Total quality management (TQM) has evolved over four stages: quality inspection, quality control, quality assurance, and TQM (Dahlgaard, Kristensen, and Kanji, 2002).

TQM can be defined as “an integrated management philosophy and set of practices that emphasize continuous improvement, meeting customer requirements, reducing rework, long-range thinking, increasing employee involvement and teamwork, process redesign, competitive benchmarking, team-based problem solving, continuous measurement of results and closer relationships with suppliers” (Powell, 1995, p. 16).

This philosophy can be implemented in any type of organization, generating cost reduction, more satisfied customers and employees, and improvements in products, services, and financial performance. This last point is controversial since TQM strictly depends on executive commitment, an open organization, and employee empowerment.

Despite the fact that its main scholars were American and European (e.g., Deming, Juran, Crosby), TQM was first developed and subsequently widespread in Japan in 1949 when the Union of Japanese Scientists and Engineers (JUSE) created a committee to improve industry productivity following World War II. After numerous and significant results obtained in Japanese manufacturing and non-manufacturing firms, in around 1980, TQM started spreading in the US companies such as Ford, Xerox, and Motorola. Based on their widely publicized success, other large and medium manufacturers, first in the United States and thereafter in Europe, adopted the TQM philosophy and methods.

Briefly, a firm adopting TQM organizes production and business processes in such a way as to identify and eliminate problems or sources of variations that cause products to deviate from customer needs. To achieve this aim, managers often follow a simple method known as the Deming wheel or Plan, Do, Check, Act (PDCA) cycle (Figure 1). Business processes or activities are positioned in a continuous feedback loop so that employees involved in the analysis can identify causes and solutions to change or improve those parts of the processes that require it.

Figure 1 explains four phases of the PDCA cycle.

Plan. This first phase (the longest), aimed at improving operations and processes, requires establishing the problems (what is going wrong), their extent, their causes, and developing ideas to eliminate them.

Do. The identified solutions are tested on a small scale, thus minimizing disruptions to routine activities.

Check. The testing activity requires identifying control indicators for key activities to establish the quality of the output and identify any new problems arising from the change.

Act. In this last phase, successful changes in activities and processes are implemented on a large scale. If the test is unsuccessful, the group involved in the study must repeat the cycle.

Bibliography


Figure 1 The PDCA cycle.
2 total quality management

