

PREFACE

Our purpose in writing *Design-Inspired Innovation* is to explore the ways in which communities of art, design, and innovation are merging and influencing each other in the world of material culture to create great new products. What makes products great? What is the role of design firms in creativity and innovation, and how is this role changing? What accounts for design firms' successes? How are the processes of innovation and design changing? Does a focus on design inspire innovation and enhance chances of competitive success? What strategies might result in more inspired design and innovation?

This book reports the results of a study undertaken to explore these questions, which included interviews with the founders of nearly 100 design firms in four countries – Sweden, Italy, England, and the United States – and in several industries. The sample ranged from three divisions of the largest international design firm to some of the smallest and newest firms working in their local areas. We have looked broadly at contributions to advancing innovation and design in several types of products, including consumer electronics, devices for personal mobility, and others.

Manufacturers are responding to changes in technology and market demands by trying to introduce new products into the market more rapidly.

They struggle with new and converging technologies that create opportunities for developing entire new product categories and with the entry of new types of competitors. Larger firms enjoy great resources in technology and science, but these resources seem to be growing more available and open to all. Smaller groups and organizations derive greater innovative capabilities from the widening variety of sophisticated design resources available, such as computer-aided design, simulation, and visualization techniques.

We conclude that products, to be successful, must be distinguished by more than sufficient function, consistent quality, and low cost. Our findings and examples imply that considerable competitive advantage might be gained by reconsidering traditional products with a fresh eye and approach that employs newer materials and design techniques. Why do only a few of the welter of products on the market seem to account for the bulk of sales and profits in many categories? We believe it is because these products emphasize customer delight, elegance, and enduring value. They may even acquire increasing value over time.

Our work could be said to have begun with a puzzle posed in 1980. Sweden's larger firms were dramatically reducing employment within Sweden while expanding abroad. At the same time, the formation of new firms in Sweden was in marked decline. Where were the growth and jobs to secure the future of the economy to be found? Could a way be found to stimulate the development of new products and new companies and thus secure the future?

Jim Utterback and Bengt-Arne Vedin became part of a team of Swedish and American researchers asked to conduct a study to address sources for

future growth. Their working hypothesis was that the creation of new firms based on technological innovation might lead to a net creation of wealth, jobs, and exports. They proceeded to study 60 new firms in Sweden – about half the population of start-ups founded in the previous 15 years – and a similar number around Boston for comparative purposes.¹

The American firms matched Jim and Bengt-Arne's expectations, although their export performance was relatively weak. A mere quarter of the Swedish firms, however, were truly based on new technologies as their main competitive advantage. Another quarter identified their advantage as "design." Jim and Bengt-Arne found these firms to be almost the entirety of the sample enjoying rapid growth. Firms lacking advantages in technology or design tended to grow slowly or not at all. If anything, the firms stressing design were the most successful in the sample.

At the time, Jim and Bengt-Arne did not follow up this provocative idea, but the study was the start of a long friendship and conversation.

Later, Jim and Bengt-Arne met Susan Sanderson, who was pondering a similar puzzle among firms in Japan that produced portable music players. Among the myriad models being offered, only a few lasted more than briefly in the market and those few garnered the lion's share of all sales and profits. Most were produced by one firm, Sony, and seemed again to emphasize design in addition to function. In fact, the name of Sony's product – the Walkman – became almost the generic name for portable music players.

A sabbatical at the Harvard Business School in the fall of 1997 gave Jim a chance to share an office with Roberto Verganti. Roberto was part of

a larger group of researchers investigating the role of designers and design firms in the economic health and growth of Milan and Lombardy. Could excellence in design be a key ingredient in ensuring a vibrant economy?

An invitation to join the advisory board of the Centre for Research on Innovation and Competition (CRIC) at the University of Manchester led Jim to find that Bruce Tether was in the midst of analyzing data from firms that had received the Millennium Design Awards in the United Kingdom. The awards were given for the most notable new products to appear in the country. While many were indeed highly innovative in a technical sense, an even greater source of success seemed to be either the formal or implicit effort toward excellence and balance in design.

When Bengt-Arne joined the Department of Innovation, Design & Product Development at Mälardalen University, headed by Sten Ekman, Jim and he decided that the time was right to act more directly on our hunch that outstanding product design offered an unappreciated means to competitive and economic success. Their first meeting led to an agreement to conduct a parallel study, with each of us working intensively in our own countries. We were joined by a number of students along the way, one of whom, Eduardo Alvarez — a talented designer and entrepreneur — also became a partner in our work. Coordination took the form of two meetings each year rotating among our various universities and at several conferences where preliminary work was presented. Heads of local design firms participated enthusiastically in several of these gatherings, notably in Milan and Sweden.

While we were searching for general themes we were immediately struck by how diverse the environments and ways of working seemed to

be in our different countries. These observations have taken root in our discussion of the differing nature of the design systems and networks in each area studied. We also discovered a sharp difference of opinion within our group around which variables and relationships might hold greater sway in creating value. Should excellence in function and cost weigh more heavily, or might people be more attuned to symbols and somehow to the meanings conveyed in their use of various products? The issue of combining balance and wholeness in a user's experience is indeed the crux of the problem. After presenting our evidence, we attempt an answer to this question in the final chapter.²

Endnotes

¹James M. Utterback, Marc Meyer, Edward Roberts, and Göran Reitberger, "Technology and Industrial Innovation in Sweden: A Study of Technology-Based Firms Formed Between 1965 and 1980," *Research Policy*, Vol. 17, 1988, pp. 15–26.

²The range of questions covered in our interviews is provided in Appendix A. In any particular interview, we covered only a selection of these questions.