



TOWER

Voice



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Six Sigma Research Institute Integrates and Unifies **Six Sigma™ Gets "Black Belt" Support in Global Thrust**

by Six Sigma Research Institute Staff

In late 1986, Motorola announced the achievement of Total Customer Satisfaction as the corporation's fundamental objective. Of these initiatives, achievement of Six Sigma quality is paramount. Global competition and rapid technological change emphasize the continuing need for a single foundation to unite product and service quality into an integrated, strategic thrust.

As a result, the Six Sigma Research Institute was developed in May 1990 to provide that unifying thrust. Since strategic training has formed the cornerstone of Motorola's quality efforts, the Six Sigma Research Institute is affiliated with Motorola University.

The Institute's mission is to research and develop the theoretical framework and supporting tools necessary to accelerate the achievement of Six Sigma quality and to facilitate the subsequent transfer of such knowledge to Motorola's technical and managerial communities.

In order to continue to implement Six Sigma quality goals throughout Motorola, as quickly as possible, it is necessary to identify, select and train a cadre of broadly-experienced engineers in the statistical tools and methodologies necessary to meet this key corporate strategy. A program is in development for

the selection and training of individuals designated as "Black Belts." A Black Belt is described as "an individual who has developed a synergistic proficiency between a respective technical discipline and the Six Sigma strategies, tactics and tools."

Black Belts will serve within their own business units as internal consultants in the application of Six

Sigma methods to any and all problems of the business unit for which such skills are applicable. They will also provide direct training in statistical methods, statistical consulting services and leadership in the use of statistics to improve designs, processes and services.

In addition, Institute accomplishments include the development of an instructional design shell. This standardized template serves as the backbone of a customized instructional course specific to a given business unit. Use of the

shell reduces the time for customized course development from months to weeks.

A number of authors from within Motorola, as well as technical experts from customers, suppliers and partners, are contributing to the Institute's *Encyclopedia of Six Sigma Tools*. The Encyclopedia is a collection of both basic and sophisticated statistical



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As I See It: Our People Culture Can Make Motorola Unstoppable

by George Fisher



George discusses the value of our emerging culture, as shown in the TCS competition.

The 1991 TCS team competition, held in Schaumburg this past January, was a truly remarkable event. I want to share with you what I told the 22 finalists at the award ceremony.

The TCS team competition is part of the evolution of our Motorola culture which I believe will give us a competitive edge. Consider the power of a process which involves the contributions of more than 3,000 teams to satisfying our customers.

I found it very interesting to watch three teams make presentations in Chinese and Japanese. Despite the fact that I wouldn't have been able to understand them without the aid of headphones and a translator, to an extent it didn't really matter.

As we looked at the charts, we began to realize that our Motorola culture is developing a linguistic base — a language which transcends national boundaries. It's a language of Six Sigma quality and cycle time. It's one of educa-

tion and training. And, it's a language of total customer satisfaction.

Wherever we are in the world, we, in this family called Motorola, are speaking the same language. It's a real strength and a binding and enduring force.

These TCS teams are building on our participative culture — they are focused on the key initiatives which drive our mission statement. I've paraphrased our mission in the box below.

What is it that will allow this company to distinguish itself in the service of our customers? I'd like to suggest that it goes beyond being operationally perfect. In fact, becoming operationally perfect may require building on our culture as a distinctive competency. What do I mean by that?

"Our mission is to grow Motorola rapidly around the world, in each of the chosen arenas of the electronics business in which we participate. We will do that by providing our customers with what they want, when they want it, with Six Sigma quality and best-in-class cycle time, as we strive to achieve our fundamental objective of total customer satisfaction."

-- George Fisher

Culture, in the sense I use it, is simply the consistent practice over time of our principles and values. Our culture today is a people-oriented culture based on our key beliefs of integrity and respect for the dignity of the individual. It's a

culture that believes in giving our customers quality — it understands what Six Sigma quality and cycle time management are all about. It's believing in training and education for all of us.

It's participative, cooperative, creative and increasingly receptive of others' good ideas.

I would contend that it is this culture — and its extension into what we are now calling empowerment — that will, in fact, distinguish us from all our competitors in the future.

If we can expand the participative culture that has been developed over the years — enabling and energizing our people, giving them the tools and the authority to get their jobs done, and then getting out of the way — this company will be unstoppable!

Why should any other organization have the right to claim the distinction of being the finest corporation in the world? Our people culture, as represented in these teams and the thousands of Motorolans who are members of teams, convinces me, more than anything I've

seen, that someday we will be able to claim that honor.

I say this to all 100,000 of you around the world. We have the opportunity to be the best. And, thanks to your efforts, we will run with the best! *

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methods for use in process and product design and optimization. The set will consist of 12 hard-bound volumes of 24 topic areas. Additional accomplishments include:

- An *Encyclopedia of Six Sigma Applications*, which exemplifies the use of Six Sigma tools and methods through case study;
- A circuit optimization methodology that was developed and delivered in Florida, and an RF optimization that was developed and delivered for Land Mobile Products Sector;

- Advanced applications consulting delivered to the U.S. Navy, Norton Air Force Base, Ford Motor Company, the Institute for Competitive Design, and the International Electronic Packaging Society; and
- A rapid prototype course developed and applied in Motorola manufacturing centers of excellence in six Motorola Asian facilities.

For more information about the Six Sigma Research Institute, contact Betty Crofton, project manager, at (708) 538-2568. *



Allegations Cause Concern For Some UW Contributors

Several Motorola employees have seen reports in the local media regarding an internal investigation of William Aramony, president of United Way of America (UWA). At issue are the spending and management practices of Aramony.

As you follow this story, you should keep in mind the following points:

- It is alleged that Mr. Aramony spent excessive funds on travel and personal expenses, and exercised poor judgement in hiring friends and family members. There are charges of conflicts of interest among UWA personnel and staff members of several "spinoff" companies UWA created to provide services to non-profit corporations.
- United Way of America is a non-profit corporation, functioning much like a trade association. It does not raise or distribute funds, but provides a variety of services

for more than 2,100 local United Way organizations nationwide.

- In return, local United Ways pay dues to UWA of less than half a penny (for every dollar raised) for services such as advertising, marketing and research. Local volunteers monitor those services to ensure they are receiving value for dues paid.
- Local United Ways are independent and autonomous. They are governed by local volunteers who raise and distribute funds to charities, make policy decisions, decide on staff hiring and compensation, and control all aspects of United Way operations.
- Mr. Aramony has resigned from his position, and an independent organization is investigating the allegations, with results expected in early April.

"Motorola views these allegations as very serious," says Dave Hickie, executive vice president and chief corporate staff officer "We have

expressed our concerns to United Way/Crusade of Mercy and they, in turn, have told UWA the matter needs immediate attention and resolution. We believe they are addressing all the issues."

According to Dave, the cancellation of an employee's payroll deduction contribution will have virtually no effect on UWA. But, it could be potentially devastating to the thousands of people who depend on the health and human services that gift makes possible.

"We continue to believe in the United Way concept of providing health and human services to people in need," he said. "We support the United Way/Crusade of Mercy organization as one of the most effective systems for distributing charitable dollars."

If you would like more information, please contact your local United Way. They are best prepared to handle all inquiries. *