JSQC STANDARD

Guideline for TQM

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Preference

This Standard has been established by the Japanese Society for Quality Control (Hereafter referred to as JSQC) through the deliberations of the Technical Board, based on the specifications management procedures of the JSQC.

Note that several parts of the standard may conflict with patents, patent applications after the laying open of the applications, utility model rights or utility model right applications after the laying open of the applications. JSQC shall not be responsible for confirming whether those parts of the standard infringe upon any of these patents, patent applications after the laying open of the applications, utility model rights or utility model right applications after the laying open of the applications

Guidelines for TQM－Improve organizational capability－

(Note: This document is an official English translation of JSQC-Std 11-001 written in Japanese)

Introduction

Total Quality Management (TQM) is an effective and efficient systematic activity to acquire organizational capabilities to adapt to constantly changing business environment and to proactively create changes, based on the recognition that it is important to create value by linking needs and seeds (technology, resources, etc.) for an organization to continue to be successful. TQM was fostered in Japan after World War II through the implementation of quality management concepts and methods introduced from the United States and Europe, and is recognized as one of the driving forces that helped Japan recover and succeed in economics. Today, it is spreading all over the world.

TQM has always been presented in new forms through the efforts of Deming Prize-winning companies and others, and there is no uniform model, but rather it has evolved with the changing times through flexible application according to each industry, business type, and organization's circumstances at the time. In other words, if TQM is defined in a particular way, it will be a misfit for individual industries and business categories, or it will already be outdated from the moment it is defined. Therefore, some believe that any attempt to standardize TQM having such characteristics is wrong.

On the other hand, for organizations that have not introduced TQM or have introduced TQM but are still at a low level of maturity, the diversity of TQM makes it difficult to understand, and there are many examples of organizations hesitating to introduce TQM or losing their direction and going astray during its promotion. In addition, there are examples of companies that have emphasized their originality so much that they have fallen into a highly indigenous TQM style that is far away from the fundamentals, which not only fails to produce results, but also causes harm. In addition, there are many cases in which TQM has been misunderstood as an activity only for manufacturing, or as a bottom-up activity like QC circle activities, or as a quality assurance activity in a narrow sense that only deals with customer complaints, or as a form-oriented activity that cannot adapt to changes of the times, or as an expanded interpretation that TQM is a panacea, which has hindered the spread of TQM.

This standard summarizes the fundamentals of TQM as a guideline to help organizations that are planning to introduce TQM, have begun to introduce TQM, or want to restructure TQM to create a foundation for TQM that is appropriate to their actual circumstances. Here, we do not consider an organization in the narrow sense of a single company, but rather as an ecosystem that includes partners, group companies, and in some cases, customers, all of which are involved in the linkage and circulation of value.

Although there are many different ways of thinking about TQM at present, this standard is based on ideas that have been cultivated and proven effective through practices such as the Deming Application Prize. Clause 4 outlines the fundamentals of TQM that support the specific theories from Clause 5 onwards. Clause 5 describes the conditions that must be met by the business objectives and strategies to be pursued by the organization, which are the premises of TQM, and the points to be considered in their formulation. Clause 6 clarifies the organizational capabilities required to achieve the business objectives and strategies, and describes the promotion of TQM to acquire these capabilities. Clause 7 describes how to diagnose and review the effectiveness of business objectives and strategies based on the results of TQM practices, as well as how to review business objectives and strategies themselves. In addition, Clause 8 describes the direction for sustainable development of TQM suitable for own organization after the foundation of TQM is established.

As described in Clause 4, JSQC has already established many standards for TQM activity elements. This standard encompasses the entirety of these standards and clarifies their position and relationship. For details of each activity element of TQM, refer to the concerned standard, and for the overall promotion of TQM, it is recommended to use this standard.

1. Scope

This standard specifies the recommendations of JSQC regarding the promotion of TQM.

2. Normative references

The following standards, when cited in this standard, form part of the provisions of this standard. This cited standard constitutes the standard only for the edition of the year stated, and does not apply to subsequent editions or amendments.

JSQC-Std 00-001:2018 Quality Management Terms
JSQC-Std 21-001:2015 Guidelines for Quality Assurance by Process
JSQC-Std 22-001:2019 Guidelines for New Products and Services Development Management
JSQC-Std 31-001:2015 Guidelines for Small Group Improvement Activities
JSQC-Std 32-001:2013 Guidelines for Daily Management
JSQC-Std 33-001:2016 Guidelines for Policy Management
JSQC-Std 41-001:2017 Guidelines for Quality Management Education and Training

3. Terms and definitions

The terms and definitions specified in JSQC-Std 00-001 and the following terms and definitions apply to this standard. The following terms and definitions include those quoted and reprinted from other standards.

3.1 TQM (Total Quality Management)

Activities with quality at the core, whose aim is a long-term success of an organization through provision of products and services that meet the needs of customers and society as well as the satisfaction of the people working in that organization, for maintaining, improving, and innovating processes and systems using diverse methods by all the departments and all the layer of the organization, to achieve effective and efficient organizational management matching the changes in business environment.

（Same as JSQC-Std 00-001:2018）

3.2 Quality management

Activities to effectively and efficiently achieve quality of products and services that meet the needs of customers and society.

Note 1 Quality management is the activities to achieve quality ensurance effectively and efficiently.

Note 2 Customer and social needs are wide-ranged such as functions, performance, safety, reliability, operability, environmental conservation, and economic efficiency of products and services.

Note 3 The quality of products/services takes into account users, prospective customers, target markets, and society.

（Same as JSQC-Std 00-001:2018）

3.3 Mission, philosophy and vision

Those that define the raison d'être of an organization and the fundamental ideas underlying its business, as well as the image it wishes to achieve over the long term.

Note 1 Sometimes generally referred to as company creed, company motto, founding spirit, slogan, credo, etc.

Note 2 Mission, philosophy, and vision may be used for different purposes, but are treated as one in this standard.

3.4 Business objectives and strategies

Organization's medium-term goals defined based on its mission, philosophy, vision, etc., and the means to achieve them.

3.5 Relationship related to value linkage and cycle

Relationship between the organization, its customers, and society as viewed through the value chain.

Note 1 Value here refers to the benefits arising from the fulfillment of needs, including compensation.

Note 2 The relationship here refers to the involvement among stakeholders that is not limited to benefits alone.

3.6 Ecosystem

A structure that efficiently generates profit through the linkage and circulation of values, and a system in which multiple organizations, people, and things are organically linked and widely coexist and co-prosper in a circular manner.

Note Ecosystem is a concept proposed with reference to ecosystems that maintain good relationship in nature.

3.7 Value creation process

The general process of creating value by linking needs and seeds (technology, resources, etc.).

Note A process here is a series of interrelated or interacting activities that transform inputs into outputs.

3.8 Organizational capability

The ability of an organization or department to perform specific activities.

Note 1 Specific activities include function-specific activities such as business planning and operation, planning, design and development, procurement, manufacturing, logistics, sales, service, personnel, finance etc., as well as cross-functional management activities such as quality management, cost management, quantity and delivery management, environmental management, and safety management.

Note 2 Organizational capability is demonstrated through activities.

（Same as JSQC-Std 41-001:2017）

3.9 TQM activity elements

Organizational actions to be taken with specific objectives and aims in promoting TQM.

Note Typical TQM activity elements include Policy Management, Daily Management, Small Group Improvement Activities, Quality Management Education and Training, New Product and Service Development Management, and Quality Assurance by Process.

3.10 TQM promotion plan

A plan that summarizes the details of implementation for each year, the final results (systems, standards, etc.), responsibilities, and measures and targets (control points, control levels) for evaluating the progress of each implementation item, plotting TQM activity elements on the vertical axis and time (about 3 to 5 years) on the horizontal axis.

4. Fundamentals of TQM

4.1 Business, organizational capabilities and TQM

In simplified terms, a business is a series of activities in which an organization creates customer value by providing products and services that meet the needs of customers and society through innovation and utilization of seeds (technology, resources, etc.) inside and outside the organization for the purpose of achieving its mission, philosophy, and vision, and then makes sales/gains to pay compensation/dividends to employees, partners such as suppliers and distributors, shareholders who have provided funds, and the surplus is reinvested.

In order to achieve sustainable business success, it is necessary to set timely and specific business objectives and strategies in view of changes in the business environment, including changes in the needs of customers and society, as well as changes in the seeds within and outside the organization and review and continuously change products and services, the processes and systems for providing them, the organization's structure and collaborative relationship with customers and partners, etc. This requires acquiring the organizational capabilities to do so from a broader, long-term perspective. The organizational capabilities acquired in this process enable the organization to build a resilient organization that can withstand any change in the business environment.

TQM is a set of activities to realize effective and efficient organizational management suited to changes in the business environment by maintaining, improving, and innovating processes and systems with the participation of all departments and all levels of the organization, using a variety of methods, with quality at the core, with the aim of providing products and services that satisfy the needs of customers and society and the long-term success of the organization through the satisfaction of its employees. In other words, it is a set of systematic activities to acquire organizational capabilities that can adapt to and create changes, based on the recognition that it is important to create value by linking needs and seeds in order for an organization to continue to be successful on a sustainable basis.

The following (A) to (C) are important for an organization to practice TQM.

(A) Under a clear management intent in accordance with the organization’s mission, philosophy, vision, industry, type, scale and business environment, the organization has established proactive customer-oriented business objectives and strategies based on its social responsibility. And the top management exhibits leadership in their formulation.

(B) TQM is being suitably utilized and implemented for the realization of business objectives and strategies mentioned under (A) above.

(C) As a result of (B), along with achieving effect regarding business objectives and strategies of (A) above, organizational capability required for future growth has been secured.

Of these, the mission, philosophy, and vision in (A) define the organization's raison d'etre, the fundamental ideas underlying its business, and the image it wishes to achieve over the long term. In addition, based on these and changes in the business environment, business objectives and strategies define the specific goals to be achieved by the business in the next 3 to 5 years and the means to achieve them (see Clause 5). This includes the core business concept (a model for creating value by linking needs and seeds) in achieving business objectives and strategies.

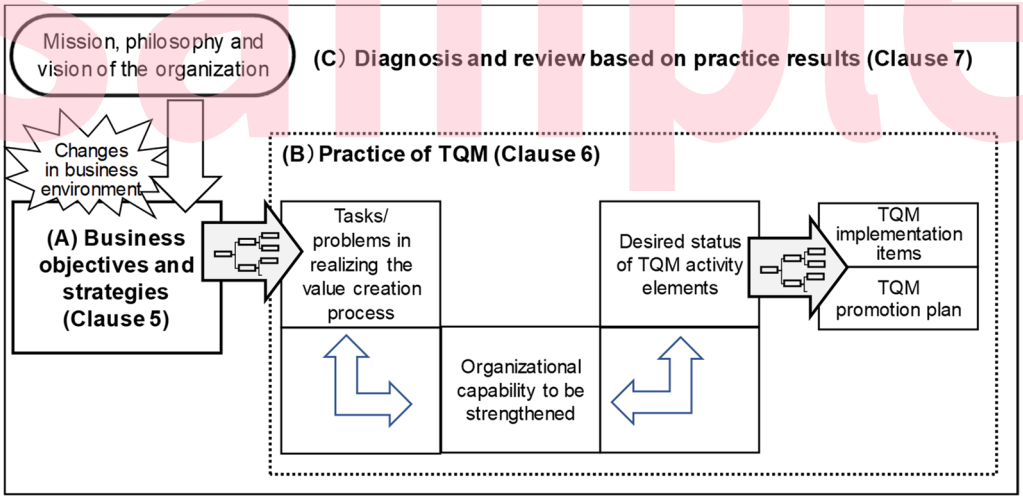
In (B), clarify the business concept in (A) as a process (value creation process), identify tasks and problems to

realize it, and clarify the organizational capabilities that are lacking in achieving and solving those tasks and problems. Then, based on the relationship between the organizational capabilities in question and the TQM activity elements (organizational actions with specific purpose and goals to promote TQM), clarify the desired state of the TQM activity elements, and formulate and implement a TQM promotion plan to achieve it (see Clause 6).

In (C), based on the results of TQM practices in (B), review whether TQM has been effective in meeting the business objectives and strategies defined in (A), and whether these effects are consistent with the organizational capabilities clarified and fostered in (B) and the results of implementing TQM activity elements, so that TQM will be more effective in helping to achieve business objectives and strategies. Furthermore, as a result of these, the organizational capabilities necessary for future development can be acquired (see Clause 7).

The relationship between (A)-(C) is shown schematically in Fig. 4.1.

The overall picture of TQM utilized in (B) is represented by the "Principles" (4.2), "Core activities and Activity elements" (4.3), and "Methods" (4.4), which are described in the following sections.



Note The arrows indicate the relationship between the elements. In many cases, the relationship between business objectives /strategies and tasks/problems in realizing the value creation process, and between TQM activity elements and TQM promotion plans can be deployed in a tree diagram. On the other hand, the relationship between the tasks and problems in realizing the value creation process and the organizational capabilities that need to be strengthened, and between the organizational capabilities that need to be strengthened and the desired state of the TQM activity elements can often be organized in a matrix diagram.

Fig 4.1 Relationship between business, organizational capabilities and TQM

4.2 Principles of TQM

Fig. 4.2 shows the main TQM principles. These can be broadly divided into those that are important when considering objectives, such as “Customer-oriented and society-oriented”, and “Next processes are customers”; those that are important when considering means for achievement, such as “Process-oriented”, “PDCA cycle”, and “Priority approach”; and those that are important when considering organizational management, such as “Total employee involvement” and “Respect for humanity”.

Three of these principles are of particular importance.

(1) Customer-oriented and society-oriented

The principle means that an organization should not operate its business for its own sake, but rather should understand the needs of its customers and society from their respective standpoint, and provide products and services that satisfy these needs. Needs include not only those explicitly stated in requirements, etc., but also those taken for granted in the concerned field (implicit needs) and those unrecognized by customers and society itself (latent needs). Quality is the degree to which the product/service, the process of providing it, the management of the organization, or anything else that is of interest to customers or society meets these needs. To enhance quality creates value for customers and society, and allows the provider to profit and develop sustainably.

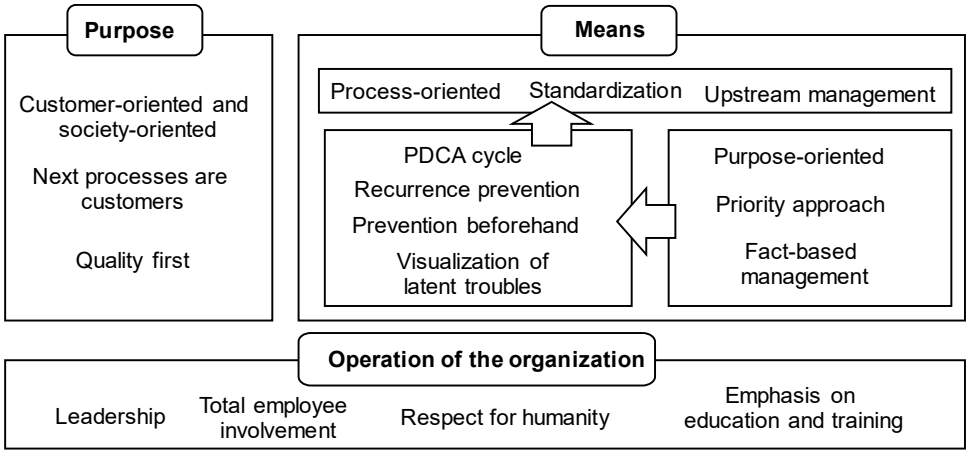
(2) Process-oriented

The principle means that one should not only pursue results, but also focus on the process (procedures and methods) that produces results, and manage and improve this process to achieve the desired results. It is based on a scientific approach that emphasizes the use of laws and their application as demonstrated by empirical procedures such as observation and experimentation.

(3) Total employee involvement

The principle means that quality management must be conducted with the participation of all employees in all departments and at all levels. A principle closely related to total employee involvement is respect for humanity. This is the concept of respecting and valuing humanity (such as the desire for self-actualization, the desire to develop one's own abilities and make use of them) and enabling each individual to fully demonstrate their abilities.

These three principles are closely linked, and synergistic effects can be drawn out by practicing a process-oriented approach with everyone's participation, aiming to be customer-oriented and socially oriented.



Note 1 Principles related to means can be further divided into

i) Principles that indicate the basic ideas when considering means, such as process-oriented and standardization,

ii) Principles that indicate concrete procedures when considering means, such as PDCA cycle and the identification of potential problems, and

iii) Principles that should be followed when effectively and efficiently implementing PDCA cycle and the identification of potential problems, such as priority approach and fact-based management.

Note 2 In particular, SDCA is used in conjunction with PDCA to emphasize the importance of standardization in Daily Management.

(Source: Standards Committee of the Japan Society for Quality Management (2006) (Ed.):
The Fundamentals of TQM, JUSE Press Ltd., p. 9, Fig. 1.4 with some additions.)

Fig. 4.2 Principles of TQM

4.3 Core activities in TQM and TQM activity elements

4.3.1 Core activities in TQM

The core activities in TQM are process and system maintenance-plus-enhancement, improvement, and innovation.

(1) Maintenance-plus-enhancement

Activities in which objectives are set in the current situation or as an extension of it, and it is ensured that there is no deviation from the objectives, and even if there is deviation, situation is restored quickly and/or better results than the current situation can be maintained.

(2) Improvement

Activities in which objectives are set at a higher level than the current situation, problems or tasks are identified, and problem solving and task achieving are repeated.

(3) Innovation

Activities that produce discontinuous changes in processes and systems by introducing and utilizing new know-how generated outside the organization or in other departments within the organization, whereas maintenance-plus-enhancement and improvement are based on the enhancement of know-how through the operation and learning of processes and systems within the organization.

It is important to balance maintenance-plus-enhancement, improvement and innovation according to the purpose. Maintenance-plus-enhancement alone cannot adapt to the changing needs of customers and society, nor can it bring out the potential of processes and systems. On the other hand, improvement and innovation alone do not sustain results. It is important that tasks and problems that are difficult to achieve and solve through maintenance-plus-enhancement become inputs for improvement and innovation, and that the business-related know-how gained through improvement and innovation become inputs for maintenance and improvement and are put to use. (See Fig. 4.3)

Another important activity in TQM is value creation and quality assurance, which are activities to ensure, confirm, and demonstrate that the needs of customers and society are met.

"To ensure" here means understanding the needs of customers and society, planning and designing products and services that meet those needs based on the seeds (technologies, resources, etc.), and establishing a process to provide these products and services. Further, "to confirm" means continuously evaluating and understanding whether the needs of customers and society are being met and, if not, taking prompt emergency actions and actions to prevent recurrence. Furthermore, "to demonstrate" means clearly stating what needs will be met as a promise to customers and society, showing evidence that these needs are being met, and providing a sense of trust and security.

Maintenance-plus-enhancement, improvement and innovation are closely related to the principles of "process-oriented" and "PDCA cycle" described in 4.2, while value creation and quality assurance are closely related to the principles of "customer-oriented and society-oriented." If maintenance-plus-enhancement, improvement, and innovation are actively conducted in the organization toward value creation and quality assurance, an organization with the ability to adapt to changes in needs and seeds and to produce the necessary changes can be created.

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