ENVIRONMENTAL ISSUES IN THE FOREST INDUSTRY: ARE THERE MARKET OPPORTUNITIES?
A TEACHING CASE STUDY

by
Eric Hansen
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The Author

Eric Hansen is Associate Professor of Forest Products Marketing in the Department of Wood Science and Engineering, Oregon State University, Corvallis, Oregon (Eric.Hansen2@oregonstate.edu).

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Environmental Issues in the Forest Industry: Are There Market Opportunities?

A Teaching Case Study

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In this case study, Willamette Industries, Inc. explores the potential of environmental marketing. The company conducted research to determine the views of their customer base. Based on this information and a description of the company’s external environment, students are asked to recommend a marketing strategy.

Introduction

As globalization and consolidation of industries occur, corporations are gaining the power once held by governments, along with increased visibility and scrutiny. With the increased attention on the impact of global corporations has come the concept of corporate social responsibility. Corporate responsibility entails “doing the right thing” from a societal perspective. This means balancing the various aspects of a company’s positive and negative impacts on society, rather than simply considering the economics of a decision. Because of this growing influence, some have argued that corporations are the only organizations in the world in a position to positively impact sustainability (Hart 1997).

Sustainable Forestry

The concept of sustainability incorporates environmental, social, and economic sustainability. The World Commission on Environment and Development (WCED) has defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and
During the 1990s, sustainable development became a key issue for the forest industry, and today, sustainable forestry is a theme embraced by basically all large forest industry companies in the United States. Some companies, such as Georgia Pacific, are publicly oriented toward the concept of sustainable development, likely because the CEO was a member of the President’s Council on Sustainable Development. Most major companies have also developed an environmental policy statement (see Appendix).

Although the forest industry has traditionally reacted slowly to the evolution in societal values, companies are now aggressively changing to meet new societal expectations. The forest industry is in a unique situation with respect to environmental issues, however. This is largely because few sources of raw materials evoke the emotions that trees and forests do. People generally seem to hold positive views of forests and may fail to find anything positive about harvesting. As a result, forest-based companies have received special scrutiny with respect to forest management practices. As companies move to adapt their operations to meet societal expectations, however, it is important that they become adept at determining what level of change will maintain the balance between staying competitive and being environmentally and socially responsible.

The Role of Environmental Groups

Whether their actions are seen positively or negatively, environmental groups (ENGOs) have had a significant impact on the move toward sustainable forestry. Their activism in the United States has historically centered on public forests and old growth. ENGOs have experienced significant success in using the courts to accomplish their objectives.

In recent years, ENGOs have concentrated on corporate America and Europe in what they call “market campaigns”. They recognize the power they can wield over corporations that use significant volumes of wood or paper products. For example, groups like the Rainforest Action Network (RAN) have actively targeted retailers, homebuilders, and forest products manufacturers.¹

One specific area of focus for ENGOs has been forest certification. Not all ENGOs support the concept of certification, but it is supported by major international organizations such as Greenpeace and WWF (World Wildlife Fund). In fact, WWF has been intimately involved with the formation of the Forest Stewardship Council (FSC), an international forest certification system, and has developed groups of companies in various countries—called the Global Forest and Trade Network—that support the development of demand for certified products. The companies are committed to moving toward 100% purchasing of certified products.

Because of pressure from ENGOs, a variety of companies have committed to corporate purchasing policies that favor certified products and avoid supply from what have been termed endangered forests. The Rainforest Action Network originally targeted The Home Depot in 1992 because of its use of old-growth tropical timber. The Home Depot made a commitment to eliminate the use of products originating from these forests—for example, it eliminated a line of teak furniture. The company became a target again, however, when

¹ A quick visit to www.ran.org will provide an update on RAN’s activities.

In January 2000, the National Association of Homebuilders show in Dallas served as a kickoff for RAN’s next campaign. The group targeted the homebuilding industry, starting with Centex Homes and Kaufman & Broad, two of the nation's largest homebuilders. Activists were at the show handing out literature, and there were several small demonstrations.

The Rainforest Action Network declared April 1, 2000, a day of action against the largest homebuilders. On March 28, Centex Homes released a statement about its policy to “encourage environmentally sound timber supply”. On March 30, Kaufman & Broad made a similar statement. As a result, RAN cancelled its day of action.

The actions of ENGOs have already had a significant impact on the forest industry in a variety of ways. As they build on past successes and continue to join together, the groups will likely experience even greater success. Understanding the strategies and tactics of these groups is critical to the success of long-term firm forest management and marketing strategies. Being recognized as a top-tier company and working to partner with ENGOs may provide marketplace advantages for companies that can meet ENGO requirements.

**Environmental Marketing**

As industry evolves to meet new societal demands, marketing is also changing. The basic function of marketing is to analyze customer needs and transform them into business opportunities. If customers are environmentally conscious and want to make choices supporting sustainable development, a company can transform these environmental requirements into business opportunities. To do so will mean integrating environmental perspectives into all aspects of marketing planning, especially marketing strategies.

Marketing based on ethically sound values that integrate environmental issues in all decisions is called “environmental”, “green”, or “ecological” marketing. Such marketing recognizes the broader environmental responsibility of the company and helps the company adapt to new circumstances. The primary principle is that environmental marketing integrates all activities of the company to satisfy the customer in a way that benefits the customer and the company while incorporating environmental responsibility.

Environmental marketing manifests itself as environmental messages in a company’s communications, product advertising, and personal relationships. Hence, environmental messages are increasingly being used in company advertising campaigns (Figure 1) and, increasingly, in annual corporate environmental reports.

Environmental issues and consumer education are central in marketing communication, not only for the forest products industry, but also for other building products. For example, the promotion of substitute building products—which present a significant competitive threat to the wood products industry—often use environmental messages. Substitute products are being aggressively promoted against wood, and even traditional forest products companies are
now promoting and selling a variety of these products. Louisiana Pacific is a good example, having moved into a variety of wood hybrid composites and non-wood products, such as vinyl siding, in its attempt to become a “building products” company.

Environmental messages and advertising are sometimes criticized as superficial and misleading. Indeed, if environmental arguments are isolated from genuine strategic decisions, they can be easily criticized. True environmental marketing originates in a strong company philosophy about its responsibility to society and the environment. That philosophy must be visible as a real commitment to environmental issues and improved performance. Otherwise, a company can be accused of “greenwashing” and may end up worse off than if it had done nothing at all. A successful environmental message calls for true commitment to environmental issues and clear linking of environmental matters to strategic marketing decisions.

If a company’s strategic product decisions include a commitment to environmentally friendly products, forest certification may support the company’s product strategy, since forest certification could form part of a product’s “green component”. When strategic target markets emphasize environmental values, forest certification may favorably affect their product choices. If environmental issues constitute one of a company’s strategic success factors, certification may serve to reinforce these competitive advantages.

**Forest Certification**

Forest certification was created as a tool to promote sustainable and responsible forest management. Certification is a popular concept among some forest industry stakeholders because they believe it is an indicator of the sustainability of an operation. Generally, the term “certification” refers to a procedure in which a third party provides written assurance (a certificate) that a product, process, or service complies with specified requirements (Ghazali and Simula 1994, 1996). The use of certification in marketing calls for a label or code that indicates the use of certified raw material in the product. The general purpose of an “ecolabel” or environmental label is to provide an incentive for production that minimizes environmental impact.

The practical objectives of forest certification are to guide forest management in a market-led manner in an economically, ecologically, and socially sustainable direction. Its potential to achieve that objective is directly linked to marketing.

Certification may act as a tool for

- promoting sustainable forest management. For example, government authorities may use certification to support their forest or environmental policies.
- satisfying the needs of customers. For customers, certification indicates that the product comes from a well-managed forest. Certification helps consumers make choices and supports the attainment of sustainable development connected with consumption.
- marketing. Marketing adapts the company to its business environment and turns prevailing trends in that environment and customers’ needs into business opportunities. If
sustainable development is one of the values of an enterprise, it makes sense to integrate certification with marketing decisions (Forest Certification Committee 1997).

In the context of environmental marketing, competitive advantage is based on environmentally oriented success factors. The more certain the figures for development of demand and supply in the marketplace, the more easily or safely a company can make strategic decisions. Because certification is new, however, it is difficult, if not impossible, to accurately predict demand and supply. As a result, decisions to pursue markets for certified products are risky.

Little is known about the development of consumer demand for “environmentally friendly” products; most available information is about consumer attitudes. A number of public opinion polling companies have developed segmentation analyses of the U.S. population. For example, Roper Starch Worldwide does an annual study of the U.S. population and divides the U.S. population into five groups. Data from 1996 are outlined below (Speer 1997):

- **True-Blue Greens (10%)**—being environmentally aware is a way of life, well educated and affluent
- **Greenback Greens (5%)**—moderately active in environmental causes, younger than average, likely live in West or Midwest, most likely hold white-collar jobs
- **Sprouts (33%)**—embraced environmentalism rather slowly, reflect the general public in terms of political orientation
- **Grousers (15%)**—the environment is someone else’s problem, slightly less educated than average, more politically conservative, likely live in South
- **Basic Browns (37%)**—environmental deadbeats, poorest and least educated.

Society’s attitudes towards the environment are an important part of general marketplace development, as are trends in those attitudes. With regard to forest certification, final consumers do not represent significant demand and are not what is driving changes in the marketplace. A number of studies have attempted to measure consumers’ willingness to pay for certified products (Ozanne and Vlosky 1997; Ozanne and Smith 1998). Few empirical consumer-behavior studies have been conducted to measure the true reactions of consumers to ecolabeled wood products (Anderson 2003). Generally, research has shown that consumer attitudes do not accurately predict purchase behavior (Mainieri et al. 1997).

Trends in the marketplace show an increasing demand for forest products originating from certified forests. However, the market is in its infancy and very little information is available with which to quantify demand (Raunetsalo et al. 2002).

As a strong supporter of the American Forest & Paper Association’s Sustainable Forestry Initiative, Willamette Industries, Inc. (WII), sought to explore the market potential for environmental performance in general and forest certification specifically. Willamette Industries, Inc., was the first company to complete audits of all its lands under the SFI certification system. Company managers were interested in the potential marketplace advantage this might present.
**Willamette Industries, Inc.**

In 2000, WII was ranked as 390th on the Forbes 500. The vertically integrated company had a nearly 100-yr history in Oregon and had grown from a small company to one with more than 14,000 employees and annual sales of over $4 billion. The company's holdings consisted of 103 plants located in 24 states in the U.S. and in Mexico, France, and Ireland, as well as 1.7 million acres of timberland. The company was made up of three divisions: white paper, brown paper, and building materials. For its building materials division, WII relied heavily on traditional distributors, rather than moving toward more direct relationships with, for example, large retailers, as its major competitors had done. To make decisions connected with environmental marketing and forest certification, information must be developed to enable the company to evaluate the potential of marketing strategy options. Willamette Industries, Inc. surveyed their primary building material customers to determine how they expect the marketplace to develop and the value they saw in high environmental performance.

To analyze their customer base the company considered customers from three separate product groups: (1) engineered wood products (EWP), which included products such as wood I-joists and laminated veneer lumber; (2) commodities, which consisted of softwood lumber, plywood, and oriented strandboard; and (3) particleboard /medium-density fiberboard (PB/MDF). In the spring of 2000, thirty customers (EWP = 5; commodities = 15; PB/MDF = 10) were interviewed by telephone; a structured questionnaire was used. Customer respondents came from all regions of the United States. Results shown below generally reflect customers as a total group, as well as customers of each of the three respective product groups.

### Study Results

#### Marketplace Development

Do customers expect environmental legislation and the influence of environmental groups on markets to strengthen or weaken over time? Customers expected these aspects of the external environment to strengthen (Figure 2). Just over one-third of customers expected environmental legislation to remain the same and one-half of MDF/PB customers expected it to remain the same. Nearly 36% of customers expected the influence of ENGOs to remain the same or weaken, while

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2 A one-sample t-test was used to determine whether the ratings were significantly higher than the neutral value of 3 (p < 0.05).

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![Figure 2. Expectations regarding development of ENGO influence and environmental legislation. *Rated significantly different from neutral point of 3 (p < 0.05). EWP = engineered wood products (wood I-joists and laminated veneer lumber); Comm = commodities (softwood lumber, plywood, and oriented strandboard); PB/MDF = particleboard /medium-density fiberboard.](image-url)
nearly one-third expected the influence to significantly strengthen. Given recent ENGO activities in the marketplace, however, it is somewhat surprising that expectations regarding their influence were not higher.

**Demand**

Customers responded to two questions regarding the change in consumer demand for corporate social responsibility and environmentally friendly products and a question about demand by their customers for environmentally friendly products.

Customers saw a strengthening of consumer demand for environmentally friendly products (Figure 3). Almost 40% expected consumer demand to significantly strengthen (40% rated it at 5 on a 5-point scale). This was in sharp contrast to their expectations of their customer’s demands for those products. Only 10% expected their customer’s demands for environmentally friendly products to significantly increase while nearly 66% expected them to decrease or remain the same (66% rated it 3 or less).

One customer mentioned that consumers are becoming more environmentally conscious, but are not willing to pay more. The individual mentioned the movie industry’s attempted shift away from Meranti plywood. When it was found that the cost of Meranti plywood was about one-half that of domestic, the environmental concern quickly evaporated. This same individual cited the fact that, of the company’s customer base of 1800, none were asking for environmentally friendly products.

Figure 4 shows how customers judged the environmental awareness of their customers. The MDF/PB customer group was the only one of the three to rate the awareness of their customers significantly higher than the neutral point of 3.
SUPPLY

Customers expected a strengthening of the supply of environmentally friendly wood products (Figure 5). Over three-fourths of customers expected supply to strengthen (more than 75% rated it at 4 or greater) and no customers expected it to weaken. EWP customers were neutral regarding this issue.

COMPETITION

In the future, will companies compete based on social responsibility and environmental performance? Customers gave some support to this concept, although EWP customers expected competition related to these issues to remain the same (Figure 6).

COMMUNICATING WITH CUSTOMERS

When attempting to educate customers regarding environmental performance, it is important to understand how they would like to receive that information. Figure 7 shows how WII’s customers rated a variety of different methods of learning about environmental performance. Overall, customers’ most preferred method was direct communication from the salesperson. Engineered wood products customers equally preferred forest tours, mill tours, and workshops/education. Commodity customers preferred mill tours first, followed by salespeople. Customers of MDF/PB heavily preferred salespeople, with mill tours as their second preference. Direct mail brochures and environmental reports were not particularly valued.

Customers most preferred to learn about news and events directly from a salesperson (Figure 8). This was true regardless of product segment, as was the second-most preferred method, contact with management. The third-most preferred was an e-mail newsletter. Some respondents were rather negative...
towards e-mail newsletters, complaining of their current e-mail message volume. Neither radio nor television advertising were positively viewed.

**SUPPLY STRATEGIES**

To what extent will various environmentally oriented issues impact a customer’s selection of a supplier? The survey found that customers see a reputation for social responsibility

![Figure 7. Preferred methods of learning about supplier environmental performance. *Rated significantly different from neutral point of 3 (p < 0.05).](image)

![Figure 8. Preferred methods of learning about news and events associated with supplier and product. *Rated significantly different from neutral point of 3 (p < 0.05).](image)
and certified forestlands as equal (both rated 3.7) and having some impact, followed by a supplier owning its forestlands and having a reputation for pollution prevention (Figure 9). This question provides insight into the relevance of certification and ecolabeling to customers from each product group. None of these issues would have a high impact on supplier selection, according to EWP customers. In contrast, 30% of MDF/PB-customers gave certification and ecolabeling a high impact (rated at 5). Commodity customers were in between, with 13% giving certification a high impact and 20% giving ecolabeling a high impact (rated at 5).

**CUSTOMER STRATEGIES**

How important is environmental awareness when selecting potential customers? Overall, respondents did not consider this to be important (Figure 10). In fact, on average, none of the three customer groups gave it a rating above the mid-point of 3. Only 20% of individual customers rated the importance above the midpoint of 3, and ratings were similar regardless of product group. Customer environmental awareness is currently not a relevant aspect of target marketing. If environmental marketing becomes more common in the industry, the importance of targeting environmentally aware customers may increase.

**PRODUCT STRATEGIES**

To assess the level of incorporation of environmental issues into product strategies, respondents were asked about the impact on product selection of the following: the product's environmental friendliness; the product originating from a forest that has received independent, third-party forest certification; and the product having an environmental label or ecolabel. None of these could be said to have a high impact on product selection (Figure 11).
Customers were asked about potential sources of competitive advantage in the marketplace (e.g., Figure 12). Five items—superior forest management practices; having a reputation for being socially responsible; products with recycled content; low-pollution, production processes; and having a reputation for being environmentally responsible—were related to the concept of environmental performance. The remaining items—superior product quality; superior service quality; superior marketing; low production costs; and low price—covered general business practices. An overall average rating was calculated for the five environmentally oriented items and the five nonenvironmentally oriented items. The averages were 3.9 and 4.2, respectively. Customers did not see environmentally oriented issues to be major sources of competitive advantage as compared to issues such as product quality.

According to customers, superior product and service quality were equal and the most likely sources of competitive advantage. The lowest rated items by customers were products with recycled content and low-pollution production processes. Customers rated having a reputation for being socially responsible higher than low price.

Customers rated the importance of environmental friendliness to developing competitive advantage for their products and considered this to be of minor importance (see Figure 13). The

**Competitive Advantage**

![Figure 11. Impact of selected issues on product choice. *Rated significantly different from neutral point of 3 (p < 0.05). EWP = engineered wood products (wood I-joists and laminated veneer lumber); Comm = commodities (softwood lumber, plywood, and oriented strandboard); PB/MDF = particleboard/medium-density fiberboard.](image1)

![Figure 12. Opinions regarding potential sources of competitive advantage. *Rated significantly different from neutral point of 3 (p < 0.05). EWP = engineered wood products (wood I-joists and laminated veneer lumber); Comm = commodities (softwood lumber, plywood, and oriented strandboard); PB/MDF = particleboard/medium-density fiberboard.](image2)
only group to rate it above the mid-point value of 3 were MDF/PB customers.

**Situation Summary**

WII is attempting to lead the industry through the Sustainable Forestry Initiative system. However, historically, WII has maintained a low profile within and outside the industry. As a result, the company is not well known to many stakeholders including final consumers and ENGOs. The company is evaluating opportunities to differentiate itself through environmental performance.

To become a strong leader with a high profile and to successfully differentiate via environmental performance, company change is necessary.

Environmental issues are becoming more important in the marketplace and the customer base expects the issues to strengthen into the foreseeable future. There are strong indications that this will come true, based on commitments made in the do-it-yourself (DIY) retail and homebuilding sectors and the continued activity by ENGOs.

The customer base is currently not using environmental performance as a significant part of its decision-making processes with respect to supplier or product selection.

**Case Assignment**

Given the current marketplace situation and the strengths and weaknesses of WII, what marketing strategy should the company pursue?

**Literature Cited**


APPENDIX: WILLAMETTE INDUSTRIES, INC.—ENVIRONMENTAL POLICY

FOREST STEWARDSHIP

Willamette Industries, Inc. (WII) is committed to operating in a manner that assures good stewardship of the environment and provides long-term benefits to the community and shareholders. To do this, WII will

- require employees and contractors to comply with all environmental laws.
- establish clear lines of responsibility throughout the company for communicating and implementing environmental compliance programs.
- provide adequate capital and human resources to meet environmental requirements.
- provide environmental education and training for employees and contractors.
- include environmental compliance as a component of each operation’s performance evaluation.
- manage all operations in an environmentally sensitive manner, emphasizing recycling and efficient utilization of resources.
- require that all environmental interactions, as with all business interactions, are conducted in an ethical manner.
- conduct periodic audits to evaluate the effectiveness of environmental programs.
- promote the development of environmental public policy that is based on scientific information.
- give design, engineering, construction, start-up and operation of environmental systems an equal priority with production-related equipment.

COMPLIANCE

To ensure that WII facilities follow these policies, the company has established a Corporate Compliance Committee consisting of six corporate officers. This committee is responsible for making sure WII employees have the proper tools to implement the policy. They’re also responsible for investigating any reported or suspected violations and reporting to the company board of directors on how the program is functioning. Each WII employee is responsible for ensuring that the company complies with these policies and can go directly to the committee with any concerns about the program.
