

An Assessment of the PNW Hardwood Lumber Industry

Hardwood lumber production in the Pacific Northwest (PNW) increased over 200% between 1983 and 1997, with exports of red alder, the region's most prevalent hardwood species, surpassing \$160 million. The increase in sales is of interest considering commercial hardwood species in the PNW have traditionally been considered a low valued by-product of softwood timber stands, with less than 1% of private and industrial timberlands in the Pacific Northwest being managed for hardwood production. While PNW hardwoods are gaining market acceptance, little research has been done to identify the factors that have contributed to the industry's success. The authors of the recently released CINTRAFOR Working Paper: A Competitive Assessment of the Hardwood Lumber Industry in the Pacific Northwest, interviewed managers of PNW hardwood firms to gather information ranging from factors affecting firm competitiveness to challenges and threats specific to the industry.

The hardwood industry in the Pacific Northwest depends on private forest owners for their raw material supply. However, inventory declines in pole-sized timber, in conjunction with riparian zone harvest restrictions, suggest hardwood supply reductions in the future. Some of this supply reduction could be offset by investment in the intensive management of hardwood stands which would accelerate growth and improve resource quality. A variety of other benefits could be derived from the active management of the hardwood resource: species diversity provides stability in a cyclical market, improves soil fertility, and improves the biodiversity of forest stands. In order to provide an incentive for intensive management, hardwood stumpage prices need to be competitive with conifer stumpage prices.

Results

Hardwood lumber manufacturers surveyed produced approximately 450 MMBF of lumber, with exports totaling approximately 126 MMBF or 28 percent of total production. Products produced included kiln-dried and green lumber, pallets, veneer, plywood, chips, and agricultural boxes and crates. Hardwood chips, the primary byproduct, are sold to pulp and paper manufacturers. Approximately half of the slabs and sawdust generated are sold as chips and mulch, respectively, and approximately one-third of the planer shavings and bark are sold for livestock bedding and landscaping bark, respectively. The remaining waste is used as hog fuel. Although large and small lumber manufacturers sell a substantial percentage of their production direct to the end-user, large manufacturers tend to rely on wholesalers to the exclusion of brokers while small manufacturers tend to favor brokers over wholesalers.

Problems and Threats to the Hardwood Industry

Problems and threats confronting manufacturers in the hardwood industry were grouped into three categories: domestic regulatory issues, domestic resource issues, and international regulatory issues. Survey respondents were asked to indicate the impact that each factor had on competitiveness of their firm using a seven point Likert scale ranging from 1 (Strong Negative Impact) to 7 (Strong Positive Impact).

Domestic Regulatory Factors: Respondents indicated that all three domestic regulatory factors had a negative impact on their firm's competitiveness. The mean score for each factor was: state taxes (2.6), federal regulations (2.8), and state forest practice regulations (2.9).

Domestic Resource Factors: Increasing raw material price (2.8) and price volatility (3.1) were perceived to have the greatest negative impact on competitiveness. Quality of labor (4.1) and resource quality (4.3) were each generally perceived to have relatively little impact on competitiveness while resource availability (4.6) had a slightly positive impact on competitiveness.

International Regulatory Factors: Survey results suggest that environmental certification of wood products (3.4) and tariff barriers (3.4) were perceived to have a more negative impact on the competitiveness of hardwood manufacturers than non-tariff barriers (3.6) and regional trade agreements (3.7), although the difference in score was small. Further analysis of the survey data suggests that firms exporting primarily to Europe perceive environmental certification has a more adverse effect on competitiveness than do firms exporting primarily to Asia and North America.

Marketing Variables

To better understand the role of marketing in the hardwood industry, respondents were asked to evaluate the importance of different marketing variables on the competitiveness of their firms using a seven point Likert-like scale ranging from 1 (Not Important) to 7 (Very Important).

The importance ratings for the individual marketing variables clearly show that company reputation is perceived to be extremely important in the hardwood industry, Figure 1. Communicating regularly with customers, maintaining high quality control standards, and delivering products on time, also received relatively high mean scores. It could be argued that, of all the variables included in the survey, these three exert the greatest influence on a firm's reputation, further emphasizing the fact that company reputation has a critical impact on competitiveness in the hardwood industry. Efficient manufacturing and raw material procurement were also perceived to have an important impact on competitiveness.

A qualitative examination of the of the survey data suggested that the original twenty marketing variables could be combined into six groups based on the functionality of each variable with respect to the marketing mix, Figure 1. The average importance ratings for each of the six groups were: Group I: *Reputation of the Firm* (6.4), Group II: *Efficient Production* (5.6), Group III: *Product Differentiation* (4.3), Group IV: *Distribution* (4.0), Group V: *Marketing Activities* (3.1), and Group VI: *Resource Ownership* (2.2). In general, survey respondents perceived that Group I variables have a very important impact on firm competitiveness. Group II variables, while still considered to be important, were perceived to be less important than the Group I marketing variables. Variables included in Groups III and IV were perceived to be somewhat important to firm competitiveness, while Groups V and VI were not considered to have an important impact on competitiveness.

While respondents reported that product and service attributes affected firm competitiveness, virtually all of the marketing variables associated with innovation received relatively low importance ratings: developing new products (3.9), manufacturing specialty products (3.9), utilizing new marketing techniques (3.8), conducting market research (3.0), and performing promotional and advertising activities (2.5). Only a single marketing variable associated with innovation, product branding (5.2), was viewed as being relatively important. However, given the low level of importance attached to promotional activities, the question of how a company might successfully brand their products remains problematic.

Conclusions

The hardwood industry has experienced substantial growth over the past ten years despite timber harvest restrictions in federal and state forests. This growth has occurred in the domestic US market

as well as in the foreign markets, which account for almost 28% of red alder lumber production. While harvest restrictions were not perceived to have adversely impacted the industry, riparian zone regulations related to endangered salmon populations could have a severe impact on the hardwood resource, particularly if those regulations are vigorously applied to private forests. None of the regulatory factors evaluated in the survey were viewed in a positive light, although few were perceived to have a strongly negative impact on the industry. While timber harvest restrictions were perceived to have a moderately negative impact on the industry, resource availability has not yet had an adverse impact on the hardwood industry. Respondents indicated that the marketing variables that influenced a firm's reputation and production efficiency were the most important. In contrast, virtually all of the marketing variables associated with acquiring market information and promoting innovation were perceived to be much less important, suggesting that hardwood manufacturers place a low value on product innovation and differentiation.

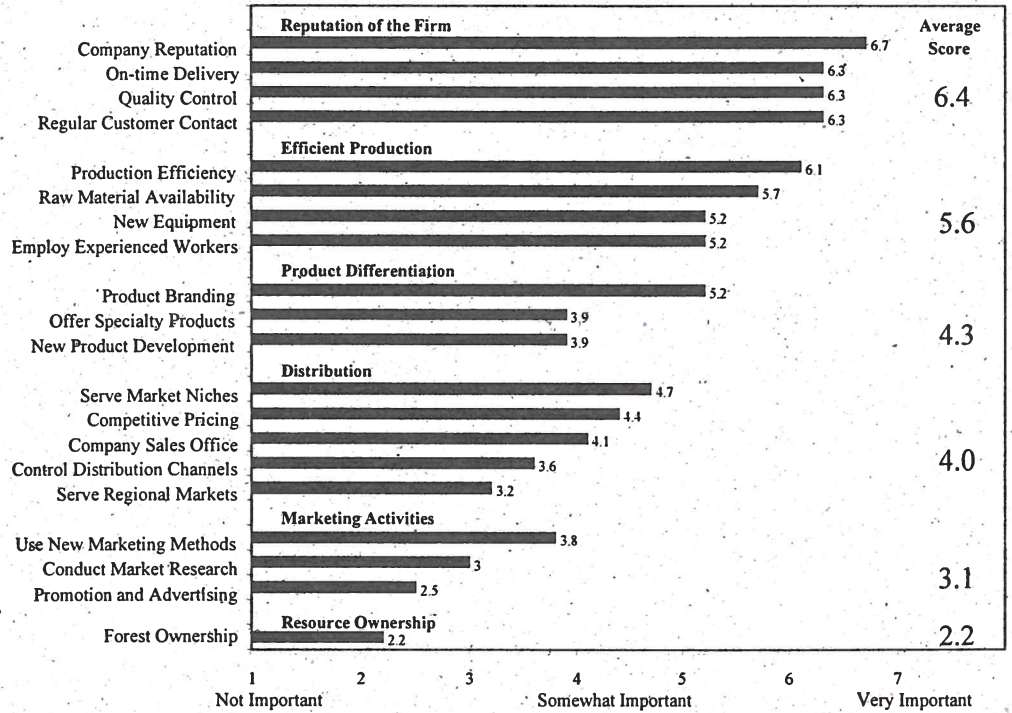


Figure 1. Perceived importance of functional groupings of marketing variables.