

Technical Reports

BC Coastal Forest Sector Hem-Fir Initiative

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PROJECT TITLE:	Positioning and Market Analysis of the US Decking Materials Market: A Perceptual Mapping Approach
PROJECT LEADER:	Ivan Eastin

Abstract

Overview

The demand for decking materials is driven by several factors, including the macroeconomic environment, demographics, construction expenditures, and the repair and remodel sector. In addition, competition within the decking market has recently been significantly altered by regulatory constraints on the forest products industry that have restricted harvest levels, by increasing imports of softwood lumber and by expanding competition from non-wood substitute materials. These last two factors are likely to have the greatest impact on the specification and use of decking materials in the mid to long term as the markets adjust to the changing regulatory environment and changing consumer perceptions and preferences. CINTRAFOR has been collecting market information on the material usage trend in the U.S. deck building industry since 1995. This report will present an analysis of the material usage trends and practices in the decking materials market. Further this report will provide a comprehensive product positioning and marketing analysis of the major decking materials in the US.

An interactive web-based survey was used to collect the data and information presented in the report. Sufficient care was given to ensure that the respondents of the survey had significant deck building experience, hence, only those deck builders who had built more than 5 decks over the past two years were allowed to take the survey. A total of 372 qualified respondents completed the survey, representing 44 states and providing representation across all regions of the US. The number of residential decks built by the respondents in 2008 ranged from 1 to 250, with more than 60% of the respondents building between 3 to 8 decks. A substantial number of respondents (12% of the respondents) indicated that they built more than 20 decks in 2008.

US Decking Market

With the decline in US housing starts in 2007 and 2008 the focus of the deck building industry has shifted away from new decks for new houses. This study shows that the primary revenue generator for the US decking industry in 2008 was repair and remodel (approximately 44%) closely followed by building new decks on existing houses (approximately 42%). Under the present scenario, constructing new decks in new homes only marginally contributes (approximately 14%) to the overall revenue of the US decking industry. This trend is more or less consistent across all the regions of the country with the repair and remodeling projects and deck construction in existing houses strongly dominating the industry's revenue generation. This result suggests that when homeowners live in their houses longer

they tend to invest in remodeling their houses; remodeling existing decks or installing new decks has traditionally been important aspects of renovating and remodeling houses. Moreover, such a trend also indicates that the deck building industry is at least partially insulated from the housing downturn.

The survey results reveal that the size of the decks built in the US have not changed significantly since a previous survey conducted by CINTRAFOR in 2003, averaging 438 square feet. However, the average unit construction cost of decks built in the US has increased substantially from \$13.50 per square feet in 2003 to \$18.62 in 2008. Regional differences in the unit construction cost were also observed in the study. The average unit construction costs of decks built in the Northeastern and Western regions were approximately \$20 per square feet, whereas, the average unit construction costs of decks built in the Southern region of the country were approximately \$16 per square feet. Finally, the average cost of decks built in the Western region (approximately \$9,533) was significantly higher than the national average (\$7,319).

Decking Material Usage Trends

The market for residential decking materials in North America has become increasingly competitive over the past decade. Past studies have indicated that wood plastic composite decking (WPC) and plastic lumber (PVC) are increasingly replacing treated softwood lumber and naturally durable timber species (i.e., redwood, western red cedar and tropical hardwoods) in deck building applications. Our 2009 survey results indicate that this trend of gradual market displacement of naturally durable timber species and treated softwood lumber decking materials has continued. Over 66% of the respondents surveyed indicated that they have increased their usage of WPC and 37% of the respondents increased their usage of PVC between 2006 and 2008, with less than 10% reporting that they had decreased their use of WPC and PVC. In contrast, a high percentage of respondents indicated that they have decreased their usage of pressure treated lumber (31%), western red cedar (36%) and redwood (35%) while less than 20% reported increasing their use of these materials.

The deck market can be segmented into the three main end-use applications; deck substructure, deck surface, and rails/accessories (benches, stairs, planters, etc). It is important to note that only 59% of the total demand for decking materials is derived from the construction of the primary substructure and deck surface. The remaining demand can be attributed to deck rails and accessories, suggesting that overall demand for a specific decking material may be influenced to a substantial degree by the availability of rails and accessory products manufactured from the same material. Growth in both of these market segments is expected to be strong. While pressure treated lumber (PTL) remains the dominant material used in substructure applications, with a market share over 80%, PTL only has a 30% share of the national deck surface market. WPC is now the market leader in deck surface applications across all regions of the US, with the exception of the South where almost 40% of deck surfaces were built using PTL. In contrast, only about 10% of the deck surfaces built in the western US used PTL and WPC has emerged as the market leader with a 34% market share. The western US is also the region with the greatest use of naturally durable wood decking, perhaps reflecting the greater availability of these products. Plastic decking made its greatest inroad in the northeast where almost 18% of deck builders reported using this product.

Keywords: decking, perceptual mapping, pressure treating, wood plastic composites, western red cedar.

For copies of the publication please contact:

Darrell.Wong@fpinnovations.ca