Brand Association Transfers between Corporate and Product Building Material Brands: Perceptions of Homebuilders

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Abstract

This article focuses on branding in the forest products industry. It examines corporate and product cobranding. Traditionally, in the forest products industry, uses of new industrial product brands have been promoted in a cobranding context with their better-known corporate brands. This research, using data collected from residential homebuilders in the northwestern United States in the spring and summer of 2007, explores the brand associations of quality, leadership, and environmental stewardship related to corporate and product brands in this cobranding context. Specifically, the research explores the transfer of the noted brand associations from the corporate brand to the product brand as well as the transfer of these brand associations from the product brand to the corporate brand. Resulting analysis of the data noted that stronger rated brands significantly improve ratings of weaker brands generally, while weaker brands do not significantly devalue stronger brands in the cobranding context.

Application of brand strategy is growing in the forest products industry. Over the past 15 years, wood products have transitioned from commodities, differentiated only by price, to branded industrial products. Recognizing the power of branding, firms selling wood products are increasingly turning to branded products as part of their marketing strategy. A review of corporate marketing campaigns in recent years demonstrates how some wood products are cobranded with their better-known parent brand. Examples include trademark brands GP Plytanium and LP TechShield.

Brand development continues as a vehicle to increase market share and price premiums. Improved understanding of branding and the use of cobrands allows for more sophisticated marketing applications at the strategic, objective, and tactical levels. This article presents a new and important understanding of the transfer of brand associations between corporate brands and product brands in the forest products industry. Understanding these brand concepts is important because as firms transition their structural and architectural wood products from commodities to branded products, they need to improve their understanding of how brands interact, specifically how corporate and product brand associations transfer from one to another.

The Brand

A brand is a name, symbol, design, or a combination of these that identifies a product or service of a company or organization (Aaker 1991, Keller 1993, Klink 2003). Broader brand definitions describe brands as including some or all of the following elements: a product; a basic brand, which includes brand name, design, quality, and other features; and an augmented brand, which includes credit terms, service, installation, delivery, and warranties (Levitt 1983; Aaker 1995, 1996; Kotler and Armstrong 1996; Aaker and Joachimsthaler 2000; Keller 2002).

Brands and their brand marks (logos) are used by firms to communicate corporate or product attributes and create associations and expectations around a product or line of products (Dawar 1994, Desai and Keller 2002). Brands and recognizable brand marks may grow to be powerful marketing tools, according to Keller, since the cognitive effect is powerful and includes the emotions, beliefs, and attitudes of the consumer (Keller 2002, Webster and Keller 2004).

To the buyer, brands serve to identify the sources of the product, assign responsibility to the product maker, reduce risk and search-cost, signal a promise with the seller or producer, and symbolize the product's quality. To the manufacturer, according to Keller (2002), brands are a

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means to "provide valuable reassurance to business customers who may be putting their company's fate ... on the line." In 1980, goodwill made up about 40 percent of the value of the firms on the Financial Times Stock Exchange 100. By 2002, the figure had grown to 70 percent (Clifton 2002). Brands are the prevailing and dominant means of value formation for the firm (Clifton 2002).

Brand associations convey information about how the product meets customers' requirements. Brand associations are created and used to differentiate brands (Aaker 1991). These associations assist buyers in making decisions and in creating positive feelings and attitudes.

It is known that organizational buyers, the buyers of industrial products, do evaluate product characteristics beyond price (Aaker 1991). Business-to-business buyers have demonstrated a willingness-to-pay price premiums for factors encompassing strong brands including shorter delivery time, ability to work with prominent suppliers, large selection of product offerings, decreases in operation costs, lower installation costs, and overall improved material quality (De Chernatony and McDonald 2003). Brands do play an important role in communication of product differentiations to the industrial buyer (McQuiston 2004).

While cobranding, two brand marks combined, has received little attention in the industrial branding literature, cobranding, brand alliances, composite branding, and ingredient branding have been studied and extensively described in consumer marketing literature. Although there is no universally accepted definition of cobranding, it is generally agreed that cobranding occurs when two brands are combined into a single product, whether a good, service, or idea. Composite branding is defined as two brands made into one (Park et al. 1996). Well-known examples of cobranding in the US market are Post Raisin Bran with Sun-Maid Raisins (ingredient branding), Ford Explorer Eddie Bauer Edition (brand alliance), HP with Intel Pentium inside (component branding), and Southern Gold from GP (composite brand).

Theoretical Constructs and Conceptual Models

Theoretical constructs for this research were based on Memory Theory (Coons 2004), Classical Conditioning Theory (Gray 2006), Conceptual Combination Theory (Hampton 1987, Ward 2004) and Selective Modification Theory (Smith et al. 1988). Development of the Forest Products Brand Association Transfer Concept Model, adapted from the research specifically for this project, was based on ideas from the Brand Knowledge Model (Keller 2003), the Industrial Brand Model (McQuiston 2004), and the Brand Association Base Model (Uggla 2004).

Since the literature on branding of forest products in a cobranded setting is sparse, this study examined the fundamental elements of brand association transfer and the relationships between corporate brands and product brands. This research provides basic groundwork to understand brand interaction, providing a basis for examining more complex relationships in the future.

This research considers the complexity of brand associations in the forest products industry, focusing on both corporate and product brand marks. It examines the interaction between corporate and product brand marks and how they may transfer or enhance brand associations of

Product Brand	Brand Association Transfer (part A)	Corporate Brand
Quality	←	Quality
Leadership	←	Leadership
Environmental Stewardship	←	Environmental Stewardship
Product Brand	Brand Association Enhancement (part B)	Co-branded Product Brand
Engineered not identified		Engineered
Country-of-origin not identified		Country-of-origin identified
Not Certified		Certified
Species name not identified	/	Species name identified

Figure 1.—Forest Products Brand Association Transfer Concept Model, Parts A and B.

corporate brands and structural wood products brands in a cobranding environment.

Existing research on the pairing of brands and visually pairing brand marks in the business-to-consumer marketing literature appears to substantiate the claim that positive synergy can occur (Park et al. 1996, Washburn et al. 2000, Washburn and Plank 2002, Van Auken and Adams 2005, James 2005).

The Model

The Forest Products Brand Association Transfer Concept Model was adapted by this researcher from existing consumer and industrial products' brand association transfer models specifically for the forest products industry. The Forest Products Brand Association Transfer Concept Model fills a void in the literature. The forest products marketing literature, to date, does not provide a specific model on brand association transfers for this industry, while consumer models regarding brand association transfer are numerous. The theoretical constructs previously applied in consumer marketing are applied to the forest products industry in this model. Figure 1 depicts the Forest Products Brand Association Transfer Concept Model.

This article centers on corporate (producer) and product cobranding as applied in this model. Traditionally in the forest products industry, new industrial product brands have been promoted in a cobranding context. This research explores the brand associations of quality, leadership, and environmental stewardship related to corporate and product brands in this context. Specifically, the research examines the transfer of positive brand associations from the corporate brand to the product brand, as well as the transfer of these positive brand associations from the product brand to the corporate brand. This research contributes to the discipline of forest products marketing by suggesting that the positive brand associations of one brand will improve the brand associations of a weaker brand when cobranded, and that a lesser ranked brand does not necessarily diminish brand associations of a strong brand when the two are cobranded.

To answer this multifaceted question, elements of brand knowledge of individual hypothetical forest products brands were measured. The results were compared with results obtained when changes in brand associations of quality, leadership, and environmental stewardship of corporate brand marks and product brand marks were paired.

The associations quality, leadership, and environmental stewardship, were chosen for specific reasons. The first two associations, quality and leadership, are considered key associations when the organizational buyer is making decisions (McQuiston 2004). Environmental stewardship was chosen because of the trend toward certification in the forest products industry (Ozanne and Vlosky 2003).

New brand marks for imaginary firms were developed for the research so respondents would not be influenced by existing brand knowledge. This was done to establish the legitimacy of face validity. Six unique brand marks were created specifically for the survey.

Hypotheses

Hypotheses related to brand association transfer from corporate to products brands

- H1a: Leadership brand associations of corporate brands enhance corresponding leadership brand associations of product brands.
- H1b: Quality brand associations of corporate brands enhance corresponding quality brand associations of product brands.
- H1c: Environmental stewardship brand associations of corporate brands enhance corresponding environmental stewardship brand associations of product brands.

Hypotheses related to brand association transfer from product to corporate brands

- H2a: Quality brand associations of product brands enhance corresponding quality brand associations of corporate brands.
- H2b: Leadership brand associations of product brands enhance corresponding leadership brand associations of corporate brands.
- H2c: Environmental stewardship brand associations of product brands enhance corresponding environmental stewardship brand associations of corporate brands.

Hypotheses related to cobranding

- H3a: Strong quality brand associations transfer significantly to brands with weaker quality associations when the two brands are presented in a cobranding environment.
- H3b: Brands with weaker quality brand associations do not significantly diminish quality associations of stronger brands when the two brands are presented in a cobranding environment.
- H4a: Strong leadership brand associations transfer significantly to brands with weaker leadership associations when the two brands are presented in a cobranding environment.
- H4b: Brands with weak leadership brand associations do not significantly diminish leadership associations of stronger brands when the two brands are presented in a cobranding environment.
- H5a: Strong environmental stewardship brand associations transfer significantly to brands with weaker

- environmental stewardship associations when the two brands are presented in a cobranding environment.
- H5b: Brands with weak environmental stewardship brand associations do not significantly diminish environmental stewardship associations of stronger brands when the two brands are presented in a cobranding environment.

Research Methodology

Six brand names were created for this project. Three were corporate brand names and three were product brand names. The corporate brand names were Forest Tec Forest Products, Sleeping Mountain Forest Products, and Blue Star Woods. The product brand names were Precision L Lumber, Quartermaster Lumber, and Eco-Tru Lumber. An Internet search confirmed that neither business organization names nor product names actually existed in the market-place at that time.

Brand marks were created for each brand name. The purpose of developing the brand marks was to demonstrate at least one or more of the following brand associations: quality, leadership, and environmental stewardship. As two-dimensional art, shape and color were the design elements considered most important in the development of these hypothetical brand marks. Greens, blues, and browns dominated the design. Brown and green because of their association with wood and nature, blue because of its strong leadership association (Carter 2001, 2004). Colors such as pink, light blue, and other pastels were avoided. Shape was also considered in the development of these brand marks. Angular forms dominate the design, as these forms are considered to be powerful (Carter 2001, 2004). Gray scale versions of the six brand marks are shown in Figure 2.

The population of interest in this study was residential homebuilders in Washington, Oregon, and Northern California. The respondents were, at the time of the research, all members of a prominent national builders' association. Builders' contact information was obtained from publicly available membership lists on the Internet. A complete census of builders in these counties was attempted, with each who had an operational phone number receiving a phone call. This process included 1,407 calls to builders. The builders in the population were from the following counties:

- Washington: Benton, Chelan, Clark, Cowlitz, Douglas, Franklin, Jefferson, King, Kitsap, Kittitas, Okanogan, Pierce, Skagit, Snohomish, Spokane, Walla Walla, Whatcom, Yakima
- Oregon: Benton, Clackamas, Columbia, Coos, Crook, Curry, Deschutes, Douglas, Grant, Harvey, Jackson, Jefferson, Josephine, Klamath, Lake, Lane, Lincoln, Marion, Morrow, Multnomah, Polk, Salem, Sherman, Tillamook, Washington
- California: Alpine, Amador, Butte, Colusa, El Dorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Yolo, Yuba

It should be noted that the research presented here is one portion of a larger study. For this portion of the study, 184 total surveys were successfully sent online, and 76 were returned. This represents a 41.3 percent response rate.

An Internet survey was developed for this research using the Total Design Method (Dillman 2007). Previously

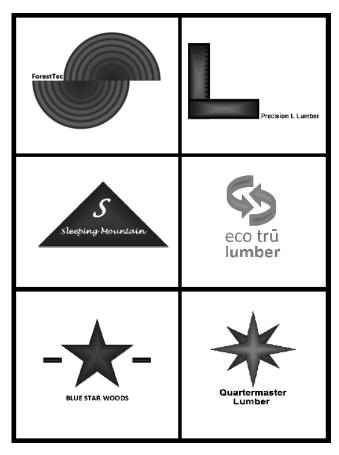


Figure 2.—Hypothetical brand marks.

applied Likert scales were examined to help bolster survey reliability (Peracchio and Meyers-Levy 1997, Aaker and Maheswaran 1997, Aaker 1999, Sweeney et al. 2000, Teas and Agarwal 2000, Yoo et al. 2000, Luna and Peracchio 2001, Moreau et al. 2001, Keller 2002). Likert scales were used for this survey to measure quality, leadership, and environmental stewardship brand associations. The scales' selection points included: Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree, and No Opinion. The first five terms corresponded with the Likert scale points 1 through 5, respectively.

Respondents were shown three corporate brand marks and three product brand marks and asked to rate them individually for quality, leadership, and environmental stewardship brand associations. After rating all of the individual brand marks, survey respondents were asked to rate individual corporate brands, when paired with individual product brands, and conversely individual product brands with individual corporate brands.

Builders were asked to evaluate a specific brand mark, and then reevaluate the brand associations of the brand mark after it was cobranded. The subjects took a pretest and posttest during a single sitting. The pretest—posttest design assisted in avoiding the problem of covariation (Frankfort-Nachmias and Nachmias 2000), and it also was appropriate considering the time limitations of the population queried (McDaniel and Gates 2006).

Data collection and data analysis

Phone calls were placed to homebuilders in Washington, Oregon, and California between May and July 2007 to introduce them to the project. Letters were then mailed to individuals who agreed to take the survey between June and July 2007, which included additional detail on the research project. The survey was distributed via the Internet to individual homebuilders between June and July 2007. This time period included first and second requests. Homebuilders logged into a password protected Web page to complete the survey online.

In the survey, dependent variables and independent variables were quality, leadership, and environmental stewardship associations of corporate brand marks or product brand marks, depending on how the images were presented.

Data analysis

Data from 76 returned surveys were reviewed for outliers, missing data, errors, and normality. Approximately 7 percent of the values were missing from the survey responses. Normality of the data was assessed using the Kolmogorov-Smirnov with Lilliefors significance correction test (Pallant 2005). Normality was not expected considering the nature of the Likert scale survey. The resulting statistics revealed that the assumption of normality could not be presumed for either data set. Therefore, nonparametric tests were used. Before hypotheses testing began, review of nonresponse bias was carried out (Armstrong and Overton 1977). The data set was divided into primary responders and secondary responders. Primary responders were individuals who completed the survey within 7 days of receipt. Secondary responders were those individuals who completed the survey only after receiving a reminder and a second survey. The two groups were examined for any differences based on the criteria of productivity and demographics. Specifically, this phase evaluated differences between primary responders and secondary responders in their level of productivity, i.e., whether they had completed a new home or a major remodel in the past 18 months and in their demographic characteristics. No significant difference in productivity was noted between primary and secondary responders. Additionally, demographic categories were compared to note any differences between primary and secondary responders. Years worked in business and company years in business were not judged to be different between the groups when compared using paired t tests. Therefore, it was presumed that no significant differences existed between responders and nonresponders.

Finally, Cronbach's coefficient alpha tests (Cronbach 1951) were performed at the outset. The scales used throughout the survey appear to have robust internal consistency. Results consistently showed alphas between 0.82 and 0.98 for the data.

Results

The mean scores of all brand associations were evaluated. As seen in Table 1, the product brands generally had stronger mean scores (numerically lower) in all brand association rankings than the corporate brands, with two exceptions. In all cases, leadership and quality brand associations were stronger for the product brands than the corporate brands. The strengths of environmental stewardship brand associations were greater for two of the three corporate brands (Forest Tec and Blue Star Woods)

Table 1.—Means scores for brand associations.

Brand associations	Leadership	Quality	Environmental stewardship
Forest Tec (corporate)	3.0495	3.0945	3.1029
Quartermaster Lumber (product)	2.9055	2.9333	3.2071
Sleeping Mountain (corporate)	3.3134	3.2865	3.2500
Eco-Tru (product)	2.1343	2.4608	1.8263
Blue Star Woods (corporate)	2.8647	2.8647	3.1944
Precision L Lumber (product)	2.7371	2.4363	3.2059

Table 2.—Hypotheses tested and results summary—corporate brands.

Hypothesis tested	Test result
H1a: Leadership brand associations of corporate brands enhance corresponding leadership brand associations of product brands.	Rejected
H1b: Quality brand associations of corporate brands enhance corresponding quality brand associations of product brands.	Test E accepted
H1c: Environmental stewardship brand associations of corporate brands enhance corresponding environmental stewardship brand associations of product brands.	Rejected

compared to their affiliated product brands (Quartermaster Lumber and Precision L Lumber).

After means were examined, Wilcoxon signed rank tests (Wilcoxon 1945, Pallant 2005) were used to test the proposed hypotheses. The alpha level for all tests was 0.05. The survey was conducted to determine the acceptance or rejection of hypotheses regarding interactions between corporate brands and product brands. Hypotheses H1a (leadership transfers), H1b (quality transfers), and H1c (environmental stewardship transfers) listed in Table 2 focused on brand association transfer from corporate brands to product brands.

These tests focused on leadership, quality, and environmental stewardship brand associations of corporate brands and their effects on product brands. These tests measuring brand associations were not confirmed, as noted in Tests D and E in Table 3. Generally, the product brands were rated more highly than all three corporate brands. Correspondingly, corporate brands did not enhance brand associations of product brands. The one exception was the Blue Star Woods corporate brand, which appeared to significantly enhance the quality brand associations of Precision L

Table 4.—Hypotheses tested and results summary—product brands.

Hypothesis tested	Test result
H2a: Quality brand associations of product brands enhance corresponding quality brand associations of corporate brands.	Test F and Test G accepted
H2b: Leadership brand associations of product brands enhance corresponding leadership brand associations of corporate brands.	Test F and Test G accepted
H2c: Environmental stewardship brand associations of product brands enhance corresponding environmental stewardship brand associations of corporate brands.	Test G accepted

Lumber. Considering the means scores, there may be a synergistic effect here. Also, while environmental stewardship associations were stronger on Blue Star Woods, this association did not appear to benefit Precision L Lumber when linked.

Hypotheses regarding product brand association transfers, H2a (quality transfers), H2b (leadership transfers), and H2c (environmental stewardship transfers), are described in Table 4

The more highly ranked leadership, quality, and environmental stewardship brand associations of product brands appear to have significantly enhanced corresponding associations of corporate brands. These hypotheses were confirmed in Tests F and G noted in Table 5. The one exception was the environmental stewardship associations of Forest Tec Forest Products when paired with Quartermaster Lumber.

The hypotheses and results presented in Table 6 show that strong leadership, quality, and environmental stewardship brand associations transfer significantly to brands with weaker associations when the two brands are presented in a cobranding environment. Brands with weak leadership, quality, or environmental stewardship brand associations do not significantly diminish associations of stronger brands when the two brands are presented in a cobranding environment.

Discussion and Managerial Implications

The goal of this study was to use the Forest Products Brand Association Transfer Concept Model (Fig. 1), adapted for the forest products industry from existing brand models, as a framework for understanding how brand

Table 3.—Stand-alone brands compared with cobranded counterparts.

	Leadership	Quality	Environmental stewardship
Test D: Eco-Tru made by Sleeping Mountain compared with Eco-Tru stand-alone brand			
Z	-0.417^{a}	-0.054^{b}	-1.168^{b}
P value	0.677	0.957	0.243
Test E: Precision L Lumber made by Blue Star Woods compared with Precision L stand-alone brand			
Z	-1.596^{b}	-2.745^{b}	-0.069^{b}
P value	0.111	0.006	0.945

^a Based on positive ranks.

b Based on negative ranks.

Table 5.—Comparing individual corporate brands to cobranded counterparts.

	Leadership	Quality	Environmental stewardship
Test F: Forest Tec Forest Products makers of Quartermaster Lumber compared with Forest Tec stand-alone brand			
Z	-2.718^{a}	-3.460^{a}	-1.185^{a}
P value	0.007	0.001	0.236
Test G: Sleeping Mountain Forest Products makers of Eco-Tru Lumber compared with Sleeping Mountain stand-alone brand			
Z	-5.419^{a}	-4.319^{a}	-4.864^{a}
P value	0.000	0.000	0.000

^a Based on positive ranks.

associations transfer from one brand to another in the forest products industry. The model appears to be a useful tool in understanding the effect of cobranding in this industry. The research presented here also generally concludes that cobranding may strengthen positive brand associations, improving brand equity and thereby increasing profits for the firm. Positive brand associations can lead to the ability to charge price premiums or increases in market share (Keller 2002).

The forest products industry produces a broad and diverse array of products from the finest architectural products to sturdy structural products. This research, and the model upon which it is based, can potentially be generalized throughout the industry and useful to the manager in a number of ways. The research results should indicate to brand managers in the forest products industry the importance of branding decisions and strategies. Branding expertise may need to be further developed given the importance of brand names, symbols, and associations that was elucidated in this research. A well-conceived branding strategy can serve as a strong foundation for the company's marketing strategy.

There are a number of important marketing implications from these findings, especially for a firm's long-term brand portfolio strategy. First, the forest products firm may want to develop a brand hierarchy that is an outline of the brands, what role they play for the firm, how they interact, and their financial contribution to the firm. Leadership as a brand association is a major issue in trust associations, which is a key factor in relationship marketing. Strategically, the use of leadership, especially in an oligopoly business environment, can be extremely important. The decision of whether to position the firm or a particular product as the "industry

leader" is central in brand portfolio management. Also, because of the oligopolistic nature of the industry, corporate brands are often very powerful. The most obvious application is the cobranding of new products. The use of family brands has not been widespread in the industry. This research may assist marketing strategists in developing such a strategy. As acquisition of smaller firms by larger firms continues, the strategic use of cobranding two corporate brands may also be considered using this model.

If dealing with a crisis management situation, a forest products company facing a product recall could, for example, use brand portfolio strategy to rebuild the product name. Part of regaining the lost reputation and associated market share of a particular product brand could be accomplished via cobranding. Managers could roll out the "new" replacement product for the one that had previously failed using the strength of the corporate brand or other product brands. The positive brand associations of these brands could signal the buyer to overcome their negative attitude toward a failed brand. Managers could also consider different types of cobrands, such as place-of-manufacture, or a well-known and respected architectural structure, to use with the rollout of a new product. They might also consider linking the new version of the recalled product with a product characteristic cobrand for a positive transfer of brand associations.

Limitations of research

There are a number of limitations to this research. Two critical limitations stem directly from the content of the Web-based survey tool. The use and meaning of the word *quality* as applied in the surveys may have limited the ability to generalize the results. Quality is a word typically used to

Table 6.—Hypotheses tested and results summary related for tests of cobranding.

Hypothesis tested	Test result
H3a: Strong quality brand associations transfer significantly to brands with weaker quality associations when the	Test F and Test G accepted
two brands are presented in a cobranding environment.	
H4a: Strong leadership brand associations transfer significantly to brands with weaker leadership associations when the two brands are presented in a cobranding environment.	Test F and Test G accepted
H5a: Strong environmental stewardship brand associations transfer significantly to brands with weaker environmental stewardship associations when the two brands are presented in a cobranding environment.	Test G accepted
H3b: Brands with weak quality brand associations do not significantly diminish quality associations of stronger brands when the two brands are presented in a cobranding environment.	Test D accepted
H4b: Brands with weak leadership brand associations do not significantly diminish leadership associations of stronger brands when the two brands are presented in a cobranding environment.	Test D and Test E accepted
H5b: Brands with weak environmental stewardship brand associations do not significantly diminish environmental stewardship associations of stronger brands when the two brands are presented in a cobranding environment.	Test D and Test E accepted

describe both performance and reliability of a product in the forest products industry. The survey tool gathered information from builders regarding perceptions of quality. The terms *reliability* and *performance* may be valuable in capturing a more accurate meaning of builders' perceptions. A product's brand mark may appear to demonstrate quality; however the underlying constructs are the reliability of the product and its performance on the job site. Accuracy in perception could be improved by the use of these terms.

The hypothetical brand marks designed for this research, with specific brand associations in mind, can only approximate actual brand marks in the marketplace. The limited number of brands tested as part of this research is an additional limitation. Brand marks that create opinions via brand associations have cultural dynamics. This research was targeted to an American audience, and no attempt was made to create cultural "universals" in this research. Brand associations studied were limited to quality, leadership, and environmental stewardship. The relatively amateur nature of the brand marks used in the Web-based survey and presented in Figure 2 may have weakened the brand associations.

Further considerations

There are a number of interesting areas of research that could be investigated as a postscript to this research using the Forest Products Brand Association Transfer Concept Model

Further research could be carried out on the following topics: the creation of a more complete brand portfolio strategy specifically for forest products firms; the development of constructs to understand both how to delete brands successfully in this industry or how to revitalize older brands; the discovery of how brands interact when presented with a combination of products; the impact of the use of branded Internet portals on branded wood products; the cobranding of forest products and corporate social responsibility, including issues surrounding carbon emissions; the forest products companies' corporate alliances with nongovernmental organizations or not-for-profit organizations; and finally the legal issues surrounding cobranding in the forest products industry. Other sectors of the forest products industry could be examined, including pulp and paper and nontimber forest products (e.g., medicinal). Beyond this, consideration of differences in brand association perceptions between homebuilders and those in other industries that use forest products could be researched.

Literature Cited

- Aaker, D. A. 1991. Managing Brand Equity. Free Press, New York. 299 pp.
- Aaker, D. A. 1995. Building Strong Brands. Free Press, New York. 400 pp.
- Aaker, D. A. 1996. Measuring brand equity across products and markets. *Calif. Manag. Rev.* 38(3):102–121.
- Aaker, D. A. and E. Joachimsthaler. 2000. Brand Leadership. Free Press, New York. 368 pp.
- Aaker, J. L. 1999. The malleable self: The role of self-expression in persuasion. J. Mark. Res. 36(1):45–47.
- Aaker, J. L. and D. Maheswaran. 1997. The effect of cultural orientation on persuasion. J. Consum. Res. 24(3):315–328.
- Armstrong, J. S. and T. S. Overton. 1977. Estimating nonresponse bias in mail surveys. *J. Mark. Res.* 16:396–402.
- Carter, D. E. 2001. Red Is Hot, Blue Is Cool: Choosing the Right Color for Your Logo. North Light Books, New York. 184 pp.

- Carter, D. E. (Ed.). 2004. The Big Book of Logos 4. Harper Design International, New York. 384 pp.
- Clifton, R. 2002. Editorial: Brands and our times. *J. Brand Manag.* 9(3): 157–161.
- Coons, D. 2004. Introduction to Psychology: Gateways to Mind and Behavior. Wadsworth, Belmont, California. 800 pp.
- Cronbach, L. J. 1951. Coefficient alpha and the internal structure of tests. *Psychometrika* 16(3):297–334.
- Dawar, N. 1994. Marketing universals: Consumers' use of brand name, price, physical appearance, and retailer reputation as signals of product quality. J. Mark. 58(2):81–95.
- De Chernatony, L. and M. McDonald. 2003. Creating Powerful Brands in Consumer, Service and Industrial Markets. Elsevier/Butterworth-Heinemann, Boston. 467 pp.
- Desai, K. K. and K. L. Keller. 2002. The effects of ingredient branding strategies on host brand extendibility. *J. Mark.* 66(1):73–94.
- Dillman, D. A. 2007. Mail and Internet Surveys: The Tailored Design Method. J. Wiley, New York. 523 pp.
- Frankfort-Nachmias, C. and D. Nachmias. 2000. Research Methods in the Social Sciences. Worth, New York. 640 pp.
- Gray, P. 2006. Psychology. Worth, New York. 768 pp.
- Hampton, J. 1987. Inheritance of attributes in natural concept conjunction. *Mem. Cogn.* 15:55–71.
- James, D. 2005. Guilty through association: Brand association transfer to brand alliances. J. Consum. Mark. 22(1):14–25.
- Keller, K. L. 1993. Conceptualizing, measuring and managing customerbased brand equality. J. Mark. 57:1–22.
- Keller, K. L. 2002. Strategic Brand Management: Building, Measuring and Managing Brand Equity. Prentice Hall, Upper Saddle River, New Jersev. 788 pp.
- Keller, K. L. 2003. Brand synthesis: The multidimensionality of brand knowledge. J. Consum. Res. 29(4):595–600.
- Klink, R. R. 2003. Creating meaning brands: Relationship between brand name and brand mark. Mark. Lett. 14(3):143–157.
- Kotler, P. and G. Armstrong. 1996. Principles of Marketing. Prentice Hall, Upper Saddle River, New Jersey. 712 pp.
- Levitt, T. 1983. The globalization of markets. *Harv. Bus. Rev.* 61: 92–102
- Luna, D. and L. A. Peracchio. 2001. Moderators of language effects in advertising to bilinguals: A psycholinguistic approach. *J. Consum. Res.* 28(2):284–295.
- McDaniel, C. and R. Gates. 2006. Marketing Research. John Wiley, New York. 512 pp.
- McQuiston, D. H. 2004. Successful branding of a commodity product: The case of RAEX LASER steel. *Ind. Mark. Manag.* 33(4):345–354.
- Moreau, C. P., D. R. Lehmann, and A. B. Markman. 2001. Entrenched knowledge structures and consumer response to new products. *J. Mark. Res.* 38(1):14–29.
- Ozanne, L. K. and R. B. Vlosky. 2003. Certification from the U.S. consumer perspective: A comparison from 1955 and 2000. *Forest Prod. J.* 53(3):13–22.
- Pallant, J. 2005. SPSS Survival Guide. Open University Press, Maidenhead, UK. 352 pp.
- Park, C. W., S. Y. Jun, and A. D. Shocker. 1996. Composite branding alliances: An investigation of extension and feedback effects. *J. Mark. Res.* 33(4):453–466.
- Peracchio, L. A. and J. Meyers-Levy. 1997. Evaluating persuasion-enhancing techniques from a resource-marketing perspective. *J. Consum. Res.* 24(2):178–192.
- Smith, E. E., D. N. Osherson, L. J. Rips, and M. Keane. 1988. Combining prototypes: A selective modification model. *Cogn. Sci. Multidiscip. J.* 12(4):485–527.
- Sweeney, J., C. D. Hausknecht, and G. N. Soutar. 2000. Cognitive dissonance after purchase: A Multidimensional scale. *Psychol. Mark*. 17(5):369–386.
- Teas, K. R. and S. Agarwal. 2000. The effects of extrinsic product cues on consumers' perceptions of quality, sacrifice, and value. *Acad. Mark. Sci. J.* 28(2):278–290.
- Uggla, H. 2004. The brand association base, a conceptual model for strategically leveraging partner brand equity. J. Brand Manag. 12(2): 105–123.
- Van Auken, S. and A. J. Adams. 2005. Validating across-class brand anchoring theory: Issues and implications. *J. Brand Manag.* 12(3): 165–177.

- Ward, T. B. 2004. Cognition, creativity and entrepreneurship. J. Bus. Venturing 19:173-188.
- Washburn, J. H. and R. E. Plank. 2002. Measuring brand equity: An evaluation of a consumer-based brand equity scale. J. Mark. Theory Pract. 10(1):46-63.
- Washburn, J. H., B. D. Till, and R. Priluck. 2000. Brand alliance and customer-based brand-equity effects. Psychol. Mark. 21(7):487-508.
- Webster, F. E., Jr. and K. L. Keller. 2004. A roadmap for branding in industrial markets. *J. Brand Manag.* 11(5):388–402. Wilcoxon, F. 1945. Individual comparisons by ranking methods.
- Biometrics 1(6):80-83.
- Yoo, B., N. Donthu, and S. Lee. 2000. An examination of selected marketing mix elements and brand equity. Acad. Mark. Sci. 28(2): 195-211.

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