

KENT STATE UNIVERSITY TRUMBULL CAMPUS

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Francis Lamm

The January 2008 ISO TS Network meeting, sponsored by the Kent State University Trumbull Campus, featured a talk by Francis Lamm, a Trusted Advisor from KAVON International, Inc. Fran's topic was titled "Seven Tools of Quality."

Fran introduced himself by relating some of his experiences as a Quality Manager and Engineer. He talked about the concept of continual process improvement and the requirements defined in the multitude of Quality Management System standards like ISO 9001:2000 and ISO 13485. He emphasized the need to solve problems in order to maintain high customer satisfaction.

Fran then introduced what has become known as the "Seven Tools of Quality" first emphasized by Kaoru Ishikawa, a professor of engineering at Tokyo University. Ishikawa believed that 95% of a company's problems could be solved using these seven tools because they are simple and understandable.

The seven tools are:

- Flowchart
- Cause and Effect Diagram
- Pareto Chart
- Check Sheet
- Run/Control Chart
- Histogram
- Scatter Diagram

Fran described each of the tools and when to use them. He also presented examples of each tool.

Flowchart: A visual diagram of a process broken down by activities.



IN THE CLASSROOM

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INDUSTRY: *Various*

Cause and Effect Diagram: A tool for determining the root causes of a problem. Often referred to as a “fishbone” or “Ishikawa” diagram.

Pareto Chart: A graphic representation of the frequency of occurrences sorted into categories of a defined range.

Check Sheets: Forms used to summarize a tally of events or occurrences.

Run/Control Chart: Charts used to analyze processes according to time and order.

Histogram: Bar graphs, which show frequency of occurrences sorted into categories of a defined range.

Scatter Diagram: Diagrams that identify the possible relationship between the changes observed in two different sets of variables.

In summary, Fran indicated that Flowcharts, Cause and Effect Diagrams, Pareto Charts and Check Sheets are used to help gain an understanding of the process and Run/Control Charts, Histograms and Scatter Diagrams are used for precise data analysis.

*If your company is seeking registration or compliance to any of the Quality Management System standards such as ISO 9001:2000, ISO/TS 16949, AS9100, ISO 17025, ISO 14001, or ISO 13485, give us a call at 888-637-9598 and let one of our **Trusted Advisors** help you with implementation and training.*