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## Case Study

### **A Fine Green Niche**

By Maria Shao

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**Stanford Social Innovation Review**  
518 Memorial Way, Stanford, CA 94305-5015  
Ph: 650-725-5399. Fax: 650-723-0516  
Email: [info@ssireview.com](mailto:info@ssireview.com), [www.ssireview.com](http://www.ssireview.com)

# Action Case Study

## A Fine Green Niche

**Maria Yee** established her eco-friendly, high-end furniture company long before going green was the done thing. Two decades later, her company's environmentally sound practices not only reflect a planet-friendly ethos, but also drive a market-friendly creative edge. Here's how and why Yee stays green in a brown industry. **BY MARIA SHAO**

GROWING UP IN GUANGZHOU, CHINA, in the 1950s and 1960s, Maria Yee dreamed of being a physicist. At the same time, her father, a professor of architecture, inspired in her a lifelong interest in design. But when China's Cultural Revolution scattered Maria's family across prisons, mines, and farms and sent her to labor in a rock quarry, neither physics nor design seemed to be in her future. She eventually wound up working in a machinery factory while studying mechanical engineering at night school.

Years later, however, Yee immigrated to California. There, she combined her knowledge of engineering with her early interest in design to establish Maria Yee Inc. (MYI), an ecologically friendly luxury furniture company based in Santa Cruz, Calif., that uses traditional Chinese joinery techniques in unique home furnishings. Since its founding in 1988, MYI has become a \$30 million-a-year business that distributes its goods through retailers such as Crate & Barrel, Room & Board, and Best Buy's Magnolia Home Theater. The company also owns its two factories in China—a rarity in the furniture world and a source of competitive advantage for the company.

MYI has also earned a reputation as a leader in green furniture manufacturing. The company uses hardwoods that are certified by the Forest Stewardship Council (FSC), an international nonprofit organization that promotes sustainable management of the world's forests. MYI has established itself as an innovator by developing sophisticated techniques for building furniture out of bamboo—a widespread and rapidly renewable resource. And to preserve water, air, and other precious resources, the company also uses less toxic finishes, vegetable-tanned leather (as opposed to leathers tanned with compounds using heavy metals), and energy-efficient manufacturing practices. In 2006, the company introduced the term EcoLuxury to describe its product line. Not just a marketing theme, EcoLuxury commits the company

MARIA SHAO is a case writer at the Stanford Graduate School of Business, where she developed this case study with Glenn Carroll, the Laurence W. Lane Professor of Organizations. Before joining Stanford, Shao was a business reporter and editor at the *San Jose Mercury News*.

usually costs more than building brown, potentially putting MYI at a price disadvantage. And because the market for "eco-furniture" is in its infancy, many consumers are not willing to pay a premium for environmental benefits. Meanwhile, the company must also cultivate and maintain a reliable green supply chain for its wood, bamboo, finishes, and other materials—a feat that costs both time and money.

Yee acknowledges that being green does not make the business more profitable in the short run. "It does not increase profits at all. It requires more investment up front," she says.

Yet she also believes that green habits will reap long-term rewards. Eco-friendly practices such as reusing wood remnants and saving energy in manufacturing are sound money savers. Using bamboo as a replacement for fast-disappearing hardwoods has pushed the company to pioneer new materials and furniture-making techniques. These innovations give the company a subtle marketing edge among the eco-conscious, upper-middle-income consumers who buy its furniture. Together, the company's green practices and design innovations have helped it carve its niche as a forward-looking furniture manufacturer.

As the public becomes more aware of global warming, habitat degradation, and other environmental problems, Yee hopes that her

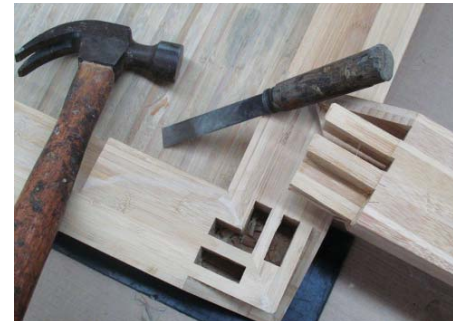
company will be positioned ahead of the competition. She anticipates that future generations will "embrace green without even having to think about it," and that the price of being green will become "just another cost of doing business."

*Maria Yee's products reflect her engineering acumen, green ethos, and expertise in classical Chinese design.*



### MADE IN CHINA

Yee moved to the Santa Cruz area in 1988 to join her husband, Peter, who had worked in Silicon Valley's disk drive industry. Turning a hobby into a business while raising a family, she founded her namesake company that year in the basement of her parents-in-law's San Francisco home. Peter became half-owner and CEO of the business, while Maria owns the other half of



*In addition to its eco-friendliness, Maria Yee Inc. furniture features innovative materials like patent-pending BambooTimbre, as well as exclusive techniques like traditional Chinese joinery, which uses neither nails nor screws.*

the company and serves as its president.

Soon after, Yee visited a buyer at Gump's San Francisco, a retailer of high-end home furnishings. After she described her Ming-style designs and hand-joinery techniques—which do not use screws or nails—and showed the buyer a sample horseshoe armchair, he immediately became her first customer. By the late 1990s, MYI had developed an array of furniture collections, typically consisting of Asian-inspired pieces—including dining tables, beds, dressers, armchairs—that also evoked what the company called “California contemporary,” a style that was simple and minimalist.



From the start, Yee produced her furniture in China. In the early years, she employed craftsmen in a Beijing workshop. Later, she began mass production in China, where she could find workers experienced in traditional Chinese joinery techniques. The business also benefited from China's low labor costs. (Although MYI's workers earn more than those at other Chinese furniture plants, their wages are roughly one-tenth those of U.S. furniture production workers.)

In 1999, the company leased a furniture assembly plant in Yee's hometown of Guangzhou. After building its own Guangzhou factory in 2004, the company established a second furniture factory in the bamboo-rich north of Hunan Province in 2007. As of mid-2009, MYI employed 580 workers in China.

Unlike many U.S. furniture makers, the Yees decided to own their factories. Having worked in the technology industry, the couple understood the importance of high-quality offshore manufacturing. “From day one,” says Yee, “we had a totally different business model

from other furniture manufacturers.” Although many U.S. furniture companies turn to offshore contractors and deal with them through middlemen, the Yees have far greater control over the quality, costs, and schedules of their manufacturing.

Direct control over manufacturing has proven critical to MYI's success with retailers. Room & Board, a Minneapolis-based furniture retailer with 10 stores nationwide, had a long-standing policy of buying domestically to ensure premium quality. But it started buying MYI's made-in-China furniture in 1996. The Yees' ownership of manufacturing was “a very big factor” in the purchasing decision and ongoing relationship, says Gene Wilson, Room & Board's director of vendor

management. “I don't even think of it as buying an import.”

The Yees' ownership of their factories in China has also helped the company tread more lightly on the environment. Because MYI makes all its furniture in its own factories, it can more closely monitor the origins and features of its materials and products.

#### GREEN YEE

Taking care of the environment has long been a fundamental concern for the Yees. From its founding, MYI adopted green practices at most stages of furniture production—sometimes on purpose, sometimes by accident. In her earliest pieces, for example, Yee used reclaimed wood because it resembled the materials in the original Chinese designs that inspired her work. Yee herself combed through the remains of houses, temples, and other buildings that had been torn down during the Cultural Revolution, salvaging the wood and transporting it by donkey and train.

Among furniture makers, MYI was one of the first to recognize the importance of preserving the world's rapidly dwindling forests. Early on, the company started using hardwood that had been

harvested from environmentally responsible plantations. Around 2002, at Peter's urging, the company began to look at bamboo as an alternative to hardwood because bamboo renews quickly. In 2005, it introduced BambooTimbre, a material that Yee developed by flattening, layering, and bonding thin bamboo strips into solid boards. The patent for BambooTimbre is pending.

To manufacture furniture in its Chinese factories, the company has had to develop and maintain a green supply network for wood, bamboo, glues, and finishes. This means buying from eco-friendly suppliers, as well as helping suppliers to become more environmentally responsible. Being green is particularly tricky in China, where the rapid march toward industrialization often leaves environmental practices lagging those of Western countries.

One struggle, for instance, is guaranteeing that MYI's hardwood and bamboo are grown and harvested responsibly. In 2003, the company started looking into FSC certification, the gold standard in the eco-certification of forestry products. For MYI, FSC certification has two parts: The wood must be sustainably grown and harvested, and the manufacturing processes must be ecologically responsible. The company won certification for its two factories in 2008, making them among the first Chinese furniture factories to gain FSC certification.

As MYI looks to buy FSC timbers and bamboo within China, however, the firm faces many hurdles. As of late 2008, there were fewer than 20 FSC-certified timber and bamboo suppliers in all of China, MYI officials estimate. Consequently, the company often has to purchase its certified wood and bamboo from distant provinces. By late 2008, the company had identified several nearby bamboo and hardwood suppliers and was trying to convince them to convert to FSC processes. It tried to provide incentives to suppliers by guaranteeing FSC purchase orders and offering financing, training, data management, and paperwork support. The company was exploring the possibility of forming an FSC cooperative with suppliers to share the costs of certification.

Even in the United States, MYI is among the first furniture manufacturers to sell FSC-certified products. It introduced its first FSC-certified line in 2008—a walnut collection for Crate & Barrel. By 2009, about 15 percent of MYI's walnut products were FSC certified. Meanwhile, Yee's desire to conserve hardwood forests inspired her to engineer BambooTimbre and to develop joinery techniques for the material. In addition to launching BambooTimbre, the company in 2008 introduced RidgeBamboo, a material with a ridged texture and variegated color patterns.

Today, MYI is aggressively shifting from hardwood to bamboo products. In 2007, 75 percent of its products were hardwood. This year, the mix will be 50-50. Bamboo trees require little cultivation in places such as Hunan's Taojiang County, where they grow unchecked on hillsides and amid rice fields. Traditionally, townspeople and villagers used bamboo to make low-value items such as chopsticks and mats. In contrast, MYI buys only the highest-quality

**CASE STUDY QUESTIONS:**

What does it take to make an eco-friendly luxury furniture company?

Why would a green company locate its operations in China?

How can green companies compete with their browner counterparts?

bamboo—at least 7 millimeters thick and 4 years old. To secure quality bamboo, the company works closely with suppliers.

MYI has also had to develop a supply chain for eco-friendly finishes and glues. Traditionally, these materials contained substances such as lead and formaldehyde, which pose health risks to workers and consumers. Yee's company is a leader in the furniture industry in adopting less toxic materials, such as formaldehyde-free glues made in Finland and Japan.

Yee is in the process of switching from solvent-based lacquers to water-based finishes. To bring about this change, Yee pushed her U.S.-based supplier, Valspar Corp., to make water-based coatings available in China at the same price as nitrocellulose lacquer—the traditional, more toxic choice. In exchange, MYI agreed to let Valspar use its Hunan plant to test mass production methods for water-based finishes and to participate in Valspar's customer education seminars on green manufacturing in China.

MYI's eco-awareness extends to its manufacturing processes. Instead of using solid wood, it recycles wood remnants for interior drawer panels and back panels on furniture, thus conserving resources. Turning waste into heat, the two factories use sawdust to fuel their low-emission boilers. Expansive skylights reduce the plants' electricity needs. And the Hunan factory was the first industrial building in China, according to the company, to rely exclusively on energy-efficient hydronic heating, which involves circulating heated water in pipes under the floor.

**KEEPING UP WITH THE BROWNS**

The top challenge to carrying out this green strategy, however, is staying cost competitive. "Being green, you absolutely have higher costs," says Yee. For instance, FSC-certified wood might cost 10 percent more than uncertified wood, eco-certification in the furniture factory might add 10 percent to costs, and low-emitting glues might cost three times more than regular glue, company officials estimate.

The company strives to offset these additional expenses through improved efficiencies in design, manufacturing, and other processes, rather than passing along the costs in the form of higher prices. "We don't think green has to be premium priced," Yee adds.

Indeed, few consumers care enough about a product's greenness to pay extra for it, find numerous studies. For example, in a recent survey, the NPD Group, a Port Washington, N.Y.-based market research firm, found that although 64 percent of their American respondents believed in the importance of purchasing green products, only 38 percent were willing to pay more for them. Other studies similarly show that most consumers place a higher priority on products' quality and price than on their environmental soundness. (For example, see "Secret Agents," a profile of Method cleaning products, in the spring 2007 *Stanford Social Innovation Review*.)

Responding to consumers' preferences, furniture retailers tend not to tout the eco-features of their products. "We don't believe in calling out any specific product as being green," says Wilson. "We can tell the green story, but that's not the lead."

Instead, MYI and its distributors emphasize the design, craftsmanship, and durability of the company's furniture. They point out the exclusive joinery methods, BreathingJoinery and BambooJoinery, which took Yee many years to develop. Customers who care about the greenness of their goods can find out more by referring to product hang tags, pamphlets, videos, and other materials.

Retailers appreciate the quality and uniqueness of Yee's products. "There's a design reference that's authentic," says Marta Benson, Gump's CEO. "They're well engineered. They're nice quality. The joinery system that she innovated is brilliant."

"I haven't seen anybody approach her construction technique's

growing use of eco-friendly glues and finishes is driven in part by its desire to protect the workers' health. And the factories are clean and bright, with sunshine and natural light streaming in through large windows and skylights.

Huang Yixiao, MYI's production manager in Hunan, says the company "is rather good on social responsibility." He has been promoted eight times since joining the company in 2000, and he estimates that as of November 2008, as many as 300 employees had been with the company since 1999, when it started manufacturing in China. Of Yee herself, he says, "The workers feel very close to her."

Indeed, Yee strives to elevate the skills of her Chinese staff. She tries to develop local management talent and instill product development expertise. And she helps staff with design ideas, market knowledge, and insight into customers.

The company also improves the incomes and the standards of living of bamboo farmers. MYI initially lent its suppliers machines to cut and process bamboo logs into strips. Many of the farmers quickly prospered and bought their own machines. Ma Yong, the Communist Party secretary overseeing Taojiang County, notes that MYI occupies "a very good place" in the upgrading of the local bamboo industry. He also praises the company for its "American-style management model."

#### TRADITION FOR TOMORROW

MYI was green long before green was fashionable, and so for many years it has absorbed the extra costs of pioneering green initiatives. It has done so out of a sense of moral duty and a belief that its foresight will be worthwhile in the long run. It also holds that being green is not a goal unto itself, but part of the whole package of being an innovative and successful furniture maker.

But like many companies today, MYI is suffering the effects of the global economic slump. Yee expects 2009 sales to fall between 20 percent and 25 percent from \$30 million in 2008—the first drop in the company's 21-year history. The company had 8 percent sales growth in 2008, which trails the double-digit gains it regularly posted throughout the 2000s. It has sharply downsized its operations and workforce in China—from 850 employees in late November 2008 to just 580 in mid-2009. It also has stepped up automation and combined operations in the two facilities to help weather the downturn.

As MYI awaits brighter economic times, it is determined to maintain its position as a leader in the furniture business. The company continues to work on innovations such as new bamboo-based materials and organic finishes. And it promises to roll out new products and lines that may be even more eco-friendly. Yee hopes the company will become a \$200 million-a-year business someday, and so the company continues to develop new distribution channels, such as smaller, independent retailers, and new customers, such as hotels, that are interested in eco-friendly furniture.

The company recently added the tagline "tradition for tomorrow" to its EcoLuxury marketing slogan. So long as its tomorrows keep coming, Yee intends to keep honing her techniques as a maker of unique, high-quality, green home furnishings. ■

quality," agrees Wilson. "She's a gifted engineer. [And] she has trained her staff to follow [her] techniques."

MYI's greenness will not always be a silent feature, predicts Lora LaDew, product director for Crate & Barrel: "Green products are going to be extremely important. [Yee is] ahead of the market in terms of developing and embracing the certifiers, the initiatives, the materials. It will serve her well."

#### TREES OR PEOPLE?

Observers of the social responsibility movement increasingly worry that corporations are beefing up their green bona fides at the expense of their labor standards. Yet MYI has taken steps to protect not only the trees and bamboo growing around its factories, but also the people working in them. Although its production workers earn considerably less than their American counterparts, they earn more than Chinese national law requires and more than the typical wages at other furniture factories around Guangzhou, according to company officials. As of late 2008, the company's production workers in China earned an average of 1,676 yuan a month, equivalent to \$246 a month, or \$2,952 a year. (U.S. furniture production workers typically earn from \$25,660 to \$37,250 a year).

In addition, the company offers a range of benefits like insurance for retirement, unemployment, and disability, as well as a housing stipend (as government regulations require). Both the Guangzhou and Hunan facilities have dining halls, dormitories, and "Internet bars" for workers. Inside the factories, the company's

*Maria Yee Inc. owns its two Chinese factories, where employees enjoy healthy wages, benefits, and work spaces.*