Evaluation of Niche Markets
For Small Scale Forest Products Companies

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1.0 Introduction

The nature of existing forest products markets, particularly markets for specialty products, have changed in recent years as competition and consumer demand have changed the manner in which firms must invest and market their products to compete within specific market segments. Anecdotal evidence suggests that forest product markets are increasingly diverging into commodity and specialty segments with different industries better equipped to serve each.

A similar phenomenon occurred within retail markets in the 1990's resulting in "big box" retailers such as WalMart, Home Depot and Menards who compete on price, volume and wide selection as well as specialty businesses such as Starbucks Coffee or personal chef services which serve very localized and specific product markets driven by customer demand for customized products and services.

There has been a proliferation of new small business start-ups in recent years in Wisconsin in the forest products industry based on the concept of low capital investment, low productivity and small batch production methods used to produce value-added or specialty products. Many new businesses advocating this model have proposed to compete within existing commodity markets – a prospect which most utilization specialists agree will not work. But identifying niche markets which, by their nature, tend to involve smaller volumes can be a real burden to small manufacturers from both a sales and servicing perspective.

This project seeks to identify and characterize the changing nature of specialty markets for various forest products. The report describes factors which might contribute to the creation of niche markets and how companies might identify and exploit them. Strategies employed by various companies and organizations within these market dynamics are also described.

The following information is intended as a framework for companies seeking to understand how different factors can impact niche markets. Descriptions of various examples are intended to stimulate thinking on potential applications within a company's current markets or regional geographic communities.

A complete list of niche market opportunities is impossible to provide. What this report strives to provide are general areas in which to think about where and why niche markets may exist along with examples of companies that have found opportunities within each. Niche markets are constantly changing, as are commodity markets. The key to staying competitive is to have a broad understanding of market dynamics and the ability to compartmentalize information in a search for opportunities. Four sources/influences on creation of niche markets are described including, niche markets due to:

- Customer choice, specifications & preferences
- Unique species or products
- Technology
- Regulation

2.0 Niche Markets in General

Niche markets exist in every industry and for practically every type of product. Even in dominantly commodity oriented sectors, such as pulp and paper, niche markets exist (albeit pretty large ones) based on different paper qualities, grades, and feedstocks.

The last wholly new pulp and paper company established in Wisconsin was CityForest in Ladysmith WI. This 1993 start-up purchased and up-graded an abandoned Pope & Talbot mill to establish a high-grade deinking facility to serve the growing demand for recycled raw material by printing and writing paper manufacturers in the upper Midwest. The mill initially produced white jumbo rolls of tissue from wet-lap for Pope & Talbot's Eau Claire mill. In 1999 CityForest completed a $60 million dollar expansion which allowed it to use baled unsorted waste paper as a feed stock and do more value added processing of their final product (Hacker, 2000).

A similar event occurred in Minnesota when a start-up company bought a closed Potlatch paper mill in Brainerd for $5 million in 2003 to produce "… high-grade uncoated paper for niche markets" (Star Tribune, 2003). This mill was sold less than two years later to Wausau Papers of Wisconsin for $9.6 million, an established producer of specialty papers (Star Tribune, 2004).

In both of these cases (as is common when commodity producers downshift into niche markets) jobs losses and production volume losses were substantial compared to the previous operations. However, these examples illustrate that even in fiercely competitive markets, niches exist.

The following is a good description of niche forest products and markets.

> "Niche products tend to be specialty, higher-value, non-commodity wood products that are directed at specific markets that value the unique appearance/quality of a product that has a limited production supply. Niche products are usually produced by smaller manufacturing plants that focus on producing a unique, high quality product in limited volumes. These are usually products that an end-user believes has an added-value component due to unique appearance/quality, end-use, etc. Many niche products have the same number of competitors as established commodity products but niche products have the advantage of being able to create brand or product loyalty to separate themselves from competitors, are more regional in market focus, are more attuned to market/demand changes and trends, and are quick to adapt to changes in market demand." (Natural Resources Canada, Canada Wood, 2003)

Niche markets can arise, or be created, in a number of ways. Perhaps the most common is due to ever expanding customer preferences and desires for greater product choices. Identification of niche markets is done through a process of market segmentation and determining target markets for specific products and services. "Markets can be segmented based on a variety of different characteristics which can range from demographics to product application to geography." (Smith, 2000)

From the on-set this results in a smaller potential customer base. Mass marketing has become such a common mind-set in recent decades that it often take a philosophical leap of faith to accept the proposition that a business might not want everyone to be their customer.

> “Focusing on a small subset of all potential customers seems dangerous. Why limit the pool of customers when it might already be small? But having a well defined, narrow target market – a niche – gives a small company many advantages. Moreover, just because it’s a niche market, I don’t necessarily mean a small market. Rather, choosing a niche means finding something that immediately distinguishes you from you competitors – focusing on something that makes you distinct.” (Singletary, 2005)

Singletary goes on to suggest several ways to identify a niche market including:

- Targeting a specific industry or business type (supplying tropical hardwoods to crafters?).
- Targeting a demographic group (recent baby boomer retirees interested in woodworking?).
- Targeting a specific aspect of work (custom planeing?).
- Choosing a specific style of service or product (custom mobile sawing?).

> “Finding a niche is one of the most powerful ways to set yourself apart from the competition and focus your marketing efforts. You’ll find another benefit too: Companies that specialize often charge higher prices. You and I know your business is special. Why not become more special? Find yourself a niche, then let the world know about it.” (Abrams, 2005)

There are many advantages in focusing on niche markets. Within commodity and mass marketing business segments competition is fierce and will only intensity. These models rely on competition based on price, standardized product lines, continuous capital investment, and relentless cost cutting for businesses to remain competitive. Niche markets are ideal for smaller businesses because they can escape this dynamic. Producing for a niche market also creates, for the business, a clear focus for marketing and advertising efforts. Finally products and services sold in niche markets often command higher prices because they compete better in meeting customer needs for custom products.

Competing in niche markets, however, has some disadvantages. A higher level of customer service is needed and greater attention to customer needs. A business serving a niche market will usually be small enough that one or two of the principles will have to assume many of the responsibilities (not only for production) but customer identification, procurement, marketing, delivery, contracts, etc. typically assumed by employees of larger firms.

Following are some excerpts from an exchange on the WoodWeb Forum (2005) that illustrate some of the difficulties small businesses in niche markets face.

> “I just got laid off and am thinking about striking out on my own. I have 20 years experience as a professional furniture maker and have a fully equipped 1,200 sq. ft. workshop in the backyard. I just can’t decide how feasible this business would be.”

> “With any business, especially a startup, you have to hustle the work.” “It takes gobs of promotion over several years …” “Talk, talk, talk and listen even more. Let the newspapers do a start-up story about you. Be creative.”

> “Anyone can make a box with a door and drawer, but my niche is selling and designing and listening to the customer and giving them what they want.” “Being a skilled woodworker is only half of survival as a one-man shop. The business end is what will make or break you.”

> "I started off that way and didn't make a living until I figured out what I made money at and what I didn't."
> "You will wear many hats being the owner, janitor, etc. I was around 50 when I started and I wouldn't give up the independence for the world."

Bibeau (2005) emphasizes the need for small businesses to create and maintain a plan do address competition (and changing competition over time) within market segments, product categories and the customer base. Howe and Bratkovich (1995) developed a comprehensive step by step guide for small and medium sized businesses to guide them through the process of:

- Creating a Strategic Plan
- Creating a Marketing Plan
- Creating a Business Plan

As some of the above comments illustrate, even for a one person shop, it is important to think about the concepts in this or other guides and have a fairly good idea how each will be addressed. Markets, evaluating the competition, customer service, proper pricing and evaluating niches are as important as producing a quality product. Most small businesses focused on forest products have considerable experience in wood products manufacturing. Learning the other parts of the business are often a challenge but a necessary part of being successful.

3.0 Efforts Undertaken to Help Industries Identify and Enter Niche Markets

As international competition within commodity markets has intensified, numerous efforts have been advanced to assist companies in identifying or establishing niche forest products markets. The forest products industry can learn from the experiences of other sectors – most closely, agriculture.

On a wave of recent and continuing lifestyle and economic changes, the agriculture industry has successfully developed new technology, marketing, and products to fill the voids created by these changes. Corn producers turned to ethanol production as a technological answer to U.S. reliance on oil. Soybeans are being used to make degradable plastics. Consider the organic food industry – once relegated to a fringe group of the population and sold exclusively directly to consumers or through coops. Now one can buy such foods routinely in traditional grocery stores.

The TV dinner, invented long ago, has now morphed into all sorts of ready to heat/use specialty items including pre-cooked and cut up chicken, all inclusive one skillet or one pot prepackaged dinners, packaged salad mixes, and microwave meals of every sort – all designed to save the purchaser time (but not money) in fixing dinner. Finally, consider the turkey industry. What a masterful job they have done in creating new products. The Thanksgiving turkey, once relegated to one day a year of consumption, now can be consumed all year long through turkey sausage, turkey hot dogs, cut-up turkeys, ground turkey, and turkey (who knows what). The pork industry has had similar success in "adding value" to their products by producing such things as (in addition to plain old simple pork tenderloin) teriyaki pork tenderloin, lemon pepper pork tenderloin, barbeque pork tenderloin, etc. Then there is the "Pork, the Other White Meat" campaign.

The efforts cited above have been well funded and involved considerable research but the basic principals remain the same. Exploit new technology, exploit regulatory/policy trends, exploit trends in consumer tastes/preferences, design unique products, and customize marketing to sell products within these changing market dynamics. This need not be done on a national or regional scale. There are plenty of examples of local agricultural producers delivering free range chickens and beef to local grocery stores, weekly baskets of produce to suburbanites, fresh herbs in considerable quantity with a brand name to stores, and farmers markets – busting at the seams with customers – for all kinds of produce.

The discussion within this section has been focused exclusively on agriculture, up to this point, but it appears that the forest products industry is several years behind the agriculture industry in grasping an understanding of niche markets and how to exploit them. The text which follows contains examples of projects and efforts to bridge this divide.

3.1 Direct Technical Assistance to Forest Products Firms

Virtually all states with some amount of forestland employ forest resource or utilization specialists to provide direct assistance to forest products firms. In some states, such specialists are also located at Universities either within wood product departments or as part of the land grant extension network.

As competition within wood products markets has intensified, an increasing amount of assistance is being sought from these experts in modifying in-plant product flows to increase efficiency, reduce waste, and increase the quality (and therefore value) of products produced. Most of this work is highly technical in nature involving such things as yield studies, analysis of in-plant product flows, feasibility studies, wood supply analyses, and technically advanced programs to analyze plant operations. Most frequently, including in Wisconsin, this is not directed at niche markets but rather assisting existing commodity producers in improving their competitiveness.

The network of technical assistance providers in university extension programs, regional economic development organizations, regional conservation & development organizations, and the USDA Forest Service State & Private Forestry are more likely to work on identifying and/or developing niche markets as a part of their natural resource based economic development focus.

Again, agriculture provides a model for these types of approaches. Agricultural research and extension has been a strong focus in the United States for many years with this technical research linked to individual farmers through a network of county agricultural extension agents. All three of the Lake States (Michigan, Minnesota, and Wisconsin) have recently developed similar networks to provide assistance to forest landowners using this same model. It is too early to tell if this focus on landowners will produce tangible and long-lasting results.

Hacker (2001, 1999 & 1998) has argued that while the concept of linking researchers with delivery providers is sound, the focus of the providers should be forest product industries NOT landowners. Unlike agriculture, production from forestland can not be altered quickly. Such landowners are reliant on markets to sell the products they harvest which are dependant on industry demand. A focus on landowners does little to alter product markets in the near-term.

Forest based economic development, whether focused on commodity producers or producers active in niche markets, is a function of individual companies and the competitive environment they face not forest landowners and what they grow.

The direct technical assistance described above is overwhelmingly provided by state or federal employees. Another group of initiatives involving some of the same players generally does not provide direct technical assistance but is instead focused on providing the tools needed by forest products industries to identify and compete in niche markets. These initiatives are described next.

3.2 Specialized Research and Marketing Assistance

While many of the same types of organizations which provide direct technical assistance are involved in the type of initiatives described below, the focus is somewhat different. In the case of these initiatives, focus is almost exclusively on identifying niche or value-added opportunities (and specialized research regarding them) for existing forest products industries NOT process improvement to increase productivity within existing commodity markets.

These initiatives frequently take the form of state, provincial, federal, or university sponsored programs based on a specific identified policy to encourage development of niche and value-added markets. These programs are strongly focused, not only on niche markets, but toward specific opportunities and on-the-ground application – particularly for secondary producers (or to help primary producers to vertically integrate).

The efforts profiled below vary widely in their scope, structure, and geographic coverage. Many programs focus their efforts specifically toward the wood products industry while others work with many other resource based sectors. Programs also vary in structure and the relationship between the various entities involved. In addition, program service areas range from local to larger areas including multi-state regions.

Services offered by these agencies and other entities range from technical, marketing, and export assistance to education and training programs, assistance in establishing flexible manufacturing networks, and research and policy development. Several of the descriptions which follow are abbreviated from Andrews and Hacker (1998) unless otherwise noted. Each program described has some common elements. Most programs contain priorities related to industry directories or networks, tailored training for secondary wood products companies, and information sharing. As the descriptions which follow illustrate, other aspects of each program are highly variable and tailored to the individual circumstances of the target audience.

Canada has been most aggressive in establishing provincial or national organizations and initiatives as a means of maintaining and strengthening the industry – one of Canada's largest export earners. Many of these initiatives were developed as a result of the long-running softwood lumber dispute with the United States (Canada's largest trading partner). With restrictions on the amount of unprocessed lumber that could be shipped to the U.S. without incurring high duties, provinces across the country sought to increase the value-added component of the industry.

Forest Renewal British Columbia
The British Columbia Forest Renewal Act was passed in June 1994 establishing a corporation known as Forest Renewal BC with a Board of Directors including representation from forest industries, workers, environmental groups, communities, governments, and First Nations. An average of $400 million a year from increased stumpage rates and royalties paid by companies to harvest timber on Crown lands is earmarked for the corporation's programs. There are five corporate priorities. Two involve improved reforestation, tending and environmental protection. The other three involve creating new skills and jobs for forest workers, getting more jobs and value for each tree cut, and strengthening communities that rely on forests. The broad span of Forest Renewal's objectives and funding means that the corporation is tied to virtually every timber initiative in the province. Specific value-added focuses include the following:

- The British Columbia Wood Fiber Network is a computer network that serves as an electronic bulletin board where suppliers and users of wood can list wood to buy or sell or make requests for special items.
- The Ministry of Forests operates a weekly auction of logs cut from Crown land near Vernon, BC. Logs are scaled and sorted into 45 product groupings which allow buyers to choose exactly what they need. This yard serves a variety of clients including small manufacturers and home builders who want one log or several particular logs.
- The Ministry of Forests is also promoting trade between large forest companies and value-added manufacturers under a Value-Added Credit System. Under this system, primary forest products companies receive recognition for the volume of primary forest products they supply to value-added operators.
- The Ministry of Forest's Small Business Forest Enterprise program is using new bid criteria to encourage the maintenance and expansion of local jobs and the production of value-added products.
- Several Value-Added Skills Centers have been established to train students for secondary industries and value-added entrepreneurs.
- Forest Renewal BC has also provided funding for several regional value-added manufacturing associations and supported value-added wood forums across the province which promote a grass roots approach to the development of the value-added sector.

The provinces of Alberta, Ontario, and Quebec have developed similar, although less comprehensive initiatives of the same sort as a result of national policy directives – all focused on development of niche markets and value-added opportunities.

Alaska Southeast Regional Timber Task Force
The purpose of this task force was to develop a plan for a sustainable timber industry in southeast Alaska. Much of this initiative focused on timber supply – not surprisingly since this is a huge problem in Alaska. Initiated in 1996 through a governor's initiative, the task force sought to encourage more value-added production by small businesses by:

- Offering logs for sale at a centrally located sort yard.
- Establishing a funding mechanism to assist small operators in obtaining the performance and payment bonds needed to purchase state and federal timber sales.
- Developing and distributing a wood and wood processing service exchange list.

- Funding projects which includes an element of innovation through the Alaska Science and Technology Foundation.
- Encouraging communities to take the full risk of investment in new wood processing enterprises in order to provide employment opportunities for residents and diversify the economic base.
- Supporting development of a small business network.
- Developing local/state/federal partnerships that focus on providing education & training in secondary wood products manufacturing industries at regional level.

Kentucky Wood Products Competitiveness Corporation
The sole mission of this corporation is to promote, enhance, and develop the secondary wood products industry in Kentucky. Kentucky already has a considerable number of secondary wood industries, many of them small. This initiative has several goals that are common in many programs aimed at assisting secondary wood processors including: an industry directory; an information network for secondary wood manufacturers; and accessible, tailored training programs. Whereas the Alaskan program contained several components related to timber supply, this Kentucky program has some unique priorities tailored to perceived problems faced by secondary producers in the state.

Two of the priorities are legislative/regulatory in nature involving advising Cabinets and House and Senate Legislators on issues related to the secondary wood industry and providing secondary wood companies with guidance regarding the most effective means to fully comply with existing governmental regulations. This initiative includes, as a top priority, creating an aggressive and ongoing campaign to assist wood manufacturers in identifying buyers, developing leads, and selling Kentucky wood products on the state, national, and international level. It also proposes to engage existing economic development groups by providing an ongoing identification of target industry niches and companies active in those niches.

Three unique aspects of Kentucky's program are that they already have an established wood utilization center which carries out education, training, and information sharing. Another priority is providing an ongoing review of industry wood waste products and exploring avenues for common use and disposal. Finally, their vision calls for establishing objective benchmarks to measure and monitor trends in the performance of Kentucky's secondary wood products manufacturers.

Michigan's Forest Resource Strategic Plan: A Marketing and Investment Strategy
This strategic plan is primarily focused on primary manufacturers. It was developed at a time when the auto industry was going through its last contraction in the 1980's. At the time Michigan had a strong core of primary manufacturers and growth of Michigan's forests exceeded harvest by a considerable margin. The state chose to focus its efforts on using this advantage to expand existing industries, attract additional primary industries, and develop initiatives that would provide monies to intensify management to serve new start-ups and expansions.

While this strategy did not contain a niche market component, it is included here as an example of an effort that sought to build on existing strengths (and/or address weaknesses as in Alaska's case). Core principles in economic development are to first build off of existing strengths, use those strengths (and existing industry) to spin off new enterprises and products, and (lastly) seek entirely new industries either as start-ups or relocations. This same philosophy applies to identification and development of niche markets.

Oregon Wood Products Competitiveness Corporation
This initiative was driven (like so many others) by huge job losses in the industry as a result of timber supply reductions in the wake of the federal policies put in place to protect habitat for the Northern Spotted Owl. As in British Columbia, Oregon assessed its existing industry and discovered that while employment in the primary sector had declined dramatically, employment in the secondary sector was increasing. Consequently, this effort is strongly focused on value-added and secondary wood product industries. Components of the initiative include:

- Industry training.
- A private industry association.
- A special program to increase access to capital.
- Marketing conferences.
- A wood exchange publication for secondary manufactures to access wood supplies.

Pennsylvania Sustainable Forestry Initiative
The mission of the PSFI is to promote the economic development and expansion of Pennsylvania's hardwood industry. Like Kentucky, Pennsylvania began this initiative with a large secondary forest industry base. Their focus is:

- Maintaining access to timber resources.
- Supporting and assisting the industry in developing domestic and international markets for value-added products.
- Promoting and expanding the processing and manufacturing of value-added forest products.
- Promoting public knowledge and understanding regarding the role that the forest industry and its products play in our society.

As with many other programs, the Pennsylvania effort uses a combination of partnerships with other existing organizations, marketing assistance, education & training, and resource guides/information to achieve its objectives.

3.3 Establishment of Specialized Networks & Locally Based Programs

The efforts described above are state and province wide efforts to support development of forest products industries – most often focused on secondary sectors. Other types of efforts are more grassroots in nature and focused specifically on local industries.

A key concept underlying many of these efforts (and others regarding niche markets) is "Cluster Based Development" The term cluster is defined as:

> "A geographically bounded concentration of similar, related, or complementary businesses with active channels for business transactions, communications, and dialog that share specialized infrastructure, labor markets, and services and face common opportunities and threats." (Bosworth, 1996)

Wisconsin has been active in investigating and encouraging cluster based economic development and forest products has been identified as one of the sectors where Wisconsin has a competitive advantage. As described in the Wisconsin Industry Cluster Initiative (2002):

> "At its core, a cluster-based economic growth strategy is about focusing investment and energy at the industries where Wisconsin has a competitive or potential advantage over other regions."
>
> "The key to innovation and competitiveness in a global economy is based on a region's ability to support and enhance the growth of interrelated industries that a particular region specializes in. This concentration of interrelated industries is often referred to as a cluster. Healthy clusters are a complex network of suppliers, services, support institutions, and producers concentrated in a particular region that drive innovation and thus, the creation of new products, new companies, and higher skilled/higher wage jobs."

Advantages stated for a cluster based economic development approach by the Wisconsin Department of Commerce Industrial Clusters website include:

- Greater presence in the marketplace. Collaborating as a cluster allows individual companies to wear the mantle of much larger organizations and be part of a more impressive marketing image. This is especially important within niche markets where industry size is typically small and marketing expenses could potentially be large.
- Cost effective sharing and pooling of resources. Production capabilities can be expanded and resource utilization increased, thereby improving efficiency without straining capital reserves.
- Sharing appropriate business development and running costs.
- Sharing market intelligence and ideas. Though it may take time to build up trust, once this kind of sharing takes root it can become and invaluable asset – especially to niche producers.
- Guidance from more experienced companies. This is especially important to small producers.
- Lower vulnerability during the formative years. Research shows very few new companies fail when incorporated into a cluster, which is in marked contrast to new companies operating outside clustering frameworks.

This Wisconsin Department of Commerce web site offers an extensive list of other cluster based development sources of information throughout the U.S. including information on the Wisconsin Paper Council's (2003) recommendations to strengthen the paper industry (A designated cluster in the state). This document illustrates the range of actions that might be used, and perhaps, could be applied to development of niche market networks.

- Tax incentives of various sorts.
- Regulatory reform.
- Increase the availability of low cost energy and fiber supply.
- Heighten the profile and aggressiveness of business development and incentive programs.
- Identify short and long-term research needs for development of new products and processes.
- Establish a "virtual" center for facilitating, collecting, and disseminating R & D information.
- Educational and training initiatives.
- Strengthening cooperation, consensus, and partnering to the maximum extent possible.

The idea behind a cluster based approach is to attract diverse industries within a specific industrial sector which can complement one another in mutually beneficial ways. This may include use of joint facilities, use of products or by-products of local industries, combined use of marketing or transportation, or the sharing of information on industry trends.

Braden et. al. (1998) described several industry clusters in the Pacific Northwest including the log home industry in western Montana, the moulding and millwork industry in Bend, Oregon, and the wooden boat building industry in Port Townsend, Washington. Although all the clusters and industries within them started at different times and under different circumstances, each shared some common elements which are applicable to development of niche markets.

- Proximity and easy access to regional markets.
- Plentiful supply of raw materials and potential customers.
- Skilled labor.
- Each cluster originated with a few firms led by energetic owners who recognized the value of having related companies locate in the same area.
- Low levels of competition among firms, initially, with each operating in unique niches.

Businesses within these clusters often cooperate through a combined effort to get community support, purchasing specially milled logs from neighboring firms, exchanging workers or equipment in times of boom & bust among firms, and supporting an open exchange of advice and referrals. Respondents within these clusters indicated that innovation was vital to success and that spin-off ventures by former employees were not uncommon.

> "It is rare that these new firms are direct competitors of the original company. Rather, the new entrepreneur often identifies a product or service that does not exist. Each cluster's relatively small size and relationships within the local business community help it adapt to industry changes. Spin-off ventures appear to be important to a cluster's ability to adapt to market fluctuations and regulatory changes."

Riley (2004) describes similar efforts as Community-Based Forestry citing a term coined by the Aspen Institute Initiative. Components of CBF include initiatives that treat social equity, economic viability, and ecological integrity as equally important. At the heart of this approach is the "…building of vibrant local economies while enhancing local forest ecosystems." Riley argues that early industrial production started with small scale production integrated with home lives followed by mass production in factories. The advent of the knowledge economy has changed the competitive landscape giving firms with flexible specialization a comparative advantage.

Niche markets fit right into, or result from, this new competitive dynamic where:

- Webs of relationships matter.
- Time to market is critical.
- Transaction costs are often more important than input costs.
- Flexibility is critical in reacting to market and competitive changes.
- Knowledge is of greater value than capital equipment.
- Quality matters & cheaper is not better.
- Customization and value-added is the norm and the source of competitive advantage.

One example of a CBF organization cited by Riley is the Humboldt Woodworkers Guild.

> "We are a consortium of woodworkers & crafts people geographically based in Humboldt County, California."
>
> "A unique design style is growing here, rooted in a philosophy of living and working in ways that use the wood truthfully. www.woodguild.com"

Following are some examples of efforts undertaken to develop and support forest products based niche markets and create clusters of producers. The following information is provided as examples of the diversity of form such efforts may involve, depending on the local circumstances, and the different types of efforts which may result.

Ladysmith Forest Industry Park
The concept of industry cluster based economic development was successfully applied to a forest industry based industrial park development in Ladysmith Wisconsin (Hacker, 2000). The first step was compilation of forest resource information from the area and the number and capacity of existing forest products industries. This city in Wisconsin had a solid base of forest products industries in various sectors. Focus within the existing industries was identifying either outsourcing opportunities or opportunities to create new industries based on substituting current inputs. The results of this part of the project are discussed in detail in section seven.

Existing businesses were also given financing and other type of help (particularly related to buildings and infrastructure) on the local level. This resulted in expansion of a window factory in 1997, a cabinet company in 1995, and a log trucking company in 1990, as well as, the start-ups listed below.

Detailed analysis of National and Wisconsin growth in various forest products sectors was also undertaken to determine sectors where development efforts should be focused. This technical analysis proved to be extremely valuable and resulted in the start-up (and later expansion) of a recycled pulp mill, establishment of a multi-tenant facility with such features as a common dust collection system and a common paint booth, and start-up of a modular home company. Other start-ups as a result of regulatory and technology change are described in later sections.

Lessons from that project provide guidance on important components of successfully employing this strategy.

- Capitalize on existing resources including available raw material and high quality applied research.
- Focus on adding value to existing products.
- Focus first on helping existing businesses stay and expand.
- Emphasize research, planning, and long-term consistency.
- Secure an anchor tenant for the forest industry park.
- Secure ongoing local support for a forest industry park development.

Clayoquot Sound Green Economic Opportunities Project

This project examined opportunities for industry expansion when additional wood volumes became available from the areas two largest producers, Iisaak and Interfor. Through a technical analysis, opportunities were identified for smaller dimension specialty products, alternative wood species, furniture, and crafts linked to tourism and residential construction. The project found that:

> "Cooperation at the regional and sub-regional level is needed to support the sector, not just among the industry players themselves but within the community at large." (Clayoquot Sound Green Economic Opportunities Project)

The project began with an assessment of the current status and trends in the industry with a focus on value-added production. Identification of existing producers and the products they make was the next step. The study found that in the Clayoquot region there were more than 15 value-added manufacturers and over 40 when creators of specialty products were taken into account. As is characteristic with niche markets, the largest of the firms employed 16 people whereas the others were sole operator enterprises or part-time hobbyist/secondary income producers.

Access to wood was cited as the number one problem for value-added operators. In response the province created the BC Wood Fibre Network as an electronic mechanism of linking buyers and sellers of logs and lumber. Other sources of supply used by operators in niche markets in this region include salvage wood (wood left in the forest after logging or wind-thrown or diseased trees) and stumps. As one operator explained:

> "Second growth is just not the same. It is not structurally sound. The value of salvage wood is approximately $150 per cu. m. compared to $300 per cu. m. for lumber. Manufacturers can sometimes find music block grade wood in their supply worth $600 per cu. m.

Reexamining and assessing government regulation (and its effect on wood supply) was also an area of focus within this project. The potential for internet marketing and linking local producers with the tourism industry (in the form of retail galleries of products and use of local products in tourism establishments) were also examined.

Other Canadian Efforts

The Venture Kamloops web site has a wealth of information on many strategies and projects undertaken around the country focused on value-added and niche markets. Many are for specific places such as "Thompson Country Community Futures Forestry Sector", "Nicola Valley and Logan Lake Forest Sector Strategy", and "North Thompson Forest Economic Development Strategy." These types of area focused work are common in niche market research and extremely helpful in identifying niche markets that "fit" (or could fit) within existing producer and supplier networks.

Other resources included on this web site are research on specific sectors or products which are applicable over a wider geographic area. This applied research forms the basis for local area development efforts which may or may not be applicable in specific situations. Examples of this type of research include:

- Evolution of the North American Home Building Industry: An Opportunity for Value-Added Manufacturing Investment in BC.
- Wood Residues into Revenue: Residual Wood Conference Proceedings.
- Custom Milling & Kiln Drying – Pre-feasibility Analysis.
- Resource Guide for Value-Added Wood Product Businesses in BC.
- Wood Market Trends: Japan.

Both types of resources are important in supporting development of niche markets within regions and at the local community level.

The *Value Added Wood Products Investment Potential in the Cowichan Lake Area* (Woodbridge, 2001) report offers an illustration of the sector specific recommendations often inherent in studies of local economic opportunities. After identifying existing local industries, the study identified "gaps" in either local wood supplies/surpluses or markets that those existing industries could exploit. In this case, four opportunities were identified:

- A hardwood specialty sawmill using alder/maple to produce kiln dried rough sawn and, possibly dressed lumber. This recommendation was based on lack of use of alder within the area and improved milling technology in recent years.
- A laminating plant based on medium-log yellow cedar. Again based on resource availability.
- A machine profile and handcrafted log home plant based on resource availability and advances in technology.
- A profiled laminated post and beam plant based on second generation engineered wood technology using small hemlock, small fir, and small yellow cedar.

The study also found the markets for hemlock chips in the area to be strong and market for alder, yellow cedar, and maple chips in Japan to be well developed.

Growth in the Value-Added Wood Products Industry: An Economic Feasibility Study for the Clinch-Powell Enterprise Community Counties.
This report (Menard et. al.) was commissioned by the Clinch Powell Resource and Conservation Development Council and prepared by professors at the Department of Agricultural Economics at the University of Tennessee. It is a comprehensive 60 page study which contains all the elements of an economic development study focused on the wood products sector. The number and size distribution of wood products firms in the study region is provided followed by a review of the wood supply/resource statistics including: species mix; sawtimber removals; annual growing stock growth and removals; removals by log grade; etc.

Socioeconomic data for the region is also outlined followed by the technical and financial economic analysis of four identified opportunities: a sawmill; kiln drying facility; hardwood blanks manufacturing facility; and a furniture manufacturing facility. The study concludes with an analysis of projected expanded industry employment and output impacts on the regional economy.

This study and the previously cited Ladysmith Forest Industry Park project are included as examples of the necessary elements which should be included in efforts of this type. They also offer a guide to would be entrepreneurs on some steps that should be taken to investigate niche market opportunities – a good market analysis and a good analysis of existing industries and how one might fit within that industrial cluster.

Working With Wood Eight County Wood Products Development Strategy for the Adirondack North Country Region.
This study relied most heavily on an analysis of hardwood exports from the region and a survey of existing businesses regarding their interest in expanding current manufacturing capabilities and introducing new product lines (Holmes & Associates, 1997).

Hardwood exports from the northern forest area of the Northeast had increased from 76 to 337 million cubic feet in recent years before the study was conducted with most of that exported in unfinished form to Canada. This was seen as an opportunity to add value to what was currently being exported. The survey results revealed that a majority of existing forest products businesses were interested in expansion. The following target products were identified as a focus of economic development efforts:

- Hardwood flooring.
- Hardwood dimension.
- Pre-fabricated structural grade building materials.
- Turning stock.
- Veneer.
- Turning and bending manufacturing facilities.

Three reasons cited, related to the feasibility of these areas of focus, were the relatively modest capital requirements, the diversity of existing businesses in the sector, their relatively small-scale which was compatible with the rural labor market, and that there are many small niches in the wood products industry that have high growth potential.

In this case, suggestions focused on coordination of all regional wood products assistance programs, expanded information & training programs, and professional marketing assistance. Details included:

- An annual meeting focused on wood products development.
- Computer-based communications links.
- An on-line wood products directory.
- Newsletters.
- Work shops and training sessions.
- Public education and outreach.
- An annual regional wood products trade show.
- Increased regional marketing efforts.
- Revitalization of the forest products and utilization & marketing program.

With an existing strong and diverse regional industry base, this Adirondack North Country effort was almost completely focused on expansion of existing industry. Many other organizations have also focused on developing on-line wood products directories and exchanges to help producers with marketing efforts. These include the Montana Specialty Forest Products Exchange (Montana Specialty Forest Products Exchange), a directory of value added wood product producers in Washington State (Blatner, et. al.), a buyer's guide for Washington's value – added wood products (CINTRAFOR) and the BC Wood Specialties Group (BC Wood Worldwide Inquiry System). Expansion of existing industry is also the focus for the project described next.

Goods From the Woods & the Minnesota Wood Campaign

> "Goods From the Woods is a Minnesota-grown initiative that combines educational workshops, an "Up North" specialty forest products marketplace and a community festival to celebrate the northern forest and promote a vibrant forest-based economy." (Goods From the Woods, 2003)

Supported by the Blandin Foundation this effort's goals are to:

- Create an annual signature event of regional significance to attract visitors to Grand Rapids.
- Improve the economic viability of non-traditional wood products businesses.
- Increase the utilization of forest resources through improved harvest coordination.
- Promote sustainable harvesting practices.

At the heart of this effort is an annual marketplace and educational conference in Grand Rapids Minnesota where vendors display such items as basswood carvings, carved animal wood sculptures, turned wood containers, wooden plates & boxes, faces carved in pine knots, wooden decoys, specialized furniture, baskets, medicinal forest herbs, etc. This forum provides a marketplace for niche forest products producers in the region and combines it with unique educational programs and entertainment to attract additional visitors. It is not technically sophisticated or particularly expensive but has been very successful in helping existing niche market producers in marketing their products and introducing potential new entrepreneurs to business possibilities in the industry.

A related effort, called the Minnesota Wood Campaign, is a collaborative joint marketing venture by over 65 producers in northern Minnesota to establish a "brand name" for products produced in the region. Branding is a common technique within retail industries to distinguish one company's products from a competitor's in the marketplace. S.C. Johnson, General Mills, Dell Computers, and numerous other firms have attempted to establish a brand presence in the marketplace even though their products might not be very different from competitors.

For the most part, forest products industries have not had similar success. An individual may always buy the same printer paper but frequently does not know who makes it. The same can be said with lumber or flooring or furniture and numerous other products. The furniture industry has had some success with branding. Taiwan's wood-furniture manufacturers have responded to competition from China and other low cost producers by moving low end, mass production to those countries and by adopting a "small-volume, large-variety mode of operation" with identifiable styles for higher value furniture. "These styles can include designs, brand names, and even product strategies. If you don't have any of those, you can never escape from the price-cutting game." (Liu, 2005)

Project goals of the Minnesota Wood Campaign are to building a joint marketing venture by producers in northern Minnesota to add value to their products by:

- Building awareness of the unique traits of northern Minnesota wood species and the range of wood and forest products available and;
- Creating and nurturing the brand that communicates the physical, emotional, and value traits that appeal to high-potential markets and customers.

Project activities to accomplish these goals are:

- Identifying traits of local wood products that are of particular value.
- Creating an easily remembered brand or brands around those traits.
- Identifying markets and buyers nationally and internationally that most value those branded products and related traits and standards.
- Marketing the brand and the products of individual producers through trade shows, publicity, advertising, and other promotional efforts.

To implement the project, the Minnesota Wood Campaign has established the brand name “True North Woods” listing companies and the products they produce on an internet virtual marketplace. They have also organized events of various sorts focused on these products such as an heirloom furniture expo at the Minneapolis farmers market and an annual wood crafters festival in Grand Rapids. Other services offered to members include:

- Technical assistance.
- Access to shared Campaign initiatives such as trade shows, joint product liability insurance, buyers’ marts, collaborative shipping solutions, etc.
- Publicity both as a group and individually.
- Participation in marketing networks.
- Access to high-potential customers identified through research and developed through advertising and promotion with access to distribution of active leads.

Unlike some of the other efforts described previously, this one is strongly focused on marketing and promotion – often huge hurtles for niche market producers.

Annual Vermont Wood Products Showcase
This showcase is similar to the Goods from the Woods effort and includes vendor space for Vermont woodworks, other exhibitor space, and an educational component including hands-on demonstrations.

> “Vermont woodworkers are successfully filling a growing market niche with those customers who demand authenticity and individuality in all that they purchase, says Jeff Parsons, event exhibitor and partner in Beeken/Parsons Furniture. Handcrafted furniture and wooden accessories appeal to consumers who value art and culture, education, and experiences.”

East Range Economic Response Strategy Team, Northeast Minnesota East Iron Range Economic Adjustment Strategy

This study (Jaakko Poyry, 2002) is typical of studies where a relative lack of forest products production presence exists in a region. The Arrowhead Region of northeast Minnesota is sparsely populated with relatively few primary and secondary forest products industries given its geographic size. It has extensive forest resources but (like Alaska) these resources are strongly tied up in Forest Service lands – not a currently reliable source of supply over the long-term.

This study first looked on building on the existing forest industry base by conducting interviews to determine expansion plans and value-added opportunities. An analysis of timber inventories was focused on underutilized species including cedar, hard maple, soft maple, and basswood.

Another major development focus involved recruiting a large industrial project to the area that would have significant potential in the development of spin-off or tertiary industry. The study identified this as a "low-probability but high reward development project." Michigan's Forest Resource Strategic Plan also included this as a primary focus but had several advantages compared to northeast Minnesota, including more local end-use opportunities for value-added products, better transportation infrastructure for delivery of raw materials and distribution of finished products, and more available and reliable timber supply.

Focus on attracting a large primary or secondary industry to support a niche product industry development focus is increasingly falling out of favor. Part of the reason for this is tightening timber supplies. Where such primary industry does not exist in the presence of ample timber supplies, organizations can build off of these new primary industries to capture additional business opportunities. This was successfully employed by Michigan and the province of Alberta in the late 1980's and early 1990's.

The existence of primary industries is essential to providing local timber supply to secondary industries. Any effort related to community based forestry is predicated on this relationship. Anchor primary industries provide the demand to keep harvest levels and the logging industry healthy from which niche market entrepreneurs can skim off supply networks - being too small to create them entirely on their own. The giant primary producers drive the supply markets for other products harvested as a result of their demand, primarily for pulpwood. As stated by the Jaakko Poyry report:

> "The availability of aspen and spruce-fir in northeast Minnesota has supported the development of pulp and paper, OSB and commodity softwood lumber production. In contrast, there is a limited base of primary processing that demands higher quality raw material, such as veneer production and softwood/hardwood plywood mills. There is no production capacity for industrial panels such as MDF and particleboard in the state. The limited number of larger sawmills and resulting lack of concentration of sawmill residuals has not been attractive enough for developing local production for these panels."

The same can be said of other supply chains within the forest products industry which necessitates that large primary industries not be neglected in development of value-added and niche markets. In the absence of large primary producers, niche market and value-added strategies become more difficult to implement successfully.

4.0 Niche Markets Due to Technology

> "The forest industry has undergone major technological changes during this century. However, unlike the high technology industries where change is dramatic and fast, the forest product technology is characterized by a rather mature and slow development. The main driving forces for these changes were the resource itself, its character, availability and price, as well as product and substitute performance and prices. In the last decade, new aspects have been added to the above driving forces…" "Such technologies include biotechnology, polymers, automation, computer and electronic controls, X-rays, lasers, ultrasonic, microwaves, scanners, systems engineering, modem production systems, total quality management and marketing, etc." (Philippou, 1998)

This author suggests that these technologies will have an important influence on the industry and will strengthen its position globally. This is certainly the case for commodity producers but such development can also impact niche markets.

Advancing technology is often decried as a job killer and a hindrance to development of niche markets. In a report for Maine, the forest products industry is depicted as a "mature industry in transition". (Associated Press, 2005) Maine companies are investing in equipment to become more productive, but cutting jobs in the process. The report went on to say that future job growth might be most possible with new products and technologies, highlighting the work being done by the Advanced Engineered Wood Composite Center and the Pulp & Paper process Development Center at the University of Maine at Orono.

As this report indicates, new technology can result in loss of jobs but it can also create opportunities – especially for smaller companies - through the process of outsourcing. As the headline in Wood & Wood Products (2001) states, outsourcing opens doors to opportunity. As commodity producers adopt faster and more expensive capital production systems to maximize recovery, throughput and lower labor costs, production activities which are a small part of the products they produce may be opportunities for niche producers. For the potential niche market entrepreneur, the lesson is clear – don't ignore big commodity producers or existing industries. They may represent opportunities to establish a supplier relationship.

This may involve a sawmill that has a long-time customer for small batches of a certain kiln-dried species, a door or moulding manufacturer with the same type of customer, or an integrated window manufacturer with the need for certain parts as a small component of their window offerings. Industries focused on mass production find it difficult to justify production of specialty items if it disrupts the product flow of their primary production activities. This is where niche opportunities present themselves.

The Ladysmith Forest Industry Park project identified two such opportunities. Following interviews with existing industries, an opportunity to make window grilles for a window manufacturer was identified. This was a small part of the businesses production, but necessary for two of the company's product lines. Within the giant factory's operations, such production was almost a nuisance but they had been unable to find an alternative supplier and, consequently, had to produce the grilles themselves. The volume of production of these grilles in comparison to the volume of production of the window factory was small but enough to support a three or four person shop.

The other possible business opportunity identified was for a CNC router operation. A number of businesses in the Ladysmith area had parts fabricated by a CNC router but each firm individually could not justify the cost of investment in such a machine given their individual production level needs. As a result, all the firms shipped their CNC routing orders to Minneapolis/St. Paul, Minnesota. In total, however, a CNC routing business could be supported by the production needed in the area thus offering a niche market business opportunity.

Minnesota-based Northland Forest Products invested in new CNC moulding technology to support its focus on niche moulding markets (Koenig, 2002). Sales are tied to new housing, architectural, and custom markets. The company found that as interest rates rose, the custom, high-end niche typically fared better than the commodity market and materials going into tract homes. Dick Pyle, the company president stated:

> "So our emphasis is going to stay on our ability to do unique, custom products for lumber yards. If people want something unique, something different, we want to be able to supply it. That's why we're putting an emphasis on custom architectural mounding and investing in the technology to do it."

The new technology allowed the company to cut turn around time in half and machine hundreds of tooling designs for the router to meet custom orders. Good customer service is at the heart of this companies approach, supplying customers with both the standard and custom products they need.

Advances in milling and laminating technology were cited as factors in recommending laminated posts and beams as a target economic development focus in the Cowichan Lake area of British Columbia. Such advances have also been made in the construction of custom composite I-beams used in construction.

The University of Washington, College of Natural Resources is working on a process for converting woody material into methanol which could be used to power appliances and hydrogen fuel cells. As envisioned a small-scale system on a flat-bed truck could process small trees from thinnings right on site. It is anticipated that these systems will be commercially available in 2-5 years (The Forestry Source, 2005). Such systems would allow production locally which could be used locally as a clean renewable energy source.

Engineered wood products have a long history of spawning niche markets within the construction sector. Most frequently, these engineered products evolve quickly into commodity products but not entirely. The characteristics of many engineered products have led to a diverse number of framing options and flexibility in building design compared to traditional post-frame construction. This design flexibility allows more customization and, therefore, greater opportunities for customized product applications (Clark, 2002).

Northern Initiatives, an economic development organization in Michigan's Upper Peninsula, has investigated use of red maple to manufacture laminated veneer lumber. This lumber is typically made from softwoods. Red maple is an under utilized species. The project looked as engineering aspects of the red maple LVL, market applications, grading, building code impediments to its use, etc. (northerninitiatives.com, 2005)

The Canadian Wood Council and its members are focusing on moving the use of engineered wood products to another level by creating whole integrated EWP systems. One of the problems they see is that the wood industry supplies pieces instead of whole systems. Nascor Inc. provides an example of a company which provides whole systems as a way of broadening their product base.

> " [Nascor] manufactures three distinct structural components: EnerGard Engineered Wall Systems, Strong Quiet Typ I-Joists, and Nascor Engineered Roof Truss System. The company sells these products individually and also offers whole home solutions that range from pre-engineered home to plans built around Nascor components for almost every type of residential abode. Nascor's wall systems are a structural addition that give the company a marketplace edge." "Exterior wall panels … use Expanded Polystyrene insulation panels sandwiched between I-beam studs, instead of conventional wood-frame and glass-fibre batt construction. This design produces a structurally superior home that stays warm in the winter, cool in the summer, and cuts energy costs by up to half" (Malmgren, 2004)

Trus Joist recently introduced the Frame Works Floor System which the company thinks will "… redefine how the industry thinks about floor performance."

While these are large companies operating on a large scale, there are plenty of opportunities for smaller producers as a result of engineered wood products technology.

Honeycomb panels are touted as a high-tech innovation in the woodworking industry offering performance, design, flexibility and lighter weight substitutes for particle board in a 2004 article (Wernlund, 2004). The article states that these lightweight panels "…offer woodworkers an opportunity to lead the market with an aircraft-grade material."

The Natural Resources Research Institute (NRRI) is part of the University of Minnesota with a mission of helping companies develop new technologies and products from Minnesota's natural resources. In the forest products part of their focus, much of this is based on engineered wood systems. They recently displayed their House3 project at the Minneapolis Home and Garden Show. House3 is a prefab that functions as a sealed shipping container and expands into a wood-frame two or more bedroom house. The housing system is ready-to-assemble for use in temporary or permanent applications and only takes hours to assemble (NRRI, 2006).

NRRI is also involved in the Great Lakes Wood Manufacturing Partnership which is designed to strengthening companies from the bottom up. The purpose of the partnership is "…to help wood products companies significantly improve their processes and products." "By sharing professional expertise from a variety of sources on best practices in manufacturing efficiency and new technologies." (Great Lakes Wood Manufacturing Partnership, 2005)

Both small and large manufacturers have benefited from the partnership. Through the use of training and a manufacturing assessment, Ferche Millwork in Rice, Minnesota was able to reduce inventory by 20 percent, improve productivity, and reduce needed floor space. At Northern Contours of Fergus Falls, Minnesota lead-time was reduced by 80 percent in their veneer processing operation after training on lean manufacturing processes. Rockland Industrial Products used a strategic product development process to screen out and identify two new products for 2004, putting them in a better position to compete in their industry.

Past projects that NRRI has been active in have involved advanced laminating technology for the production of snowboards and skateboard parks and siding technology. Husky Rustic Siding was a start-up company formed in Northwest Wisconsin as a result of a siding technology developed at NRRI. The increasing demand for rustic looking buildings and the lessening supply of logs that can be used in log structures was the genesis of this new technology. This siding product uses waferboard as the base upon which half log strips of styrofoam are attached. A double skin of ¼ inch douglas fir veneer is attached over the styrofoam and finished. The panels are interlocking and can be used in standard construction. This innovation has allowed the company to penetrate the commercial market where use of whole logs to create a log house look would be prohibitively expensive. Different sizes of "logs" can be created for other markets such as residential housing and cabins. This company is an example of the ability of small manufacturers to benefit from technological innovation.

The U.S.D.A. Forest Products lab has long been the source for numerous technological innovations in the forest products industry. It was here, for example, that quite a bit of the basic research work related to wood plastic composites, composite boards of various types, and laminated products was done. This work has spawned all sorts of business opportunities and establishment of companies using the technology.

In 2004, researchers were investigating and testing a medium density fiberboard product composed of chicken feather fiber and aspen fiber. The chicken feathers contain keratin which makes them naturally resistant to moisture. This makes the wood and feather based composite moisture and mold resistant. The lab anticipates that this material could be used in specific areas of a house (such as bathrooms and the kitchen) where there are intermittent moisture problems (Wisconsin Wood Marketing Bulletin, 2004). This may seem like a strange piece of research to include in a report on niche markets but it is included to alert the potential entrepreneur that technological innovation can be the source of commercial products upon which to base a new product line or new start-up business.

Other smaller scale efforts exist around the country to assist wood product entrepreneurs in commercializing value-added technology. The Oklahoma Food and Agricultural Products Research and Technology Center is one such organization Research there focuses primarily on value-added wood composites utilizing underutilized species in Oklahoma (OFAPRTC, 2005).

Nanotechnology is an emerging field that is only just beginning to be assessed for its applications within the forest products industry. Nanotechnology is the science of very small particles. The technology "Roadmap", a hundred page report, presents the results from a three day workshop of industry experts. "Nanotechnology represents a major opportunity to generate new products and industries in the coming decades." (AScribe Inc., 2005) Potential applications are development of intelligent wood and paper-based products that could incorporate built-in nanosensors to measure such things as moisture levels, temperatures, pressures, or the presence of wood-decay fungi. The article concludes with a prediction that this technology might improve the performance characteristics of existing products and create entirely new products with performance capabilities never before possible.

One can not finish a section on technology without touching on use of the internet to access and/or develop niche markets. The amount of information available to potential entrepreneurs in investigating potential niche markets can be overwhelming via the internet. Opportunities to market over the internet via individual web sites and web site networks, as discussed in a previous section, are currently quite fragmented. The key question becomes how to connect with potential customers given the overwhelming amount of information currently available.

Damery (2002) suggests that the forest products industry is historically a follower, not an innovator, in the use of the internet to conduct business. “Vlosky (1999) found that only 40 percent of forest products businesses surveyed were currently using e-business technologies.” Larger businesses were more apt to adopt e-commerce technologies compared to smaller businesses. Smaller businesses started to make better use of this resource in the early 2000’s for locating and identifying potential buyers, promotion and advertising, and market research.

Two studies conducted in 2002, specifically examined internet use by small wood products manufacturers in the North Adirondack Region of New York and the state of Louisiana. Both areas are rural in nature with a preponderance of small manufacturers. In these circumstances, the internet offers a way to market and promote product sales and cost effectively communicate with customers (Holmes et.al., 2003).

Products produced in the Adirondack region are generally handmade craft items associated with the Adirondack name and design. Close to ½ of the secondary manufacturers employ 1-3 people. The forest products industry in Louisiana is large and diverse. Within the secondary sector, nearly 2/3rds of companies employ 10 or fewer people. The results from these studies were strikingly similar. In both states, companies reported the least use of the internet for advertising products or selling products. These same companies, however, ranked these two applications as the potentially best uses in the future for their companies. “Only 9 percent of respondents projected that no company sales would occur over the internet by the year 2005.”

The percentage of projected sales in 2005 over the internet ranged widely among the surveyed companies with a majority responding that they thought such sales would constitute between 1 – 25 percent. In the more rural New York region, without as strong of a forest products industry infrastructure as Louisiana, respondents indicated they expected a higher percentage of sales over the internet than those companies in Louisiana. The New York companies typically developed web sites earlier than their Louisiana counterparts and used them primarily for providing company contact information and for describing products and services.

This study and other information suggests that for small niche market producers, use of the internet for marketing and promotion may be a cost effective method of establishing a presence in the marketplace and selling products in the future. Enthusiasm in this technology should be tempered, however, with the realization that use of this technology to establish new and existing customer relationships takes time, just like the establishment of any other customer relationship.

5.0 Niche Markets Due to Customer Choice/Specifications and Preferences

As touched on briefly in previous sections, changing customer desires and preferences can be a lucrative producer of niche forest products markets if those changing preferences can be identified. This often involves value-added production and a service component accompanying delivery of a product.

As described by Howe (2005a):

> "Today consumers are more selective than ever before and anyone can go on the internet and find stuff they can't imagine they ever wanted – or lived without. People are demanding greater variety, more options, quicker responses, and more service. The question is what are they seeking in all this opportunity? What are the inner needs and desires that are driving them on? And the question also arises, if commodity businesses invested their capital and ingenuity on greater variety, more flexibility, quicker set up and less maintenance – could they provide the greater access consumers desire, but to specialty products rather than commodity items?"

Using an agricultural analogy, Howe recalls a story of a thousand acre family farm that raised three crops and eventually went bankrupt leaving the family with the house and six acres of land. They ended up employing nearly 100 people raising hundreds of specialty crops (including 80 varieties of tomatoes) that were sold directly to restaurants in the region from those six acres. This is the essence of niche markets resulting from consumer choice and preferences.

The key is to add value based on which functions the customer perceives a product or service provides (Howe, 2005b). Howe (2005c) went on to describe the potential economic effects of such an approach for dimensional lumber sorted any way a contractor needed it, pre-bored for wiring, pre-surface treated for mold or mildew, etc. Savings to the contractor resulted in higher profit to the provider.

Smith (2000) describes the addition of a service component as the Total Product Concept. Not only is the product important but the service associated with it such as credit policies, on schedule delivery, and consistency.

Wengert (2005) describes five approaches to "value added" manufacturing.

- Add value to the present product by upgrading it or customizing it to meet consumer wants.
- Sell the same product but in different markets where it is more valuable.
- Make a new product to serve a market not well served or a market where you can substitute for a non-wood alternative.
- Get more value from the present resource by improving processing efficiency.
- Improve marketing and sales by focusing on quality, delivery, and other service characteristics – not just price.

He goes on to suggest that profit, not production, should be the goal of any business enterprise which requires more care, perfection, and accuracy.

Temple (2005) cites the importance of value-added production to the forest products industry in Oregon. Between 1990 and 2000, harvest levels from Oregon's forest were cut nearly in half and resulted in a decrease in primary industry employment from 60,747 to 35,338. At the same time, employment in the furniture and fixtures sector grew by 122 percent. In Oregon, 80 percent of these businesses had less than 20 employees. He concludes by stating that a value oriented approach shows promise as a means to sustain economies as harvest levels decline.

Even in the most fiercely competitive markets, each company can carve out their own niche. Wood (2004a) described such a situation in the residential construction business in Nashville, Tennessee. While big retail & wholesale suppliers compete on economies of scale and sell products based on national advertising or marketing campaigns, local companies can compete on strong customer relationships and by focusing on custom and remodeling markets. Wood describes Fakes & Hooker's strategy. This building supply company was once active in servicing the retail do-it-yourself segment of the industry but had to change its focus when big box retailers, such as Home Depot and Lowe's, made it cost prohibitive to remain in this segment of the market.

> "So the big boxes are in a different market all together. We have a good customer base supplying more custom home builders, and a few tract homebuilders. We have our own niche. Selling successfully into that niche against regional and national players has been a function of local relationship building and pure, single-unit flexibility to businesses on the go. While the pro dealer industry at large is just settling into next-day delivery, Fakes & Hooker shoots for a three-hour window from order call to jobsite drop." "We have been able to excel against our competition because they have problems turning around the trucks as quickly. We are not as large and are able to pick and choose who we deal with, so service is our ace in the bag." (Wood, 2004)

Wood suggests that companies engage their operational employees, who interact with customers on a daily basis, by asking them the following questions.

- Who are our customers, listed by name and type? Then list competitors' customers.
- What are our services and what services do competitors' provide?
- Are we benefiting from the services provided to customers? Is servicing that customer profitable?

It is also suggested that this information be used to develop sales and margin goals for the up-coming year. Spending time at customers' sites is also a good way to find out what products they are buying that you are not supplying. Finally focus on competitors' customers to identify those you might be able to capture. "With any strategic plan, you ultimately want to develop tools to attract, engage, and retain the customers that will fit in well with your business model."

Wood (2004b) focuses more closely on the changing remodeling market in another article. Remodelers are reporting increasing revenues and business and are frequently backlogged for months. In 2004, the Quarterly Survey of Remodelers revealed all time high index rankings for current market conditions (a weighted average of major additions and alterations, minor additions and alterations, and maintenance and repair) and future expectations (an average of calls for bids, amount of work committed for three months, backlog of jobs, and appointments for proposals). Within the construction industry remodelers are considered a niche between production and custom home builders.

Harth Builders of Springhouse, Pennsylvania offers one business model of how one might compete in this market. This father and son operation has seen revenue increase 25 to 30 percent since 2002. The company uses a network of supplies and sub-contractors while the principals provide the managerial expertise. They use up to 11 different suppliers on any one job and require suppliers to meet stringent delivery schedules. The company has found that working with existing homeowners takes more coordination and hand-holding than any other type of construction. With the homeowner often watching a remodelers every move, this segment of the industry is by far the most service dependant segment of the industry. Consequently, a seamless construction schedule, time savings, product knowledge, good people skills, and an emphasis on service over price are important attributes within the remodeling sector compared to production builders. As one of Harth's suppliers put it:

> "Remodeling and new home construction are simply two different animals. The remodeler wants quality materials, warranties, and high service, where the new-home builder want to get the materials thrown up, the job done, and to get out."

In Clark County Missouri cabinetmakers have also recognized the appeal of the custom cabinetry segment of the housing market. Beset by cheaper mass-produced cabinets, many local firms refocused their businesses on upscale residential jobs, cabinetry for garages and commercial offices, and cabinet repair and refacing. (Fehrenbacher, 2005)

> "Our niche has always been on the higher end, but the market has changed so much that we are doing things that we wouldn't have dreamed of 10 years age – way, way, way more detail," said Loren Swanberg, owner of Hayes Cabinets Inc. in Woodland. "He said that his shop's 55 employees make pieces with turnings, and multiple layers of accent moulding." "We stain and glaze an awful lot of products, giving them that furniture look that our market demands, he said."

Given the competition from mass-produced cabinets, a large number of these Clark County companies have found themselves working less with building contractors and more with homeowners directly. This requires more time but occurs in a segment of the market that involves higher-priced homes.

Opportunity even exists in the commodity dominant plywood sector for niche producers based on customer driven custom applications. Following is an excerpt from a posting of a business for sale on MergerNetwork (2005).

> "This privately owned company is one of the leading niche plywood distributors in the U.S. It holds a dominant position in its primary market – one it has held for many years. Most plywood is delivered with private labeling. This company does not compete in the residential nor commercial construction markets; it markets solely to the niche markets, which require custom specifications and where it can obtain high margins. Management continually works with its clients and suppliers to develop new and proprietary products. During the past several years, the company has expanded into several other high margin areas such as laminated forms, engineered wood products and plywood replacement products. Overseas sourcing of products has helped keep margins high."

McKenzie Forest Products in Oregon is also successful in niche plywood markets. This firm makes waterproof plywood for boats. It is noted that such high-value strategies may hold the potential for job growth in the sector. While traditional plywood is a commodity, some newer products command a premium (Rivera, 2005).

In Virginia, two decade old Shenandoah Furniture is expanding when other furniture manufacturers are contracting. The company focuses on producing sleek and stylized upholstered chairs and sofas sold at chic home furnishings retailers such as Bloomingdale's, Room & Board, and Crate & Barrel. They credit their continuing growth to narrowing their focus and customer base over the years. Continuous product design and re-design (in close cooperation with its customers) is done in-house to be manufactured exclusively for a few retailers (Roanoke Times, 2004).

This is a good example of a company which doesn't just make upholstered furniture to sell to anyone, but furniture that their retail customers think they can sell to final consumers. Close cooperation in the design aspects between these two sectors is key to making the approach of Shenandoah Furniture work.

Similar lessons resonate through a story about another furniture manufacturer in Watertown, Wisconsin. The current owner of the Custom Shoppe bought a struggling furniture maker on the verge of shutting down in 1996. This company makes solid wood furniture which has been hit much harder than upholstered furniture by competition from China. When asked about his views on this competition, Frank Krejci said "I think it's very exciting because what it does, it makes us think differently and there's a lot of value in doing that." (Romell, 2004)

> "Amid the import pressure on its industry, Krejci's company has focused more tightly on its key strength – the ability to build its entertainment centers, bookcases and home office furniture to a customer's taste. The firm is neither a mass production operation nor a small cabinet shop designing and making furniture from scratch. Rather, Krejci said, it offers customization by multiple choice."
>
> "With a heavy emphasis on advanced engineering and computer-aided production, the Custom Shoppe is set up to make furniture to order with a huge array of options – different styles, different woods, different finishes, and different hardware."
>
> As Krejci figures the math, each of the Custom Shoppe's 200 products comes in a million variations. Even more importantly, the company will change dimensions to suit a customer – scaling back a computer credenza to fit the small home office in a bungalow, or expanding a big-screen entertainment center to fill out a suburban mini-mansion's great room. [The company] can respond to those sorts of needs to the customer and basically give them exactly what they want, which is a niche that the imports can't fill."

Many other trade experts agree that customization is the only way the challenge of imported furniture (and probably lots of other products) can be met.

Theden Forest Products in Powell River, B.C. offers an interesting example of how this niche producer of custom flooring evolved over time. (Home Business Report, 2003) Peter Ranger, the owner, worked in a mill and began preparing to start his company when his job survived a downsizing at the mill. He set up a workshop at his home and spent the next 12 years learning about wood and improving his skills. When the mill finally closed, he started his business.

The company produces wood flooring, wood paneling and wood moulding employing five and quite a few independent workers. The largest part of the business is wood flooring which they produce "one floor at a time" in a niche market of discriminating buyers – flooring currently unavailable in the commodity market. Marketing is Ranger's biggest challenge.

> “Ranger explains that there are two types of markets: the local market, selling to someone who knows someone who knows us, one wood floor at a time, which is the basis of the business; and the outside market, selling to someone who’s never heard of you.”

Ranger and other value-added wood producers have formed a locally based association to jointly assist member companies with marketing and new product development.

This emphasis on custom work is also the hallmark of custom sawyers. These businesses frequently saw logs for individuals or sell wood cut to order into niche markets using low cost and generally inefficient sawmilling technology with high processing costs compared to sawmills producing commodity products. These high processing costs do not allow custom sawyers to compete in commodity markets. They must instead target specialty niche markets. Most custom sawyers are creative in their marketing approaches but one thing is consistent among them given the small batch nature of their production.

> “A strong and wide network of personal contacts is imperative for success in this business. The customers of custom sawyers may obtain their products elsewhere, so the custom sawyer must continually prove that he/she is dependable and able to find the right product, the right quantity, and on time.” (Wagner et. al., 2005)

Niche markets as the source of where the real money is for custom sawyers, is echoed in a 2003 how to article in Mother Earth News. (Elliot, 2003) Low cost solar dry kilns are described as the next step in adding value to a custom sawyers production chain. The same company that sells the most popular custom sawmills (Wood-Mizer) also sells do-it-yourself solar kiln kits according to the article. Understanding potential customers is cited as crucial to success. As one business owner was quoted as saying:

> “Understanding the preferences and buying habits of potential buyers is essential to developing your markets. It’s not the act of cutting that makes you money. It’s knowing how to cut it for people, and who to cut it for.”

There is also some emerging anecdotal evidence that a new breed of logger is emerging as a result of development of a niche market. The logging industry (like the pulp and paper, composite board and lumber industries before it) is facing an increasingly challenging competitive environment. The trend is toward more capital investment, faster production, and production of higher volumes. This makes economies of scale an important factor within this business model.

Loggers with a cut-to-length processing system would generally find it hard to make a profit on a small area sale of say 10 or 20 acres simply because the volume produced is unlikely to justify the logistics associated with it such as transporting the harvester and forwarder to the site, required permits, etc. Additional services desired by the landowner, such as specific slash treatment or treatment of landings, would further reduce the desirability of bidding on such jobs.

Overlying this dynamic is the fact that forestlands are increasingly being subdivided into smaller and smaller parcels and often sold to suburban residents for cabins or second homes. In this case, services needed to “clean up their property” may involve more than cutting a few trees.

Establishment of trails or roads, creation of a home site or vistas, brush and slash disposal all the while doing the work so the site is left aesthetically pleasing. One traditional logger derisively called this “Boutique Logging”. It is, however, a niche that may grow in the future as parcelization continues. Providing services to a landowner beyond cutting trees creates this niche and can be done with less expensive capital equipment.

One retired paper company executive recognized this parcelization trend. After getting his real estate license, he began working with a real estate firm. Small parcels of forest land are not too exciting to realtors when they can invest their time in selling houses and the like and make more money. This individual would buy those parcels that had potential for homesites, put in a road if needed, thin out overly dense trees, and anything else needed to “pretty up” the parcel. He would then resell them to people looking for recreational property at a profit.

Rod Wilcox of Minong, Wisconsin started a sawmill after twenty five years as a logger. His market research consisted of calling every company within 300 miles that he and his wife could identify that used wood products to see what they might supply. Providing wood carving blocks to carving-supply houses looked promising so he bought some carving magazines and again started making calls. Wilcox’s opinion is that diversification is the key to success. He has made flooring, paneling, aspen for use in making wine racks, wood for cribbage boards or handles for barbecue grills, and barrel staves. (Elliot, 2003)

Service is the heart, in fact the only product produced, at Neil Levinson Enterprises in Seattle Washington. This one person operation “…is a specialty wood products broker who finds such things as wood veneers, laminates, and hardware – often in small quantities.”(Erb, 1998) Customers include small and midsized furniture and cabinet makers, builders of retail displays, and woodworkers. “It’s a bizarre niche in the marketplace that I found and stumbled into, Levinson said.” After several career changes Levinson worked for a big wholesaler of lumber and plywood.

> “Levinson spent the next 12 years working for large distributors and building a following of loyal customers and suppliers. Then, in 1989, he decided to strike out on his own. However, one loose end remained. Levinson didn’t know what he was going to sell. As it turned out, his customers solved the problem. Every time they called Levinson and asked him to supply something, he found the product and added it to his product line. Even though his customers are buying parts and raw materials, they are also buying Levinson’s ability to get what they want.”

By 1997, Levinson’s sales topped $1 million and the business remained a one person operation.

North American Wood Product uses a similar business model. As described by the company:

> “If you are looking for a specific species, growing region, grain or weight, or if you need a specialized custom size or cut, we are the reliable source that will meet your particular requirements. We are the best matchmaker in the world!” (NAWP, 2005)

This company has a global knowledge base including associates that can conduct business in Chinese, Japanese, Korean, German and Spanish. They focus exclusively on sourcing wood products for specialty items such as musical instruments.

Rare Earth Hardwoods in Traverse City, MI sells flooring and manufactures other products from species sourced from all over the world. They offer 115 different types of flooring. President Rick Paid reports very little competition within his market area (rare-earth-hardwoods.com, 2006). Business Wire (2000) reported on an exclusive agreement between Exotic African Hardwoods Limited and Timber Resources International to import and process exotic hardwoods to serve high-end demand in hardwood flooring and furniture markets. "The company is dedicated to the development of under-utilized forest resources for specialty niche markets worldwide." Imported species include mahogany, teak, iroko, red & yellow apa, ofun, and oomo all produced from Forest Stewardship Council certified forests.

The C.J. Boots Casket Company was formed by two entrepreneurs after a Syracuse, New York casket company closed. C.J. Boots operates in the very high end wood casket niche. One of the founding partners had built a few caskets for members of his church. He loaded one into his van and visited several funeral homes all of which offered to buy it that day. Handcrafted quality is the company's key to success in this market. Most wood caskets are made on an assembly line and face stiff competition from cheaper metal caskets.

First year production was 79 caskets in 1999 all sold directly to funeral homes. The next year, a distributor approached the company and the caskets are now sold through 12 distributors in 10 states. By 2003, company revenues totaled $1.98 million with employment of 37. The lesson of this story is that quality matters and such quality will command a premium price in a market with lower cost competitors (Galoozis, 2004).

How to maintain good business to business relationships in the forest products sector was the subject of a study by Paun and Sammarco (1996). Structured interviews of executives at five forest products firms revealed that the most successful relationships involved:

- Frequent communication.
- Extensive joint marketing planning and performance reviews.
- Exchange of customized products.
- Promotional efforts that are a joint activity.
- Reliable and dependable delivery systems.
- Pricing practices that foster few problems and quick resolutions.

These principles could be applied to networks of niche entrepreneurs – examples of which were illustrated in the previous section.

Sometimes niche markets are created by the changing demographics of the customer base or a change in the preferences within a specific demographic group. Big companies pay close attention, for example, to the aging of the baby boom generation and what that may mean to their current products. These changing demographics are also used to search for future opportunities. As applied to the wood sector, this may mean increased markets for hobby wood products, increasing demand for a higher service component associated with a product, or a strengthened remodeling market as this age cohort enters retirement.

Business columnist Rhonda Abrams (2005) described an effort focused on the changing preferences of a single demographic group. As background, she suggests: "It's often best to think small in order to get big. To maximize your sales – and your profits – it's time to start narrowing your market, time to get a niche." She reports on seeing a story highlighting how a few wineries were making big profits by targeting the growing Hispanic market for wine. In the wood industry this might apply to the production of turned bowls, serving trays, cutting boards or other kitchenware, a majority of which, are bought by women. An advantage to this approach is that marketing can be targeted to the selected demographic segment saving both time and money.

6.0 Niche Market Due to Unique Products or Species

Numerous niche markets exist (or can be created) on the basis of unique species or products in the absence of new technological developments. Many of these products consist of small quantities but can be very lucrative in the right circumstances. Identifying a niche, product differentiation, and solid multilevel business networks between producers, wholesalers, retailers, and final consumers is key to successfully operating in special forest products markets.

6.1 Unique Products

Products listed in the Montana Specialty Forest Products Exchange include:

- A 71 year old walnut tree. 40" in circumference, 19" in diameter. 12+ feet long, 100" to the first knot.
- Stakes, angle diamond and mine wedge hubs and lath.
- Mahogany from Guatemala.
- Barnwood.
- Old Growth water recovered hardwoods from the Great Lakes. Rough lumber, flooring and veneer is available by the piece or container.
- Character logs. Catfaces, burles, lightning strikes, bear claw marks, all character for log accenting.
- Looking for wood slabs, roots, and unique or crooked pieces for making rustic furniture.
- Looking for long, large diameter dead larch.
- Furnishing hand-peeled lodgepole pine logs in clean, heavy/light skip and scrape peel styles for furniture, railings, accents, whatever!
- We need suppliers of dead-standing lodgepole raw logs, straight and character.
- For sale, 100+ year barn approx. 40X80 various board sizes. Long Beams. Cherry tongue and groove grainery.
- Looking to buy debarked, dried cedar logs 12"-30", 12'-40' for B & B lodge in Wisconsin.

Several services are also featured on this web site including various companies specializing in fuels reduction/thinning services and portable Woodmizer bandsaw services.

The most recent "Goods from the Woods" expo in Grand Rapids, Minnesota (Vital Forests/Vital Communities Newsletter, 2005) listed some unique products in the marketplace including:

- Birch bark canoes.
- Carved owls.
- Willow baskets.
- Heritage-quality benches.
- Hand-knapped knives.
- Woven birch bark ornaments.
- Bent willow planters and garden furniture.
- Moose planters.

Hill Wood Products in Cook, MN (hillwoodproducts.com, 2005) recently expanded into thin-sawn veneers and laminates. Specialty products they have produced for years include wood-joining biscuits for two internationally-branded power tool manufacturers, dehydrated sawdust for fuel, wood dowels, curved mouldings, specialty millwork and ThermoWood heat treated lumber. They credit their success to:

- Getting to know their customer.
- Getting to understand the customer's needs.
- Finding solutions to filling those needs.
- Valuing and cementing long-term relationships.

McGinnis Wood Products in Cuba, Missouri has been making wine and whiskey barrels since 1987. They expanded into branded cooperage material in the early 1990's producing rough staves, circled heading, and bend staves. This family owned and operated business produced 25,000 barrels annually in 1992 for the wine and whiskey industry. Some European vintners thought Ozark white oak was too strong and woody to age their red wines so the company began importing Hungarian oak logs, which are lighter and more porous, and processing them for export back to Europe. There is also an active market in charred white oak barrels used to produce bourbon whiskey which are typically converted into oak chips for barbecue flavoring or reused in the production of malt whiskey (Thomas & Schumann, 1993).

The Independent Stave Company in Lebanon, Missouri relies on numerous, relatively small suppliers of staves to its main factory in its barrel making operation. Over 20 plants produce staves which are finished and assembled at the main plant. This is a big corporation which produces 600,000 barrels a year but its suppliers are located in small communities employing less than 20 employees each. This company is an example of the value of investigating outsourcing opportunities with larger enterprises. Supplying intermediary or semi-finished products to larger firms can be a lucrative source of potential niche markets. The Perryville Stave Company has also carved out a niche market by thriving on exports to Spain for wine-aging barrels.

> "Firms that have aggressively marketed cooperage or staves wherever there was potential demand have carved out special niche markets that have yielded excellent profit. The success of several small firms proves that opportunity for growth exists, even in an industry that has suffered massive decreases in total barrel demand." (Thomas & Schumann, 1993).

The Shepherd Hills Walnut Shop in Lebanon, Missouri sells a line of walnut products including bowls, cutlery, desk accessories, and carved mirror and picture frames. The firm operates retail stores in popular tourist spots throughout the Ozark region. Interestingly, the firm doesn't actually produce any products, but instead concentrates on displays and sales of other firms products. "Randy and Ron Reid determine the design and style of wood products that will satisfy customer desires and contract with many independent woodworkers to make the article." Native Wood Products produces similar products but uses a different marketing model. This company sells 1/3 of its production directly from the factory, 1/3 through catalogs, and 1/3 through retail stores.

Several other companies described in Thomas & Schumann (1993) produce gunstock blanks and tool handles – markets which developed when major gun and tool producers outsourced the production of these parts of their products. Most of these firms are small and family owned relying on service, quality, and design to maintain market share.

Blue stain in softwoods occurs when pine is infected with fungus after a tree dies or a log lies too long before processing after being harvested. Blue stain results in serious degrade in commodity lumber and a large loss in value. Several companies in areas of the western U.S. and Canada, hit hard by pine beetle and other insect infestations, have leaped off the commodity treadmill marketing this material as blue stain pine. It is marketed for specialty applications and touted for the variability of the blue stain, including artic blue and aqua blue (empireventures.ca & bearcreeklumber.com, 2005).

The American Hardwoods Export Council has successfully promoted "character-marked" hardwoods to furniture manufacturers in Japan. Character-marked wood has knots, pinholes, and mineral streaks which are lower grade woods in standard grading rules. Such features are common in rustic lines of furniture but fine furniture usually uses clear stock.

In a study of residents in four Northeastern area states, Wang, et.al. (2004) found a surprising number of people did not object to furniture made from character marked hardwoods. Forty eight percent of respondents were interested in purchasing chairs made from character-marked wood, however, that was not their most important buying consideration. Design of the chairs was their highest concern, by far, followed by price and guarantee policies. This is often the case within niche markets – the customer places high value on other aspects of the product besides just price. What and how a niche marketer provides these services is often a key to success.

Backwoods Forest Management, located on Vancouver Island in B.C. produces western bigleaf maple and red alder lumber for local wood working markets. More unusual products produced include Arbutus branches for parrot perches and bird toys and Arbutus stumps (root burls) which are used by woodworkers for carving and turning. The highest quality maple (burl and fiddleback) is hand turned into high quality wooden pens and sold to corporations for executive gifts. All this from thinnings and harvests on approximately 70 acres of privately owned forest land (Backwoods Forest Management, 1999).

Van Zile (2002) reports on a unique export market for ash butts. In Vermont, ash trees are initially cut 4.5 feet off the ground in pre-harvest thinning and then cut again at the end of the root flare, just a couple of inches below ground at a 20 degree angle. The resulting 4.5 foot butt is typically sold for firewood or pulp. Three Vermont businessmen set out to find a use for these butts. This led them to Ireland where they are cut and fabricated into curved sticks, or hurleys, used in the game of hurling which is hugely popular in Ireland. The first shipment proved the ash could be worked into a hurley. By 2002, the group was making regular 40 foot container shipments. They found that trees 10-13 inches in diameter (just below the sawlog threshold) were good candidates for eventual use in producing hurleys.

> "In the future the Vermont Deal hopes to cut the butts down into quarters and then into blanks, both of which will be finished in Ireland."

Vermont Deal estimates that timber owners who sell these ash trees cut during thinnings can derive a fivefold increase in value above what they would if the butts had been sold as pulp or firewood.

Another niche market with product flowing from the U.S. to Japan is described by Estin et. al. (2003). Studying niche market opportunities for Alaskan forest products in Japan, the authors describe several business opportunities for Alaskan companies to export to Japan:

- Export of Alaskan yellow cedar lumber to Japanese glulam manufactures to produce dodai (these are ground sills used in higher end homes)
- Export of appearance grade wood for exposed applications such as beams, shoji screens, and mouldings. These are used in traditional tatami rooms (a traditional type of family room)
- Export of shoji graded lumber to capture the high price premiums paid for this material.

Of course, the average wood products company president would know nothing about the hurley, dodai, or shoji markets, what wood is in demand in these market, or who supplies these markets now. But these two examples illustrate the essence of niche markets as it relates to cultural influences and culturally specific products. This is another avenue of thought a niche market producer might want to consider.

Keller Products in Manchester, New Hampshire has been in the drum shell-making business for 50 years. They are the largest drum shell-making manufacturer in the country and employ more than 50 people in the drum shell division. The company is well known in musical circles and has a patent pending on a new drum technology that will "… revolutionize the shell industry by creating a longer, louder and warmer sound." (McCord, 2004). This is an example of a niche where quality is paramount and customers captive if that quality can be delivered.

Green Mountain Wood Products produces post caps as well as such things as boxes, including "…a cherry collectors' box for the 50th state quarter and wooden utensils…" Owner Chip Adams believes it is these specialty products that will keep Green Mountain successful. He recognizes that some customers may eventually be lost to offshore competition which is why the company focuses on continually attracting new customers (Palmer, 2005).

The husband and wife team of Albert and Karen Wolske have carved out a niche for their 20 year old logging and trucking business by diversifying into the production of beams, rough timbers, fireplace mantles, and smaller-dimension lumber. Closure of numerous mills in Idaho spurred their decision to enter these large and small size material markets. While Albert saws timbers on the one-acre mill site, Karen makes sales calls to generate new business. Customers targeted are commercial and large developments such as a Birds of Prey Harley-Davidson Shop and a large condominium complex currently under construction.

They plan to expand by hiring a sawyer and establishing a showroom for home remodelers. Products are sold mainly in Idaho and sales have doubled over three years. They have made a conscious decision not to try to compete with the products produced by bigger mills in larger quantities.

> "Those mills like to deal in larger quantities. Their delight is to ship big loads of timber all over the place." "Diamond Ridge is a niche marketer of special cuts geared more to the retail market. [The company] likes to deal with the customer who wants one timber." (Gomez, 2004).

Pure paper opened shop in Windsor Heights, Iowa in 2004 selling homemade paper and custom printing services for stationary, invitations, and other applications. It is the only store in the Greater Des Moines area that carries large-sized homemade paper in 150 styles. The experience of the owner is a real lesson for the would be niche marketer.

Barbara Niccum worked 15 years as a sales manager at a large retail store. She also worked (on the side) in the custom card, invitation, and party planning business with her husband for three years. She spend more than eight months preparing for the store's opening by attending workshops and consultations at the Drake University Small Business Development Center, doing a business plan to obtain financing, and identifying suppliers of the paper. Supplies are sourced from Thailand, Japan, India, Nepal, and the U.S. The paper sold is made using processes developed centuries ago "…in paper mills such as Arturo in Italy, Crown Mill in Belgium, and Arpa in Spain." (Des Moines Business Record, 2004). This one woman shop has a high chance of success because Ms. Niccum did her homework which is a critical first step in entering niche markets.

Bamboo is the latest material to enter mainstream forest products markets in the form of laminated boards, flooring, and furniture. Bamboo, of course, is not a wood but is a wood substitute. It is one of the fastest growing plants on earth and touted as a sustainable renewable fibre resource (Bansal & Prasad, 2004). In Alberta, plants are making a substitute for oriented strand board from wheat straw and kanaf has been touted as a substitute for wood pulp in paper making. These examples illustrate the ability of products made from other materials to substitute for wood. The opposite can also occur such as wooden candle holders for ceramic ones or wooden floor grates for metal ones. Looking beyond existing wood products for opportunities (where wood can substitute for other materials) may be a source of niche market opportunities.

Wood residue markets have undergone considerable transformation in the last decade as a result of changing consumer preferences and changing markets. Historically, wood residue was mostly burned for fuel in large commercial plants. This market was and still is the lowest value use of this material. There is, however, growing interest in smaller scale energy production from the house level to small commercial facilities. Pellet stove sales in the Midwest are booming and various entrepreneurs are refining small scale wood energy plants to burn anything from corn cobs to pellets to chunk wood.

One of the fastest growing markets for wood waste is the landscaping market. As homeowners increasingly "go green" by replacing parts of their lawns with mulched beds, markets continue to grow. Recent years have seen a wide range of innovations within these markets to fit into specific niches.

> "To be profitable, companies grinding green and wood waste must fill a market niche within their geographic area. Think end-product. Key to getting into, and staying in, the business of recycling green and wood waste is developing markets for the material once it's processed." (Badaracco Padgett, 2001).

Adding colorants is the most obvious way to add value to mulch in the marketplace. There are other ways as well. The highest quality mulch is double ground and double screened. Trommel and shaker screen can be used to vary product textures. The mulch can be processed to produce different types of chip configurations such as long stringy chips or more angular chips. Ceres, a Minneapolis firm, sells bulk compost, mulches, and wood chips and has also developed some specialty applications such as biofilter media, poultry bedding, and playground surface material (Madole, 1993).

California Bio-Mass was solely dependant on supplying boiler fuel from rolloffs of sawmills, pallet, and furniture manufacturers until the boiler fuel market collapsed. The company then focused on multiple revenue streams, keeping a close eye on costs, and adding value to their processed materials through blending, spreading, and providing other services. Their largest customers are in the agricultural sector where they add gypsum to the mulch for field application (JG Press, 2000).

Grimm's Fuel Company in Lake Oswego, Oregon began in the 1940's grinding and selling fir bark as a sideline to its fuel oil business. Now they are in the compost business processing material after composting through grinders and screens to create high quality compost to supply nurseries, landscaping contractors, and homeowners. To increase the nitrogen content of their garden mulch compost they produce a 50-50 mixture of wood based compost and mushroom compost.

Texas Organic Products in Austin, TX set up shop adjacent to a municipal landfill to divert a variety of wood wastes from the landfill stream including wood furniture, cabinets, pallets, containers, scrap lumber, panels, office paper, and phone books. Products include mulch, organic topsoil blends, and compost. Separation of materials is key to this operation. Bulk material is sold although the company is looking into a bagging system to serve retail landscaping and nursery customers.

> "Products are marketed on a three-tiered pricing structure: distributor, wholesale, and retail. Distributors typically include soil blenders and organic nurseries that purchase in large volumes. Wholesale customers include landscapers, home builders, bagging companies, trucking companies, etc." (JG Press, 2000).

In Michigan's Upper Peninsula, investigations are underway in creating a composting operation utilizing fish processing and wood waste. Commercial harvests of fish in Michigan total 14.8 million pounds annually and legal disposal options are limited. Fish wastes contribute nitrogen to the compost produced while wood residue contributes carbon (northerninitiatives.com, 2005).

There have been similar discussions in Wisconsin about composting sawdust and weeds harvested from lakes to create compost.

Even with waste materials, a potential niche market may be identified with the application of a little ingenuity and experimentation on the part of an entrepreneur.

Craft markets offer an array of opportunities for small wood product entrepreneurs. These opportunities can involve supplying craft markets or producing final consumer products within these markets.

FitzRoy & Associates sell handmade wood products at art fairs and over the internet. Among the products produced are kaleidoscopes, wood bowls & cups, jewelry stands, key chains, pens, perfume pens, vases, and Christmas tree ornaments (fitxroyandassociates.com, 2005).

Haba Corporation makes high-quality wooden trains, block sets and infant toys. They continually add architecturally significant components to their line of traditional block sets to incorporate such things as pillars and arches. Their marketing focuses on quality and producing heirloom quality toys. Melissa & Doug makes wooden puzzles adding sound when the pieces are placed correctly. They also include magnets, velcro and real hardware on toy trucks. Another marketing strategy utilized by successful sellers of wooden toys is to provide demonstration displays to retailers.

> “These displays encourage hours of open-ended play.” “The best advertisement for a wooden toy is to get it in the hands of the customer.” “There’s nothing that sells a product better than the kids that play with the toys in the store for an hour, then have to be dragged away, kicking and screaming.”

This article describes the importance of providing retailers with exceptional customer service and support. This is especially true for small retailers. The ability to mix and match features, create custom orders and respond to retailer’s individual needs and small batch orders is cited as crucial to a successful relationship between manufacturer and retailer (Botwinick, 2004).

Many artisans, such as carvers, are often small home-based or family businesses. A frequent economic development focus where concentrations of artisans reside is to organize cooperatives to promote a branding image and/or joint marketing. It is important to recognize within such cooperatives or concentrations of artisans, that specialization occurs depending on the market segment the artisan chooses (or is able) to serve (Chibnik, 2000).

True artists (or craftsmen) produce expensive pieces for collectors or very discriminating buyers and are sold directly to those customers. Less expensive pieces may be made by others for sale to intermediaries – wholesalers or retailers. The least expensive craft producers operate in tourist markets or those markets frequented by casual purchasers. Many of the vendors at summer craft fairs are an example of this market focus. As with all other niche products or niche businesses, each market segment requires a different marketing approach and focus. It is important that product producers (and their suppliers) think critically about the customers they hope to serve.

Krantz Wood Sales in Forest Lake, MN provides lumber to the wood carving industry. The business began as a part-time operation but grew into a full-time venture for owners John and

Marci Krantz. Their specialty is providing basswood and butternut carving stock, ovals, crosscut rounds, glued-up panels, bark-on boards, etc. to wood workers. The business buys logs and has them cut-to-order by small sawmills. Krantz describes the niche markets within the niche carving market (Bratkovich, 2004).

> "The scroll-saw market prefers wide boards that are ½ inch or thinner. Wood turners prefer hardwoods that are 3 inches or more in thickness, sometimes square and sometimes wide for turning into bowls. The wood-burning artist prefers light colored woods, usually less than one inch thick. The intarsia market wants colored wood, including boards with blue and grey stain." "Krantz's bread-and-butter is the carving market which pays premium prices for 3, 4, and 5 inch thick, properly sawn, soft hardwoods."

Krantz offered some advice for those looking to enter any specialty product business:

- Decide on Your Market Niche. Before one board is sawn, you have to know which market that board is destined to. "A sawmiller should know what he does best and then become a specialist in that market." In his business, Krantz sells most boards in lengths of four to less that one foot, illustrating the opportunity for sawmills to defect and cut non-standard sizes to sell into this market.

- Manufacture Quality Products. One customer told Krantz that he would drive 200 miles for his wood because of the quality.

- Try to Sell Retail. Selling retail takes more time and effort and sales per customer may total less that $50.00 but profits can be higher by eliminating the middleman. This company rents tables and space at wood-carving shows and other entrepreneurs may operate in a similar manner by participating in art shows, flea markets, country fairs, or other venues where potential customers may congregate.

- Presentation is Worth 50 Percent of the Sale. Proper positioning at carver's shows, laying carpet in the show booth, having distinctive business cards, and organizing the product to provide the best retail display are all important to this firm.

- Price for the Market. Specialty markets command higher prices and prices should be set by the piece without a lot of dickering.

- Stay Close to Your Customers. Close attention to customers is key to Krantz's success. He keeps notebooks documenting each and every customer and their special needs so when product becomes available that will meet those needs he has a ready market for the product.

The following business was listed for sale on BizQuest (2005) and offers another example of a small business serving a niche market – this time wholesale rather than retail.

> "This business is perfect for the person wanting a light manufacturing business specializing in wood products. It is the leader in the niche basket component industry. Established over 14 years, this business sells to wholesale accounts only – no retail. The entire business is run by a husband and wife team working out of their home. They only work 9 months out of the year and vacation 3 months! The business can be located anywhere."

This business generates $70,000 in cash flow on gross revenues of $130,000.

Extensive work has been done on non-timber forest products, defined as forest products that involve harvest of non-timber products produced in forests.

> "Non-timber forest products are botanical products of the forest other than timber, pulpwood, firewood or similar wood products. Including wild mushrooms, floral greens, Christmas greenery, wild foods, medicinal, and craft species." (Clayoquot Green Economic Opportunities Project – Non-Timber Forest Products, 2005)

In the Vancouver Island region of British Columbia, it is estimated that wild mushrooms (primarily pine and chanterelle) have an economic impact of $57 million annually while harvest of salal (95 percent of the decorative greenery segment of the industry) contributes $55-60 million. These and other harvests of fern fiddleheads and medicinal and herbal products supplement annual incomes of a large number of individuals but are not sufficient to provide an annual living in most cases.

Such products are frequently traded in international markets, and within those markets, command high prices. Mushrooms from BC are traded in Japan, Europe, the U.S. and other parts of Canada. Bracken fern fiddleheads are primarily harvested for the Korean market. American exports of moss and lichen totaled $14 million in 2004 to the Netherlands for packing floral products.

Mater Engineering (mater.com, 2005) has done extensive work on non-timber forest products including:

- Determining resource volumes and sound harvesting guidelines.
- Evaluating market opportunities and projected market demand.
- Developing harvester-processor cooperatives.
- Designing equipment and facilities for processing.
- Identifying value added opportunities including new processing, drying, preserving, and extraction technologies.
- Development of direct marketing networks.
- Development of bankable proformas and business plans for business start-ups or expansions.

Vollmers and Streed (1999) advise would be non-timber forest products entrepreneurs to investigate and secure markets before beginning production. This is especially important for non-timber forest products due to the fact that most of these markets are very specialized with only a few buyers and seasonal. Knowing your customer, their needs, good advertising, and attractive packaging are keys to success not only for non-timber forest products but sale of any wood product within niche markets.

The medicinal market is divided into two sectors: the phytopharmaceutical sector (which generally develops single compound based products for pharmaceutical applications) and the herbal sector (which is less regulated by government agencies). Taxanol derived from Pacific Yew for breast cancer is a good example of a phytopharmaceutical. The numerous herbal supplements sold in health food stores are an example of the other segment of the market (Jones, et. al., 2002).

The types of herbal products produced from gathered species are many including teas, herbal oils, infusions, salves, creams, lotions, ointments, syrups, flower essences, etc. Collected species run the gamut from lichens, fungi, bilberry, elderberry, ginsing, raspberry, goldenseal, black cohosh, etc. The largest market for herbal medicinal products is Europe, followed by Asia, and Japan (Josiah, 1999).

Harvested non-timber forest products are also traded extensively in floral markets. Spruce tops, balsam bough harvesting, cones and other greenery for wreath making are big, albeit, seasonal industries in the Lake States. Other species are used year-round by the floral industry in both fresh and dried form. Producers of dried materials can use a variety of drying techniques from air drying to microwaving, freeze-drying or use of desiccants. Cattails, various types of grasses, ferns, birch tops, mosses, grape vines and decorative branches are all traded within these markets in the Midwest. Many additional products are used in craft markets to make baskets, cane chairs, and rustic furniture.

By all accounts, demand for non-timber forest products is growing as consumers look for unique & natural decorations, foods, and medicines. This has led to some concern about possible over-harvesting, given the relatively unregulated nature of these industries, lack of resource inventory and utilization data, and lack of knowledge of formal biological information on some species.

6.2. Unique Species

A number of companies focus on use of unique species within niche markets. Tech-Wood in Bethel, Pennsylvania is a large distributor of apple wood. Supplies are obtained from orchard owners when non-dwarf trees have lost their value as fruit producers. Colors of apple wood vary from yellow to pink to orange with an irregular grain pattern. The wood is marketed as "tan cherry" and is used in furniture, cabinetry, and specialty items such as trays and tool handles (Kaiser, 2001).

Bell Forest Products produces kiln-dried hardwoods from Michigan's Upper Peninsula. They specialize in supplying birdseye maple, curly tiger maple and exotic hardwoods to custom cue makers, luthiers, furniture makers and artists (Forest Industries, 2005). Niche marketing has also been used as an economic development strategy in Western Australia to revitalize the sandalwood industry (Tonts et. al., 2005).

> "Diversification and niche marketing have become very important economic strategies for many rural small businesses, farmers, and communities." While sandalwood has been exported from Western Australia for more than 150 years, for much of the second half of the twentieth century it was of little economic significance. In recent years, however, the industry has become increasingly entrepreneurial, successfully marketing its products into niche markets in the global economy."

In New York, several firewood dealers found two niche markets based on species and packaging. Seasoned Gourmet Firewood sells mixed hardwoods as well as cherry, hickory, ash, and organic apple. One of their customers is a retail outlet that sells bagged firewood. One cubic yard of this bagged firewood sells for $5.99. An area apple orchard sells trimmings for $40/bushel into the gourmet smoking market (Hornbeck, 2004).

Several issues can arise when a firm is contemplating use of a non-traditional species to produce a niche market product. Smith et. al. (2005) found in a survey of secondary forest products industries that a consistent supply topped the list of concerns for users of alternative species. Machinability, finishing, drying schedules, and moisture content were also issues these users indicated needed to be addressed.

The Clayoquot Sound Green Economic Opportunities Project found that tapping into underutilized or species considered a “nuisance” could also provide a basis for niche markets. Alder and yew were identified as two such species in the region.

> “Alder is fast growing and highly valued by makers of furniture and specialty products. Alder furniture has been produced in the region in the past and a veneer plant was proposed in the past decade that would include alder as an input …” “Currently, however, mature alder is being chopped down for firewood rather than commercially harvested.”

Alder chips are also popular for smoking fish and meats and yew wood is traditionally used by local First Nations for canoe paddles, bows and specialty items. An initiative by a major forest products firm in the region involved opening a log sales yard for local individuals focused on these and other species. An on-site log grader and a portable sawmiller that can be brought in to custom cut are included in the initiative.

Kaiser (2004a,b&c) also documents use of other unusual species within niche markets. Bog oak are European or English white oaks that have been buried in peat bogs or river beds for centuries. The wood is preserved and takes on a deep chocolate color. These petrified logs are most often found during lake excavations or when digging gravel pits in old river beds. The Wood Gallery of Floyds Knob, Indiana and Interwood Forest Product of Shelbyville, Kentucky both carry bog oak veneer. These veneers are used in high end applications as facings for a number of products and also for jewelry, specialty items, and in carvings. A major selling point related to bog oak veneer is the historic nature of the logs from which it is produced. Logs have been carbon dated and documented to be thousands of years old. European cherry and Chilean rauli are also much sought after, somewhat rare species, used in fine furniture, cabinetry, architectural millwork, and carving.

Another example of wood products with a historical twist are products made from historical trees. American Forests operates a historic tree nursery and contracts with seed collectors from historic trees (Forest Bytes, 2004a). Historic trees are identified by their connection to famous people, places, and events in American history. Examples of historic trees include a tulip poplar from George Washington’s Mount Vernon home and the last surviving apple tree planted by Johnny Appleseed. American Forests also operates a Historic Wood Company which secures wood from dead historic trees or pruned limbs from live trees to provide to manufacturers.

Amana Furniture uses historic wood to produce period style furniture. Nature’s Creations produces holiday ornaments and pins made from the preserved leaves of the fallen Wye Oak which was the nation’s largest and possibly oldest white oak. A 4” Wye Oak leaf pin retails for

$76.00. They also produce natural jewelry from everyday plant and animal sources such as gold fir earrings, gold geranium pins, and gold maple leaf pins (Nature's Creations, 2005). Living History Knives uses historic wood to produce knife handles. Their liberty tree knife sells for $895.00, made from wood from a 400 year old tulip polar in Annapolis, MD which was toppled in Hurricane Floyd (livinghistory knives.com). The Investment Arms Historic Wood Collection manufactures pistols with historic gun stocks from such trees as a honey locust that witnessed the surrender of Lee to Grant in 1865 (historicwood.org).

While these are national historic trees, plenty of state and local trees might be marketed as historic trees in the locales where they grew. This is similar to selling bricks from a historic structure that was damaged or torn down that has local or regional significance.

A unique species or product that is being "harvested" all over the world are sunken old growth logs. This activity has been on-going since the 1950's but really took off in the early 1990's. Underwater logs are harvested from rivers that historically had significant log driving activity, from the waters adjacent to historic saw mills, and from reservoirs flooded without having been cleared before. These logs date from the time of the first wave of logging and dam building in the various locations where they are harvested and, consequently, are old growth and have old growth characteristics -- the most prominent of which is very tight growth rings resulting in a colorful pattern not found in today's fast-grown lumber. Having been underwater, little deterioration of the wood occurs and the water imparts a rich color to the wood.

Cape Fear Riverwood Corp. salvages water from the bottom of Cape Fear River in Wilmington, North Carolina. On a typical day, the company can recover 35 to 40 logs. Cape Fear was a central location for forming log rafts for transport to distant sawmills. The rafting happened between 1700's to about 1900 which mean the trees could be anywhere from 300 to 500 years old. These logs are made into flooring and sold to architects and builders of high-end homes at premium prices. Not only are the characteristics of the wood unique, producers in this business frequently give their product an environmental spin as resulting from the "recycling" of these wood resources (Elmore, 2004).

In British Columbia, much of the harvesting is done in reservoirs. Canada has huge hydroelectric power capacity and, consequently, a lot of reservoirs. In B.C. alone there are 50 reservoirs with underwater forests constituting nearly one million acres of standing timber. Some estimate that in B.C. alone there are enough underwater reserves to supply timber globally for 30 years (Talbot, 2005).

Georgian Bay Wetwood harvests sunken logs in Lake Huron's Georgian Bay and Superior Underwater Logging does the same in Lake Superior in and around the waters off Ashland, Wisconsin. All of the four companies cited do log recovery, primary processing, and drying (since drying schedules can be tricky with this wood). Most also do secondary manufacturing but also sell lumber to small secondary manufacturers who frequently focus on specialty markets.

Superior Underwater Logging teamed up with artisans from around Northwest Wisconsin and created a gift shop at their wood processing plant to sell unique creations utilizing their harvested wood. This partnership created a high profile image for SUL and an outlet for the products produced by small wood artisans.

Setting up such cooperative relationships with other companies to help in identifying unique species that could be traded can occur with any number of products – burls discarded on a logging job, the odd cherry or walnut log that shows up at a sawmill, or returned loads of lumber or cants that did not meet specs. Niche market producers often need such materials in small batches. This is a perfect match with a commodity producer wondering what to do with this material which is fouling up his primary product flow.

7.0 Niche Markets Resulting from Regulatory Policies and/or Policy Change

Niche markets resulting from regulatory policies and/or change are harder to identify but do exist. More stringent air quality, water quality, and waste disposal requirements not only protect the environment but create waste disposal and production problems which need to be solved. The current build-up of fuels which has contributed to some of the worst forest fire conditions in recent decades in the west was also the result of past policies and has created a problem that needs to be solved. Recent national policy to increase production of energy from biomass is also a possible opportunity.

Quarantines of forest products to prevent spread of invasive forest pests can also create local market opportunities if science and technology can be applied to addressing the problem issues created by these regulatory changes.

Recent out-breaks of Asian Ash Borer have led to large quarantine areas in Michigan and sanitation cuts in an attempt to limit its spread. This large source of raw material was largely going un-utilized despite the fact that the borer inhabits only the cambium layer of the tree immediately under the bark and could be effectively controlled in infected trees by debarking and slabbing the cants.

Enter Chris Last of Royal Oak’s Parks & Forestry Division. He decided to recover this wood and founded Last-Chance Logs which turns these trees into lumber. He was awarded the White Pine Award for Environmental Excellence by the Michigan Senate for his efforts (Forest Bytes, 2004). Eradication services for other invasive species, such as European Buckthorn, may also be sources of opportunity.

Shelly (2005) investigated the processing of Tanoak lumber in response to the spreading of Sudden Oak Death in California. Tanoak is one of the most susceptible species to this disease. Tanoak was once valued only by the west coast leather tanning industry. With development of chemicals to tan leather, it went to weed species status. A Tanoak processing industry has failed to develop due to a lack of sawmilling technology where it’s located and a lack of information on processing characteristics and recommended manufacturing techniques. There are many more examples of underutilized species in ample supply that could form the basis for a niche market.

An increasing number of states and municipalities now ban wood residue refuse (except construction debris) from landfills. These regulations create problems and opportunities. Ed

Lempicki of the New Jersey Forestry Services (a section of the state's Division of Parks and Forestry, investigated the costs to local communities for tree disposal. These costs were high and, as a result of the project, a network was established to link individual municipalities to local sawmills to convert removed urban trees to useable products (Bratkovich, 2002).

Eric Oldar of the California Department of Forestry and Fire Protection pioneered a project to utilize urban trees by investing in five portable sawmills which are loaned to municipalities for sawing removed trees. The project has expanded into portable dehumidification kilns to add value to the products produced and partnerships with woodworking schools to add value. The list of municipalities that have gotten into the portable sawmilling business is large and has occurred throughout the country in response to landfill regulations.

Harvesting Urban Timber was founded by an amateur woodworker who began sawing urban trees that had sentimental value to their owners. Working in cooperation with the Cincinnati Park Board using a portable sawmill, owner Sam Sherrill saws wood and contracts with local craftsmen to make furniture from that wood.

> "For example, an old oak tree that had stood on a family farm since the late 1800's, and was estimated to be over 500 years old, was made into a dining room table with sentimental value after it was blown over in a storm."

New business start-ups in Topeka, Kansas, Salt Lake City, Utah, Lewisville, North Carolina and Auburn, California were all started by landfill operators that were tired of seeing high quality hardwoods being disposed of at their sites. Each of these businesses has a different level of vertical integration and differing business models with most of them producing (or contracting for the production) of final consumer products (Bratkovich, 2002).

In the Ladysmith Forest Industry Park Project, a business opportunity was recognized and exploited as a result of increasingly stringent regulations related to VOC air emissions from painting and finishing operations. As a result of these new regulations, several local forest products firms expressed the desire to out-source their finishing and painting operations rather than undertake up-grades to their existing facilities. The key to this decision was the relatively small amount of such work they did to support their product lines compared to the other value-added components of their production. As a result, NW Paint & Stain started operations in the Forest Industry Park using the joint use paint booth in the multi-tenant facility to do the finishing for local companies.

Air quality regulations, high energy prices, and the aging of the population have also resulted in an explosion in the demand for pellet stoves in the last five years. Recent information collected from several sources suggest that the wait period for a new pellet stove is upwards of eight months or more. All these stoves will require fuel and production capability does not appear, as yet, to have caught up to increasing demand.

Increasingly stringent storm water run-off regulations have lead to development of a number of new filtering technologies utilizing wood products and peat to trap contaminants before they enter surface waters. Insurance policies that restrict in-house wood burning for heat may lead to increased demand for outside units. As a result of federal fuels management policies, millions have been invested in helping entrepreneurs develop small community based energy facilities.

The list of possible opportunities as a result of regulatory change can be long but most people naturally tend to focus on the negative results rather than the possible positive ones. The key is to identify who may have a problem as a result, what that problem may entail, and how the problem might be solved.

8.0 Conclusions

Niche markets arise in a number of ways and for a number of reasons. Niche markets are in fact, all around us and in every marketplace. The key to success in niche market businesses is recognizing and identifying them and properly delivering products and services within them. This requires a huge and on-going time commitment. "Make it and they will come" will not work in the majority of niche markets. The first step is to find out what a select customer or customer group wants. Most forest products manufacturers do not have this type of entrepreneurial orientation but need to acquire it to be successful in the niche they choose.

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