

Case Walden Paddlers

Abstract

The Walden Paddlers case, based in the United States between 1992 and 1996, examines the process of creating an environmentally responsible business that makes recreational kayaks. Paul Farrow, the entrepreneur, is a business person in his mid-40s with strong finance skills and general management experience gained in firms that were responsible for environmental clean-ups. When given the opportunity to start his own company he looked for a manufacturing business that was environmentally responsible and linked to the outdoors. Breaking with industry practices and targeting an overlooked market niche, he designed and produced a high performance recreational kayak at a reasonable price for novice kayakers. Researching the technology, he selected recycled plastic pellets made from milk bottles and factory trim scrap for the first two boats made of 50% recycled materials. The third kayak, introduced in 1995, was made with 100% recycled materials.

Paul Farrow's company has been recognized not only as breaking new ground with the use of recycled plastics, but also as an example of the "virtual corporation" of the 1990s. Walden Paddlers has no employees and instead subcontracts with outside firms for design, manufacturing, and distribution. The kayaks are sold through leading outdoor equipment retailers with whom close partnerships have been formed.

The Walden Paddlers case offers the student of entrepreneurship a window onto the often invisible process of a company startup. With initiative and creativity typical of entrepreneurs, Paul Farrow is a model of entrepreneurial behavior in his challenge to the status quo in kayak design and his resourceful building and management of the firm's network of alliances.

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Walden Paddlers

In August, 1995 Paul Farrow at age 45 could look back with satisfaction and pleasure at the path his company, Walden Paddlers, had traversed since he first wrote his business plan in the fall of 1992. The first kayak, made from recycled plastic milk bottles, was produced in April, 1993. Since then Walden Paddlers had sold over 5000 boats to dealers, and through leading national retailers. Although competition was growing, the market yet to be reached was significant. With over \$1 million in sales and a comfortable cash flow Paul, along with his partner Dale Vetter, was ready to take the company in a new direction.

But the precise direction of the next phase was not entirely clear. The questions he contemplated got to the heart of what he personally wanted at this stage of his life and the logic of alternative strategic directions given his company's knowledge base and skills. He turned over in his mind the alternative products, possible new markets, capital requirements, the implications for growth, and whether the company could continue as a two-person virtual corporation through the next stage. One option was to stay the course, focusing on the low end of the kayak market and producing a limited number of kayak styles. A second path was to expand aggressively into more kayak segments, moving up from recreational boats all the way to white water and sea-going kayaks. A third option was to diversify into other recreational products for outdoor use made of recycled plastics. Alternatively, he and his partner had been looking at recycled products targeted at automotive and footwear markets. Each direction had its pluses and minuses and he needed to make some commitments soon. Looking back over the past four years, he commented, "I hate to think what I might be doing if I hadn't started the business. I'd probably be overweight, working in an office somewhere, constantly bored or at least anguished". The choices that faced him were tough. If they caused anguish, it was the right kind of anguish. His business was already successful, but what should come next?

Founder's Background

Paul Farrow dismissed his Wharton undergraduate degree in finance, claiming he had learned more about business selling new Toyotas during those same years. But his finance education enabled him in the 1970s to work as the budget and planning manager for Environmental Research and Technology, a small new firm that designed air quality monitoring programs and conducted meteorological research. By the end of the 1980s he had worked in financial and general management positions (strategic and corporate planning) with several environmentally related corporations that had experienced very rapid growth. The environmental emphasis was consistent with his values and his love for outdoors. One firm had grown from \$7 million to \$120 million, in another situation he had participated in a small company turnaround that had required significant layoffs and reinvention of the product line. Paul tended to become deeply involved with whatever he did and as his experience base grew he became more particular about what type of work he wanted. At one point he left his position as president of an electronic equipment manufacturing company because "it wasn't satisfying, in a soul sense". In the late 1980s and early 1990s Farrow was general manager of the ORS Environmental Equipment division of Groundwater Technology where he had responsibility for the division's 100 employees and \$10 million in revenues.

As early as his twenties Paul had set out specific criteria for the type of work he wanted. He wanted to do something independent, he wanted to make something as opposed to be in a service business, he wanted to do something for the natural environmental, and he wanted to have fun. When he was laid off in a downsizing in the summer of 1992, it was time for some soul searching and he reflected on the criteria and vision he had set out earlier in his life. The termination agreement provided him with corporate outplacement resources of an office, telephone, staff, and time to do research. The question was whether

he would take this opportunity to start something new or go into a traditional corporate environment. But no ideas for a business had presented themselves.

While on a family vacation in Maine he observed that well made kayaks were available for expert kayakers, but the novice had little choice but to spend over \$400 on a boat that usually lacked design characteristics that would allow the inexperienced person to easily master and enjoy the experience. His knowledge of plastic prices enabled him to do some back of the envelope calculations. He and his sons were riding in 35 pounds of 40 cent per pound plastic. Was there an opportunity here? A vision began to take hold on that Maine trip. Why couldn't he produce an inexpensive boat made from recycled plastic that had many of the outstanding design features of more expensive kayaks?

Industry and Competition

He returned home and began to research the kayak market. The paddlesports market consisted of canoeing, kayaking, and rafting. Although in the mid-1980s there were no industry statistics and no one had ever done a comprehensive market study, some figures were emerging by the early 1990s. A 1992 Paddlesports Market Overview report by Judy Harrison, publisher of Canoe magazine stated the market "makes up one of the most vibrant and affluent segments of today's outdoor recreation industry", and that participation was growing "at a strong rate". Yankelovich Clancy Shulman, the national market research firm, reported that 14 million Americans 16 years and older participated in paddlesports in 1991, with another 16 million said they "intended to" participate in paddlesports in the next few years. Prime time television coverage of several paddlesports events in the 1992 summer Olympics had encouraged the growing interest.

Participation numbers for kayaking were often combined into canoeing and/or rafting statistics so that precise calculations were difficult. In 1992 it was reported that kayaking and rafting participation numbers were tabulated together and had been tracked since 1988. Participation in the combined category had grown 33% since 1988, a significant growth rate when compared with participation in other outdoor recreation and sports activities. There were three segments in the kayak market, the white water kayakers who represented less than 5% of the market, touring and sea kayakers who accounted for 5-7% of the market, with recreational kayakers making up the remainder. The high end touring and white water kayakers made of fiberglass could cost from \$600 to \$3500. Recreational kayakers were in the \$400 to \$600 price range. The weighted average per unit cost for a kayak was \$600-700 since far more boats were sold at the bottom end of the market.

The 1991 Canoe magazine Buyers Guide listed 85 manufacturers of canoes and 75 manufacturers of kayaks and sea kayaks. Perception/Aquaterra was the biggest competitor in kayaks with revenues of approximately \$25-35 million. Based in South Carolina, they dominated the U.S. market selling twenty-five models from small children's kayaks to high end fiberglass boats. Their "Keowee" recreation kayak was the world's best selling kayak they had sold more of these than all their other units combined. Dagger Canoe and Kayak

Company out of Tennessee offered a comprehensive line of canoes and kayaks that cut off at the top end of the recreational market. Although they did lower volume compared to Perception/Aquaterra, they had an excellent reputation and were respected as a major player. Wilderness Systems in North Carolina was third in the market with a broader line than the two strongest competitors, a devout dealers base, an aggressive "go for it" reputation, but lower market penetration. Old Town Canoe was the traditional old time player in the market, over one hundred years old. Based in Maine, Old Town had incredible market power in over 800 dealers in the U.S., but had always sold to the recreational market and to hunting and fishing dealers. Ocean Kayak in Washington had popularized the sit-on-top kayaks used in warm climates and had become a strong niche player selling about 15,000 to 20,000 units annually. Kiwi out in California specialized in the less versatile, lower end boats, and dominated that state market. Paul described their boats as the tricycle of the kayak world, good for introducing beginners to the notion of kayaking, but users soon wanted to move up to a bicycle. His goal was to provide the two-wheeler. Paul estimated that 80% of the plastic, non-white water kayak market was accounted for by Perception/Aquaterra, Dagger, Wilderness, and Old Town. Most of the 75 kayak companies were small operations, with the top eight to ten accounting for 90% of the units. It was difficult to get information on the leading competitors because they were all privately held, but from what he could gather all manufacturers were busy and working at maximum capacity. He knew that the high end producers were starting to produce low end boats, and that represented a potential threat.

But the relatively small market size suggested that if an appealing boat could be built, it could grow the low end recreational segment. The more research he did, the more Paul was convinced that a well-designed boat that performed at standards less than the specialized and expensive racing kayaks but significantly better than existing recreational kayaks could change the market. He read the three leading magazines, Paddler, Sea Kayaker, and Canoe and Kayak searching for information that would confirm or challenge his perceptions. He used the magazines' lists of retail stores that carried their magazines to identify the top retailers among the 300 or so paddler sports dealers in the United States. He discerned significant entry thresholds to hurdle. Novices found boats hard to get in and out and were often scared of tipping over and being stuck inside the cockpit. Furthermore, prices were high since white water and touring kayaks were your only options if you wanted to spend enjoyable time in a kayak. These weeks in the early fall of 1992 were busy as he contacted trade associations, talked with boating organizations, interviewed kayakers, and visited retail outdoor sports stores (dealers). However, his suspicions continued to be confirmed that selection of products was very limited and performance standards were low.

The kayak industry was small but appeared to be growing fast. While kayaks and canoes traditionally had been seen as similar products and while the industry was defined to encompass both, this definition was changing. In the 1990s canoe sales were growing slowly and kayak sales were expanding more rapidly, causing a separation of the two segments in the industry. Farrow estimated that 35,000 kayaks were sold each year and that the industry was

experiencing a 20-50 percent growth rate annually. It was hard to predict what would happen with the kayak market. Mountain biking had rapidly gained in popularity during the late 1980s, but was leveling off in the mid-1990s. Windsurfing had peaked and declined. Would kayaks be a similar story?

Paddlesports Consumers

Data collected before 1992 through national polls and consumer show questionnaires provided some data on users. Sixty-one percent were male with an age range of between 25 and 49 years old. The average paddler tended to be around 44 years old, male, a college graduate that owned his own home, and with a household income of \$66,000 per year. While 90% of paddlesports participants were reported to be involved with flatware canoeing, 38% of those responding reported kayaking and 32% owned their own kayaks. It was clear that many paddlesports participants were cross over paddlers involved with canoeing and kayaking. Canoeing appeared to be more of a family sport whereas kayaking was more of a single participant activity. The average age of paddlesports participants was shifting upward with more adults over forty becoming attracted to the sports. Studies indicated the consumer was not overly price sensitive when purchasing equipment and he or she was focused more on quality, performance, and value than on price. Beginner kayakers did not ask many specific questions about the product. They only wanted to know if it was user friendly and they wanted to feel confident they could handle it and have fun. It was only after having some experience that they would inquire about tracking ability and seat comfort prior to purchase. More advanced kayakers had other concerns. Among other concerns, they were focused on maneuverability and the durability of the hull. Canoeing and kayaking participants tended to own their equipment and buy a wide range of accessories and apparel in addition to their boats and paddles. Limited growth in the novice kayak market for the over 55 age group and with women and older children suggested a targeted marketing approach could reach this overlooked segment.

Recycled Plastics Market

At the same time Paul researched the recycled plastics market. The market was still in its infancy with collection programs generating an abundance of available post-consumer materials. However, many product designers were hesitant to use recycled plastics due to lack of technical data on the materials and concerns that they may be inferior. In 1994 only two percent of collected plastic was recycled into new products, this despite the growth of curbside and collections programs from 600 in 1989 to over 8500 in 1994. Of the forty-five plastics used in various products, only six were collected on a national scale: polyethylene terephthalate (PET), high-density polyethylene (HDPE), low-density polyethylene (LDPE), vinyl/polyvinyl chloride (PVC), polypropylene (PP), and polystyrene (PS). The appeal of these plastics was that they retained most of their original performance abilities and materials characteristics after recycling. Reclaimers, national firms that handle recycled plastics, would pelletize, clean, flake or grind, and sort all six plastics for further use.

Walden, in collaboration with its manufacturer and recycled plastic vendor, would have to become a pioneer in manufacturing with recycled plastic. The recycled plastic aspect of the product design was key. Having been involved with environmental cleanup projects in his past work, Paul felt strongly about reducing the amount of waste going into landfills and encouraging the growth of secondary materials markets. Without markets for the recycled plastics, the collecting and recycling of milk bottles and other plastics resulted in only a short delay before they ended up in landfills anyway. A significant part of Paul's vision for Walden Paddlers' products was that they would divert materials from the waste stream keeping them out of landfills, and make a contribution to expanding the recycled plastics markets.

The business plan was completed by late fall, 1992, the company was incorporated in October, 1992, and April, 1993 the first molded boats were coming out of the manufacturing company.

Those months were extremely busy ones during which a complex set of relationships had to be established with suppliers. With capitalization of just over \$100,000 the company was launched.

The growth process was aided in December, 1993 when Paul was joined by Dale Vetter. With a background in engineering and a BS in business, Dale had held the responsibility for operations (manufacturing, logistics, and quality) in the company Paul recently left. The two men had talked frequently during that as Paul had questions about logistics. Anticipating the sale of the ORS division where he was working, Dale and Paul had been talking about Dale's joining forces with him since October. The marriage was a good one with Paul responsible for financial matters and sales, and Dale taking on manufacturing and logistics. Dale described himself as thriving on detail; Paul had the vision. Furthermore, Dale was happy to move from a less than pleasant circumstance that was going down hill to a high energy situation working with someone he respected and trusted. The partners has a contract that determined compensation and that could be renegotiated on a yearly basis.

Setting Up the Company

Manufacturing. Paul knew that the key link would be the manufacturer who would actually mold the new kayak. When he and Dale were with Groundwater Technology they had engaged a molder, Hardigg Industries in South Deerfield, Massachusetts (a two-hour drive from Farrow's location). ORS, the Groundwater Technology division Paul had run was the first company to approach Hardigg with an environmental product. Hardigg, a company with twenty-five years of experience in molding plastics, was one of only a dozen U.S. companies using rotomolding machines large enough to produce kayaks. Of those twelve, only five took on custom work and the only one of the five located in the Northeast was Hardigg. In the fall of 1992 Hardigg was feeling recession pressures combined with a drop in military contracts which had created excess capacity. Joe Strzegowski was responsible for building up custom business to make use of that capacity and directing Hardigg away from its historical 99% reliance on defense contracts. After talking with Paul, Joe

knew that the typical transaction based on current production techniques and a high up front price for the first piece out of the mold would not suffice. Joe listened to Paul's plans and his hopes for the product and was impressed with his knowledge and openness to input. An exception to the typical arrangement was crafted. A flexible two-year agreement was negotiated, closer to an understanding than a legal document. Hardigg would share the start-up cost with Walden Paddlers rather than charge the prohibitively large amount for the first kayak with cost of subsequent units tapering off after that. Balancing out the agreement, Hardigg made a \$200,000 capital investment in new technology to make the unprecedented kayaks. Each party got an escape clause should volume targets not be realized. Two year non-compete language was included. Finally, since Paul was determined to increase the percentage of recycled material in the boats, he agreed to absorb the additional costs of that effort with both parties agreeing to share the savings realized. This three page understanding enabled Paul to start the business and, from Hardigg's perspective, by being unusually flexible Joe had created a new and potentially growing customer for the company's custom business. An extra boost of support came from the fact that the son of the Hardigg's founder was a committed white-water kayaker who had tried in the past to get the company involved in kayak manufacturing.

Over time Paul realized the fit with Hardigg made sense from another angle. Hardigg was a special kind of company that had a long history in its community. Relative to many company owners, the founder was advanced in his management thinking and in his commitment to the quality of life of his employees. Employees were seen as partners and the company was in it for the long haul with both employees and partner-customers. These values fit well with Paul Farrow's outlook on management practices. Paul called them "a blue chip partner". Hardigg offered sixty day terms and Paul paid on the 59th day, with no exception. The result over time, combined with the win-win collaboration on new products, was the development of a high degree of trust. This translated in real dollar savings for Walden in that Hardigg would hold inventory for Paul.

The rotomold technology created a boat in one piece and a uniform color. The mold opened lengthwise like an metal envelope which was filled with plastic powder. The equipment was then placed into an oven and rotated. As the powder melted it coated the mold. Taken out of the oven at a precise length of time and temperature, the mold continued to rotate as the plastic cooled and solidified. This technology was typical in the kayak business.

Product Design. At the same time that negotiations were underway with Hardigg, Paul was looking for a designer to assist with the technical specifications of the kayak. After meeting with no success in contacting engineering departments at the Boston areas major technical universities, Paul asked his brother-in-law if he had any suggestions. The brother-in-law, who was working toward his doctorate in materials engineering at Rensselaer Polytechnic Institute (RPI) in Troy, New York, put Paul in touch with one of the professors at RPI. Steve Winckler was considered one of the foremost materials scientists in the country and understood Paul's objectives and concerns. He introduced Paul to Jeff Allott, his partner in a company called General

Composites based in Clifton Park, New York. Jeff was fascinated by the challenge of designing Paul's kayak, his enthusiasm driven by his own passion for canoeing and his practical knowledge of the performance characteristics Paul was seeking. The timing was good for General Composite's business as well. Steven Winckler and Jeff Allott were trying to reposition their firm away from defense and aerospace revenues toward sporting-goods, an area in which both their hearts lay. They too were impressed with Paul's homework on the market and his financial skills. They saw him as sharp, passionate about his goals, and eager to learn.

In October, 1992 Paul drove to New York to meet Jeff for the first time after having several lengthy phone conversations. They reached a mutual agreement on design features and set up a working agreement that would spread Paul's payments out over the eight months from design to final production. Two-thirds of the payment was pegged to milestones such as the design of the first and second prototypes and approval of the first product out of the mold. In that way Jeff was tied into the whole process, an arrangement what that enabled both sides to continuously learn and adapt their plans. The final third of Allott's payment came as fixed unit royalty on each boat sold. Because of his personal interest in the initiative, Jeff also agreed to be a sales representative for Walden Paddlers in upstate New York and Vermont, a natural fit as Allott was well connected into regional white-water racing community in those areas. Jeff's commitment was clear following an electrical fire that burned the General Composite's shop to the ground a week after the two had signed their agreement. Jeff worked long hours from November to January out of his house to complete the design on time Prototypes had to be built at another shop several hours away, with Jeff driving through the harsh New England winter several times a week to complete the prototype construction.

Materials. During the same time period Paul had established a connection with Clearvue Plastics in Amsterdam, New York, a vendor of recycled plastics from industrial and consumer waste. Paul and Joe had convinced them to produce the high-quality plastic pellets that previously no one had thought technically feasible given the constraints of using recycled materials. Clearvue had to meet Walden's quality, consistency, and color requirements and also maintain a consistent melt index, the temperature at which the plastic would melt. The first two kayaks used a twin-wall construction which combined a virgin plastic outer skin (LDPE) with a recycled foam core consisting of a combination of 15% post-consumer HDPE (milk bottles) and 35% post-industrial LDPE (factory trim scrap). The use of virgin material on the outside reduced the tendency of the boat to adhere to the manufacturer's mold and allowed a wider choice of colors. Both Joe Strzegowski and Paul Farrow were active in the selection of pellets, learning together each step of the way.

Marketing and Sales. By April 1993 the prototypes had been tested and boats were emerging from Hardigg's molds in western Massachusetts, just seven months after Paul had started writing his business plan. Paul had already explored the idea of his kayaks with dealers such as Eastern Mountain Sports through the fall. His strategy was to approach a small number of leading retailer. Now he was able to offer them test boats and because of his low cost

production process, could offer the dealers a ten percentage point higher margin than the competition. Paul prepared a clean and straightforward brochure for retailers and gave them demonstration boats for thirty days to test, sell, or take apart. He only asked that at the end of thirty days they paid for them or returned them. The strategy worked. EMS, a leading national outdoor equipment retailer with forty-seven stores in the eastern United States, was very interested after receiving the demo boats. Soon after Paul was headed to REI (Recreational Equipment Inc.), the leading retailer on the west coast with thirty-six stores and a long and successful history of catalog sales. Paul estimated that these two retailers represented over twenty percent of the market. By May, 1993 L.L. Bean had picked up the kayak. Paul also turned to a hotbed of kayaking, the Charles River Canoe and Kayak organization in Newton, Massachusetts to invite kayakers to trial test the boats and feed future design suggestions back into Walden. These initiatives were buttressed by Paul's establishing a relationship with IMTRA, a New Bedford, Massachusetts wholesale marine distributor that sent Walden boats out into its network of 1600 dealers. Paul also contacted boy scout camps and sent boats with superficial flaws to YMCA camp organizations.

As retailers ordered more boats, the logic of the relationships became more visible. Walden offered a compact product line and a flexible order system that enabled dealers to keep low inventory. In addition, Walden's value and culture matched with these corporations. For companies like REI, L.L. Bean, and EMS the corporate cultures said environmental responsibility was a priority and it was a strong selling point. Consequently, in talking with people at these firms Paul found companies whose culture fit what he wanted to do and who understood his vision. Perhaps even more so than their customers, these companies' managements were committed to environmentally responsible products. Because of this they were willing to make helpful suggestions as partners in an environmental vision. Paul quickly learned from them and tailored his responses to their needs, locking up these accounts in a relatively short period of time. EMS became an especially valuable source of information about retail behavior. While Paul thought of his kayaks as the lowest cost products, the dealer told him emphatically not to be lowest cost at retail because the second product up the price category was usually the biggest seller. At their suggestion he took the retail price of his first kayak up from \$329 to \$399. A video was produced by Walden to reach customers through the key accounts. This was necessary because the typical retail store had high annual turnover of salespeople (many high school and college students who worked for two to three months), so Walden's challenge was to communicate the unique features of the kayaks to customers in some 200 retail locations. A video was produced for showing inside the stores to demonstrate the design, performance, and safety features of the Walden kayaks. This enabled Walden to reach through the stores to their customers. By 1995 Walden's kayaks were in 250 retail dealers. By reaching the EMS and REI stores that carried boats, Walden had covered a considerable portion of the market. Those two companies were estimated to be selling between 10% and 20% of all kayaks in North America.

Company Mission. Paul's commitment to the product, his willingness to learn and adapt, and his business know-how all contributed to the positive

reception he received as he contacted the various players. But articulating the company's mission in an October 1993 formal mission statement also helped prospective partners understand and evaluate this newcomer. After visiting Ben and Jerry's headquarters (a successful and growing environmentally and socially responsible ice cream maker based in the U.S. northeast) and seeing the company mission statement on the wall, Paul decided to put his vision for the company into a statement that could be clearly understood. The Company Mission was straightforward:

Walden Paddlers is dedicated to three simple objectives:

- First, to help more people pursue the healthy outdoor pleasures of paddling, so they can enjoy Nature and help to preserve it for our children
- Second, to divert waste from the landfills of our towns by making it into high quality, high value, useful, reusable/recyclable products.
- Third, to provide a decent living for our company's family and those of its affiliated companies, dealers, and suppliers

By 1995 Hardigg was making over 3000 boats at a cost to Walden of less than \$100 per boat, up from 2000 boats in 1994. Being able to sell higher than he originally thought enabled him to generate the revenues he had projected but with higher profitability. As Walden's experience with distribution grew, new opportunities for environmentally responsible product features grew.

Unprecedented in the market, the environmental product design was extended to the storage bag around the kayak. The kayakers arrived at the retailers in attractive bright colored storage bags that were often purchased as part of the product and could be reused over and over, if not for the kayak then for other storage uses. The goal was to avoid using packaging that created land fill - destined waste. In Paul's words, "A cardboard box would have added \$10 to the freight cost, someone's having to pay for its removal, and it ends up in a landfill. It doesn't make sense". One-half the dealers sent the colored shipping/storage bags back to be reused on future boats and Walden could get a dozen turns out of the ones returned. Other dealers sold the new bags or gave them away for promotional purposes.

Product Line

The first kayak, the Naturalist, was built in the springs of 1993 and sold for \$399 that year. The Naturalist was ten feet long (305 cm.), 27 inches wide (69 cm.) and 13 inches tall (33 cm.) and weighed 34 pounds (16 kg.), light enough for most children over twelve to carry. The cockpit featured a comfortable full back bucket seat that could be detached for camp use. Key to the design was the superior tracking (how straight the kayak moved when paddled through still water). This boat was followed by the Walden Experience, which took the Naturalist and added a nylon spray skirt (that could be wrapped around the paddler's waist to protect against rain) and deck rigging which consisted of one-half inch bunge cord that crossed the kayak and could be used to secure the

skirt or hold a jacket. The boats could be ordered in forest green, blue, or yellow. For \$40 the sturdy recyclable plastic zippered cover bag mentioned above provided an effective protection for the kayak on car roof racks. The cockpits were designed for easy entry and exit and the hull design provided stability for performance in the water and getting in and out. The brochure, produced on unbleached beige paper with dark green lettering, promised quality, toughness, beauty, and value for the dollar for a boat that contained more than 50% recycled content. The company pledged in the literature to work toward kayaks constructed entirely of recycled and recyclable materials.

By December, 1994 Walden was "buried in orders for the spring" with Hardigg busy producing for the 1995 season. Because Paul was operating on his own, he kept the number of sale accounts low. With only a small number of key strategic accounts he talked to all of them bi-monthly, with virtually daily contact with EMS and REI stores. The constant communication allowed him to provide just-in-time inventory. He always kept a small buffer stock to exchange colors and at least 25 percent additional inventory was readily accessible should an account ask for additional kayaks. By the end of 1994, after several months of cultivating key relationships, Paul reflected on the pattern he could see. He called it his four-point transaction test and applied it to the relationships he had and ones he wanted to create.

- 1) clear mission
- 2) clear expectations
- 3) mutual benefits
- 4) trust

New Product in 1995

In January 1995 Walden introduced the Vision, a bigger kayak made for more experienced paddlers. Targeted at a different market niche, the Vision was a versatile, light, affordable, twelve and one-half foot touring boat. Marketed as a new concept in kayaks, its compact size handled as well as the fifteen foot touring boats, with strong ability for tracking, accelerating, and gliding. A new seat and footbrace system accommodated a wide range of paddler heights without compromising performance. Amenities were added such as a water bottle loop, map holder, tray for sunglasses/flares/wallets. This kayak could be used in up to level 2 rivers (flat, fast-moving water). The Vision had a keel and therefore could track easily through such water. (The kayaks made for rougher conditions had no keels on the bottom of the hull, enabling them to move quickly in any direction).

Jeff Allott from General Composites designed the Vision for a fee, however Hardigg did not have the capabilities to serve as the manufacturer. Hardigg was experienced in rotomolding but not in the thermoforming technology required for the new boat. After talking with several manufacturers within reasonable distance, Walden began working with Universal, a sixty year old company

located in Chickopee, an hour and one-half from West Concord. Universal had extensive experience with thermoform production and knew of Hardigg's experience with Walden Paddlers. Walden explained the quality, materials consistency, and color requirements they needed.

Universal was looking for bigger capacity and new products. They were somewhat unusual in their industry in their willingness to take on new things, experiment and take initiative where others might shy away. They were opportunistic and flexible and saw Walden Paddlers' business as an opportunity to learn and expand their products. Although they could not pay off the cost of the machine on Walden's business alone, Universal invested about \$200,000 in a new machine for the mold. This equipment held the mold, heated the plastic sheet, and pulled the plastic to the mold for the forming process. Walden paid the full price of the new molds that were required.

Thermoform technology molded one-half of the boat at a time. A flat piece of plastic was heated up and pulled over on top of a boat mold that then sucked the plastic down into the mold. The top and bottom were made at Universal and brought to the West Concord Walden facility where a seat with foot braces was installed in the hull and the two sides were joined, sealed, and a decorative strip placed over the seal. One advantage to the thermomolding technique was the top could be made one color and the bottom another. This enabled them to make the Vision look like the much higher priced fiberglass racing kayaks. The efficient performance and smaller cockpit matched the more aggressive and advanced paddler Walden was trying to attract. The Vision sold for \$629 at retail and was the first kayak Walden had made of 100% recycled materials. The newsletter described the new product, "a kayak that looks and acts like the high priced touring boats, but delivers on the Walden Paddlers mission of excellent value and maximum environmental responsibility".

A newsletter was started in fall 1994 to stay in touch with people who had purchased Walden kayaks. Sent quarterly, these friendly communications on the front and back of the page brought readers up to date on the company's growth, publicity received, new product information and schedules, and invited costumers to provide feedback to improve the kayaks. The Company Mission was included and the company's environmental commitment was consistently reinforced.

Virtual Corporation

By 1996 Walden Paddlers had been the focus of several articles in INC Magazine, the Boston Globe, Esquire, and others discussing it as a prime example of a virtual corporation for the 1990s. NBC's today show interviewed Paul for its morning program emphasizing the environmental themes and the virtual corporation features. It was a fact that Walden operated in a unusual way. Until December, 1993 when Dale Vetter joined responsibility for operation, Walden consisted of Paul Farrow. In August, 1995 the company had two partners, but still no payroll. A virtual corporation was no just without employees, it also operated successfully through relationships with other firms as opposed to managing those same functions in-house. A virtual corporation

outsources, often through flexible and informal subcontracts, as many activities as possible with the core of the virtual corporation coordinating the various parts. This arrangement eliminates the need for investments in fixed assets and keeps overhead low. The network organization of suppliers and customers that results is flexible, adaptive to the market, and can be highly productive when the alliance relationships are managed well.

As the company's sales grew Paul and Dale could not handle everything themselves. To help with final preparation of the kayaks for transportation from West Concord two full-time people were leased from Friday Management Company in Framingham, Massachusetts, a town within an hour's drive of Concord. Paul's son Ben also helped during the summers readying the kayaks for transport. In addition, a relatively young retired executive from Dun and Bradstreet, also an active canoeist and kayaker, was available for filling in and to help with crisis deadlines. But through the leasing of employees, Friday Management became another relationship in the network web. The firm handled all Walden's payroll and personal functions, an arrangement that was ideal for the fledgling firm that could now "hire" two people for considerably less per week than what it would have taken to hire and pay benefits in-house. Friday Management was managing approximately 18,000 people in 1994, so it could get good insurance and health rates for its people. Both sides saw the attractiveness of the partnership. Paul and Dale could select the people they wanted, train them, and then put them on Friday Management's payroll. Thus far the arrangement with those hired had worked out fine.

What motivated Paul Farrow to start as a virtual corporation? "It was so much faster". However, he expressed some caution about managing a virtual corporation. "The down side is that it means you are constantly selling". He went on, "It shows you the difference between a large corporation and someone like Walden Paddlers. The large firms are run to a large extent on control, power, and fear. I can't use fear, power, or any traditional form of explicit control. I have to help people believe in what they are doing, find ways to get them to buy in".

Conditions in late 1995

In August of 1995 Walden Paddlers was struggling to keep its 250 North American retailers stocked as demand continued late in the summer. The sustained inventory demand was driven in part by a late summer from the Rocky Mountains to the west coast. The region had experienced snow late the previous spring, a late spring, and was now still feeling the effects of that winter in its waterways with some rivers still moving so fast they couldn't be used for recreational paddling. To service distance accounts more satisfactorily, the company had added a sales representative who covered from Washington state to Mexico. A former editor of Paddler magazine, the rep was well connected, although most accounts out west were small and volume was not substantial compared with east coast sales. Shipping costs had presented a cost problem but Dale had arranged to pack 50 to 100 boats into containers that they filled themselves at the West Concord facility. This had brought the transportation costs down considerably.

Sales of the new Vision touring kayak, introduced last December, were doing well. Customers loved its paddling ability and it was a logical step up from the Naturalist for the less seasoned but advancing paddler. Dale complained in August, 1995, "I never have inventory". REI and EMS were doing very well with the Vision. Over 500 Vision kayaks had sold already, exceeding Paul's sales projections.

Overall sales had been enhanced in the summer of 1995 by substantial sales demand from the Canadian market. Distribution was possible through agreements with Mountain Equipment Coop and Mid-Canadian Fiberglass. The latter made fiberglass canoes that they shipped to the U.S. market. Their trucks would deliver the canoes to distribution points in the United States and return with Walden's kayaks that they would distribute through their dealers in Canada. Paul was scheduled to attend the Canada Outdoor Retailer Market show in September because that market held significant potential for the company.

By March, 1995 Paul and Dale had converted the Naturalist to 100% recycled plastic content. They had tested plastic materials in the fall of 1994 and resolved the cracking problems that first appeared. By January all the bugs were worked out and they began molding and shipping the 100% kayak in March. This objective had been reached only through determined persistence. As Dale described their attitudes, "You can't compromise on these goals, finding the right cost, vendor, materials. You can't take no for an answer. If you keep saying it enough times you can get the vendors to believe. It is too late (on environmental issues) to compromise, it will happen, people will come around". Another example of their environmental stance was the position they took with New England Foam, their supplier of foam foot braces and foam pads inserted under the seats. The company was sending their foam products to Walden Paddlers facility in thick cardboard paper packaging that Walden had to dispose of. Dale declined to accept them and told them they had to take the boxes back or they could find another customer. According to Dale, "You have to take that attitude. You can't accept that this is the way it is, you have to insist on change. You have to demand that things change". By 1995 New England Foam was delivering its product in large cardboard boxes, taking the foam out, and carrying the boxes back to the factory to be reused until they deteriorated and could be recycled.

Walden Paddlers success was having an effect on the industry. While there was no direct competition in New England, the competition elsewhere was heating up. Old Town Canoe was now producing kayaks and had introduced a competitive boat similar to the Naturalist at the same price Paddlers' boats had attracted attention. Perception Aquaterra, the largest competitor and sales leader, had responded with two new models introduced at the show that were direct head-to-head competitive products to the Naturalist and Vision.

Yet the new products were not just response to Walden. In 1995 the National Sporting Goods Association reported a 32% growth in canoe use (the number included kayaks), ranking it the third fastest growing sport behind roller blading and roller hockey (numbers one and two respectively). Anecdotal reports from the Reno retailers show from the publisher of Canoe magazine, who visited

every kayak manufacturer at the show, indicated anywhere between a 35% and a 60% increase in units being produced. Precise industry statistics were difficult to get since all the manufacturers were privately owned. The increased use of canoes and kayaks was only one part of the larger trend toward outdoor activity. The National Hiking Society reported that over 70 million people in the United States and Canada had recently participated in "an outdoor adventure". Numerous trend indicators suggested continued upward climb in public participation in outdoor sports and activities connected with the natural environment. On a broader societal level, public opinion was strongly in support of a clean and healthy environment that could be enjoyed by grandchildren, with the younger generation, the so-called generation X particularly concerned about environmental issues.

With Dale's attention on logistics and efficiencies, the company had a simple yet sound distribution system. Originally Paul had carried the kayaks from Hardigg in his own vehicle. Realizing that could not continue, they had looked at common carriers to transport the boats from the manufacturers to their firm and then to retailers. The typical common carrier cost of a run out to Hardigg and back was \$400 to \$450. Dale had designed carts to carry the boats, carts that could be used at Hardigg to move the more boats to the dock per trip and could be set easily into the truck enabling the driver to carry more boats per load. The trucking company they engaged was Palmer, who agreed to use the carts, transporting a full load of kayaks from Hardigg and returning with the empty carts from \$230 per run. Seventy-two boats could be put on the truck in fifteen minutes with the cart system, a process that had shown steady cost improvement as it was refined. Dale estimated average transportation costs of \$3 per boat. Transportation to the retailer was provided by that dealer if it was local, otherwise retailers used common carriers. Walden had an arrangement with a Florida warehouse for distribution in that region. Walden paid a fee to the warehouse manager to ship from that location.

Rapid growth had forced the firm to move from its first Acton, Massachusetts facility to the West Concord building. In September, 1995 they were to move to a location 400 yards away that gave them three times the square footage. Finally they would have real office space and an assembly area separate from their warehouse, so that they would be unnecessarily heating and cooling inventory in order to keep temperature comfortable to work.

The recycled plastic market was evolving rapidly in the 1990s. Just a few years ago everyone in the plastics business was saying that recycled materials could not compete structurally with virgin plastics. Furthermore, buyers had said they could not trust the quality of the stream of material and reliable vendors were impossible to find. Walden Paddlers had already bucked common wisdom by setting high standards for its materials content and found vendors willing to grow their business by finding ways to service them as a customer.

The president of Perception/Aquaterra had purchased a Walden Paddlers kayak surreptitiously to check out the new competitor. But Paul was not focused on his competitors or going up against the larger ones for a share of the market. His objective was to open up the market. This would only happen if more people

were enticed into trying an introductory kayak and had a good experience with their first boat.

The Alternatives in Late 1995

Paul's choices were clear; which way to go and the strategic rationale were less clear. He could keep the firm's operations compact and focused on his original vision of high performance, reasonably priced kayaks for novice users. Gradual growth to \$5 million in sales with continuous design improvements but a limited line of boats could provide a comfortable life for Paul and Dale. They could gradually expand internationally. Conversations with some Japanese distributors were underway and REI already had distributed Walden's boats in Japan. But the size of his market was unclear. There were no manufacturers in Japan and boats sold for two to four times the price paid in the United States and Canada. Boot sales indicated the Japanese had embraced hiking, but was there going to be a similar expansion of demand for other types of outdoor equipment?

Alternatively they could fill out the product line in North America, bring in more capital, perhaps giving up equity, and broaden distribution aggressively to catalogs. The Vision appeared to be successful. Walden could continue its move up from the less experienced paddler and make upper end products including white water kayaks for the more advanced enthusiast.

The company had challenged accepted thinking about using recycled plastics for kayak production. He and Dale could see other possibilities using recycled materials. They even had some specific ideas about new products made from recycled plastic. Dale was looking at product design issues for these while Paul focused on markets. This would be consistent with the firm's commitment to grow the market for recycled materials. One thing they had learned in the past four years that people were unlikely to pay more for environmentally responsible products. If the product was not price and quality competitive, it was not going to sell. Should they put new outdoor-related products through the distribution pipelines already set up, or create new products for new markets and distribute them through other channels that they would develop in the same way that Paul had set up distribution for Walden's kayaks? If they were going to try their ideas for new outdoor equipment, they had to move quickly. Product samples needed to be in the retailers' hands by the end of November or early December to allow for production and shipping by late spring, 1996. Regardless of the specific products, they were committed continue the low overhead strategy of collaborative efforts with other firms. To be avoided at all cost was evolution to a bureaucratic giant consumed by detail and overhead. Each path they were considering held potential for financial success and personal satisfaction. Each also involved tradeoffs and significant challenges.