

BUREAU OF INDIAN STANDARDS

Draft Indian Standard

**Quality management —
Guidance for quality tools and their application**

(ICS Number 03.120.10)

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NATIONAL FOREWORD

(Formal clauses to be added later on).

The text of ISO Standard is under ‘DRAFT INTERNATIONAL STANDARD’ (DIS) stage of ISO. It has been approved for WC. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.

In this adopted standard, references appear to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards which are to be substituted in their respective places are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 9000, Quality management systems — Fundamentals and vocabulary	IS/ISO 9000 : 2015, Quality management systems - Fundamentals and vocabulary (Fourth Revision)	Identical under single numbering
ISO 9001, Quality management systems — Requirements	IS/ISO 9001 : 2015, Quality management systems - Requirements (Fourth Revision)	Identical under single numbering

Annexes A, B and C for information only.

Note: The technical content of the document is not available on BIS Website. For details, please refer the corresponding ISO 10009: XXXX or kindly contact:

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Introduction

Organisations that maintain a quality management system want it to deliver value and implementing a quality management system should be a strategic decision for an organization.

Depending on the organisation's area of activity, value can be measured in metrics such as:

- Reduction in complaints
- Reduction in waste
- Improved turn-around times
- Improved delivery times
- Improved responsiveness
- Better staff retention
- Greater confidence in regulatory compliance
- Increase in sales and profitability

It is therefore important to any organisation not only to have an effective quality management system but one that may be seen through internal and external metrics to be a system with associated improving and stable metrics.

Most organisations are already using quality tools. Many areas of manufacturing already use statistical quality tools for process control and early warnings of when these processes become less stable. This standard is intended to be a companion standard to ISO 10017: Quality Systems: Use of Statistics. However, ISO 10009 also covers some simple statistical techniques that are not covered in detail in 10017.

In this document, the term quality tool is defined and it is essentially synonymous with a quality technique. The simplest quality tools are encountered at school so many are well known before completing formal education. Other quality tools are used by certain industries, the public sector or in specific cultural contexts. This standard aims to catalogue quality tools in general use somewhere in the world.

No proprietary quality tools have been included and all tools are used by more than one organisation. This standard is not promoting any novel quality tools which have not been accepted by the wider quality community.

The standard aims to familiarise quality practitioners with what could be called "the tool-box" of quality tools. It is intended as a reference on quality tools which may be used in a number of contexts. Some quality tools are the subject of commercially available training and certification. The aim of this standard is not to explain in detail how each quality tool works; this knowledge may be gained from various publications and training courses (references at the end of the standard may assist). One of the key concepts is the appropriate use of quality tools; this standard aims to enable users to better select quality tools that are suited for the task that they have in mind. Some of these tools may also be appropriate for use in other contexts and the reader is encouraged to consider their wider application.

Scope

This document identifies tools that may be used in a quality management system to:

- a) Characterize a process or a variable
- b) Facilitate problem solving
- c) Highlight areas for improvement
- d) Improve effectiveness

Guidance on their selection and application is provided with the aim of providing a resource to practitioners and promoting the appropriate use of quality tools.