

Branding in the North American Wood Fiber–Plastic Composite Industry

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Abstract

The North American wood fiber–plastic composite (WPC) industry has experienced significant growth since its inception in the early 1990s. Consumer demand for durable, low-maintenance, chemical-free outdoor building materials led to 23 WPC producers with 95 total brands of decking, railing, and fencing and a multitude of other WPC products in 2008. These products are differentiated on a myriad of product and service attributes and are defined by branded offerings in the North American marketplace. This study investigates the number of brands, brand name development, and brand strategy benefits in the North American WPC industry in 2008. Data were collected via secondary sources and semistructured interviews with WPC brand managers (response rate = 14 of 23 [61%], representing an estimated 88% of WPC industry sales). Findings indicate that WPC manufacturers utilize a wide array of internal and external resources when developing brand names and perceive branding as an important marketing tool. Product identification and differentiation were the highest rated benefits of a firm’s brand strategy, and the proliferation of brand names is largely a result of the proliferation of manufacturers and their desire to differentiate product offerings. This research will help business-to-business marketers of wood-based building materials better understand the strategic considerations of branding differentiated products.

Wood fiber–plastic composites (WPCs) is a term for any composite containing wood and thermosets or thermoplastics (Clemons 2002). The commercial market for extruded WPCs has grown tremendously in the North American building materials industry. Substantial WPC industry growth occurred between 1997 and 2006 as the number of WPC manufacturers increased from 7 to 26 firms with nearly \$1 billion in sales in 2006 (Smith and Tichy 2007) before consolidating to 23 firms in 2008. The first company entered the commercial WPC market in 1989 and produced solid extruded WPCs that were used for deck boards, landscape timbers, picnic tables, and industrial flooring (Clemons 2002). This pioneer company established the commercial WPC product category and faced relatively little direct competition for roughly 4 years. However, once the WPC market was established and growth opportunities became more obvious, the competitive landscape exploded with new market entrants every year until 2005 (Smith and Tichy 2007; Fig. 1). Rapid market growth, coupled with relatively high margins and low entry barriers in terms of capital costs and available technology led to the influx of new WPC manufacturers. The competitive environment of the WPC industry has been described by the president and CEO of one industry leader as an established product category in transition, from hyper growth or “euphoria” to slower growth or “reality” (Mancosh 2007).

This WPC growth has been largely driven by four factors: superior value in terms of life-cycle costs, alternative choice for chemically treated lumber, general builder acceptance of wood composite building materials, and effective push–pull marketing communication (Smith and Wolcott 2006). As the number of WPC manufacturing firms has increased, there has been a corresponding proliferation of branded products in the North American marketplace. In late 2008, an inventory of North American WPC extruders identified 23 producers who collectively marketed 95 trademarked or copyrighted brand names.

The vast array of brands that define the WPC marketplace is also common for other differentiated building products such as windows, siding, roofing, and exterior doors (Abernathy et al. 2004). One important trend in building material channels is the dramatic increase in product offerings measured in stock keeping units (SKUs), partic-

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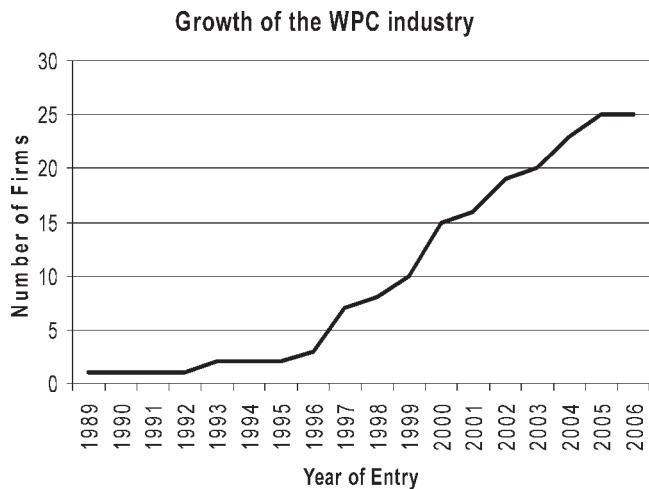


Figure 1.—Growth of the WPC industry (source: Smith and Tichy 2007).

ularly for branded product lines (Abernathy et al. 2004). Abernathy et al. (2004) found that from 1997 to 2002 the number of branded window and siding SKUs doubled; however, the increase in SKUs was minimal for commodity products during that time period.

As a result of the proliferation of WPC brands, manufacturers have achieved greater flexibility to differentiate their products on various tangible and intangible attributes vis-à-vis alternative outdoor products (pressure-treated lumber, naturally durable lumber [redwood, cedar, and imported tropical], and plastic lumber).

Distinguishing physical features of the various WPC decking, railing, fencing, and other products include, but are not limited to, differences in formulation, processing, profile, color, installation system, and surface treatment. Other outdoor product attributes include low maintenance, warranty, credit, promotional support, and a variety of other service or supplier factors. Intangible attributes include trust and reputation, two key aspects of a brand's promise or what the brand represents (de Chernatony 2009, Kotler and Keller 2009). Through conjoint analysis, Fell et al. (2006) identified *type of material* and *lifetime* as the two most important decking attributes to consumers.

Branding

Branding originates from the Old Norse word *brandr* which means to burn, as branding was, and still is, the means by which livestock are identified (Wiley 1992). Many definitions have evolved from the word brand. The American Marketing Association (AMA) defines brand as a name, term, design, symbol, or any other feature that identifies one seller's good or service as distinct from those of other sellers (AMA 2007). Brand elements are trademarkable devices that serve to identify and/or differentiate the brand and can be composed of brand names, URLs, logos, symbols, characters, spokespeople, slogans, jingles, and packages (Keller 2003). However, the basic core identifier of the brand is the name that is the basis for both awareness and communication efforts and can serve as a substantial barrier to entry once established (Aaker 1991).

Companies make products, but consumers buy the emotional and functional associations and benefits of those products. That is, consumers buy the expectation or promise of consistent performance (Kotler and Keller 2009). Firms that fail to meet customer expectations promised by the brand struggle in the marketplace.

The relatively restricted view of brand by the AMA has been extensively enriched in the literature by de Chernatony (2009), Webster and Keller (2004), Keller (2003), and others. de Chernatony (2009) incorporated consumers' finite cognitive abilities in the development of an evolving interpretation of brand to include (in increasing level of sophistication) positioning, personality, vision, and added value. Thus, brand may ultimately be described as "a cluster of values that enables a promise to be made about a unique and welcomed experience" (de Chernatony 2009, p. 104).

Branding in the forest products industry

Historically, forest products firms have dealt with relatively few brands and simple brand structures. However, recent dramatic changes in the global competitive environment for wood-based products, including distribution shifts, environmentalism, globalization, and technology adoption and diffusion has created opportunities for increased branding activities (Tokarczyk and Hansen 2006, Smith and Shi 2010).

Notable brands highlighted by Tokarczyk and Hansen (2006) include Weyerhaeuser's 4-Square lumber, PureBond hardwood plywood by Columbia Forest Products, and Trex WPC lumber products. Sinclair and Seward (1988) examined branding of industrial structural wood composite panels and found that standardized product grades have difficulty in achieving real product differentiation and thus, brand effectiveness. Smith and Wolcott (2006) described WPCs as a renewable class of building materials based on performance, process, and product design innovation that combines the favorable performance and cost attributes of wood with the processability of thermoplastic polymers. Due to the relative ease of WPC product differentiation on performance, process, and design, manufacturers have extensively used brands to effectively differentiate their products in the North American marketplace.

Developing brand names

Brand name generation is a very important step in naming a new product and often occurs in the new product development process (McNeal and Zeren 1981). The selection of a brand name should be closely related to the desired product positioning and marketing strategy for the product (Wind 1982) and may be considered one of the most important marketing decisions of a firm (Robertson 1989). Equally important to successful branding is the nature, type, and method of direct and indirect marketing communication (Tokarczyk and Hansen 2006).

Tokarczyk and Hansen (2006) examined the creation of intangible competitive advantage through branding by the North American forest products industry. This concept relates back to the promise of a particular brand and what it stands for in terms of quality, performance, and trust. Effective branding and communication of the brand as a strategic tool will continue to impact a firm's competitiveness in today's increasingly complex marketplace.

Brand strategy benefits

Both theoretical and empirical research efforts have uncovered a vast array of brand benefits that exist throughout all levels of the value chain. The benefits associated with a firm's brand(s) may be observed from the perspective of manufacturers, channel intermediaries, or customers (Sinclair and Seward 1988, Shipley and Howard 1993, Webster 2000, Mitchell et al. 2001, Keller 2003). Webster and Keller (2004) suggest that industrial brands can differentiate themselves on tangible and intangible attributes and benefits, which are linked to the brand's functional performance and more abstract considerations such as credibility, reliability, trust, ethics, and corporate social responsibility.

In a branding study of North American oriented strand board manufacturers, major benefits for utilizing brand strategies were product differentiation, product identity, and product specialization (Sinclair and Seward 1988). A study of UK manufacturers by Shipley and Howard (1993) found that industrial companies widely use brands and highly value the benefits associated with brand names. In a follow-up study by Mitchell et al. (2001), UK business-to-business product manufacturers found product identity, image consistency, and the recognition that brands were a valuable asset to their marketing success as the strongest brand benefits.

Objectives

The primary objectives of this research were to examine the number of brands, the development of brand names, and the benefits of branding from the North American WPC manufacturers' perspective in 2008.

Methods

A methodology, based in part on qualitative research described in Daymon and Holloway (2002), was developed to analyze branding in the WPC industry from the manufacturers' perspective. The design and implementation of the semistructured telephone interviews followed the survey implementation protocols as described by Dillman (2002).

Secondary data

Following a detailed review of literature, Web sites, print advertising, and discussions with industry experts, 23 North American (20 US and 3 Canadian) WPC extruding firms were identified in June 2008 and defined as the population of interest. This secondary data permitted the foundation to generate constructs for subsequent semistructured telephone interviews (primary data collection). In particular, constructs were developed from the previous work by Sinclair

and Seward (1988), Shipley and Howard (1993), and Mitchell et al. (2001).

Primary data and response rates

Primary data was collected through semistructured telephone interviews from July to September 2008 with the person within each WPC firm most responsible for managing their firm's WPC brand portfolio. To ensure that the participants in the telephone interview were knowledgeable about their firm's brand name development and use, each WPC firm was first contacted to identify the most appropriate person. Phone interview appointments were then established with each contact person via e-mail. The subsequent semistructured telephone interviews provided flexibility in terms of the timing, exact wording, and the time allocated to each research question which, according to Aaker et al. (2004), is especially effective with busy executives, technical experts, and thought leaders.

Of the 23 firms operating in June 2008, 14 (61%) participated in the phone interview. In 2006, these 14 firms represented approximately 88 percent of this highly concentrated industry's estimated sales of nearly \$1 billion (Smith and Tichy 2007).

To ensure that the participants in the telephone interview were knowledgeable about their firm's marketing and branding strategies and the respective histories, the cover letter stated that the "Request for Participation" be forwarded to the person within each firm most responsible for managing their firm's brand portfolio. Table 1 provides the job titles of the study's 14 participants.

Results and Discussion

WPC product mix and brands

A total of 23 WPC extruding firms produced 95 different brands that were identified and categorized by product line (decking, railing, fencing, and other) in 2008 and compared with an earlier 2006 study by Smith and Tichy¹ (2007; Fig. 2). Twenty-one firms produced 68 brands of decking, 17 firms produced 50 brands of railing, and 10 firms produced 16 brands of fencing in 2008.² This large number of branded WPC products underscores the strategic importance of new brand introductions to the North American WPC industry. As WPC manufacturers develop new formulations, colors, surface textures, and other outdoor applications, brands provide an important means by which these new product introductions are communicated to their target audiences.

In 2006, decking comprised approximately 81 percent of 2006 sales, followed by railing at 12 percent, and fencing at 2.4 percent (Smith and Tichy 2007). Interestingly, the same number of firms produced decking and railing in 2006 and 2008, and railing brands were nearly as numerous as decking brands in 2008; however, the number of fencing producers more than doubled from 4 to 10 in that 2-year period (Fig. 2).

Brand name development

To better understand brand name development in the WPC industry, respondents were asked which internal and/

Table 1.—Job titles of respondents.

Job titles	Responses (<i>n</i> = 14)
President/CEO/owner	4
Sales/marketing manager	3
Senior VP sales/marketing	3
National sales/marketing manager	2
Director of consumer products	1
Research and development	1

¹ In the Smith and Tichy (2007) study, the number of brands was not assessed.

² Product line brands total >95 because of the frequent use of a single brand across product categories.

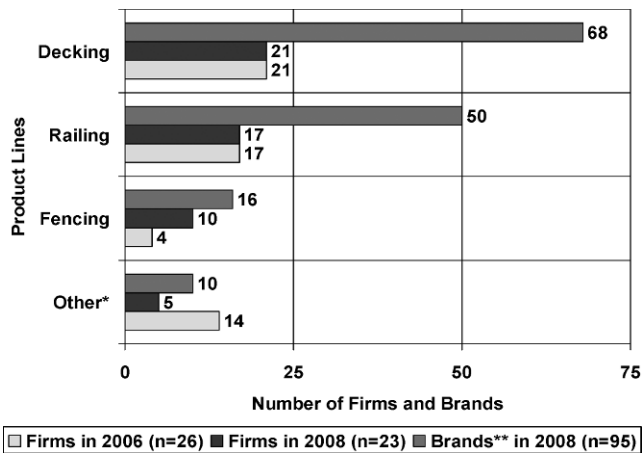


Figure 2.—Number of firms extruding WPC products in 2006 (Smith and Tichy 2007) and 2008 and number of brands in 2008. *In 2006, brands were not examined in the Other category. In 2008, Other included fenestration, landscaping, and exterior trim. **Primary data categorized 77 brands; the other 18 brands were categorized from secondary sources. Product line brands total >95 because of the frequent use of a single brand across product categories.

or external sources were utilized when their firm developed its most recent brand. As shown in Figure 3, WPC firms used many diverse internal and external sources when developing their most recent brand.

Participants were further categorized as large (>US\$40 million in sales) and small (≤US\$40 million in sales) and subsequently examined by firm size. The six large firms utilized a wide variety of sources (average of 8.3 per firm) of information for their most recent brand, whereas the eight small firms utilized fewer sources (average of 3.75 sources per firm; Fig. 3). All six large firms utilized both a marketing and sales manager in the development process and five of the six large firms utilized the CEO/president/

owner, a product/brand manager, an ad agency, a trademark agency/attorney, their customers, and their distributors. Five of the eight small firms utilized a marketing manager, the CEO/president/owner, and an ad agency.

Using an open-ended question, respondents were asked why so many branded WPC products exist in the North American marketplace. The proliferation of WPC manufacturers and the desire to differentiate product offerings were the two most frequently mentioned reasons (Fig. 4). Additional multi-participant responses included market segmentation ($n = 4$), product identity ($n = 3$), and new imported products (added new brands to the North American marketplace; $n = 2$). Each new entrant into the marketplace typically develops at least one brand to identify and differentiate their product offering(s), thus adding to the wide collection of names that already exist.

Brand strategy benefits

Study participants were asked their level of agreement with 10 statements regarding the benefits of applying their firm's brand strategy using a 7-point scale from 1 = strongly disagree to 4 = neither agree nor disagree to 7 = strongly agree. As shown in Figure 5, our 14 participants clearly agreed that using a brand strategy provides their firms with a wide array of benefits. Overall, the highest ranked perceived brand strategy benefit was product identification, followed by product differentiation, product positioning, and efficiency of marketing communications. Affords no benefits was clearly the lowest ranked statement.

The relatively strong agreement with the brand strategy benefits of product identification and differentiation is consistent with findings from the literature (Sinclair and Seward 1988, Shipley and Howard 1993, Mitchell et al. 2001). The relatively strong agreement with the statements that brands provide a price premium and legal protection (both means = 5.29/7.00) suggest the effectiveness of brands in the WPC industry and the variability between brands that may encourage manufacturers to use brands for legal protection to reduce risk.

Brand Name Development Sources:

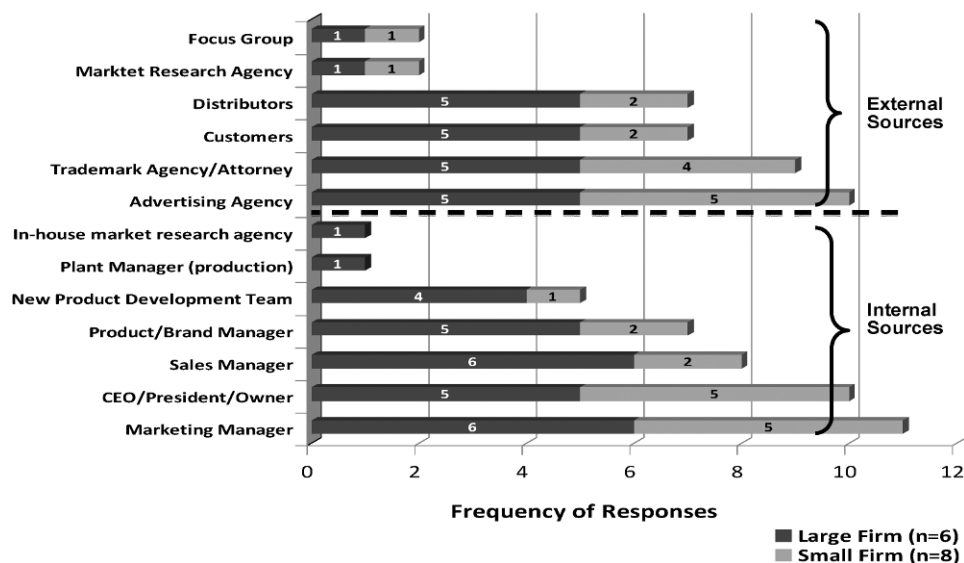


Figure 3.—Sources of brand name development (large firms > US\$40 million [WPC sales]; small firms ≤ US\$40 million).

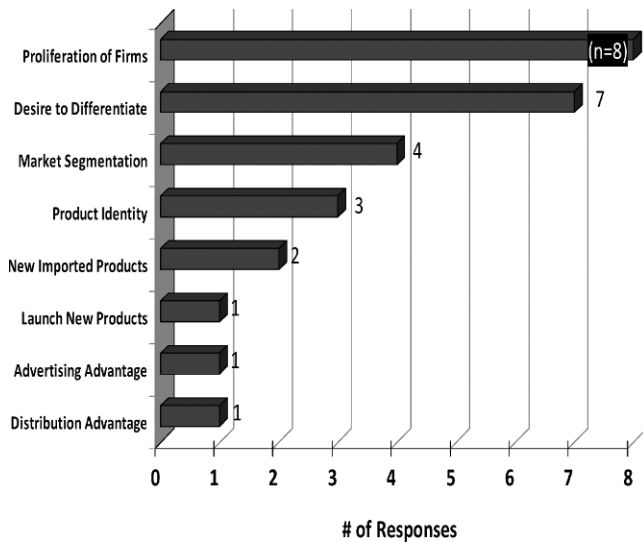


Figure 4.—Number of responses to the open-ended question “In your opinion, what has led to the proliferation of brand names within the WPC industry?”

Summary and Conclusions

Since the inception of the first WPC extruder in 1989, the WPC industry has grown to include 23 firms producing 95 brands and holding nearly a 20 percent share (by value) of the North American decking and railing market in 2008. Although branding is not new to the forest products industry, some commodity-like wood-based building materials have traditionally been sold largely according to conformity to specification, service requirements, and price (Sinclair and Seward 1988, Tokarczyk and Hansen 2006, Dasmohapatra and Smith 2008).

Decking and railing products continue to dominate the industry, which is evident by the number of firms manufacturing each product line (21 for decking and 17 for railing), and in the total number of brand names that define the industry (68 decking and 50 railing brands). Fencing, a growing product line, was extruded by 10 firms (with 16 brands) in the fall of 2008.

This study shows that WPC firms generally involve their CEO, president, and/or owner plus a wide array of internal and external sources when developing their brands, thus underscoring the perceived importance of branding to the WPC industry. WPC study participants indicated that the proliferation of firms and the desire to differentiate were the two dominant reasons for the large number of brands in the North American WPC marketplace. Further, this study found that product identification and differentiation were perceived as the strongest benefits associated with WPC firms’ brand strategy.

The increasingly competitive marketplace for durable outdoor materials and products for weather-exposed applications is being defined by domestic and imported offerings from existing and new sources. Business-to-business marketers of wood-based building materials may benefit by building strong brands with positive associations among key customers and stakeholders.

Limitations

Although this study is a cross-sectional snapshot of the WPC industry, the exploratory research methods and

Brand Strategy Benefits:

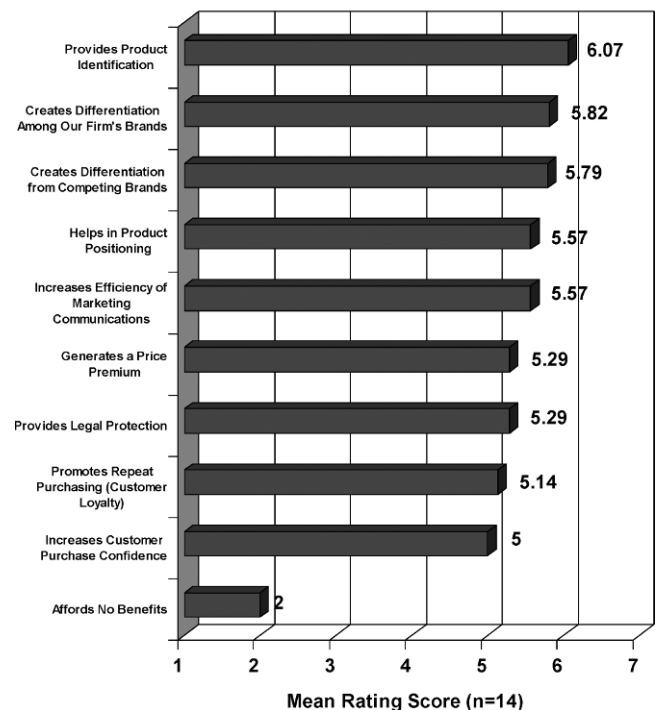


Figure 5.—Mean scores based on a 7-point scale in response to “Our brand strategy provides the following benefits to our firm.” 1 = strongly disagree to 4 = neither agree nor disagree to 7 = strongly agree.

findings provide a sound foundation for further research into brand development in a variety of business-to-business and building materials industries and for subsequent longitudinal research into changes in WPC branding practices.

This study provides the manufacturers’ perspective on branding and, since brands live in the minds of the consumer (Webster and Keller 2004) as a set of beliefs or perceptions about a specific brand, brand strategy implications are limited. Subsequent research may examine brand awareness, associations, and benefits from the customers’ perspective.

The data collected through the semistructured telephone interviews were subject to interpretation by the researcher. With respondents providing any response they felt was appropriate (Mariampolski 2000), coding of the qualitative data sometimes involved a judgment decision by the researcher (Aaker et al. 2004).

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