

Value Added Wood Products

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New Business Strategies for US Value-Added Wood Products Manufacturers

By Harry Watt and Phil Mitchell
 N.C. State Univ. Wood Products Extension

Updating the Strategy

Two years ago we published “Strategies for the New American Furniture Industry.” It outlined how new business strategies can favor US furniture manufacturers against foreign competitors and how these business strategies were affordable to implement and could help US furniture manufacturers to grow sales and profitability. Now we are updating the strategy with new ideas and expanding its coverage into additional segments of the value added wood products industry, such as cabinets and millwork products.

Critical Areas to Address

There is a critical need to differentiate American made products from those made offshore. We address six critical areas below that underscores our belief that the way to differentiate US made products is

to produce high quality, customized products that are affordable, made of sustainable and local materials, and are delivered quickly with responsive customer service.

Better value for the customer’s dollar.

We have the potential to greatly reduce the costs of materials, labor and overhead in making our cabinets, furniture and millwork wood products by using improved business strategies. We can keep lower dollar amounts in raw materials inventory and can eliminate the vast majority of the work-in-process and finished goods inventory when following a make-to-order manufacturing business strategy. We have the ability to make top quality products and with a short pipeline to the market we have a considerable advantage in delivering a high quality product over imports. The result is that we can significantly reduce the cost to

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Use Facebook to Market Your Business

The successful marketing of furniture has traditionally focused on price and appearance as the attributes buyers considered. A new generation of potential customers may have different wants and needs. They no longer get their information from the traditional sources of TV and newspapers. Social media plays a large role in the lives of the younger demographic.

Social media is hotter now than ever. I’ve heard colleagues say that students ignore their email and communicate mostly via social media sites such as Facebook. Teaching a CNC class in our computer lab

last semester, I saw students checking their Facebook pages during class (ok, ok. They were NOT bored with my lecture, they were simply multi-tasking!) Research has shown that there are nearly 147 million US based Facebook users, and some statistics suggest that about half are between the ages of 18 and 34.

I have not been a Facebook enthusiast, indeed I have resisted Facebook convinced it had no value unless you

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Facebook (from previous page)

wanted to view pictures of the grandchildren. However, and this is important: **Facebook can serve as an advertising tool for your business.** How effective it will be depends on the user. Since 2007 Facebook has offered a “Page” mechanism that can be used to promote your company on the web.

Debbie Roos, Agricultural Extension Agent with the North Carolina Cooperative Extension in Chatham County, NC, encourages small farms to create a website to promote their farm business. According to Debbie, the benefits of having a Facebook page (with some modification) are:

- If you don’t have a web presence, with a Facebook page you will (it’s free).
- Does not require special skills to set up a page.
- You can update quickly and easily (no additional software needed).
- Great tool for interacting with and engaging customers (two-way communication).
- You can educate your customers about your product.
- You can expand your network.
- Share fascinating facts about your woods and designs.
- Remind people about upcoming events such as open-houses.
- Some web customization possible with tabs, photos, info boxes, etc.
- Easy to link to other pages and friends in posts.
- It can be used to drive traffic to your website.

On the other hand, there are some “cons” to having a Facebook page:

- It will take time, and maybe even a lot of time, depending on how involved you want to become.
- You have very little control over how your page looks.
- You have to deal with (get used to) all the ads (they show up on the right side of screen/page).
- Just because you are online, business will not instantly improve for you.
- Content is not searchable. It works fine if readers check it regularly but there is no way to categorize or search older posts (like you can with a blog), instead the reader has to scroll down.
- It has to be periodically updated.

What can you do with a Facebook page? Borrowing from Debbie Roos and modifying her thoughts to be more suitable for value added wood products businesses:

- You can feature recent products that you have made.
- Post PHOTOS! of products, processes, and people.
- Any events you might host, such as an open house for local interior designers and customers.
- Promote your network – your suppliers, your retailers or other markets.
- Related wood products articles you find on the web/radio/books.
- Ask questions of your fans.

I recently examined companies that have registered to be listed in the Directory of North Carolina’s Value Added Wood Products Manufacturers (<http://www4.ncsu.edu/~pmitchel/vadirectory.htm>). I found that although 75% had functioning websites, most companies did not have a Facebook page (83% did not have Facebook page).

To look at some example Facebook pages of wood products companies, you can go to www.facebook.com and look for (or just click on these):

[Appalachian Woodwrights](#)
[Herzog Veneers, Inc.](#)
[Carolina Custom Booth](#)

And please go to [NC State Wood Products Extension](#) page and “Like” us once you start your Facebook page.

Where to start:

The following is a basic approach to creating a Facebook page for your company (your experience may differ as Facebook periodically changes the way it works).

- Go to www.facebook.com
- Click on link that says “Create a page for a celebrity, band, or business.
- Under “Create New Facebook Page”, choose either “Local Business or Place”, “Company, Organization, or Institution”, or “Brand or Product” and select the appropriate category from the drop down menu (local business is in the “Local Business” group, company is in the “Company” group, and furniture as well as building materials can be found in the “Brand or Product” group). Pick the category that seems most suitable.

- “Choose the “Name of Page”
- Do security check
- Click on “Create Page”
- “Create Facebook Account” – choose whether or not you already have a Facebook account.
- Enter email, password, birthday, security check
- Click box to agree to terms of use.
- Click “Sign Up Now”
- It will open to your new page.

You can build your Facebook page slowly. It is important not to get overwhelmed. Once you “Like” NC State Wood Products Extension, I will “like” you back. That should be a first step in marketing your company’s Facebook page.

If there is any interest in having a (free) Facebook training webinar, please email me at phil_mitchell@ncsu.edu and we will plan on one later this summer.

Seen on the Web

A few stories about wood products manufacturers in the United States.

- 1)From April 6, 2011 Furniture Today eDaily, a story about High Point market customers looking at style, quality construction, and finish, and not just price alone. [Click here](#)
- 2)Again from the Furniture Today eDaily on April 6, 2011, “Domestic wood resources are finding greater interest in their products in part due to an increased demand from consumers seeking U.S. made furniture.” For the complete article, [click here](#).
- 3)Customized furniture was featured in the Wall Street Journal (4/20/11). This is custom design furniture often done by artisans that create one-of-a kind pieces (think painted chairs) that provide conversation pieces or tell a story. The article points out that websites are helping connect customers and furniture makers. To see the article, [click here](#).
- 4)And finally, I cannot believe I forgot about this one! In the March 29, 2010 Time magazine, a graphic projected the following job areas from 2010-2011.
 - Wood products 162,000 jobs
 - Furniture & related goods, 68,000 jobsThe data was from IHS Global Insight. See the graphic [click here](#).

New Business Strategies (from pg 1)

make the wood products customers want to buy, thus growing our sales and profitability, and in the end giving the customer more options and better value for the dollars they spend.

Make-to-Order Custom products. Our value-added wood products have great variety in their designs. These designs often have common platforms that if the design and engineering systems are properly structured, existing standard items can be modified to create new designs with little time and effort. Dynamic designs are formula based entities built from the assembled item characteristics. The dynamic nature drives the immediate change of part dimensions based on the overall item dimensions. Cases like dressers and cabinets are simply boxes that we embellish with mouldings, turnings and shapes that add style and interest. Customer needs can be largely met with slight modifications and by adding components to the basic box, thus allowing our manufacturers to meet the needs of the buyer quickly with little additional costs.

Faster delivery cycles. Manufacturers today have the ability to get orders out of the front office faster than ever before. This is important because it is our industry's history that orders spent more time in the front offices than they did on the production floor. We can use 3-D design software and database order and production systems to better manage order information and eliminate most of the order cycle time that once made our products slow to make and deliver. This simple information system would make the production schedule available to all employees using factory floor computers, and contrasts with highly detailed MRP or ERP information systems that track material and labor. One innovation is the elimination of paperwork to operate the business. Paperwork tends to be dated and contain errors when generated from many isolated sources. It is best for employees to work from a common set of up-to-date information.

Better customer service. Outreach efforts to prospects and customers have benefited from the growth of better communication

methods in recent years. Web based information and ordering of our products are available to buyers on a 24/7 basis. We can quickly communicate and bring service to the customers via telephone, email or by texting. Information that once took weeks and days can now be available to customers almost immediately.

Use of environmentally sustainable materials and production methods.

Woods from US forests are environmentally sustainable and our factories should follow the new trend to be more environmentally sustainable in how they operate, with less landfill waste and energy usage. Products constructed from US woods and sold in residential or commercial markets offer real environmentally sustainable values to those markets.

Ability to meet the expected price points and quality levels. Customers are well acquainted with the Good/Better/Best product structure where both price and quality increase with improvements to the basic product offering. Manufacturers that have flexibility and the ability to manage information will be able to hit the correct combination of price and quality for each customer, allowing an ordered, custom product to be made without incurring the additional costs of waste in excess inventory and overruns that eventually have to be discounted to sell. This will give those manufacturers tremendous marketing and manufacturing advantage.

Focusing your Improvements

Within the context of improved marketing, management and business strategies, and manufacturing, we discuss several improvement items in this section.

Marketing. Now more than ever before, the focus needs to be on the ability of your company to market its product. Most companies can build the product. The challenge in today's market is figuring out how to sell it.

Using available local woods. There is a local sourcing movement across the United States that wood products manufacturers should take advantage. The "local" buying movement puts a premium on manufacturers that use local resources and labor. An additional

advantage would be the use of local minor wood species that are often overlooked but can provide a very different look that interior designers and astute homeowners crave. We are currently making pallets and crossties out of much of our upper grade lumber of woods like elm, beech, sycamore, hackberry, wormy red maple and sweetgum. Many underused woods are extremely rich in appearance. In addition, portable sawmills can convert large logs, producing not only wide boards and slabs but also quartersawn lumber resulting in a look very different from the typical flatsawn lumber. These minor hardwoods work well for value-added wood products as well as do the majority of our softwood species.

Solid lumber offers US manufacturers a marketing edge. Solid lumber wood products in cabinets, furniture and millwork offers US buyers looks and designs that the global manufacturers have difficulty duplicating. Solid lumber offers great flexibility in design and manufacturing and performs well with small order sizes. US hardwoods are viewed by many consumers as "authentic". Cabinet manufacturers can use solid lumber end panels or apply thin wood strips over plywood ends when minor species hardwood plywood is not available.

Make-to-order business strategy. To compete with the offshore commodity product (i.e. no customization available with imports, hence we call it a commodity) domestic manufacturers must be able to offer a customized product. In general, the trend is toward smaller orders of increasingly greater variety that makes long runs and high inventory levels unprofitable. A segment of consumers are more likely to buy when they can get exactly what meets their needs in a timely manner.

Dynamic designs. Given the trend for custom designs and modifications of standard items, it makes sense to create only dynamic designs for a company's product lines that allow for immediate modification when product dimensions need to change for a customer's specific needs. The ability to produce custom products using dynamic design methods was discussed above as a critical area to address. *(continued on next page)*

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Management and Business Strategies.

The United States currently manufactures about thirty percent of our domestic casegoods furniture. This could be doubled if our manufacturers created and implemented an aggressive business strategy. Our industry can reclaim sales lost to imports and grow the market by offering new wood products of superior design and construction. We highlight business strategy improvement areas that the cabinets, furniture and millwork segments of value added wood products can utilize to grow their businesses and be competitive in the global market place for wood products.

Make-to-order business strategy. This was highlighted above as one of the marketing strategies. It is restated here because: 1) it must be part of the business strategy before it can be implemented as a marketing strategy; and 2) it represents an important, fundamental change required of domestic manufacturers moving forward.

The methodology used to develop a make-to-order custom product uses dynamic designs, as discussed above as a marketing strategy. The use of dynamic design capability is important to achieve a make-to-order posture and allow customized products to be made. The three (dynamic design, make-to-order, and customization) are unavoidably tied together in marketing, management, and manufacturing strategies.

Support operations. Often overlooked for improvements are the support operations where orders are often delayed for more time than the production operations take to make parts and assemble items. A good information system is needed to allow employees to access the latest information about the orders and allows them to align their daily efforts to support the processing of orders accurately and promptly. All the information of the business should be on a networked system (with safeguards of access at the proper level needed) so employees can be empowered to perform their jobs successfully. Support functions, like estimating, order entry, purchasing, inventory management, engineering, scheduling, tool room, finishing and

shipping needs to be included in an information system that drives the company to a high level of performance and cost control.

Value-added wood products industry. A “real wood” (think solid wood) value-added wood products industry that is innovative and flexible would add to our ability to compete against offshore manufacturers. We would find cost savings with a large industry format that has flexibility and innovation. There are real advantages for manufacturers and support businesses to maintain active relationships in organizations like associations as well as working relationships among themselves.

The goal in having a strong value added wood products industry is to lower manufacturing and marketing costs so our products are competitive in our large US domestic market. Currently we are operating businesses with large inefficiencies that are driving up our costs and reducing our sales volumes. While we need to work within our businesses to reduce these inefficiencies, there are additional reductions that can occur by cooperating with others in our industry.

Elimination of waste in the business.

There is a leverage factor in business profitability that arises when any waste in the company is reduced or eliminated. We all understand the concept of the breakeven point that relates production volume and cost to profitability. Waste includes waits and delays for information, errors in information, excess inventory, over runs, scrap, excessive waste allowances, unneeded operations, non-value added material handling, etc. Elimination of waste can add directly to the bottom line.

Manufacturing. As stated earlier, most companies can successfully build their products. The challenge is to improve their processes to make them more flexible and yet remain efficient. Developing flexibility and flowing product are critical to becoming an efficient make-to-order manufacturer.

Quick setup machinery. Machinery that sets up quickly either by CNC controls or using fixtures on manual equipment is the only way manufacturers can profitably

operate in the small lot size order business environment where one attempts to meet the real needs of the customer. When changeovers can be made in a few minutes, then small lot size manufacturing can be feasible and profitable.

In addition, there has been an innovation in the creation of finishes by the use of “cookbook” finishing color systems by most of the finishing suppliers. These systems use a metering or weight measurement system to accurately dispense small quantities of color agents to make stains. The finishing companies create a large book of standard recipe finishes with color charts and the user can make adjustments to fine tune the finish to meet the needs of the customer. Thus the manufacturer can make exactly the amount of finish as needed without delay and with repeatable results.

Short production lines. Being able to flow the product and components with a minimum of handling will help eliminate non-value labor. When there are sufficient orders of parts and components that repeat and the operations can be balanced in time, then there is an opportunity to align the equipment in a short production line where the outfeed of one operation is the infeed of the next. Thus it is possible to reduce labor and cycle time while also reducing the factory footprint for these operations.

Short production lines work well when the operations require approximately the same processing and setup times. Machines that link well in short production lines include moulders, cut off saws, end matchers, sanders and boring machines.

Level of automation. Every business should strive to match its need for automation with what is needed to support its business strategy. Choices of the level of automation range from manual to semi-automated to fully automated, with lots of variation depending upon the specific needs of the business. Designs, customer needs and marketing methods drive the level of automation required to support what is needed to get the orders out on time and at a suitable level of profitability.

Support operations. This was discussed above in management strategy. The
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information system will assist make-to-order manufacturing by making only what is needed, when it is needed, and preventing the creation of waste that drains profitability.

Improved quality of lumber. The current demand for light finishes requires that lumber be of high quality. This means flat and of a bright color. Special care of many minor wood species will be required to achieve a high quality product.

Developing a network of the people that harvest and saw local lumber will help obtain and maintain quality in those unique solid wood products. Better quality results in less waste, increased marketability, and higher profitability.

Summary

This article has discussed six critical areas that value-added wood products manufacturers need to address. These areas focus on differentiating US made wood products through a combination of customization, high quality, excellent service, and the promotion of our domestic woods as a green, sustainable material. Several aspects of marketing, manufacturing, and business strategy are presented.

Get the Original Publication

In case you missed it back in 2009, Harry Watt and Phil Mitchell published Strategies for the New American Furniture Industry. Request the pdf of this publication to examine why there may be opportunities for innovative furniture manufacturers:

<http://www4.ncsu.edu/~pmitchel/publication.htm>



USDA Leads the Way on Green Buildings, Use of Wood Products

A USDA News Release dated March 30, 2011, announced the USDA's strategy to promote the use of wood as a green building material. Agricultural Secretary Tom Vilsack stated: "Wood has a vital role to play in meeting the growing demand for green building materials. Forest Service studies show that wood compares favorably to competing materials." The strategy includes:

1. The U.S. Forest Service will preferentially select wood in new building construction while maintaining its commitment to certified green building standards. USDA will also make a commitment to using wood and other agricultural products to fulfill Federal Leadership in Environmental, Energy, and Economic Performance.

2. The Secretary has asked the U.S. Forest Service to examine ways to increase its commitment to green building by reporting on the research and development being done with green building materials.
3. The U.S. Forest Service will actively look for opportunities to demonstrate the innovative use of wood as a green building material for all new structures of 10,000 square feet or more using recognized green building standards such as LEED, Green Globes or the National Green Building Standard.

In carrying out this initiative, Forest Service Chief Tom Tidwell issued a directive calling for increased use of locally milled timber in all new agency buildings and facilities. Secretary Vilsack also directed the heads of all other USDA agencies to incorporate the Forest Service policy of using domestic sustainable wood products as the preferred green building material for all USDA facilities and buildings.

A recent Forest Service lifecycle analysis found that harvesting, transporting, manufacturing and using wood in lumber and panel products in building yields fewer air emissions – including greenhouse gases – than resource extraction, manufacturing and using other commonly-used building materials. In fact, wood-based wall systems can require significantly less total energy for manufacturing than thermally comparable houses using other common material systems. [Click here](#) for the full News Release.

Upcoming Wood Products Workshops from NC State University

Marketing Local Wood Products in Metro Regions. Free workshops are being offered to support the efforts of local wood product manufacturers and retailers of cabinets, furniture, and millwork to grow their base of customers and improve their businesses. This workshop supports these efforts by addressing important marketing opportunities such as:

- Researching building permits for prospects
- Marketing to builders and homeowners
- Marketing to architects
- Marketing to local governments
- Marketing to retailers
- Using 3-D design software to support design and marketing

This workshop will be given the following days and locations:

- May 31, 2011 – Charlotte, NC
- June 7, 2011 – Charleston, WV
- June 14, 2011 – Atlanta, GA

Contact Harry Watt, 704-880-5034 or at harry_watt@ncsu.edu to register and confirm location.

43rd Annual Hardwood Dry Kiln Operator's Short Course. July 26 – 29, 2011. Clyde, NC. Contact Whit Whitmire, Wood Products Program, Haywood Community College. 828-565-4246

Wood Products Extension

Find out more about us on the web: <http://www.ces.ncsu.edu/nreos/wood/>

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