This view is further corroborated by several recent financial studies which found that firms with certain names (e.g., easy pronunciation or better sounding) outperform firms with names otherwise in the stock market, and such effect is robust even after controlling firm

size, industry, growth opportunity, profitability, and firm age (Alter and Oppenheimer, 2006; Howe and Xing, 2006).

Marketers must be particularly concerned with selecting a brand name because it is the most difficult brand element for them to subsequently change due to its close tie to the product or service in the minds of consumers (Keller, Heckler, and Houston, 1998; Klink, 2001). Thus, brand names are often systematically researched before being chosen. Creating a brand name is typically a daunting task. Fox (2002) noted that most of the challenges for creating and promoting new brands are the same across industries. Some of the challenges include keeping it simple, making it easy to pronounce, making it memorable, gaining legal clearance, making sure that there are no negative connotations (in any language), and being distinctive. He offered additional insight into the future of branding trends: brand names will sound more technical; more brand names will start with an "X" or a vowel because they will be easier to register (i.e., legally clear) and, ideally, will be distinctive; more brand names will be contrived; generic descriptors will become more important, given more coined names, which often need clarification; more attention will be devoted to logos to help distinguish a brand from competition; and keeping it simple will still apply.

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By recognizing the importance of the brand name in new-product development, more companies are spending substantial resources in creating effective brand names (Miller, 1999). Many researchers have also devoted efforts to delineating the characteristics, functions, and principles of effective brands names (e.g., Peterson and Ross, 1972; Zinkhan and Martin, 1987). However, most of this research has been normative and empirical testing of these principles is scarce. Aiming to fill this gap, this research attempts to advance the literature by empirically examining the effects of relevance, connotation, and pronunciation on consumers' preference for new brand names.

LITERATURE REVIEW

Meanings of brand

What is a brand? What is in a brand name? Questions like these arise as a significant variety of terms relating to brand (e.g., brand equity, brand management) frequent the marketing as well as other associated literatures (Tybout and Carpenter, 2001). Using a method of historical analysis that is theoretically grounded in the disciplines of philology, poetics, rhetoric, and the philosophy of science, Stern (2006) proposes a scheme that describes the meaning of a brand based on a quadripartite set of dichotomies: the nature of brand as literal and metaphoric, its function as entity and process, its locus as physical and mental, and its valence as positive and negative. This multidimen-

sion scheme, together with the information theory, provides a useful theoretical approach to developing brand names for products.

Information theory was first presented in 1949 (Shannon and Weaver, 1949). It is a mathematical approach to studying communication and describes information as a probabilistic concept. Essentially, the information of an object can be regarded as the amount of uncertainty reduced by presenting the object (Brockett et al., 1995; Bruner, 1984). Applying this theory to the branding context, a brand's value rests on its ability to reduce consumer's uncertainty about product performance, the more the better, which is consistent with the findings in the marketing literature (e.g., Hoyer and Brown, 1990; Keller, 1993). Integrating Stern's (2006) classification scheme and the information theory, a good brand name would embody information along one or more of the four dimensions so as to provide useful information to reduce consumer uncertainty in brand choices. Past research has shown that brand's uncertainty reduction effect exists not only in the absence of any other product cues, but also even after product trials (e.g., Klink, 2000; Srinivasan and Till, 2002).

Effective brand names

Albeit its importance, research examining properties of effective brand names is limited (Klink, 2001). One of the initial studies took place more than 30 years ago when Peterson and Ross (1972) investigated

whether specific fabricated names were more readily identified with certain product categories. They concluded that one-syllable words and plural forms are more "remindful" of cereal, but singular word forms are associated more with laundry detergent. This early study triggered an interest in brand names that have looked at various issues associated with branding. Oftentimes studies examine the relationship between brand names, awareness, and brand equity because the name of a brand is often its core indicator (Cobb-Walgren, Ruble, and Donthu, 1995; Louviere and Johnson, 1988; MacLachlan and Mulhern, 1991; Sharkey, 1989; Washburn and Plank, 2002; Yovovich, 1988). While effective brand names can enhance awareness and create a favorable image for a product, ineffective brand names can severely hinder a product's success. For example, one of the most notorious failures in the automotive history, the Pord Edsel, has been attributed to a poor brand name (Klink, 2001).

A brand name identifies the source of a product and differentiates the product from its competitors' products. Thus, an effective brand can enhance demand for a product. First, brand awareness helps consumers identify products with popular brand names. Furthermore, brand reputation can serve as a proxy for quality when consumers have insufficient information about a product's quality. Sullivan (1998) examined how the image of an automobile brand affects demand. She looked specifically at twin brands—products made in the same plant and having essentially the same physical attributes, but different brand names—and concluded that consumers are willing to spend extra for more prestigious brand names when products are the same. For example, many consumers are willing to pay more for a Mitsubishi than a physically identical Dodge. However, twins are not perceived as perfect substitutes due to pricing differences.

One of the foremost contemporary authorities on brand management and specifically brand naming is Kevin Keller, author of *Strategic Brand Management* (2003). Keller offered some recommendations for choosing a brand name. He suggested that brand names should be easy to pronounce to obtain important repeated word-of-mouth exposure that helps to build strong memory links. This affects entry into consideration sets and the willingness of consumers to order or request the brand orally. Rather than risk the embarrassment of mispronouncing a hard-to-pronounce name, consumers may decide to avoid pronouncing it altogether. Keller further recommends that brand names should be familiar and meaningful so that individuals can tap into existing knowledge structures. He advocates that to help establish strong brand-category links and aid brand recall, the brand name should be chosen to suggest the product or service category, such as Juicyjuice 100 percent fruit juices and Ticketron ticket selling service. Keller also recommends that brand names be different, distinctive, and unusual. The distinctiveness of a brand name is a function of its inherent uniqueness as well as its uniqueness in the context of other competing brands in the product category. Finally, Keller recommends that the brand name may be chosen to reinforce an important attribute or benefit association that comprises its product positioning (e.g., DieHard batteries, Mop 'N Glow floor wax, Cling Free static buildup remover). This is encouraged because the brand name is a shortened form of communication and thus explicit and implicit meanings that consumers extract from the name can be crucial to success of the product or service.

Robertson (1989) advocates that brand name should be assessed on two basic dimensions: the inherent ability of the name to be encoded into, retained in, and

retrieved from memory easily, and the degree to which the name supports or enhances the planned strategic positioning or image of the product. Like Keller, Robertson notes that there are several brand characteristics that can increase the possibility of recall by consumers. He advocates that a brand name should be a verbal or sound associate of its product class. It should elicit a mental image. Using an emotional word as a brand name is advocated when the product category is an emotional one. A brand name should make use of the repetitive sounds generated by alliteration, assonance, consonance, rhyme, and rhythm. In addition, a brand name should make use of morphemes (i.e., the smallest unit that relates sound and meaning) and phonemes (i.e., abstract categories that allow us to group together subsets of speech sounds). Others have gone a step further by recommending that marketers assign semantic meaning by placing entire words or morphemes in the brand name (Keller, Heckler, and Houston, 1998). However, use of words and morphemes may detract from the distinctiveness of the name (Klink, 2001).

Many of the aforementioned studies have been normative in nature (Kohli and LaBahn, 1997). They are often derived from advertising agency experiences. Experimental studies are needed to test these principles.

Memory and the context theory of memory retrieval

Memory is a reconstructive act in which the act of remembering is activated by some form of cue. This means that an initial cue about something leads to the recollection of more specific memories. Consider a question regarding the last clothes you purchased in a store. You may retrieve information about what you typically initially do when entering a store that will lead to recalling more detailed

memories. Besides the basic reconstructive nature of memory, another important property of memory is its reliance on "schema" (or scripts)—a model of the world based on past experience that can be used as a basis for remembering events. From the previous scenario, general knowledge about what tends to happen in stores provides a framework within which one could retrieve specific facts. Schema reduces the amount of information that an individual needs to store away. So the same general schema about stores can be used when recalling information about different stores. Hence, an individual only needs to store away those aspects of a clothes shopping experience that differentiate it from other clothes shopping experiences (Parkin, 1999).

Past experience is only part of the story when explaining memory retrieval. People tend to remember schema-relevant information and forget irrelevant information (Hastie, 1981). The context of memory retrieval is consistent with this claim. This theory maintains that retrieval of information from memory is influenced by the context in which the retrieval takes place. McNamara and Diwadkar (1996) support this notion and point out that in many cognitive tasks, ranging from naming to item recognition, responses are affected by context. They advocate that people recognize a word faster when it is preceded by a word from the same sentence or proposition than when it is preceded by a word from a different sentence or proposition. This is referred to as "associative priming." They concluded that "... retrieval of information from memory is influenced by the context in which the retrieval takes place. The archetype of contextual effects in memory retrieval may be associative priming" (McNamara and Diwadkar, 1996, p. 891).

To understand the context of memory retrieval, it is necessary to explain the

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basic cognitive model. Encoding is the process of taking in information and creating a mental representation of it. The exact format of the representation is referred to as "memory code." The propositional model is the best developed model of memory structure. It assumes that events can be stored as a series of propositions (or schemas). Each proposition consists of a set of nodes and links, in which each node is an idea and each link is the relation between ideas. An important feature of the proposition model of human memory is that they are associative—most refer to associations between nodes linked to other nodes (Fiske and Taylor, 1991). So when the context theory of memory retrieval implies that retrieval of information is influenced by the context in which the retrieval takes place, it is applying the associative aspect of nodes. Thus, association permits individuals to respond quicker to or recognize easily a stimulus after being primed.

Based on this memory retrieval research, the current study empirically examines the effects of relevance, connotation, and pronunciation as well as their interactive effects on consumers' preference of new brand names. The study of these elements is also in accord with Stern's (2006) four-dimensional classification scheme in that relevance and connotation covers the nature, locus, and valence dimensions. As implied by the information theory, a brand name that covers three dimensions is likely to provide a greater amount of informa-

tion than a simple name that covers only one or two dimensions.

RESEARCH HYPOTHESES

Relevance of brand name

When selecting a brand name, a key consideration is the extent to which it conveys descriptive information (Keller, Heckler, and Houston, 1998). In line with this proposition, *relevance* is defined as the degree to which a brand name suggests descriptive information of the product/service category. For example, Burger King holds high relevance while Vincent's holds low relevance when used as a brand name for a fast food restaurant. In reality, relevance is more of a degree along a continuum rather than a matter of dichotomy. Also, relevance in a new brand name may be increased through marketing communications. For example, McDonald's as a name denoted little about food or restaurant when the food giant just started its business. But now, the name is almost synonymous to fast food. Berry, Lefkowitz, and Clark (1988) offered some examples of important brand names in the services sector—Ticketron suggests both the nature of the service and its electronic means of delivery; Humana suggests a human touch, personalization, and sensitivity; and Visa implies international access for its worldwide financial service.

The context theory of memory retrieval maintains that retrieval of information from memory is influenced by the context in which the retrieval takes place (Fiske and

Taylor, 1991). People tend to respond faster to or recognize easily a stimulus after being primed by a related concept. Particularly, McNamara and Diwadkar (1996) found that people's responses to a stimulus are facilitated by the stimulus' associations with contextual elements regardless of properties of those contextual elements (e.g., low familiarity). Accordingly, a brand name with high relevance might establish a natural association between the brand name and the product/service category. Such an association facilitates more encoding and processing of the brand name, which likely leads to positive evaluation of the brand name for the focal product/service. Therefore, it is hypothesized:

- HI: Relevance of new brand name to product category contributes to brand preference.

Connotation of brand name

Besides relevance, an important aspect of a brand name is the extent to which the brand name connotes or conveys relevant attribute or benefit information in a particular product context. Keller, Heckler, and Houston (1998) defined this as the suggestiveness of a brand name. For example, PicturePerfect is highly suggestive while Watson is low suggestive as a brand name for television. It is found that compared to nonsuggestive brand names, suggestive brand names lead to greater recall of advertised benefit claims that are consistent in meaning, but lower recall of new unrelated benefit claims (Keller, Heckler, and Houston, 1998). The inhibition effect in the latter case might come from the high salience of the brand benefit in the suggestive brand name. As indicated by the authors, there is a continuum of the suggestiveness of a brand name. In reality, more brand names are with some degree of suggestiveness yet not too specific about product attributes or benefits,

for example, Crown for tennis racquets. With the natural ramification of a crown, consumers might infer good material, top quality, and high competitiveness of the brand. Inferences can also be made with, for example, the Federal Express name. According to Berry, Lefkowitz, and Clark (1988), "Express delineates the nature and speed of the service, and Federal suggests a far-flung, perhaps governmentally sanctioned enterprise" (p. 28). Yet there is nothing too specific in the name. We define such a covert implication as *connotation* in a brand name. Formally, it refers to the degree to which a brand name implies product image to consumers. It varies along a continuum from negative to positive. Connotation relates to, but also differs from, relevance. The latter is more of a descriptive nature, while the former is more of a persuasive nature.

Products convey a wide range of connotations to consumers and product appeal can be heightened by choosing a name that conveys a desirable subset of these connotations. Mehrabian and de Wetter (1987) supported their theoretical model by finding that differences between the ideal set of emotional connotations for a product (e.g., pleasure, arousal, dominance) and the connotations actually implied by a given product name could significantly predict product preferences.

Brand names represent the rich configurations of symbols and meanings. Meyers-Levy (1989) refers to such groups of concepts meaningfully related to a target word or brand name as brand association set. Research in memory retrieval has shown that this association set is automatically activated when people are exposed to a target word, and what is activated can become part of what is encoded thus enhancing memory (e.g., Nelson, 1979; Nelson, Bajo, and Casanueva, 1985). Therefore, a brand name with high connotation (no matter positive or negative) may at-

tract more attention than one with low connotation because of its rich associations. Further, consumers may evaluate favorably a brand name with positive connotation because of the positive concepts or images in mind activated through its association set. This is consistent with findings on company logos. It was revealed that positive affective reactions are critical to a logo's success because affect can transfer from the logo to the product or company. For example, Borden's Elsie enhanced the Borden image by 15 percent (Henderson and Cote, 1998). On the contrary, consumers may evaluate poorly a brand name with negative connotation. The classic "Nova" (meaning "no go" in Spanish) automobile case is a good example for the latter scenario. Therefore, the following hypothesis is offered:

- H2: Positive connotation of new brand name contributes to brand preference.

Pronunciation of brand name

The linguistic component is considered as the essence in branding that directly affects the function of brand names (Huang and Chan, 1997). An important dimension of this component is the pronunciation of the word. International research has looked at the impact of cultural stereotypes on a brand name's pronunciation. Leclerc, Schmitt, and Dube-Rioux (1989) found that the liking of a brand name and the perception of a product change as a function of pronouncing the brand name in different languages. While the relationship between brand names and cultural concerns is important, the majority of branding researchers have set forth guidance that simply calls for brand names with easy pronunciation (e.g., Charmason, 1988; Kohli and LaBahn, 1997). Researchers analyzed the world's most powerful brand names and found that

they share a common syllable structure that leads to ease of pronunciation of the word (Kotler and Armstrong, 1997).

When a brand is easy to pronounce, it likely facilitates a sense of familiarity with the word and increases consumers' intention to further process/retrieve the information related to the word in memory. On the contrary, a word that is difficult to pronounce may demand extra efforts to process or retrieve in an individual's mind. It may even demand a distinctive encoding scheme (Meyers-Levy, 1989). Under a low-involvement situation, such extra effort may simply lead consumers to ignoring the word or bringing about unfavorable evaluation. In most purchase situations, brand awareness occurs under low involvement. Thus, an easy pronunciation is likely to result in greater preference of the brand name than a difficult pronunciation.

- H3: Easy pronunciation of a new brand name contributes to brand preference.

Interaction between relevance and connotation

According to context theory of memory retrieval, a brand name with high relevance facilitates more encoding and processing of the brand name because of the natural association between the brand name and the product category. When the brand name also has positive connotation, such encoding process might be enhanced. As a result, consumers might feel easier to add and more willing to accept the new link between the positive image and the product category. For example, when Juicyjuice is used as a brand name for fruit juice, consumers' memory of this Juice brand might be enhanced because of the image of fresh and juicy fruits. Consequently, consumers might be more willing to link this brand name and juice products.

On the contrary, when there *is a* negative connotation, the encoding of the brand name might be inhibited because of the negative mind status. Consumers might feel the resistance in their minds *to* link the brand name with the focal products or they may intentionally disregard the link so as to avoid the negative image. For example, suppose Waxyjuice is used as a brand name for a new fruit juice. The image of chewing wax might make most consumers frown when thinking of drinking a fruit juice. Thus, consumers may either feel hard to link Waxyjuice with a good juice product or try to disregard this brand name even if they have remembered it.

Of course, in reality, such cases may be rare. More likely is that the connotation of brand name is neutral. Consumers' encoding of brand names might just fall in between the previous two situations. Therefore, it is hypothesized that brand name connotation will interact with relevance in affecting consumers' brand name preference. When the former is positive, the latter's effect will be enhanced.

H4: Positive connotation enhances the effect of relevance on brand preference.

Interaction between relevance and pronunciation

Chater (1999) advocated that people's cognitive system imposes patterns on the world according to the simplicity principle. This principle states that individuals select the pattern that provides the briefest representation of the available information. In its simplest terms, individuals choose the path of least resistance.

The simplicity principle complements the propositional model of memory with regard to the encoding of information. The simplicity principle maintains that a perceiver of information seeks out a pat-

tern that allows for the simplest encoding of the data. The propositional model states that events are stored in memory in a series of propositions, and these are comprised of a series of nodes and links (or ideas and relationships, respectively). Thus, it seems that simple word structures will be preferred that allow for the easy encoding of a relationship between the name and the product category. Conversely, complex names will be less readily encoded and less preferred, even if the name itself contains relevant information about the product category. Therefore:

H5: Difficult pronunciation reduces the effect of relevance on brand preference.

Interaction between connotation and pronunciation

Connotation provides information, albeit more subtle and persuasive than relevance, to help an individual decide how to act. According to the simplicity principle, individuals prefer patterns that are simple, but also enable prediction, explanation, and understanding. Complex names may interfere with the encoding process and therefore reduce the individual's preference for those patterns. For example, the automotive brand Acura may have proved difficult to pronounce for some consumers. These consumers may have initially failed to encode the connotation of "precision" or "accuracy," and lacking this decision-making information, viewed the name unfavorably. Therefore:

H6: Difficult pronunciation reduces the effect of connotation on brand preference.

METHODOLOGY

Two studies were included to test the research hypotheses. The first one was a field study. Its data were provided by Ashton

Brand Group, an international brand consulting firm that assumed the brand name creation project for Vencor, a health-care organization. In the field study, there was no manipulation of the brand names. All variables were measured. The second study was a laboratory study. Data were collected from college students with soft drink as the focal product. In the laboratory study, an experiment was designed and all independent variables were manipulated.

STUDY 1

The first study tested consumers' preferences for various brand names. Through a series of executive interviews, brainstorm sessions, legal prescreening, focus group studies, and telephone surveys, six brand names were selected from over 400 potential names for the health-care organization. A final survey was then designed and data were collected through telephone interviews to further test these six names. The sample for the telephone interview was established through different sources. A list of employees, discharged patients, and current residents was provided by Vencor. In addition, adult children were qualified as expecting to be a decision maker for choosing a long-term health-care organization and having a family member over the age of 70 or they have already placed a family member in a long-term health-care organization. Doctors were selected if they had referred a patient to a long-term health-care organization within the past six months. Discharge agents were qualified if they held the title of "discharge agent" or performed similar work and had discharged a patient in the past four weeks. In total, 480 people participated in the study, including 150 employees, 100 adult children, 80 doctors, 50 discharge agents, 50 discharged patients, and 50 current residents. Responses from these individuals serve in the data analysis for the current research project. *

Brand names are virtual tattoos on products and services. They are part of the brand's image and are difficult to separate from a company's product or service once associated with it.

Questionnaire

Six brand names were included in the questionnaire, including Carowell, Bond, Merritan, Avacare, Cariel, and Kindred. During the telephone interview, a few screening questions were initially asked. Once qualified, respondents were told to provide opinions on some potential names for a company that is a long-term health-care organization that owns nursing homes and intensive care hospitals. Then a brand name was spelled to respondents who would be asked to pronounce the word, to provide the thoughts that came to mind when they heard the word, to classify whether the thought was positive, to indicate their preference for the brand name, and to tell whether the name reminded them of any other names in the marketplace. The same questions were asked about all six names to each respondent. To overcome any potential order effect, sequences of the six names were rotated for different respondents. At the end of the sixth brand name, respondents were asked to pick their most favorite and second favorite choices among the six names, and they were further probed to provide reasons for such choices. After that, respondents were thanked and dismissed. The entire interview process lasted approximately 10 minutes.

Measurement

Brand preference is the dependent variable, while relevance, connotation, and pronunciation are independent variables

in the study. As aforementioned, all of these variables were measured in this first study.

Brand preference in this context refers to consumers' likeness of a brand name for an organization that owns long-term acute care hospital and nursing facilities. It was measured by a four-item Likert scale (1 = poor to 5 = excellent), inquiring the implications of the various names. The four items include: "How well does this name suggest quality care?" "How well does this name suggest integrity?" "How well does this name suggest compassion?" and "Overall, how well do you think this name fits a long-term care organization?" The scale yields high-coefficient reliabilities across the six names, ranging from 0.92 to 0.96.

Relevance. During the telephone interview, after pronouncing the word, respondents were asked about what thoughts or images come to mind when they hear the name. As expected, respondents provided all kinds of thoughts ranging from "an old woman," "birds" to "health-care organization," "nursing home," to name just a few. These thoughts were coded as either health relevant (— 1) or irrelevant (— 0).

Connotation. During the telephone interview, after providing the thoughts that came to their mind, respondents were asked to indicate whether this thought or image is positive (= 1), neutral (= 2), or negative (= 3). In analysis, it was reverse

coded so that a higher score indicated more positive connotation.

Pronunciation. Respondents were asked to pronounce each brand word. Then their pronunciation was compared to the pre-determined standard for accuracy. The variable was coded as 1 if the pronunciation was correct, 2 if incorrect.

Researchers have been advocating the use of words that possess high relevance, good connotation, and easy pronunciation as brand names (e.g., Kohli and La-Bahn, 1997). Therefore, care was taken by the consulting firm to select words that possess relatively high relevance, good or neutral connotation, and easy pronunciation for most consumers. This appeared to be true in both connotation and pronunciation (see Table 1).

Results

Impact of respondent identity. To strengthen the generalizability of research findings, our sample consisted of people from a number of different groups (e.g., employees, patients, residents, etc.). However, these groups could have different experiences and mental associations regarding brand names, thus presenting a potential source of variation not controlled by the design. A one-way ANOVA was run to check whether respondent identity presented a confounding effect. Among the six brand names, one name (Kindred) showed a significant result ($F(5, 445) = 2.95, p = 0.01$). Post-hoc testing further indicated that out of 15 possible pair comparisons, only 2 were significant. In this sense, the chance of significance was much less than 5 percent (2.22 percent). Therefore, confounding effect of respondent identity was not deemed as a concern.

Hypothesis testing. Given that none of the independent variables was manipulated in the study and all measures are

TABLE 1
Descriptive Results in Study 1

Brand Names	Relevance		Connotation			Pronunciation		Brand Preference ^a		
	Relevant (%)	Irrelevant (%)	Positive (%)	Neutral (%)	Negative (%)	Correct (%)	Incorrect (%)	Mean	SD	Reliability
Carowell	35.8	64.2	41.9	37.9	20.2	83.5	16.5	3.02	1.14	0.92
Bond	5.2	94.8	28.5	36.0	35.4	98.1	1.9	2.29	1.14	0.93
Merritan	4.4	95.6	25.7	47.6	26.7	75.6	24.4	2.37	1.11	0.95
Avacare	49.6	50.4	51.6	33.8	14.6	82.5	17.5	3.19	1.15	0.94
Cariel	20.2	79.8	29.4	46.5	24.2	67.3	32.7	2.65	1.14	0.96
Kindred	9.1	90.9	64.5	23.5	12.0	93.8	6.2	3.44	1.14	0.95

^a On a 5-point Likert scale with 1 = poor to 5 = excellent.

meaningful on a continuum, multiple regression was deemed appropriate to analyze the data. Data across the six brand names were combined, leading to a sample size of 2880. Results for the regression were presented in Table 2.

It appears that the interaction between connotation and pronunciation is significant ($t = -1.63$, $p = 0.10$), following Pedhazur and Schmelkin's (1991) suggestion that a relatively larger α be used for tests of interactions in order to minimize Type

II error. To further examine this interaction, the relationship between brand preference and connotation was regressed for both of those with correct pronunciation and those with incorrect pronunciation. The standardized coefficient for the former is $\beta = 0.67$ ($t = 43.58$, $p = 0.00$) and that for the latter is $\beta = 0.61$ ($t = 16.65$, $p = 0.00$). Thus, in both cases, connotation has a positive effect on brand preference, supporting Hypothesis H2. Further, it is clear that the effect of connotation on

brand preference was relatively weaker for those who had incorrect pronunciation. This supports Hypothesis H6.

Neither the interaction between relevance and pronunciation nor that between relevance and connotation was significant. Thus, neither Hypothesis H4 nor H5 is supported. On the other hand, the main effect of relevance is significant ($\beta = 0.17$ ($t = 2.21$, $p = 0.03$), but the effect of pronunciation is not ($p = 0.42$). Therefore, Hypothesis H1 is supported while H3 is not.

Discussion

Results from our first study support the main effects of relevance and connotation of brand names on people's brand preference (Hypotheses H1 and H2). This corroborates the brand naming literature that advocates the use of brand names with high relevance and positive connotation. Further, although the main effect of pronunciation is not significant, study 1 provides evidence for the interaction between connotation and pronunciation (Hypothesis H6). Specifically, the contribution of connotation will be attenuated if the brand name is difficult to pronounce. This offers

TABLE 2
Regression Results in Study 1

I.V.	B	S.E.	t-value	Sig.
(Constant)	0.48	0.17	2.86	0.00
Relevance	0.51	0.23	2.21	0.03
Connotation	1.11	0.08	14.49	0.00
Pronunciation	0.11	0.13	0.80	0.42
Relevance × Connotation	-0.06	0.07	-0.87	0.39
Relevance × Pronunciation	-0.02	0.12	-0.20	0.85
Connotation × Pronunciation	-0.10	0.06	-1.63	0.10

Note: D.V. = Brand Preference and model $R^2 = 0.45$

When companies choose to deviate from creating brand names with high relevance, positive connotation, and easy pronunciation, it is likely that they will be forced to heavily promote their brands to overcome their brand names' anonymity and other shortcomings.

motivation to use easy-to-pronounce wordy as brand names. Given that study 1 is a field study in which research generalizability tends to be high, these findings are very encouraging.

Albeit the encouraging results, study 1 has a few limitations. First, all independent variables were measured rather than manipulated. Thus, what we have found were only correlations. We were inferring causality from such correlations. Strictly, we are unable to state for certainty that the three independent variables (relevance, connotation, and pronunciation) would really cause differentiations in brand preference. Second, all independent variables were measured by single-item measures that may pose reliability concerns. Third, the study was performed on a single organization (i.e., a health-care service). It would be important to investigate whether the results found in study 1 would also sustain in other product contexts. To address these research limitations and concerns, a second study, a laboratory study, was conducted.

STUDY 2

Experimental design

The second study is a 2 x 2 X 2 between subject experiments. Each of the three independent variables had two levels, namely high versus low relevance, positive versus neutral/negative connotation, and easy versus difficult pronunciation. It should be

noted that common sense suggests that brand names with overly negative connotation can rarely last in the marketplace. Thus, for the variable of connotation, neutral and negative connotations were combined to form one level (as compared to positive connotation). Further, each experiment cell included two brand names to minimize potential confounding effect of single word specificity. Thus, in total 16 different brand names were needed. To examine the generalizability of the study 1 results across different product context, soft drink was chosen in study 2 for its universal presence in the market.

Pretest

Given the above experimental design, it is highly important to choose the proper brand names for each cell. Based on the meaning of experimental cells, four brand names were initially selected by the authors for each cell, resulting in 32 different brand names. Then a pretest was run with four groups of college students, each group coming across eight brand names. College students were used because of sampling convenience as well as their frequent consumption of soft drinks. Respondents were asked about their perceptions on the ease to pronounce the brand name (to measure pronunciation), the thought going through their mind when seeing the word (to measure connotation), and their opinion about a company using the

name for their soft drink product (to measure relevance). Measurements used were similar to those in the final study, thus were described in detail there.

In total, 126 people participated in the pretest and the sample size for each cell ranged between 25 and 36. Results showed that for the 32 brand names, pronunciation ranged from 1.10 to 5.35 (7-point scale, 1 = very easy to 7 = very difficult), connotation ranged from 2.83 to 4.65 (7-point scale, 1 = very negative to 7 = very positive), and relevance ranged from 1.83 to 6.13 (7-point scale, 1 = not at all relevant to 7 = very relevant). After ranking and mean comparisons, 16 of the brand names were selected for the final study with each experimental cell including 2 names (see the Appendix for the names).

Final study

Sampling. A final study including the 16 chosen brand names was run with another four groups of college students, each coming across four names. Similar to the pretest, respondents were asked about their perceptions of pronunciation, connotation, and relevance for each brand name. Further, simple demographic information was obtained. In total, 118 usable responses were obtained, with sample size for each group ranging from 23 to 34. Of the 118 respondents, 42.7 percent were female, the vast majority of them (90 percent) were under 30 years old, and more than half (60.8 percent) were junior or senior students. In further analyses, these 118 responses across the four brand names were combined, resulting in a total sample size of 472.

Measures. As in study 1, pronunciation, connotation, and relevance were independent variables while brand preference was the dependent variable. Besides measuring the dependent variable, measurements were also developed for the independent

TABLE 3
Manipulation Check

Variables	Level 1			Level 2			Mean Comparison	
	N	Mean	SD	N	Mean	SD	F-value	Sig.
Pronunciation (level 1 = easy, level 2 = difficult)	235	1.83	1.21	236	4.41	1.76	343.28	0.00
Connotation (level 1 = neutral/negative, level 2 = positive)	225	3.58	1.24	243	3.96	1.48	9.02	0.00
Relevance (level 1 = low, level 2 = high)	234	2.38	1.44	236	5.38	1.68	435.14	0.00

Note: All means are on a 7-point scale

variables in order to ensure the validity of experimental manipulation. To overcome the measurement concerns in study 1, new measurement was developed for both the independent and dependent variables in this study.

Pronunciation was measured by a 2-item 7-point Likert scale. Respondents were asked to first pronounce the brand name twice in silence, and then respond "How easy/difficult is it to pronounce this word?" (1 = very easy to 7 = very difficult) and "Should your best friend be asked to pronounce this word, how much effort will it take him/her to pronounce it?" (1 - very little to 7 = a lot). The scale yielded a high coefficient reliability of 0.97.

Connotation was measured by a 2-item 7-point scale. Respondents were first asked to write down their thoughts as they initially read the word. Then they were asked to indicate the degree this thought was "favorable" and created a "warm feeling" (1 = not at all to 7 = very much). The scale yielded good reliability ($\alpha = 0.84$).

Relevance was measured by a 2-item 7-point scale. Respondents were asked that if a company uses (brand name) as a brand name for their product, "How likely is the product related to soft drinks?" (1 - not at all to 7 - very likely) and "To what degree does this brand name remind you of soft drink products?" (1 = not at all to

7 = very much). The scale yielded a high reliability ($\alpha = 0.95$).

Brand preference was measured by a 4-item 7-point Likert scale. Respondents were asked when they come across a soft drink named as (brand name) in the market, "how appealing," "how desirable," "how favorable," and "how likeable" does this product sound to them? (1 — not at all to 7 — very much). Again the scale yielded a very high coefficient reliability ($\alpha = 0.99$).

Manipulation check. To make sure that the independent variables were composed appropriately, a manipulation check was run through ANOVA. Results were exhibited in Table 3. It appears that all independent variables are significant across the manipulated levels and the differences are in the intended directions. Of the three variables, the manipulation on connotation seems to be relatively weaker than the other two variables. Nevertheless, it is also significant. Therefore, it is deemed that the manipulation was successful.

Results

Descriptive results of brand preference across the experimental cells were presented in Table 4. GLM Univariate procedure in SPSS was run to analyze the data and to test the research hypotheses. Re-

sults were exhibited in Table 5. It appears that the interaction between connotation and pronunciation is significant ($F = 31.17$, $p = 0.00$). Further examination (see Table 6) of the interaction shows that when pronunciation is easy, connotation has a positive effect on people's brand preference. However, when pronunciation is difficult, connotation has no effect on people's brand preference. This strongly supports Hypothesis H6, which states that difficult pronunciation attenuates the effect of connotation on brand preference.

Neither the interaction between relevance and connotation nor that between relevance and pronunciation is significant. Hence, Hypotheses H4 and H5 are not supported. As to the main effects, all three independent variables show significant effect (Table 5). An examination of Table 4 indicates that the mean differences are all as hypothesized; that is, higher relevance, positive connotation, and easy pronunciation lead to greater brand preference. This result supports Hypotheses H1, H2, and H3.

Discussion

Study 2 was intended to address the concerns in study 1 by using an improved experimental design, better measurements, and a different product category. It is very encouraging that the findings

TABLE 4
Descriptive Results in Study 2

Relevance ^a	Connotation ^b	Pronunciation ^c	Mean	Std. Deviation	N
0	0	1	2.16	1.43	55
		2	2.22	1.34	56
		Total	2.19	1.38	111
1	1	1	4.10	1.42	61
		2	2.45	1.41	61
		Total	3.28	1.63	122
Total	0	1	3.18	1.72	116
		2	2.34	1.38	117
		Total	2.76	1.61	233
1	0	1	3.77	1.84	57
		2	3.79	1.69	57
		Total	3.78	1.76	114
1	1	1	5.25	1.12	61
		2	3.90	1.55	61
		Total	4.57	1.51	122
Total	1	1	4.53	1.68	118
		2	3.85	1.61	118
		Total	4.19	1.68	236
Total	0	1	2.98	1.83	112
		2	3.01	1.71	113
		Total	3.00	1.77	225
1	1	1	4.67	1.40	122
		2	3.18	1.65	122
		Total	3.92	1.70	244
Total	1	1	3.86	1.82	234
		2	3.10	1.68	235
		Total	3.48	1.79	469

^a For relevance, 0 = low and 1 = high.

^b For connotation, 0 = neutral/negative and 1 = positive.

^c For pronunciation, 1 = easy and 2 = difficult.

in study 1 were virtually replicated in the second study. A few slight differences existed between the studies. In the first study, regarding the interaction between connotation and pronunciation, the effect of connotation is significant both

when pronunciation is easy and when pronunciation is difficult. And the effect is weaker in the latter situation. In study 2, the interaction is also significant. Further, the effect of connotation on brand preference has weakened so much that it

actually was not significant when the pronunciation is difficult. Such difference is probably caused by the variation of the difficulty in pronunciation between the two words. In study 1, all six words are relatively easy to pronounce as most people could properly articulate them (see Table 1). In contrast, in study 2 we deliberately included some difficult words that respondents had indicated a higher than average degree of difficulty to pronounce them. Thus, it is reasonable to believe that overall the difficult brand names in study 2 are more difficult to pronounce than those in study 1. Such added difficulty has further attenuated the effect of connotation on people's brand preference. Hence, the difference between the findings in study 1 and study 2 is logical.

GENERAL DISCUSSION

Brand names are virtual tattoos on products and services. They are part of the brand's image and are difficult to separate from a company's product or service once associated with it. In fact, some companies have been so effective with their brand names that they have become synonymous with their products. A few examples are Ace Bandage, Band-Aids, Chapstick, Jell-O, Kleenex, Q-Tips, Xerox, and Walkman. So marketers must pay careful attention to the naming of their products. In particular, the importance of how relevant a name is to a product category, what its name connotes, and how difficult it is to pronounce all contribute to consumer brand preference.

The two studies undertaken measured the importance of relevance, connotation, and pronunciation to brand preference. Past literature advocates the use of brand names with high relevance, positive connotation, and easy pronunciation (Keller, 2003; Keller, Heckler, and Houston, 1998; Klink, 2001; Robertson, 1989). Our findings empirically support these claims. So

TABLE 5
GLM Univariate Results in Study 2

Source	df	F-value	Sig.
(Constant)	1	2,531.74	0.00
Relevance	1	110.13	0.00
Connotation	1	46.78	0.00
Pronunciation	1	28.21	0.00
Relevance × Connotation	1	1.13	0.29
Relevance × Pronunciation	1	0.25	0.62
Connotation × Pronunciation	1	31.17	0.00

Note: D.V. = brand preference; model $R^2 = 0.32$.

TABLE 6
The Interaction between Connotation and Pronunciation

Pronunciation	Connotation	Mean	S.E.	F-value	Sig.
1	0	2.98	0.14	63.77	0.00
(Easy)	1	4.67	0.13		
2	0	3.01	0.14	0.57	0.45
(Difficult)	1	3.18	0.14		

first of all, we encourage marketing managers to include in their brand names descriptive information (i.e., relevance) of the product/service category. This is due to the belief that memory is influenced by the context in which the retrieval takes place. As noted earlier, consumers often respond quicker to or recognize easily a stimulus after being primed by a related concept (McNarnara and Diwadkar, 1996).

A second contribution from our research is that we encourage marketing managers to convey relevant attribute or benefit information in a particular context (i.e., connotation). Keller, Heckler, and Houston (1998) referred to this as a "suggestive brand" and found that it can aid recall of initially advertised benefit claims

that are consistent in meaning with the brand. They warned though that a suggestive brand name can lead to less recall of a subsequently advertised benefit claim unrelated in product meaning compared with a nonsuggestive brand name.

Lastly, in cases where the brand name is difficult to pronounce, we found that its meaning becomes less important. Therefore, we strongly advocate companies to use words that are easy to pronounce as brand names. These days though it is not so simple to describe a word as "easy" or "difficult" to pronounce due to the influx of foreigners into the United States and other countries. In the United States, Latinos are the fastest growing ethnic group and encompass 13 percent of the total

population—recently surpassing African Americans as the largest minority group. So companies may need to be geographically regionalized. That is, in certain parts of the United States, particular brand names may be more suitable than in other regions. Managers who want to elicit a country of origin may use morphemes that are often recognized as originating from the language intended as the country of origin (Harris, Strum, Klassen, and Bechtold, 1986). For example, Spanish-sounding names with special meanings may be effective along Southwestern states whereas Asian-sounding names may be more appropriate along the West Coast where there is a huge Asian contingent. Our study did not explore such possible variations with different subculture groups. Future research could certainly advance the literature in this avenue.

Our study has focused on the American market. However, the same rationale might be applied on a global scale, as specific brand names may be appropriate in particular world geographic regions. Future research is called to test the scope of our results. As noted by Zhang and Schmitt (2001), "Despite the importance of decisions regarding international brand names, research on brand naming has focused primarily on English name creation" (p. 313). Consider, for example, that Asians may find certain words easier to pronounce, more relevant, and associate a certain meaning different from Europeans or Latin Americans. Chan and Huang (2001) noted several differences between Chinese and English. Some of these differences include:

1. Chinese names are formed through compounding words from the same inventory of 3,500 frequently used Chinese words (or characters), while English names tend to be independent of its lexicon. *

2. Names in Chinese are mostly meaningful due to their origin of meaningful words. Thus, a Chinese name may be created by compounding words from the lexicon; the respective meanings of the chosen words are carefully examined. But English names are generally chosen or coined for the name's sake. Names in English, as terms of reference, tend to lack significance or meaning and to most users they are semantically opaque.
3. Chinese names must take tones into consideration. This is not the case with English names. Chinese prefer names that can be pronounced in a full, deep sound.

Chan and Huang (2001) listed four general principles they found to be governing Chinese branding: there is a strong preference for two-syllable brands; the compounding structure should follow the pattern of modifier-noun; the second syllable of a compound brand should be high-toned; and the compound brand should have a positive connotation. To deal with these concerns, conceptual frameworks have been created for managing brand name creation in international, multi-lingual markets such as China (Zhang and Schmitt, 2001).

When companies choose to deviate from creating brand names with high relevance, positive connotation, and easy pronunciation, it is likely that they will be forced to heavily promote their brands to overcome their brand names' anonymity and other shortcomings. Wendy's, Ralph Lauren, Rolex, and Disney are just a few examples of companies that have heavily promoted their products and created reputable brand names that have taken on meanings of their own.

While we encourage marketers to consider the relevance, connotation, and pronunciation of their brand names, our findings are not a recipe for guaranteed

success. Certainly select companies have succeeded with names that are not relevant to their industry (e.g., McDonald's), connote something less than positive (e.g., series of books ". . . for Dummies"), and are difficult to pronounce (Volkswagen's Touareg), but these products require vast resources to communicate their benefits to their markets. And even then there is no assurance that poor brand naming can be overcome.

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APPENDIX

I. Brand Names in Pretest

Easy Pronunciation				Difficult Pronunciation			
Positive Connotation		Neutral/Negative Connotation		Positive Connotation		Neutral/Negative Connotation	
High Relevance	Low Relevance	High Relevance	Low Relevance	High Relevance	Low Relevance	High Relevance	Low Relevance
Afresh	Rhodohealth	Vibra Soda	Acclaim	Stronglayo Quencher	Wellvellyn	Aquafizzler	Coaxil
Quencher	Thrust	Brisk Cola	Karma	Merryonsoda	Numero Uno	Cituricola	Inaugurate
Lime Squeeze	Blast	Slurp 'n Burp	Select	Mister Blizter	Kindermoria	Coloscola	Insustigator
Arctic Mist	Superior	Sipper	Chartwell	Hulky Gulpy	Machomona	Consumcherry	Mitzuvar

II. Brand Names in Final Study

Easy Pronunciation				Difficult Pronunciation			
Positive Connotation		Neutral/Negative Connotation		Positive Connotation		Neutral/Negative Connotation	
High Relevance	Low Relevance	High Relevance	Low Relevance	High Relevance	Low Relevance	High Relevance	Low Relevance
Quencher	Karma	Slurp 'n Burp	Chartwell	Merryonsoda	Kindermoria	Cituricola	Machomona
Lime Squeeze	Superior	Sipper	Rhodohealth	Stronglayo Quencher	Wellvellyn	Coloscola	Mitzuvar