

## **CURRENT STATUS OF THE U.S. HARDWOOD INDUSTRY**

Urs Buehlmann  
Department of Sustainable Biomaterials  
Virginia Tech  
1605 Research Center Drive  
Blacksburg, VA 24061  
buehlmann@gmail.com

Michael Sperber  
Fachhochschule Rosenheim  
Hochschulstrasse 1  
83024 Rosenheim, Germany

Matt Bumgardner  
USDA Forest Service  
Northern Research Station  
241 Mercer Springs Road  
Princeton, WV 24740  
mbumgardner@fs.fed.us

### **Introduction**

The U.S. manufacturing sector has seen challenging years during the past decades. The major driver behind the decline of U.S. manufacturing prowess has been the ongoing globalization of trade, which has brought market share losses for U.S.-based manufacturing in many hardwood lumber consuming industries. The wood furniture, flooring, and millwork industries, for example, were especially hard hit by the worldwide opening of markets for goods and services. More recently, the U.S. wood products industry has been impacted by the bursting of the housing bubble, followed by the global financial crisis, which has further dampened demand for many hardwood products associated construction-based markets such as cabinets.

Decreasing demand for U.S. hardwoods can ultimately lead to decreasing value of forestlands and forest investments, which threatens forest management and rural economies in the eastern U.S. hardwood regions. This study aimed to better understand the perceptions, practices, and needs of the U.S. secondary forest products industry in the current business environment. The focus was on small firms, which are increasingly important in the secondary hardwood industry.

## **Methods and Sample Description**

Firms in six eastern hardwood states were included in the study, including Virginia (VA), West Virginia (WV), Ohio (OH), Wisconsin (WI), Tennessee (TN), and North Carolina (NC). Using Dillman's Total Design Method, a questionnaire with 26 questions, some categorical, some using Likert-type scales, and some open-ended, was created. Questions inquiring about trends asked for data from 2006 and 2010. The questionnaire was mailed to almost 5,000 secondary hardwood forest products companies in the six-state territory described above. Addresses were compiled from state directories, the Wood Products Manufacturers Association (WPMA), the Architectural Woodwork Institute (AWI), and from Manta's online business listings.

An initial mailing was conducted in the spring 2012, followed by a reminder postcard, another questionnaire mailing and one last reminder postcard with two weeks between each mailing. A total of 395 usable responses were received for an adjusted response rate of 9 percent. Nonresponse bias testing did not reveal any major nonresponse bias; however, caution in interpreting the results from this study is warranted given the somewhat low response rate.

Responses were obtained from kitchen/bath cabinet (22 percent), architectural millwork/store fixtures (16 percent), furniture (14 percent), wood components (10 percent), flooring (6 percent), and wood windows/doors (3 percent) companies. Twenty-nine percent of respondents indicated another product type or a combination of products to be their specialty. Most respondents used hardwood lumber in their manufacturing (representing 45 percent of total wood material costs, on average), followed by composite materials (27 percent), softwood lumber (17 percent), dimension and components (7 percent) and other materials (4 percent). The Midwest was the most frequently cited region for doing regular business for respondents (49 percent), followed by the Mid-Atlantic and the Southeast (47 percent each), the Northeast (37 percent), the South (26 percent), the Southwest (18 percent), and the Northwest and California (16 percent each). Respondents could list multiple regions of doing business, as needed. Ninety-two percent of respondents worked for companies with less than 250 employees and 63 percent worked with less than 20 employees; thus, responses mostly were received from small businesses.

## **Results and Discussion**

The questionnaire listed fourteen factors that might potentially influence business success, and respondents were asked to choose the four they perceived to be the most important. In increasing order of importance, the results were: Industry-wide technology, upper management decision making, competition-driven innovation, regulatory conditions, financing opportunities, organizational efficiency, product characteristics relative to competition, consumer expenditure in product class, owner/manager characteristics, human resources management, , marketing activities, cost of raw materials/energy, general economic conditions, and manufacturing capabilities. Thus, manufacturing capabilities were perceived to be the most critical for success (as indicated by 63 percent of respondents), followed by general economic conditions (57 percent) and costs of raw materials/energy (43 percent).

Survey participants also were presented with a list of 14 potential investment areas and asked which they planned to invest in over the next five years. Participants selected, in order of decreasing frequency advertising/marketing communications, employee training, finishing, sales force expansion/development, design/manufacture software, assembly, certification/green initiatives, e-commerce, solid wood processing, inventory reduction, panel processing, component outsourcing, rough mill, and decorative laminating/veneering. Based on these responses, investment in business related areas, especially marketing (30 percent), workforce education (30 percent), and sales (26 percent), seem to have slightly higher priority than do manufacturing related areas, such as finishing (27 percent) or assembly (21 percent).

Respondents indicated that their companies mostly rely on conversations with customers to gather information regarding industry trends. Respondents also rated word of mouth from other industry participants, magazines/newspapers, websites/list serves, attendance at meetings or workshops, visiting retail or other stores, or consulting with designers/consultants, in decreasing frequency, as sources for market information. Market intelligence seems to benefit from the close relationship respondents' companies, most of them small, have with their customers, but tertiary channels of information also appear to be helpful. However, results of this study indicated that the survivors are emerging from the crisis with a renewed focus on the customer. Not only have the distribution channels fragmented (e.g., small firms were more likely to rely on distribution and/or concentration yards for lumber procurement than were larger

firms), but the expectations of customers have diverged and each one is looking to buy exactly what they need.

## **Conclusions**

This study investigated success factors of participants of the secondary hardwood industry in six eastern states (VA, WV, OH, WI, TN, and NC). Firms ranked their manufacturing capabilities, external economic conditions, and input costs as the most important factors affecting the success of their businesses in the current environment. For the study sample, which was comprised mostly of small firms, conversations with customers to gather information regarding industry trends were widely used. Indeed, understanding the needs of customers is becoming increasingly important to be able to design product specifications and distribution channels for a company's products and services. As a result, many respondents noted planned investments in marketing and advertising communications over the next five years, even as they consider the manufacturing capabilities of their respective companies to be the most important factor to their success.

## **Acknowledgements**

The work upon which this publication is based was funded in part through a grant awarded by the Wood Education and Resource Center, Northeastern Area State and Private Forestry, U.S. Forest Service. Thanks also go to university and extension cooperators in the study states, including S. Bowe, S. Grushecky, D. Saloni, and A. Taylor. Use of trade names in this article does not constitute endorsement of any product or service.