Pea Tenderometer: Quality Measures

Description

Measurement helps at every step of the quality journey. As the saying goes, "If you can't measure it, you can't manage it." The best measurements are numbers, because the ability to "say it in numbers" provides the highest level of precision.

The pea tenderometer was born of the need to create an agreed basis for decision making. Because the ripening process for peas results in the peas gaining weight but losing tenderness, a gap existed between the farmers' interests and the interests of the food processors. Since the peas were sold by weight, the farmers naturally found this plumping process favorable to them, but the food processors found the loss of tenderness objectionable.

To reconcile both sides, the tenderometer was created. The tenderometer measures the tenderness of the peas at the various weights, creating a sliding price scale based on those two features. Because both sides could agree on the merits of such a formula, the tenderometer ended debates on the controversial issue of weight versus tenderness. The tenderometer created a new measure that became the recognized unit in the industry.

Learning Points

Quality experts have known for years that "we cannot improve what we cannot measure." Too often, however, there are those who claim that the nature of *their* work is such that it is impossible to measure it. This is especially true of those in positions where their work affects customer goodwill, is creative in nature, has an element of "art" to it, and so forth.

Developing measures for the tenderness of peas reminds us that specific measures can be invented for just about anything. Given that measures can be developed for pea tenderness, it should be easy to use measures to identify problem areas and improve performance in most aspects of our work lives.

When we utilize quality measures, it turns the subjective into the objective. Objective data (versus anecdotal evidence) and the graphic presentation of that data assure that the message can be heard by all and that action will be taken to eliminate those problems depicted by the data.

Discussion Questions

Question: What are some of the quality measures that you use to evaluate your own organization's performance?

Answer: Responses will vary but may include the following:

- percentage of deliveries that are late
- time it takes to approve a loan
- time it takes to develop a new product
- percentage of integrated circuit chips that are defective

Question: Are there any areas in your organization where quality measures are not used because the nature of the work does not appear to lend itself to measurement?

Answer: Responses will vary but may include the following.

- product development
- customer service
- training and development
- graphic art
- advanced research

Question: What are the steps to establishing measurement in an organization?

Answer: First, identify the features to be measured. Choose features that are important to the customers of the services or directly affect outcomes that are important to customers. Second, identify the unit of measure. By asking customers how they evaluate the results of the service, you will discover implicit ways in which customers measure the service. Finally, decide the means by which you will measure. You may use technological sensors (e.g., clocks, thermometers, etc.), or you may use data bases and reports or human evaluation (e.g., does a hotel room have the proper number of towels, do blemishes exist on the finish of a home appliance).

Question: What are the criteria for developing a unit of measure?

Answer: The ideal unit of measure meets six criteria:

- It reflects a customer need, whether the customer is internal or external.
- It provides an agreed basis for decision-making.
- It is understandable, i.e., it does not require additional definitions.
- It can be broadly applied.
- It can be uniformly interpreted.
- It is compatible with existing sensors, i.e., those human or technological measures used to monitor process performance.