

OXO International

"Alex, should we start discussing the storage product ideas with Davin and the designers?" asked Michelle Sohn, product manager at OXO International. "Not this week," responded Alex Lee, OXO's managing director. "We probably should put it on hold for a while."

Sohn left the room and Lee looked at the OXO product spreadsheet she left for him. OXO International had been growing at more than 50% a year during the past five years, and now, in late 1996, had 135 products in the marketplace and nearly 40 new ones under development. The firm was known for its ergonomic kitchen gadgets, particularly the "vegetable peeler with the plump handle."

Founded in 1989 by Sam Farber, OXO was sold to General Housewares Corporation as an independent division in 1992. Since the firm's inception, Farber had outsourced product design to Smart Design, headed by Davin Stowell, and Smart Design alone had designed OXO's award-winning product line. Alex Lee, director of product development for the past two years until his promotion to managing director in 1996 (Exhibit 1), had established a good working relationship with Stowell; Lee was an industrial designer himself. Currently, ten designers spent 50% of their time working on OXO projects. In a recent discussion of upcoming projects, Stowell told Lee he could not assign any more designers to OXO projects right now. With all the market opportunities that were opening up to OXO, Lee began to consider his options for meeting all of OXO's needs. In fact, he would be having lunch today with another design firm interested in working with OXO.

When Paul Saxton, CEO of General Housewares, had called Lee to congratulate him on his promotion, he said near the end of the conversation, "Don't you think it's time to build your own design department at OXO?" Lee had responded, "Continuing to introduce innovative products is the lifeline of this company. That is a key factor of our success. Building our own design department is one way to go. But we could also start to use several design firms instead of working with Smart Design exclusively."

"True," said Saxton, "but the stakes are higher now that you're a \$22 million company. It might be time to rethink the 'make or buy' question for OXO."

Research Associates Marilyn Matis and Sylvie Ryckebusch prepared this case under the supervision of Professor H. Kent Bowen as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation

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Company History

Sam Farber Reinvents Kitchen Gadgets

Sam Farber had been in the housewares business for almost 30 years when he decided to retire in 1988. In 1960, he founded Copco, which introduced contemporary design into kitchenware featuring products with brightly-colored enamel exteriors and becoming especially renowned for its teakettles. Copco grew into a \$10 million company. Farber sold the firm in 1982 but remained its president until his retirement. At that point, he and his wife, Betsey, moved to the south of France to enjoy cooking, entertaining, and collecting art. But it wasn't long before Farber became restless and was thinking of new business ideas.

It was while he and his wife were baking pies in their Provence kitchen that he realized how hard it was to work with many kitchen tools. Betsey had mild arthritis in her hands and had difficulty holding the vegetable peeler. "Why do ordinary kitchen tools hurt your hands, with painful scissors loops, rusty metal peelers, hard skinny handles?" Sam had wondered. "They're terrible when you try to hold them. In my 30 years in housewares, no one has done anything about gadgets. Why can't there be wonderfully comfortable tools that are easy to use? If you made tools like that, wouldn't *everybody* want to have them?" 1

Shortly thereafter, Farber contacted Davin Stowell, owner of a small industrial design firm in New York City called Smart Design, to ask for his help in developing a series of ergonomic kitchen gadgets and tools. In 1989, Smart Design was located in a loft in lower Manhattan employing 15 designers and two administrators. Stowell and Farber had done a number of projects together at Copco and had built a good working relationship. Stowell was enthusiastic about Farber's new business idea, recalling, "I really believed in him. Anybody that comes out of retirement with as much energy to do something as he did, you know it will happen no matter what, and that it's going to work."

Stowell and his designers began researching how to improve everyday kitchen gadgets and tools. Their objectives were to develop tools that were high quality, comfortable to use, dishwashersafe, attractive, and affordable. Farber had developed a simple list of design steps to guide the process from idea to product (Exhibit 2). Smart Design consulted with the Arthritis Foundation and Patricia Moore, an industrial designer who specialized in design issues related to aging, but the firm's ultimate goal was to create tools for a broad market—ones that could be used by people of all ages and levels of dexterity. The designers analyzed hand and wrist motions, pinpointing where the hand sustained pressure while grasping kitchen tools. They used competitive products, talked to professional chefs and consumers, and then tested hundreds of models carved out of styrofoam. As Stowell explained, "It is pretty cheap to file and shape a piece of styrofoam. You don't want to spend a lot of money just to find out that the shape is totally wrong, that you can't hold it or it doesn't work."

Smart Design developed a tool handle for a vegetable peeler that was almost as large as a bicycle grip. The handle's larger diameter improved leverage and decreased hand strain. A squared-off oval shape kept the handle from rotating in the hand. The handle was made of Santoprene®, a processed rubber material, that was soft, was highly oil-resistant, didn't slip when wet, and was dishwasher-safe. It also had a finger grip with "flexible fins" which increased tool control, and OXO

2

¹ "Getting a Grip on Kitchen Tools" @issue: The Journal of Business and Design, Volume 2, no. 1, Spring 1996, p.16. "I Need to Be Making and Selling Things," Forbes, February 17, 1992, p. 97. Rollene Saal, "The Second Time Around," Your Company, pp. 21-23.

² Santoprene, a material developed by Monsanto, was used primarily in industrial applications. In the consumer market, it was used to make dishwasher gaskets.

was issued a utility patent for its design (**Exhibit 3**). Nine months of design work led to the launch of the Good Grips[®] line from OXO International.

Forming the Company

Meanwhile, Sam Farber was talking to his former retail accounts to discover which kitchen utensils were big sellers. In 1989, the \$288 million kitchen tools and gadgets industry in the US was characterized by products that were inexpensive, usually costing from \$1 to \$5, and expected to have a short life span.³ When a vegetable peeler was no longer sharp or rusted, consumers threw it away and got another one. Farber knew from his experience in the broader housewares industry that the kitchen gadgets and tools category were largely made up of lower-priced products manufactured in Asia. While Farber wanted to develop a product of higher quality, he knew OXO would have to compete within a narrow price range. He flew to Asia to find manufacturers that specialized in kitchen gadgets. Since many U.S. competitors used the same manufacturers, his strategy was to use several smaller manufacturers to prevent leaking the designs to competitors.

He asked his son, John Farber, then a vice president of mergers and acquisitions at Prudential-Bache to figure out how much capital was needed to start the firm, and John calculated that \$900,000 would be necessary for operations. He also left Prudential-Bache to become managing partner of OXO International with his father; Betsey Farber became design director. The Farbers started to look for investors. Four of Sam Farber's old friends invested a total of \$600,000, while the father and son invested \$150,000 apiece. They named the firm OXO International. The name "OXO" didn't have any significance; Sam Farber liked the symmetrical graphic quality of the name because it could be read horizontally, vertically, or even upside down. In addition, they had plans to become a worldwide operation, which added "International" to the name.

In 1989, OXO International began with six people in a 600-square foot space in New York City that housed the offices of Sam, Betsey, and John Farber along with three employees who did billing, inventory, and administration. They contracted for warehousing services in Windsor Locks, Connecticut, on a variable expense basis, i.e., fees varied based on the volume of goods shipped. Manufacturing was also contracted in Japan, then later through agents in Taiwan and China. The agents were responsible for monitoring shipments and checking product quality. The cost of an agent's services ranged anywhere from 5-10% of the product cost. As Sam Farber described it, "In each case the factories I chose were producing similar products, were quality-conscious, understood the process of exporting to the American market, would accept initially low minimum order quantities and were willing to help on the cost of tooling." All product development was done at Smart Design, which was located nearby OXO's headquarters. In addition to keeping close contact with Smart Design, Farber asked Stowell to accompany him on factory visits: "I make a point of never going to factories in the Far East without someone from the design team," Farber noted. "The factory guys are notorious for saying 'it can't be done.' The design team had been actively involved in early marketing and now they were actively involved in the production techniques and facilities. You can't accomplish design innovation in a vacuum."5

In fact, as Davin Stowell remembered, the "flexible fins" on OXO's handle design caused some concern among manufacturers with whom they discussed the contract:

³ "Kitchen Tools and Gadgets. 1990," *HFD: The Weekly Home Furnishings Newspaper*, April 15, 1991, p. 228. By 1995, the kitchen tools and gadgets market grew to \$341 million.

⁴ Graham Vickers, "To Have and To Hold,": *Design*, January 1994. p. 20.

⁵ Vickers, p. 20-21.

The products looked simple, but they were actually very difficult to make technically. We had a number of manufacturers in the US that we talked to and they told us it couldn't be done. They said they couldn't make those little thin things (the fins) because the tools would be always breaking. But we really believed it could be done. I can remember being in a factory in Japan that made our initial product and we met in their offices with everybody in suits and ties. They were all discussing whether this thing could be done or not, and they called up somebody in the factory and discussed it for a while. Then they said, "I think we have to go over to the factory and show them your prototype to see if we can do this." We jumped into the cars and eight of us went over to the factory, standing around this one man in a work outfit in the tool shop. He took a look at our hand-made prototype with the handle. There was a little bit of discussion, he nodded, and handed it back to us. I had no idea what they were saying. They were speaking in Japanese. They turned around to us and said, "If you can make this, we can make this." That was it. Three months later we had perfect tooling samples.

Smart Design Invests in OXO's Future

Since Sam Farber saw high-quality design as OXO's competitive advantage, he worked out a royalty agreement Of 3%6 with Smart Design instead of paying design fees upfront for product development. In a royalty agreement, the design firm received a percentage of the sales for the products they designed. Typically, a non-royalty based design fee for a relatively simple product could be as much as \$50,000. Royalty payments continued as long as the product was being sold, but Smart Design took on the risk of absorbing the cost of products that did not do well. On one hand, OXO's arrangement with Smart Design meant that it paid Smart Design much more than a design fee on successful products. On the other hand, by paying royalties OXO was able to proceed with more projects simultaneously than they would have if they were paying a design fee. For example, in 1989, two to three designers worked on initial product development for OXO; in 1996, ten designers devoted half their time to working on OXO products, which represented more than 20% of Smart Design's total design hours. Davin Stowell explained how the risk Smart Design took was significantly leveraged by Sam Farber's excellent reputation and experience in the housewares industry:

Usually when somebody comes to you and proposes the idea about a royalty agreement, there's a little skepticism because you fulfill your half of the obligation doing the work, but there is no guarantee that they will furfill their half of the obligation and sell the product. But in the case of a start-up business like OXO, this was it for Sam: it had to work. He wasn't going to fail. There was just no other option.

You will have one product that may pay back five times what the design cost was or another few will pay back zero. It averages out in the end, most likely in our favor. For OXO they are getting an investment in design that they could never do if they just paid it on a contract basis.

He also commented on how Smart Design profited from this relationship:

I can't say we have ever fully recovered our investment, but we have built a foundation for the future. Today the amount of what we have coming in on the royalties covers the amount of work that we are putting in to develop new products. Because we have a steady stream of money coming in, we are investing in new products that will pay us back three years from now or five years from now.

⁶ The royalty figure presented here is not the actual figure.

John Farber remarked that Smart Design had a clear understanding that their products would have to compete in a marketplace:

Smart Design really contributed a tremendous amount. They had a very—I don't want to say it's unique, but I find it rare among designers—keen sense of the merchandising, the commercial imperative of what we were trying to do. They understood designing something that's beautiful but is too expensive doesn't work. And designing something that's beautiful and isn't functional doesn't work. A lot of designers don't understand that. They were partners from the beginning, and they understood all the challenges.

Sales and Marketing

Sam Farber credited OXO's early success to his ability to open doors for the Good Grips products; indeed, the firm's strongest sales and marketing tool was his good reputation and extensive industry experience:

I had experience in the field before. I had a housewares business, which I had sold. I knew all the players. I knew the stores. I knew where to find the salespeople. I knew where to find factories and agents overseas to make the product. When I wanted to show the product for the first time at a gourmet show in San Francisco in 1990, I was able to get space in the show that was already full because I had a reputation from a prior business and I knew people. When we showed the product, I called a lot of people and said, "I'd like you to come and see something unusual," and they came to see it because I called them.

In fact, Farber decided against advertising to consumers and built a publicity network for the products instead. As he recalled:

We were a small company with a limited budget for advertising. Instead, we had to go through publicity, through displays, through packaging. I believe strongly that the best way to sell a customer is for the customer to use the product. We had many of our retailers put bowls out with carrots and our peeler in the store and once you peel the carrot with our peeler, you realize that it is the best peeler in the world. Because we said it was a user-friendly product, we've got to get people to use it to show that it is a user-friendly product.

As a result, upscale department stores like Bloomingdale's, Macy's, Marshall Field's set up wall space to display OXO products. In the meantime, Betsey Farber created the OXO Gazette, a quarterly newsletter, sent to about 1,000 retail buyers and sales representatives, where descriptions of new products and letters of praise from customers appeared. But as Sam Farber concluded:

The only thing I think that we could have done differently or we didn't do enough of is identifying the brand with the product. We have tremendous product identification. If I go to a dinner party and someone says, what do you do, Sam? And I say, "Well, I have a company called OXO, Good Grips." "What products do you make?" "Well, we make these kitchen gadgets that use large, soft, handles..." "Oh, I have all those, they are the most fantastic thing in the world." There's no identification between the brand name and the product.

By 1991, some \$3.1 million worth of Good Grips products had been sold and the company was growing fast.

Selling the Company to General Housewares

In October 1992, Sam and John Farber sold OXO International to General Housewares Corporation of Terre Haute, Indiana, for \$6.25 million. While OXO stood to gain from the marketing and service capabilities of General Housewares, a cookware and cutlery manufacturer, it would be an independent division and remain in New York. John and Sam Farber stayed on as managers of OXO for General Housewares, with an agreement to get a percentage of OXO revenue as an incentive to build the company. Sam Farber, now 68 years old, felt his company building days were behind him. John Farber, 36 years old, enjoyed his role as entrepreneur but did not want to manage OXO, as he explained:

I wasn't particularly interested in managing a housewares company. That's never what I thought I would do, never what I wanted to do. When we started in early 1990 I said I'd quit in five to six years, that was certainly enough time to spend managing one company. I felt at the same time that the company was at a point where somebody else could maybe do a better job of taking it to the next step.

Since Sam and John Farber's contracts would both end in 1995, they began seeking replacements for themselves; now a \$10 million dollar company, OXO had been growing at an annual rate of 50%. In September 1994, the Farbers hired Alex Lee who held a degree from the Parsons School of Design in industrial design and had just received his MBA from the Harvard Business School. Also, he had been a senior product designer with a prominent design firm for eight years prior to attending business school. The Farbers believed that Lee's background in design would keep design as the firm's principal direction, and that his MBA skills would keep OXO on track financially. Moreover, Lee was fluent in Cantonese and proficient in Mandarin, which would help build OXO's strong relationships with Asian manufacturers. In addition, Larry Witt joined as the national sales manager in late 1994, arriving with a background as a retail store buyer and sales and marketing executive for an import company. A new management team thus took up the reins of OXO International.

Outsourced Manufacturing in Asia

By late 1996, OXO International worked with 10 manufacturers in Taiwan and 10 manufacturers in China, which they had found by using agents: one agent in Taiwan and three agents in Hong Kong. Alex Lee and Davin Stowell visited the manufacturing sites three to four times a year to discuss products and manufacturing issues. The patented OXO Good Grips handle was made from two injection molded parts: a hard plastic core made of ABS or polypropylene and an outer handle made of Santoprene. The outer handle was then pressure-fitted onto the core. Although OXO's original products were made in Japan, labor costs had become too high so manufacturing was moved to Taiwan and then to China. Lee explained:

We've been moving with the price, provided that there is enough manufacturing sophistication in the country to make what we want. We're not in Vietnam yet because the sophistication and the supporting industries are not there. Every time we go to a new manufacturer, we need to train them to understand our quality standards and the learning curves are typically quite steep.

For example, when OXO was making a pair of scissors, it received bids from both US and Asian manufacturers. To have the scissors made in the US the molds would cost \$120,000, compared to \$15,000 in Taiwan. On average, the tooling costs for a product like the OXO Good Grips vegetable peeler may cost around \$10,000. "It's very little," said Lee. "Ten thousand dollars is less than what it would cost you to do market research to see whether a product will sell or not."

Although some OXO gadgets and tools were produced in factories with 500-600 workers, others were produced in factories that were essentially cottage operations: small garage-like structures with two to three molding machines and tables for assembling the kitchen gadgets. Sometimes the parts for a product might be made at four different factories, and then the parts would be assembled at a fifth factory. For example, in one factory where OXO can openers were assembled, fifteen people were the entire labor force. Even in the larger factories, the manufacturing process was labor-intensive. Stowell described the process for launching production:

The manufacturing process consists of a person that stands there and takes the part off one machine and walks it over to the other one and sticks it into the machine. You really have to sit down with them to see how they are doing it and then you work through the problems with the potential solutions on the spot. At the meetings, there is a lot of sketching and drawing and waving hands and arms of how to do it. Often the solution will come, or be developed right on the spot as to how to make it work....It's difficult to design a product if you don't really understand how it's going to be made. You really need to understand exactly what's needed.

In addition to low labor costs, manufacturers in China absorbed tooling change costs, which was a cost benefit to OXO. Either the manufacturers had an in-house toolmaker or they used a toolmaker with whom they had a close working relationship. When there were a lot of design changes, not being charged for tool changes was a boon to OXO, but communicating the specifications for manufacturing tools was a lengthy process. The manufacturer would make a tool, make a sample, then make changes to the tool. Even though OXO wasn't charged for tooling changes, product development time was extended by the many iterations that the tool would go through before the product was finally produced. Lee admitted there was a tradeoff between low cost manufacturing and getting high quality work the first time:

There are more sophisticated molders out there but they are typically suppliers to a different industry. They make computer parts and electronic components. We're dealing with the housewares industry where the products require high labor content, and we go to China because labor is cheap. If we moved to more sophisticated molders and more automated factories, the pricing would be very different. We are, however, starting to require that our manufacturers use more sophisticated toolmakers.

Products

Current Product Line and Sales Channels

OXO's Good Grips line of kitchen gadgets debuted in April 1990, starting with 20 items; these included a vegetable peeler, pizza wheel, garlic press, ladles, spatulas, self-opening scissors, and measuring cups and spoons. In 1993, OXO added a line of 6 Good Grips[®] Sierra Club[™] garden tools, which featured two trowels, fork, weeder, cultivator, and garden scissors. In 1995, they introduced barbecue tools. In 1996, the firm had moved into cleaning products with soap-filled palm brushes, squeegee, and scrub brushes. It had also expanded the kitchen gadgets line, adding baking items like, whisks, wooden spoons, spatula, flour sifter, and apple slicer, along with a tea kettle with an ergonomic handle and a steam guard. By the end of 1996, OXO had 135 products in the market, and was developing new products at the rate of 30-50 per year (Exhibit 4).

The design community applauded the innovative design of the Good Grips kitchen gadgets line, which received the Industrial Design Excellence Gold Award in 1992, and the 1993 Tylenol®/Arthritis Foundation Design Award among many others. The signature vegetable peeler

and some other kitchen gadgets were put in the permanent collection of the Cooper-Hewitt National Museum of Design and the Museum of Modern Art, both in New York City. (Exhibit 5).

But while design awards increased its recognition, OXO also kept its eye on the marketplace. With the Good Grips line, it had entered the high-end market of specialty stores and department stores and created a unique niche for itself. In 1996, OXO's customers, like Williams-Sonoma, Crate & Barrel, Bed, Bath & Beyond, and Bloomingdale's, represented 28% of the kitchen gadgets and tools market and 77% of OXO's sales. OXO was also in the mass market with two lines: (1) OXO SoftWorks® which was sold at Target and selected high-end grocery stores; and (2) OXO Good Grips Basics which was sold at K-Mart and some lower-end supermarkets. Mass market sales accounted for 37% of the market and 14% of OXO's sales. Grocery stores represented 27% of the market but only 1% of OXO's sales. The remaining 8% of OXO's sales were combined in other sales channels, like hardware stores and drug stores.

Competing in the mass market had not been easy. In 1991, OXO developed the Prima line for Target. OXO did not want to risk its relationship with high-end customers and needed to differentiate the Prima line from Good Grips. The Prima line had a mostly hard handle with a strip of Santoprene down each side. The idea was to use less of the very expensive Santoprene material, but unfortunately, material cost represented only a small portion of the product cost. The retail prices of the Prima products were 20% less than the equivalent Good Grips items, but because the handle was mostly hard, it didn't represent the same value to the consumer.

Around the same time, Wal-Mart showed interest in OXO products. Target had a policy of not selling the same product as Wal-Mart. OXO wanted Wal-Mart's business since it was the largest retailer in the US, and the company decided to develop a third line specifically for Wal-Mart, which they called Plus. Like Prima, the Plus products had a handle that was mostly hard, but there was a soft fingergrip band placed horizontally on the handle. The price was similar to the Prima line, but ultimately, neither of these lines sold well and were eventually dropped.

It seemed the price point of the Prima and Plus lines was too high for the mass market, and in 1993, OXO began to develop the Good Grips Basics lines with an ergonomically-designed handle that was completely hard. This design eliminated Santoprene and reduced a step in the manufacturing process, which allowed the products to be sold at 50% of the price of Good Grips. Basics was moderately successful and was still selling at K-Mart in 1996 (Exhibit 6).

It was believed Prima, Plus, and Basics were not the successes the company hoped for because the OXO brand had become known for its soft feel. As Larry Witt, national sales manager, explained:

The problem is we were basically selling ourselves short in the market, saying to the customer that a soft handle is not important. What they were telling us is that no, you are a soft handle manufacturer, you proved that a soft handle is right. Why are you trying to sell us a hard handle? At that point we knew we had to come out with a soft handle for the mass market.

The pricing was also faulty: the 20% difference was too close to the price of Good Grips products, which customers preferred. After the failure of Prima and Plus, OXO developed SoftWorks, a soft-handled version of the Basics products. They did not release SoftWorks when it was developed because they planned to conduct market research to see if introducing a soft handle in the mass market was risky. But Target was ready for a soft-handled gadget and approached OXO first. "We got a phone call from Target," recalled Witt, "telling us that they were looking at soft-handled gadgets: "We are going to put one in whether it's yours or somebody else's. Do you have anything to show us?" In fact we did have something to show them because we had developed Softworks and had it in our back pocket, so when the time came we would be able to react to it in about 90 to 120 days." In 1996, the initial market reaction to the SoftWorks products priced 17% below Good Grips appeared

positive. "If there are going to be knock-offs of Good Grips," Lee commented, "I'd prefer that OXO makes them."

In terms of the company growth, Witt saw breaking new ground in different product categories as an important direction for the future:

In reality, we are a gadget company, but we don't see ourselves as that. We see ourselves as a solution company. One that solves problems about anything you use with your hands. At this point, we are in the home industry: that's where our buyers trade and where our customer recognition is. At some point, two years down the road it might be sporting goods. But you have to look at who you are now and what's the next most logical step for you to take where you can still use all of your resources and your current level of influence.

New Product Development

When Alex Lee joined OXO in 1994, he decided to explore different product categories, and began looking into the area of cleaning products. "We started off," said Lee, "by expanding in the categories that were close to home first, where we could use the same distribution network without having to reestablish a whole new sales network." Tools for the kitchen and bathroom were often sold in the same housewares departments or stores. Since there was not a lot of solid market data on small product categories, Lee used an informal interview approach. He explained:

I would talk to the buyers of our major customers, like Bed Bath & Beyond, Linens 'n' Things, Lechters, Williams-Sonoma, to find out what kind of cleaning products they sold, and which were the highest selling units. One buyer sent us a whole box of samples of different brushes with prices and the amount of units they sold. We picked the top five or six items and then we went to Smart Design and said here are the items that we're interested in making. Then we asked, on which ones can we improve the design?

We always make sure that there's a reason *why* we introduce a certain product. If we can't find a way to improve something, either in function or value, then we won't make it. It's got to function better than other things on the market, or function as well as the best item but at a lower price point. We've been so consistent about this approach so far that when we show a retailer a product that doesn't have a design improvement story they ask us, "why is OXO doing it?" So, the first question we ask ourselves is, "what can we do to improve this product and stamp the OXO brand on it?"

Once OXO decided on a product, Smart Design studied it and compared it with competitive products. OXO also conducted its own focus group studies with consumers to discuss how current products were used. They analyzed what the current design problems were, then decided what could be fixed, what could be made better. With a design concept from Smart Design in hand, OXO would authorize the design development and quotation drawings. These were sent to the manufacturing agents, who searched for appropriate manufacturers and obtained a price which reflected how much it would cost to manufacture each unit including tooling costs. If the price was too high, OXO and Smart Design looked for cost-cutting measures in design. As Lee concluded, "When we find an appropriate manufacturer with acceptable prices, we would discuss their production methods and authorize the final design development phase, including 3D-CAD [3-Dimensional Computer-Aided Design] modeling and tooling data and drawings. If we are very certain about a project, we will sometimes start the final phase as we are awaiting price quotes."

Sometimes OXO asked buyers for their opinions to get their reaction to the products and the price points. But buyers' opinions weren't always on target when it came to setting prices. Lee recalled a bathroom squeegee that OXO priced way below a competitive product:

There is a bathroom squeegee on the market that sells for \$20, which is a tremendous amount of money for what it is. It sells well. OXO came up with a bathroom squeegee, and if we sold it at \$8—we would have a good margin. We felt that even at \$10, this item represented a good value. So we go to one of our biggest customers and we show them the squeegee for \$10. But the customer says "There's no reason why this item should be \$10." We took their advice and came down to \$8. When we went to the Housewares Show, the squeegee was very well received. Ironically, across the board, sales reps and other buyers said, "Why is it so cheap? This item should be at least \$10!"

So we made a mistake there by pricing this product too low. But, in terms of pricing, that is a learning process for us. I think even the biggest company makes wrong pricing decisions. The bottom line is, we'll sell a lot of squeegees at \$8, a lot more than we would sell at \$10. The thing we have to keep in mind is if we sell a product with too high a margin, we are constantly inviting product copies and competition. If we make a product cost-effectively and have a decent margin, it is much harder for competitors to justify knocking it off.

The entire product development process took anywhere from eight months to three years, depending on the product. Three to six months were needed to make the tools depending on the complexity of the production method; tooling changes and corrections could take another few months, slowing down the product development process. Actual manufacturing required a 30-60 day leadtime (**Exhibit 7**).

In 1996, OXO began developing products at higher price points than standard kitchen gadgets. For example, the rotary cheese grater and the teakettle had prices ranging from \$15 to \$50. These products required more complicated production methods and a higher level of manufacturing precision. Some needed double molding, which meant molding a part, placing the part into another mold and injecting another layer on top of it. This over-molding process could cause problems because manufacturers could not always calculate the exact shrinkage of the first part; thus the tooling process often had to occur in steps. The toolmaker had to make the first part to determine the shrinkage before he could start tooling for the second part. Lee described the process: "Sometimes after three months of tooling development, we might discover that on surfaces with complex curves the toolmaker made the wrong interpretation of our drawings. In some cases the tooling change will take a few weeks; in other cases, we have to start all over again."

Lee sought ways to streamline and improve the product development process. "The only way," he pointed out, "we can conceive of shortening the product development cycle is by training our suppliers to use 3D CAD computer data that we send them and go to tooling with exact specifications⁷." Smart Design used 3D CAD solid modeling software to depict the designs, which provided exact specifications for all critical points of the physical surface of the product. A prototype was made using the data, and all changes were made to the data until the computer model truly

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⁷ Exact tooling specifications can be obtained from 3D CAD modeling data. There are 3 levels of 3D CAD resolution. The highest level of resolution is 3D solid modeling, followed by IGES trim surface, and, last, wireframe modeling. The 3D CAD files can be translated to a lower-resolution format, but not to a higher-resolution format. This means that designs done in wireframe modeling, for example, would have to be redrawn in 3D solid modeling format by an engineer. OXO required its manufacturer to have at least the capability of working from IGES trim surface files.

represented the intended design form and function. This computer file was then sent to the toolmaker where the mold could be produced directly from the data.

Meeting the Needs of Growth

After he returned from his lunch meeting with the new design firm that was interested in designing some storage products for OXO, Alex Lee sat back in his chair and pondered his options for growth (see **Exhibit 8**). Although OXO would continue its relationship with Smart Design, the design firm was unable to put as many resources on OXO projects as Lee would like. Davin Stowell had told Lee that Smart Design was at the maximum level of investment in OXO projects based on its cash flow from the royalty payments. One option was to pay a non-royalty-based design fee to Smart Design to increase their design capacity for new projects. Another option was to work with other design firms on a royalty basis.

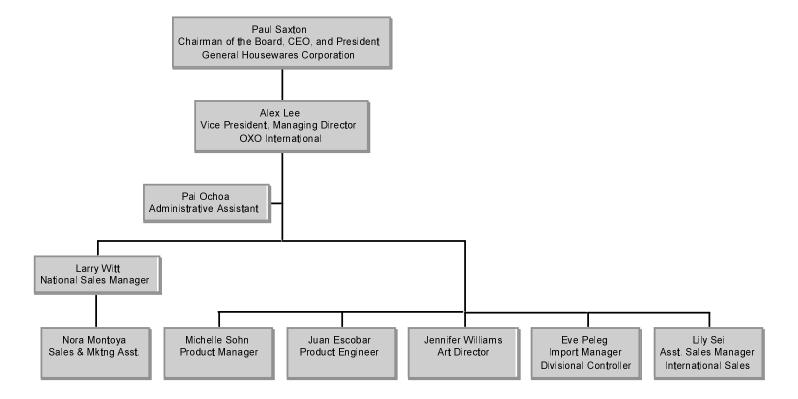
Yet choosing to work with other design firms posed some problems, too. He had talked with some firms in Chicago that produced award-winning designs and were equipped with state-of-the-art 3D CAD solid modeling workstations and strong engineering capabilities. These firms might be interested in negotiating the type of royalty agreement that OXO worked out with Smart Design, or OXO could pay for designs on a fee basis. Paying design fees upfront meant that OXO would develop fewer products, but an equally troubling concern was the physical distance between the design firms and OXO. This distance made continual meetings and discussions between Lee and the design team more difficult.

On the other hand, smaller, new firms in the New York area like the one Lee had just met with were eager to work with OXO to establish their reputation. They might also be willing to negotiate a lower or descending royalty agreement for the opportunity to work with OXO. If OXO were to work with three or four firms, Lee and his small staff would have to manage the process closely to make sure the firms built in OXO quality and maintained the design-based brand equity. Many of these smaller firms often were limited to 3D CAD wireframe capabilities at best and were not very strong in engineering. Working with them meant contracting with outside engineering firms for engineering advice and 3D CAD solid modeling work. To convert the design of a simple product into a 3D CAD solid model could cost anywhere from \$5,000 to \$10,000.

In choosing either a large firm or small firm, Lee wondered how long it would take the new firms to learn the OXO processes and philosophy? He considered Paul Saxton's idea of building an in-house design department at OXO. While Lee certainly had the expertise start a design department and hire competent people, he would have to double OXO's office space to provide the facilities for several industrial designers. Doing so would involve considerable cost: leasing office space in New York City was very expensive and adding more employees meant paying salaries and benefits. He estimated it would take 18 months to develop a capable design staff. He would also have to consider developing 3D CAD solid modeling capability or paying outside engineering firms to do the work. He asked himself if cutting-edge design ideas would keep flowing from an internal department.

Lee still faced a key issue. OXO's products were known for innovative design, yet their design function was outsourced to Smart Design. OXO also outsourced manufacturing and other functions, but design represented a major part of OXO's competitive advantage. Who owned OXO's design capability, OXO or Smart Design? The answer was not clear-cut. Lee needed to decide how he would shape OXO's strategy for the future.

OXO International



- **Exhibit 2** Sam Farber's Seven Basic Steps for Design Innovation Process
 - 1. Identify the needs of the consumer.
 - 2. Research the market.
 - 3. Analyze the results of the research in relation to your original goals.
 - 4. Present the first conceptual design to the project team.
 - 5. Develop the design.
 - 6. Approve final designs.
 - 7. Develop the marketing plans.

Source: OXO International

Exhibit 3 The OXO GOOD GRIPS Swivel Peeler



Exhibit 4 The OXO GOOD GRIPS Product Line



Exhibit 5 Awards for OXO Good Grips Products

1996 Good Housekeeping Magazine

Good Buy Award for Tea Kettle

Industrial Design Excellence Award

1996 Bonze Medal Winner for Tea Kettle

Gourmet Retailer

Best of Aisle Winner 1992, 1993, 1994, and 1996. Gourmet Products Show.

Design Zentrum (Germany)

Red Dot High Design Quality. Design Innovations '96.

Good Food Award (England)

First Prize for "Best equipment innovation of the year."

1995 Museum of Modern Art, New York City

"Mutant Materials in Contemporary Design." Selected for inclusion in traveling museum exhibit. Selected for inclusion in the permanent Design Collection, 1994.

The Chicago Athenaeum, Museum of Architecture and Design

Good Design Award, 1994 and 1995. Added to permanent collection of museum.

Museum of Modern Art, New York City

"Mutant Materials in Contemporary Design." Selected for inclusion in traveling museum exhibit. Selected for inclusion in the permanent Design Collection, 1994.

1994 National Housewares Manufacturers Association Design Exhibit

"Strategic Design: American Innovations for the Mass Market." Chicago and Frankfurt, Germany.

The International Design Yearbook (England)

Volume 9, 1994.

1993 Tylenol®/Arthritis Foundation Design Award

1993 Consumer Products Winner.

The Art of Design 2

Exhibit of American Design, Haggerty Museum, Milwaukee.

Cooper-Hewitt National Museum of Design, Smithsonian Institution, New York City

"U is for Universal Design," Summer 1993. Selected for inclusion in permanent collection, 1992.

Neste Forma Finlandia, International Plastics Design Competition 3, (Finland)

"The World's Best Plastic Products." Winner, April 1993. Competition and exhibit traveling through seven European countries.

Annual Design Leadership Award

Product Design Winner.

State International Design Prize Exhibit, Design Center Stuttgart

"The World's Best Plastic Products." Winner, April 1993. Competition and exhibit traveling through seven European countries.

1992 Industrial Design Excellence Awards

1992 Gold Medal Winner. One of top 25 Awards out of 753 submissions.

Arango International Design Exhibit

"Out of the Ordinary," U.S. and overseas traveling museum exhibit.

Metropolitan Home 100 Design Ideas

April, 1992.

1991 Housewares Industry Awards (England)

Kitchenware Winner, 1991.

Design Center Exhibit

London, 1991.

International Design

Annual Design Review, Consumer Products.

General Electric Company

Design Gallery Exhibit, Louisville, Kentucky.

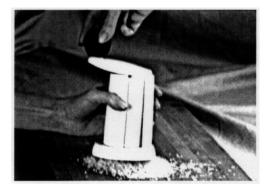
Exhibit 6 The OXO Product Lines

Product line	Product Characteristics	Year Launched	Retailers	Typical retail price of peeler				
High-end Specialty Shops and Department Stores								
GOOD GRIPS	 handle made of soft Santoprene finger fins large hole large oval handle. unique gadget designs 	1990	Williams-Sonoma Crate and Barrel Lechters Bed, Bath & Beyond high-end department stores	\$5.99				
Mass Marke	et and Groceries							
Prima	 hard handle with a soft strip on each side 	1991	Target (discontinued)	\$4.80				
Plus	 hard handle with a soft fingergrip band at top of handle 	1992	Wal-Mart (discontinued)	\$4.80				
Basics	made of hard plasticstandard gadget design	1994	K-Mart	\$2.99				
SoftWorks	 same as Basics' design with Santoprene handle 	1996	Target Hills upscale grocery stores hardware stores	\$4.99				

Exhibit 7 The OXO Product Development Process



PROJECT: Dough Blender	Time Elapsed
Preliminary Design	12 weeks
Design Development	2 weeks
Final Design Development & Engineering	11 weeks
Tooling	17 weeks
Tooling and Manufacturing Adjustments	9 weeks
First Shipment Production	8 weeks
Production Ship (08/02/96)	
Total Product Development Time	59 weeks



PROJECT: Rotary Grater Preliminary Design	Time Elapsed 13 weeks
Design Development	9 weeks
Final Design Development & Engineering	13 weeks
Tooling	9 weeks
Tooling and Manufacturing Adjustments	43 weeks
First Shipment Production	8 weeks
Production Ship (12/15/96)	
Total Product Development Time	95 weeks

Exhibit 8 OXO Growth History and Plan (in thousands of dollars)⁸

					Estimate		Plan
	1991	1992	1993	1994	1995	1996	1997
Gross Sales	3,096	4,736	7,431	10,632	16,408	22,000	32,000
Net Sales	3,025	4,630	7,265	10,073	15,649	21,066	30,969
Cost of Goods Sold	1,482	2,320	3,346	4,736	7,663	10,230	15,187
Gross Profit	1,543	2,310	3,919	5,337	7,986	10,836	15,782
Operating+SG&A	1,134	1,668	2,796	3,808	4,697	5,837	7,046
EBIT	409	642	1,123	1,529	3,289	4,999	8,736

⁸ These are not actual figures. They have been disguised for the purposes of case discussion.