

Case Studies on Universal Design

Case 2/Principle Two *Flexibility in Use*

Fiskars Considers Variety of Customer Ages and Abilities

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“Just Common Sense”

“It just seems like common sense to me,” said Jim Boda, director of Research & Development for Fiskars, Inc. Fiskars’ senior industrial designer Doug Birkholz agreed. It was 1991, and Boda and Birkholz were evaluating a new scissors design begun 18 months earlier.

In 1989, a Fiskars vice president received a one-page study from the Arthritis Foundation citing arthritis as a major concern of aging baby-boomers. Struck by the size of this population and by their own personal experiences with aging family members, Fiskars’ designers began to consider how well their products were designed for this market.

Beginning in 1989, Fiskars began to develop new products based on sensitivity to the aging consumer market, particularly those with arthritis that interfered with their ability to grasp and manipulate hand tools.

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Company Background

Fiskars, Inc., produced nearly half the scissors sold in the US. The quality of their scissors was among the top three manufacturers in the world, including Henckels and Gingher, whose products were more expensive.

Based in Helsinki, Finland, Fiskars was one of the oldest companies in the western world, with roots dating back to the 17th century. By the 1990s, the company had organized around four business units:

The Inha Works manufactured aluminum fishing and recreational boats, door and window hinges, rail fittings, and heat radiators, primarily for the Finnish and Swedish markets.

The UPS Group manufactured uninterruptible power supplies (UPS) for the computer industry, financial institutions, and trade and industrial operations worldwide.

The Real Estate Group managed the company's real estate properties along the southwestern coast of Finland along with related services.

The Consumer Products Group, the largest unit, was headquartered in Madison, Wisconsin, and managed the manufacture, sale, and worldwide distribution of three product families: scissors and other housewares products, outdoor recreation products, and lawn and garden products. The Consumer Products Group maintained offices in North America and Europe, as well as offices and manufacturing facilities in Fiskars, Finland. Their products were marketed under the Fiskars name as well as under the labels of some of its customers.

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Fiskars' History

The use of scissors predates written history, but the design was believed to have originated during the Bronze Age, which began about 3000 B.C. In the 18th century, steel replaced bronze and iron blades.

In 1649, a Dutch merchant and owner of an ironworks was chartered to establish a blast furnace and forging operation in Fiskars, a small village in western Finland. The country was under Swedish rule at the time, and much of the nails, wire, knives, and hoes produced by the operation were sent on company ships to Stockholm.

Over the next 160 years, industrial and economic development accelerated in Europe. During this time, Fiskars developed its skills and reputation as one of the finest copper and ironworks in northern Europe. In the 1830s, the company expanded into the manufacture of forks and scissors. In 1837, Fiskars established the first machine shop in Finland and manufactured the first Finnish steamship engine the following year. Fiskars continued to develop its reputation as a premier steel and ironworks company, extending its production into architectural, industrial, agricultural, and home products.

Throughout its history, Fiskars strove toward five principles:

- A sense of its identity and direction
- Commitment to quality
- Attention to details
- Understanding of each of its marketplaces
- Strong relationships with its customers

Taking the “Common Sense” Approach

Eighteen months after its vice president had first read about the effects of arthritis on the baby boomer generation, Fiskars had developed the “Golden Age Scissors” concept, based on consideration for users with arthritis.

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The lightweight design accommodated both right- and left-handers equally well and offered a larger, softer grip to distribute pressure more evenly across the palm of the hand. The scissors also incorporated a lock closure and a spring assist to open the scissors, eliminating one of the tasks of cutting.

No market surveys among older or disabled customers were conducted to justify the design. It just seemed like “common sense.” As it became obvious to Fiskars designers that the product had features useful to anyone, Fiskars changed the name to reflect a less age-related focus, and the “Golden Age Scissors” became known as the “Softouch” scissors and went into production in 1991.



Fiskars' Softouch Scissors

Positive Customer Feedback

Elder Fiskars customers responded that until Softouch went on the market, they had given up sewing. Children found that Softouch gave them much greater cutting ability. Businesses began to use them in production jobs to minimize the risk of repetitive motion and cumulative trauma disorders.

Both Softouch Scissors and Softouch Microtip Scissors, another soft-grip design, won awards from the American Society on Aging in 1993.

Softouch scissors were sold through a wide variety of outlets, from kitchen supply retailers to New York's Museum of Modern Art Design Store.



Fiskars' Rotary Cutters

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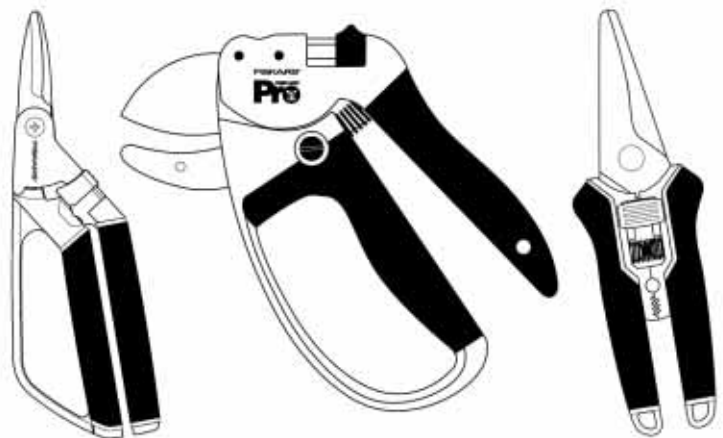
Spin-offs and Competition

Focus groups of 40 to 70-year-old customers with limited hand function were conducted in the development of other Fiskars' products, IDSA award-winning Rotary Cutters and Rotary Paper Trimmer. These products were conceived in reaction to competitive rolling-cutter products from Olo and Dritz. Fiskars' advantage over these lay in superior ergonomics. In citing the design for a 1994 Industrial Design Excellence Award, jurors noted that the handle contours made it "comfortable for any size hand, allowing the user to distribute downward pressure across the hand while maintaining neutral arm position."

New Market Concept, Not Market Niche

Jim Boda and Doug Birkholz felt that the Universal Design approach had required a "paradigm shift" at Fiskars toward a broader definition of their market to include people with manual limitations, whether due to age or disability.

They noted that Fiskars Research and Development staff integrated this shift readily, but other departments, such as Lawn & Garden Products, were more conservative and resistant to redefining fundamental marketing strategy. Nevertheless, the concept took hold, and customers with limited hand function were eventually considered also in the design of garden tools such as Softouch Floral Shears, Power Lever Pro, and Softgrip Multi-Snip gardening tools. The approach was also integrated into designs for ax and shovel handles marketed by Fiskars in Europe.



**Softouch Floral Shears, Power Lever Pro,
and Softgrip Multi-Snip**

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Applying the “Universal Design” Concept

Fiskars designers agreed that introducing a new product such as Softouch or Rotary Cutter was somewhat easier than “displacing” an existing product, whether the company’s own or that of a competitor. They believed that market “space” was already available and waiting for a product that meets a significant need.

This suggested that products reflecting Universal Design as a new paradigm were more likely to be successful than existing products facelifted or subtly altered to reflect this approach.

For Fiskars, the key was to avoid designing for a specific market segment, e.g. “Golden Age Scissors,” in favor of integrating features that addressed the needs of these populations with those of the general market. This, in a nutshell, was the concept of Universal Design.

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