

DOVETAIL COMMENTARY

Innovation at the Speed of the Mayflower

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One of the challenges facing forestry and forest products is the increased competition from new materials, new products and new designs. In addition to making broad and sometimes misleading environmental claims, many of these products claim to perform better in use; and in many situations (and for some customers) this higher performance is also true. Although the wood industry as a whole has focused primarily on addressing the validity of competing environmental claims, to truly address the performance issues this age old and oft times very traditional industry is going to have to innovate.

This is not a new revelation. For years forest products researchers have looked at new ways to manufacture, new products that could be made from wood fiber, and new ways to integrate wood fiber into plastic or cement composites. There have been some great successes; examples include wood fiber-cement boards used for siding and wood-plastic composites used in furniture, fencing, and windows. Yet the wood industry has not always benefitted significantly from these developments, and much of the limited funds available for research on solid wood products has focused on efficiency improvements rather than better meeting customer's spoken and unspoken needs - including needs for better product, or different performance. From a marketer's perspective most solid wood research can be referred to as backwards (toward the resource) or up-channel facing versus forwards (towards the customer) or down-channel facing. Though valuable, this approach can miss out on or delay response to both changing needs of customers and the changing demands of new products and new designs.

A lack of focus and funding for forward-looking research is not the only major challenge facing the wood industry in regards to innovation. Perhaps the biggest challenge facing traditional industry is the current distribution and construction systems. Partly due to the size of the industry and partly due to the geographic breadth of distribution required in North America, the gap between the actual end user of a product and the manufacturer of that product can be tremendous. As an example, a framer of a single-family home in the U.S. may buy dimensional lumber at a local retail lumberyard. That retailer likely buys it from a regional distributor, who

may have purchased it from an office wholesaler or directly from a sawmill often thousands of miles remote from its end use. The result is the framer has little influence on the product manufacturer and the product manufacturer has little awareness of the specific issues related to use the framer has.

This gap is not necessary. In Europe it is most common (more than 90% in some countries) for homes to be manufactured in factories that likely buy their lumber direct from the manufacturer. Not only does this allow for greater precision in the assembly of the home and greater control over both materials and the training in how to utilize those materials, this approach facilitates a customer feedback loop that increases the ability of the manufacturer to innovate and to identify and adapt to changing customer needs.

One outcome from a more efficient customer feedback loop is decreased waste at the jobsite. The best place for wood waste to occur is as far up the channel as possible (again... toward the resource). Wood products manufacturers have done a great job of finding uses for various forms of wood and, as you can see in the accompanying [“recycling” article](#), have virtually eliminated waste at most primary and secondary manufacturing facilities in North America. Utilizing these skills to further reduce or eliminate waste throughout the wood products channel would have positive benefits to society and reduce costs and handling for the end user.

Another benefit from shorter channels would be the increased ability to customize. Today’s dimensional lumber (produced annually in billions of feet) is based on sizes, usages, and demands that are over a hundred years old; and are generalized and commoditized to meet the broadest range of possibilities, rather than the specific needs of any individual customer. It represents the ultimate compromise – with no customer being completely happy, and all customers equally unhappy. Shorter channels could potentially change that.

It is interesting to note that lumber, which use to be sawn on-site and used within days or weeks of tree harvest now can go upwards of 3-6 months from harvest to use. In contrast, wine, which was historically bottled and corked for long term storage is now being consumed in days rather than months such that even high-end bottlers are switching from corks to cheaper and easier to use screw on caps, thus adapting to customer’s changing needs.

Home components in North America are increasingly made in factories; trusses and wall panels are prime examples. But the opportunity exists for enterprising, entrepreneurial lumber producers to rethink their role in manufacturing products for construction and rethink their relationship to end customers. Shortening the delivery/storage time makes economic sense (think reduced channel inventories!) and the feedback loops can improve customer satisfaction – and hence product value.

Another way to look at this is simply, if the product is taking so long to get to market (e.g., end use) that the Mayflower could have delivered it, and the feedback so long that she could have brought it back with her, then maybe it's time to rethink the methodology. Maybe it's time to interact with your customers faster than the speed of the Mayflower!

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