

AHEAD OF THE PACK

What Forest Industry Managers Think About Achieving and Measuring Innovation

by Eric Hansen, Chris Knowles and Heikki Juslin

“One of the things I find attractive about the wood products business, it is slow moving, it is an old business and doesn’t take much to mark yourself as an innovator.”

The explanation above from a North American forest industry manager provides insight into innovativeness in the forest sector. If the industry is to remain a viable competitor with substitute materials and global rivals, innovation will be instrumental to future success.

In a recent study sponsored by Oregon State University’s College of Forestry, we explored the concept of innovativeness through extensive interviews with forest industry managers of medium- to large-sized forest industry companies in Europe, North America, and Oceania. Thirty-five managers from 16 companies were interviewed.

A better understanding of how the industry “thinks” of innovativeness may provide managers with insight for improvement, allowing them to compare efforts to peers and better manage innovation in their own organizations. Analysis of interview transcripts allowed us to identify important themes. The primary themes discussed below are Attributes of Innovative Companies, Hurdles to Innovation, and Measuring Innovativeness.

Attributes of Innovative Companies

Several common themes emerged from the interviews. These themes can be summarized by 1) new, 2) creating the “right” culture, 3) managing the market/customer link, 4) being a leader, and 5) a focus on the future.

New: New products, new services, new technology, etc. are associated with innovative companies. Innovative is synonymous with creating or adopting something new.

“You just have to keep moving forward, looking for new, either new products or new ways to do things or new components or materials and combining those. So I think that’s what it means to me to be an innovative company.” – North America

Creating the “right” culture: An appropriate company culture and atmosphere is conducive to innovation.

“I would like to think ... that we are slightly better than the competition because we have the right mindset, that we may have understood some of the connections, some of the links and the importance of this activity slightly better or earlier than the competition. We might have been clever enough to do something to encourage people and encourage this activity.” – Europe

Managing the market/customer link: Despite a traditional production orientation, managers claim close links to the marketplace and customers. Being closely tied to customers is seen as characteristic of an innovative company. Also, some managers are quite critical of the industry as a whole and its over-reliance on tradition and conservatism at the expense of innovation.

“To be truly innovative, you need to have a very, very good link to your customer base and you need to produce products based on real requirements.” – North America

Being a leader: Innovative companies are leaders that stay ahead of competitors and “lead the pack.”

“If you are a real innovator, you’re ahead of the curve. You’re reading the tea leaves. You see where your markets are going and what your customers want, and where the industry is going.” – North America

A focus on the future: Innovative companies concern themselves with the future in order to position themselves well in an ever-changing operating environment.

“I need to predict, predict what’s going to happen in the future, doesn’t matter whether it’s in marketing or production or anything and implement something before it is necessary. I’d say that is my definition of being innovative, it’s getting ahead of the pack and really looking out.” – Oceania

Hurdles to Innovativeness

Culture at the company and industry level can pose hurdles to innovation. Each of the three identified themes contains aspects of culture: 1) tradition/production orientation, 2) culture – resistance to change, and 3) ideas from market to innovation.

Tradition/production orientation: Production-oriented companies maintain significant decision-making authority at the manufacturing level. A shift to enhanced market orientation, focusing on customers and competitors while integrating information to all parts of the organization, requires significant culture change. Managers are highly customer oriented in their vocabulary, often referring to efforts to shed a production orientation and focus on customers, but also expressing frustration with failures to shed a production mentality. A focus on production metrics makes it difficult for an organization to move away from a production orientation.

“In the plywood industry we have stopped thinking of yield in the sales and marketing or in the management already 10 years ago or 15 years ago and that has meant we have moved closer to other industries.” – Europe

However, not all managers focus on a market orientation, but set their sights squarely on process efficiency.

“The nature of the business is so that if we can utilize, for example, raw material more efficient than we do today, the income is much better and faster than by trying to develop new products and find new markets for new products.” – Europe

Culture – resistance to change: Culture at the overall manufacturing sector, individual company, and the marketplace levels can enhance or impede innovation. For example:

“...this culture is incredibly conservative in this industry, so very resistant to change.” – North America

Some feel that forest industry management is not sufficiently diverse in background and generally lacks sufficient training in new product development and innovation management.

“I think a lot of the problem also comes from the fact that they haven’t hired from outside, they keep promoting from within.” – North America

Ultimately, a critical component of culture is how employees see their role in innovativeness.

“I think this whole innovation thing or being innovative or not is something that people consider a bit apart from their everyday work or everyday duties and this is, of course, not the idea.” – Europe

Resistance to change is not limited to internal company operations. The marketplace can also resist attempts to introduce innovations resulting from inadequate knowledge by key specifiers, conservatism from customers, or the bureaucracy of industry standards.

“People are slow to adopt in this industry, lot of times it is a hand-me-down business, my daddy did it this way, my granddaddy did it that way, he built with 2x’s and I am going to build with 2x’s, this is the way to go.” – North America

Ideas from market to innovation: Forest industry companies traditionally sold products via an extensive channel of distribution and paid little attention to the remainder of the value chain. This tends to create a disconnect in the flow of innovative ideas from consumer to manufacturer. Managers express frustration regarding the difficulty of moving ideas from the marketplace into company innovation processes.

“We don’t have too much understanding of the real processes of our customers and their customers.” – Europe

Measuring Innovativeness

Measuring innovativeness is not a topic with which most interviewed managers are intimately familiar. Return on investment or profitability, percentage of sales represented by new products, levels of investment required for a given innovation, market share over time, success in commercialization of products, number of patents received, and time to market are all methods highlighted by managers. This does not imply, however, that these companies actively measure these items. Rather, managers were identifying possible measures of innovativeness.

For most companies there are no significant efforts targeting increased innovativeness as such. However, managers typically do not make a connection between the question that was asked regarding “increasing innovativeness” and many of their ongoing efficiency efforts, or incremental improvements.

Some managers expound on moves made in their companies to adapt to changing market realities or to better facilitate innovativeness. Moving toward a higher level of market orientation is common. Several companies have shifted responsibility for research and development to the marketing function in an effort to make product development more customer-focused.

“This was a totally commodity-based company. So it needed a completely different strategy. It needed a new business model. It needed a totally new infrastructure.” – North America

One way of attempting to mold culture is through altering organizational structure.

“One of our strategies has been that all new persons coming to the company are coming to the R&D department to get that sort of R&D mind and then the next step is to go to market or production to learn real-life things as well.” – Europe

Thoughts on Enhancing Organizational Innovativeness

Innovation and innovativeness have been studied extensively during the last century. The process of innovation is so complex that the knowledge base is often contradictory and difficult for managers to draw from. Innovation processes have been described as “contingent.” In other words, successful innovation depends on a variety of factors.

Given the complex and contingent nature of innovation, we cannot hope to prescribe cookie-cutter solutions for forest industry companies. However, there are general points that can be made. There is an old adage, “you can’t manage what you don’t measure.”

None of our firms could be described as implementing a broad innovation management process with a holistic set of metrics. Instead, what exists in most forest industry companies is a focus on process efficiency with corresponding efficiency metrics. Ask a North American sawmill manager how he or she is evaluated, and overrun will be high on the list, even though the highest overrun may not result in optimal profitability.

Companies should begin to develop a holistic approach to innovation management that incorporates a broad set of metrics that cover areas beyond process efficiency. We do not discount the importance of process innovation. Rather, we consider it to be a necessary but insufficient element to maintaining competitiveness.

Active Innovation Management: Often, managers did not mention innovative activities within their firms that we knew of independently. While this may have been a result of limited time and memory, another likely explanation is that innovation or innovativeness has not been adequately defined by their companies. As a result, innovation may be perceived differently even within the top management team.

This suggests that part of any attempt to develop innovation management within a firm should start by defining innovation and then moving towards a plan for managing that innovation, including a strong set of metrics. An example definition is: "Innovation is creation and/or adoption of new processes, products/services, or business systems intended to increase value to our customers and thereby improve our performance."

With the right leadership and a common understanding of innovativeness, an innovative culture can be developed. Developing and maintaining an appropriate company culture is at the heart of establishing an innovative organization. Developing a market-facing culture that is proactively creative is an immense challenge. This is especially true of a company that has a long history of focusing on production and process efficiency.

Making the change requires a significant shake up of culture. When power changes hands in an organization it can be a painful process. Some individuals will be unable to buy in and make the changes necessary to facilitate enhanced innovativeness. Therefore, a change in culture may require removing some individuals that are especially resistant to change.

Some companies that participated in this research employed managers from diverse backgrounds. For example, marketing managers may have come from automotive, chemical and software industries. While diverse backgrounds can enhance innovativeness, companies must mold their culture carefully, or suffer negative consequences. Attempting to change too quickly can derail efforts. It is important to remember that communication is the key aspect to successfully implementing a change in culture. Employees are more likely to buy into a change in culture when they are informed of why and how the organization is changing.

An Appropriate Business Structure: In recent work on the forest industry, Korhonen¹ outlined the challenge of maintaining the dual purposes of exploitation and exploration. Exploitation is akin to increased efficiency while exploration refers to finding or creating new approaches and new capabilities (e.g., new products).

These concepts are essentially the same as incremental and radical innovation, respectively. Firms successful in simultaneously pursuing exploration and exploitation have become known as ambidextrous organizations². The main mechanism for this is structural separation of "exploitation" units that are still integrated into the management hierarchy². In other words, a top manager is responsible for both ongoing operations in a particular area as well as an emerging business.

Organizational Learning: Learning and knowledge management are strongly associated with successful innovation. Exploration includes activities such as experimentation, trial and free discovery. Success in this area is built upon acquiring new knowledge and creating new

capabilities. Exploitation is associated with efficiency, implementation, and focused attention. Successful exploitation is built upon sharing and utilization of knowledge that already exists to entrench existing capabilities¹. Acquiring, sharing, and effectively utilizing knowledge across the firm is closely tied to communication and networking, a topic discussed below.

Communication and Networking: A strong ability to interact with external partners as well as effective inter-company networking is critical for enhancing innovativeness. In past research at OSU we found that forest industry companies rely extensively on their customers and machinery manufacturers for innovative ideas. Also, as firms become ever larger, this principle is equally applicable within firms. For example, we found nearly no consistent, planned interaction between R&D operations on the solid wood and pulp and paper sides of large, integrated companies. This is an area where large, integrated firms should capitalize. All employees should be given opportunities to meet with customers, machinery manufacturers, suppliers and other business units. These meetings will not only facilitate communication and networking, they could also result in new or improved products, manufacturing or business systems.

Conclusions

Although managers often referred to market orientation during the interviews, there is clearly more progress to be made in this area. For example, being market driven is not enough. Driving markets will be needed for future success. Companies must strive to find and create their own future.

It is important to recognize that everything starts with leadership and culture. As one of our interviewees stated,

“There is also a very strong “shoot the messenger” mentality in the industry where people are terminated if a project doesn't go well....who in their right mind would want to lead innovation in an environment where your first misstep is your last?”

This sort of culture clearly does not support innovativeness. Innovativeness requires buy-in from all employees.

For employees to support organizational innovativeness, they must understand what it means in the context of their own operations, and more specifically, in their own job. Managers must provide the vision and a plan for innovation management in order to improve innovativeness and, ultimately, competitiveness.

We see innovation management as an opportunity for the industry, yet there is still much to be learned about practical implementation. Accordingly, we are planning a project to investigate current industry practices. Please contact Eric Hansen if your company wishes to participate. ■

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Literature

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