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TOTAL QUALITY MANAGEMENT: A MODEL FOR CONTINUOUS QUALITY IMPROVEMENT

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ABSTRACT

This paper outlines an eight-step process for utilizing customer input as a critical ingredient to be used in Total Quality Improvement programs. The details of and implications associated with each step are discussed.

INTRODUCTION

The search for quality will continue to be the most important consumer trend of the 1990s as consumers demand higher quality products than ever bef ore (Rabin, 1983). According to the prevailing Japanese philosophy, quality is "zero defects--doing it right the first time" (Crosby, 1979). An alternative view of quality that would apply to both material goods as well as intangible services focuses on a comparison of expectations with performance (Parasuraman, Zeithami, & Berry, 1985). That is, quality is a measure of how well the goods/services delivered match customer expectations. The purpose of this paper is to outline methods of measuring and monitoring customer perceptions as an input to a TOM program. In addition, the paper will present a systematic procedure for utilizing customer satisfaction data as a means of continuous quality improvement.

FOSTERING TOTAL CUSTOMER SATISFACTION

This section outlines a highly pragmatic methodology aimed at fostering continuous quality improvement. The framework presented here involves a multi-stage process that is designed to utilize customer feedback as its primary input and lead to total customer satisfaction.

The first step in the process is to identify the customer--the party receiving the output of effort. Customers can be internal (i.e., other units within the organization) or external, (i.e., outside constituencies). When the number of customers is large, the process may be streamlined by concentrating only on those accounting for more significant portions of business/output.

The second step involves identifying the product that the organization/unit creates or the service it provides. While this may appear to be obvious, it in fact is not, especially in the case of services and non-tangible products. This step is particularly important when the customer in question is an internal client.

The focus of the third step is determining what the customer considers as important. That is, emphasis is placed on what the customers need and expect, not on what the seller thinks customers want. Any failure to meet these requirements is viewed as a defect. This step begins with developing a fairly comprehensive list of salient product! service attributes. For tangible goods these specific aspects or characteristics of a product may include such features as physical appearance of the product, adherence to performance specifications, timely delivery of product, and product warranty. For intangible services, according to Parasuraman, Zeithami, & Berry (1985), salient attributes may include such characteristics as reliability (consistency of performance and dependability), access (approachability and ease of contact), courtesy (politeness, respect, and friendliness), credibility (trustworthiness, believability, and honesty), and tangibles (appearance of personnel and physical' facilities). Once a list of relevant product/service attributes is developed, customers must be surveyed to discern the relative importance of each attribute using a rating scale (e.g., 1 = not at all important, 7 = extremely important).

Determining actual performance relative to each of the above attributes is the fourth step in the process. Here the current level of satisfaction with the company's performance in meeting customers expectations' needs relative to each salient product/service characteristic is obtained via similar rating scales (1 = extremely dissatisfied, 7 = extremely satisfied). In cases where the company is not a sole source/supplier of the product/service, the customer also could be asked to evaluate competitors' performance on the same salient characteristics. The resulting information helps identify the company's real strengths and weaknesses from the customer's viewpoint and in relation to those of the competition. It is noteworthy that some quality-oriented companies, such as Motorola and Fairmont Minerals, not only recommend benchmarking of competitors, but also any other company that may be using similar processes.

Step five involves combining importance and performance ratings obtained in steps three and four into a two-dimensional framework with the importance scale representing the vertical axis and the performance scale constituting the horizontal axis. Next, the mean importance and performance values for each attribute are plotted on the resulting importance-performance grid. The outcome of this step is a parsimonious framework with many practical advantages. It will provide the organization with information on the product/service characteristics to which customers attach the greatest importance and the qualities that are viewed by customers as most problematic. The outcome of the analysis will be useful in establishing priorities for managerial action as well as allocation of resources.

Step six requires employee involvement in using the results of the data generated above in order to address identified problems. Team structures such as quality circles and cross-functional groups are widely used mechanisms for facilitating quality improvement efforts. Armed with the information generated in step five, team members can invoke systematic problem solving to not only understand root causes of problems, but also devise ways of eliminating them. The problem solving approach used here first focuses on defining the process for doing the work as it is currently performed. This involves specifying the ordered sequence of human and machine operations that are currently being used to produce the end result.

Next, the quality circle/team working on the problem will shift its focus to modifying the process to improve the attributes of the product or service found by customers to be problematic. In the course of this procedure, attempts are made to mistake-proof the process and eliminate waste. To mistake-proof the process, the team must identify the types of errors (or potential defects) that occur at each step of each task. Then, methods should be found to lower the probability that such errors will reoccur. These could include measures to simplify key tasks, employee training to eliminate specific errors, standardizing procedures and formats, and providing work aids.

Just as important as mistake proofing is the elimination of waste (unnecessary delays and other wasteful activities). Waste includes any non-value-added task or activity as well as essential tasks performed at less than peak efficiency.

The outcome of this step (step six) should include a flowchart representing the revised process, measurement points for bath defects and cycle time, and redefinition of quality and timing of inputs based on process revision.

Step seven involves integration of suppliers into the system. Often time's quality problems result from using defective, low-quality, or high-variability materials and parts as inputs into the operation. The process revision described in step six may suggest modification of inputs into the process. As such, required changes regarding quality and timing of inputs must be communicated to suppliers, both internal and external.

The final step (step eight) is aimed at achieving continuous quality improvement and ensuring continuous customer satisfaction. This step is based on the realization that product and service demands of customers are not static. Customers' changing needs and expectations have to be continuously/periodically monitored, anticipated, and responded to.