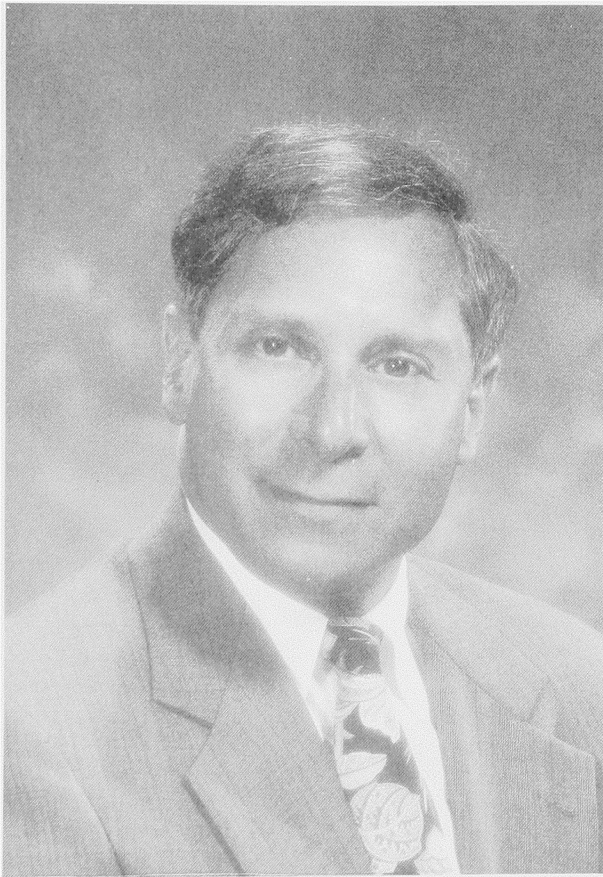


**KEYNOTE ADDRESS:  
RESOLVED; TO MAKE CUSTOMER FOCUS MORE THAN A SIMULATION**

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Retail prices for hand mixers begin at about \$20. Blenders can easily be purchased for \$30 or \$40. Within the past couple of years, Whirlpool Corporation has introduced models of both products under its *KitchenAid* brand name. Their prices: about \$65 for the mixer, about \$130 for the blender.

But Whirlpool hasn't gone mad. The company has been working furiously to keep up with consumer demand for the products. In the parlance of marketers, they're "flying off the shelves".

The phenomenon is not a fluke. Before designing

the products, much less manufacturing and selling them, Whirlpool went to uncharacteristic lengths to determine what consumers wanted, but weren't getting from their mixers and blenders. Among other things, they said that they wanted easy cleaning, increased motor power, and unique styling. By packaging such characteristics in its new products, the company delivered mixers and blenders which customers perceive as superior to those from competitors – and for which many are willing to pay significant premiums.

Whirlpool's larger challenge is to more effectively and consistently listen to the voice of the customer as it develops, builds and distributes all of its major home appliances. Computer simulation tools can and should enhance that process – but won't until the people who design, market and support such tools likewise tune more clearly to the expectations of *their* customers.

The fact is that, while the home-appliance and other industries have over the last several years made significant improvements in processes and products – and, in turn, quality and customer satisfaction – there remains tremendous opportunity for further gains. For example, to make manufacturing more efficient, Whirlpool is completely reconfiguring its production floors and forging new kinds of relationships with smaller numbers of suppliers. Tasks that used to be carried out by individual departments are now done cross-functionally, within deliberately more dynamic processes. Those changes are components of a growing manufacturing revolution.

What's holding Whirlpool and companies like it back from further improvements in design and production? Among other things, simulation products and services that are merely evolutionary. What's required to change that? Greater understanding of and responsiveness to the expectations of *their* customers by the people who develop and trade in computer simulations. What would result? Simulation products

and services that are more relevant, easier and faster to use and interpret, help identify greater efficiency and, importantly, consider the *business* implications of decisions alongside the technical implications.

## AUTHOR BIOGRAPHIES

**JEREMY S. WEINSTEIN** was named vice president, refrigeration and room air control, manufacturing and technology in January 1993, having previously been vice president, refrigeration, manufacturing and technology. Prior to that assignment, he was vice president, operations and planning for the North American Appliance Group, a position he had held since June 1989.

Weinstein joined Whirlpool in 1970 as a research engineer. In 1972 he was promoted to manager, business planning. In 1976 he moved to the Marion (Ohio) Division to be manager, production scheduling and management information systems. He was named manager, industrial and process engineering in 1979. He became director, manufacturing engineering at Findlay (Ohio) Division in 1982. In 1988 he returned to the corporate office to accept the position of group director, manufacturing services.

A native of Brooklyn, New York, Weinstein holds a bachelor's of engineering degree from City College of New York and M.S.I.E and Ph.D. degrees from Purdue University.

Whirlpool Corporation is the world's leading manufacturer and marketer of major home appliances. Headquartered in Benton Harbor, Michigan, the company manufactures in 11 countries and markets products under 10 major brand names in more than 120 countries.