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The North American Residential Decking and Siding Markets

Steven R. Shook and Ivan L. Eastin. 1996

Executive Summary

The market for residential decking and siding products in North America has become increasingly competitive over the past two decades. Given an increasing assortment of substitute materials, coupled with aggressive promotional and product-service campaigns of competitors, the market share for western red cedar residential decking and siding products has become stagnant. To determine those factors that influence the selection and utilization of western red cedar as a residential decking and siding material relative to substitute products, the Western Red Cedar Lumber Association (WRCLA) commissioned the Center for International Trade in Forest Products (CINTRA FOR) to conduct an in-depth analysis of the market for western red cedar residential decking and siding products in North America. This study brings together all available secondary sources of information known to exist for these two classes of products. Furthermore, this study reports the results of a mail survey regarding the Puget Sound residential siding market. The mail survey provides the WRCLA with baseline data on a potential test market.

Residential Decking Market

Treated lumber, western red cedar, redwood, and a wood-polymer composite (Trex™) manufactured by Mobil Chemical Company clearly dominate the residential decking market. Extremely aggressive price competition, modest product differentiation, economies of scale, and well-developed marketing and distribution systems characterize the residential decking industry. All four major residential decking materials are essentially marketed and distributed in a similar fashion.

The residential decking market in the United States is extremely large. Government statistics reveal that over 85 percent of all single family homes include either a deck or deck-like structure (e.g., porch, balcony). Annually, over 4 percent of all households either add a deck or replace an existing deck, leading to more than 3.5 million new decks being constructed onto existing single family structures. Deck construction activity should increase substantially in the deck replacement market given that economic conditions are anticipated to improve or remain stable.

Unfortunately, no accurate market share estimates exist for the various decking materials available on the market. One source estimates that treated lumber commands 82.5 percent of the residential decking market on a board foot basis, with redwood at 11.5 percent, western red cedar at 3.2 percent, and other deck materials at 2.8 percent. This same source, however, also estimates in a different study that western red cedar controls 23.3 percent of the residential decking market. Regardless of the estimates, it can be concluded from this source that the market share of western red cedar decking materials has been eroded by treated lumber and redwood substitutes, especially in regions of the US where western red cedar materials once dominated the market (e.g., US West). Furthermore, the western red cedar market share is likely to continue to decline as Mobil Chemical Company increases promotional campaigns for its Trex™ wood fiber-plastic composite decking material.

The relative difference between the various products in material, installation, and maintenance costs has become the primary basis for product differentiation in the residential decking market. After cost considerations, the choice of decking material individuals utilize when constructing a deck is mostly dependent on product quality factors (e.g., structural properties, durability, susceptibility to wear) and manufacturer and retailer service factors (e.g., product availability, price incentives, moisture content).

Unlike the residential siding market, image, beauty, and social status factors are not seen as fundamental determinants in consumer choice for decking materials. Western red cedar does not “sell itself” on its image and beauty characteristics alone since consumers generally perceive all residential decking materials to be about the same (i.e., commodity products). If the past holds true, marketing efforts designed to promote only image and beauty characteristics of western red cedar residential decks will likely have a limited impact on changing consumer perceptions.

Firms producing residential decking materials can implement several strategies in order to create product differentiation for materials that consumers perceive as commodities. For instance, western red cedar producers could physically differentiate their decking products by making them easier to use, improving product quality, grade consistency, and durability characteristics, providing additional accessories, or providing additional elements of service (e.g., improved packaging, installation instructions).

Western red cedar producers could also differentiate their product through properly designed marketing efforts. Changing price, providing discounts, offering guarantees or warranties, improving service levels, changing advertising strategy, devising promotions, and changing the image of the product are several market-oriented strategies that could be utilized to increase sales and market share of western red cedar decking materials. The treated lumber industry has successfully used a branding strategy to create consumer awareness and knowledge of their products. This branding strategy transformed the image of a product once viewed as substandard to that of a naturally decay-resistant product. The result of the treated lumber industry’s branding strategy has been a decline in the use of western red cedar as a residential decking material. The lack of a well-formulated, market-oriented strategy in the western red cedar residential decking industry will likely lead to further decline.

Residential Siding Market

Fifteen different materials have a considerable impact in the residential siding market. Vinyl, structural panels (i.e., OSB and plywood), brick, and hardboard, however, are the dominant residential siding materials installed. Aggressive price competition, low product differentiation despite significant contrasts between the physical attributes of the products available, economies of scale, well-developed marketing and distribution systems, and an intensification of competition among manufacturers and distributors characterize the residential siding industry.

Demand for residential siding materials is a function of two factors; namely, the level of new residential home construction starts and the level of replacement, repair, remodeling, and addition activity taking place on existing residential housing units. While residential siding demand increases and declines with changes in the cycle of residential home building, it is relatively stable compared to many other building products. This stability is an outcome of the size of the replacement and remodeling markets, which have accounted for anywhere from 25 to 33 percent of all residential siding use (square foot basis) during the past decade. Despite the replacement and remodeling markets’ impressive and growing size, vinyl siding firms have been the only residential siding material manufacturers to target this market successfully.

According to market share estimates prepared exclusively for this study, vinyl siding products control 36.7 percent of the residential siding market. Trailing vinyl siding in market share are structural panels (27.9 percent), brick (17.2 percent), hardboard (13.2 percent), western red cedar (2.5 percent), and aluminum (2.4 percent). In the past eight years, the total residential siding market has grown at an average annual rate of 0.46 percent. Vinyl siding use has grown at an average annual rate of 10.25 percent. The only other residential siding material to experience growth in this same period has been western red cedar, which has grown at an average annual rate of 3.52 percent. The market share growth of vinyl siding has come at great expense to the producers of aluminum siding, as well as to hardboard and structural panel siding producers.

Relative differences in material and installation costs typically establish the competitive relationships between the materials used in the residential siding market. Unlike decking materials, however, products in the residential siding market, especially brick and western red cedar, are differentiated to a much greater degree by the image that they project. Past research has shown that consumers perceive vinyl, aluminum,

hardboard, and plywood residential siding materials to be close substitutes for one another. Therefore, these four residential siding materials compete primarily on price and installation cost.

Relative to competing residential siding materials, consumers tend to see western red cedar as being expensive and time-consuming to install. Western red cedar residential siding material is also seen as possessing price instability and poor grade consistency. However, consumers believe that western red cedar has a tremendous curb appeal and a high status image, being nearly equal to that of brick. Unfortunately, the image and beauty characteristics of western red cedar residential siding are neutralized by consumer perception of western red cedar's high cost.

It appears that the competitive position of western red cedar is not optimal relative to other residential siding materials. Promotional literature for western red cedar siding stresses heavily its quality image, while other important characteristics such as price and durability tend to be mentioned infrequently. While the actual cost of installation for western red cedar siding is greater than that of competing residential siding materials, there is speculation that most consumers perceive the cost as being substantially more than it actually is.

Survey of Puget Sound Residential Siding Market

The demand for residential siding in the Puget Sound market should increase over 1994 and 1995 levels since, according to survey respondents, there is an expectation for new home construction to increase substantially. Survey results clearly reveal that the 8.9 percent market share for western red cedar in the Puget Sound residential siding market has declined over the past five years. Unfortunately, this study cannot determine at what rate the market share has declined or what factor(s) triggered the decline (e.g., higher prices, lower quality of material, lack of product availability).

The following four residential siding materials have a significant presence in the Puget Sound market: OSB, hardboard, plywood, and western red cedar. Builders indicate that their use of wood fiber-cement residential siding has increased substantially over the past five years. This may be the result of the increased promotional effort on the part of a major producer of wood fiber-cement siding (Hardi Plank) in the US West.

The Puget Sound market represents a disproportionately large share of the national market for OSB residential siding. Two factors may be working either independently or together in creating this disproportionate market. First, OSB residential siding manufacturers (namely, Louisiana-Pacific) may be specifically targeting the Puget Sound market through promotional efforts due to distribution advantages associated with the market and its port access. Second, builders may simply have a preference for OSB residential siding due to its ease of installation and their preference for a material that has the "curb appearance" of real wood.

While installation of western red cedar siding occurs more often as new home prices increased, the effect was found to be not significant. In fact, installation of western red cedar siding occurs in nearly equal proportions (square foot basis) on new homes across all price ranges. This suggests that western red cedar is being accepted more readily as a siding material for new lower-end-priced homes. If this is the case, then builder perceptions of western red cedar's high status/quality image and beautiful appearance may be eroding.

Analysis of the survey data reveals that western red cedar siding's very low rating in product consistency and uniformity, as well as its low rating along the easy/low cost maintenance attribute, is disturbing. However, it offers western red cedar siding manufacturers, wholesalers, and retailers considerable opportunity, since alterations in these perceptions can be made with relative ease with changes in manufacturing methods, quality control practices, and distribution.

Western red cedar manufacturers should make a concerted effort to change the quality of their shipped product. In particular, the survey results suggest that manufacturers address issues dealing with product consistency and uniformity. The WRCLA should actively manufacture and promote high-grade western

red cedar residential siding products in such a manner that the product consistency and uniformity perceptions of their products are nearly equal among builders to that of brick, hardboard, stucco, and OSB residential siding materials. Improving western red cedar siding's product consistency and uniformity, or creating a high-grade branded western red cedar residential siding product, will at the same time improve the perception that builders have of western red cedar's image status and beautiful appearance. As such, an improved, high-end western red cedar residential siding product may warrant a premium price.

A promotional effort should be made to address western red cedar siding's poor perceptual rating on the low cost and easy maintenance attribute. How can the perception of this attribute be improved? First, the material can be prefinished using a high grade stain or primer and a reliable and consistent application process. In addition, the material should be grade-consistent and not placed on the market in green condition. Third, promotional literature addressing long-term maintenance issues should be considered. This literature should accompany every lift of western red cedar sold, and it should also address the proper method of installing western red cedar residential siding.

Finally, western red cedar siding manufacturers, wholesalers, and retailers should make a strong attempt to avoid price competition. The results of this study indicate that price competition conflicts with builders' perception of a residential siding product's high status/quality image and beautiful appearance attributes. Creating a conflicting image of western red cedar siding has likely decreased its demand among high-end home builders while at the same time increased demand among lower-end home builders. This shift in the market, however, has not been substantial enough for western red cedar siding manufacturers, wholesalers, and retailers to recoup profits that have historically been made in the high-end market.

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