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BS ISO 10004:2012

BSI Standards Publication

Quality management — Customer satisfaction — Guidelines for monitoring and measuring

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National foreword

This British Standard is the UK implementation of ISO 10004:2012.
It supersedes DD ISO/TS 10004:2010, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee QS/1, Quality management and quality assurance procedures.

A list of organizations represented on this committee can be obtained on request to its secretary.

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INTERNATIONAL STANDARD

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First edition
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Quality management — Customer satisfaction — Guidelines for monitoring and measuring

Management de la qualité — Satisfaction du client — Lignes directrices relatives à la surveillance et au mesurage

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 10004 was prepared by Technical Committee ISO/TC 176, *Quality management and quality assurance*, Subcommittee SC 3, *Supporting technologies*.

This first edition of ISO 10004 cancels and replaces ISO/TS 10004:2010, which has been technically revised.

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Introduction

0.1 General

One of the key elements of organizational success is the customer's satisfaction with the organization and its products. Therefore, it is necessary to monitor and measure customer satisfaction.

The information obtained from monitoring and measuring customer satisfaction can help identify opportunities for improvement of the organization's strategies, products, processes and characteristics that are valued by customers, and serve the organization's objectives. Such improvements can strengthen customer confidence and result in commercial and other benefits.

This International Standard provides guidance to the organization on establishing effective processes for monitoring and measuring customer satisfaction.

0.2 Relationship with ISO 9001:2008

This International Standard is compatible with ISO 9001:2008, whose objectives it supports by providing guidance on monitoring and measuring customer satisfaction. This International Standard can help address specific clauses in ISO 9001:2008 related to customer satisfaction, namely those listed below.

a) ISO 9001:2008, 5.2, on customer focus: "Top management shall ensure that customer requirements are determined and are met with the aim of enhancing customer satisfaction."

b) ISO 9001:2008, 6.1, b), on resource management: "The organization shall determine and provide the resources needed (...) to enhance customer satisfaction by meeting customer requirements."

c) ISO 9001:2008, 7.2.3 c), on customer communication: "The organization shall determine and implement effective arrangements for communicating with customers in relation to (...) c) customer feedback, including customer complaints."

d) ISO 9001:2008, 8.2.1, on customer satisfaction: "As one of the measurements of the performance of the quality management system, the organization shall monitor information relating to customer perception as to whether the organization has met customer requirements. The methods for obtaining and using this information shall be determined."

e) ISO 9001:2008, 8.4, on analysis of data: "The organization shall determine, collect and analyse appropriate data to demonstrate the suitability and effectiveness of the quality management system and to evaluate where continual improvement of the effectiveness of the quality management system can be made. This shall include data generated as a result of monitoring and measurement and from other relevant sources. The analysis of data shall provide information relating to (...) customer satisfaction (...)."

This International Standard can be used independently of ISO 9001:2008.

0.3 Relationship with ISO 9004:2009

This International Standard is also compatible with ISO 9004:2009, which provides guidance on managing for the sustained success of an organization. This International Standard supplements the following guidance given in:

— ISO 9004:2009, Clause B.2, on customer focus, and

— ISO 9004:2009, 8.3.1 and 8.3.2, on determining needs, expectations and satisfaction of customers.

0.4 Relationship with ISO 10001, ISO 10002 and ISO 10003

This International Standard is compatible with ISO 10001, ISO 10002 and ISO 10003. These four International Standards can be used either independently or in conjunction with each other. When used together, ISO 10001, ISO 10002, ISO 10003 and this International Standard can be part of a broader

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and integrated framework for enhanced customer satisfaction through codes of conduct, complaints handling, dispute resolution and monitoring and measurement of customer satisfaction (see Annex F).

ISO 10001 contains guidance on codes of conduct for organizations related to customer satisfaction. Such codes of conduct can decrease the probability of problems arising and can eliminate causes of complaints and disputes which can decrease customer satisfaction.

ISO 10001 and this International Standard can be used together. Guidelines given in this International Standard can support the establishment and implementation of codes of conduct. For example, the processes described in this International Standard can assist the organization to monitor and measure customer satisfaction with these codes of conduct (see ISO 10001:2007, 8.3). Likewise, the codes of conduct can assist the organization in defining and implementing processes for monitoring and measuring customer satisfaction. For example, an organization can establish a code of conduct with respect to the confidentiality of customer information in monitoring and measuring customer satisfaction.

ISO 10002 contains guidance on the internal handling of product-related complaints. This guidance can help to preserve customer satisfaction and loyalty by resolving complaints effectively and efficiently.

ISO 10002 and this International Standard can be used together. Guidelines given in this International Standard can support the establishment and implementation of a complaints-handling process. For example, the processes described in this International Standard can assist the organization in monitoring and measuring customer satisfaction with the complaints-handling process (see ISO 10002:2004, 8.3). Likewise, information from a complaints-handling process can be used in monitoring and measuring customer satisfaction. For example, the frequency and type of complaints can be an indirect indicator of customer satisfaction (see 7.3.2).

ISO 10003 contains guidance on the resolution of disputes regarding product-related complaints that could not be satisfactorily resolved internally. ISO 10003 can help to minimize customer dissatisfaction stemming from unresolved complaints.

ISO 10003 and this International Standard can be used together. Guidelines given in this International Standard can support the establishment and implementation of a dispute resolution process. For example, the processes described in this International Standard can assist the organization in monitoring and measuring customer satisfaction with the dispute resolution process (see ISO 10003:2007, 8.3.2). Likewise, information from a dispute resolution process can be used in monitoring and measuring customer satisfaction. For example, the frequency and nature of disputes can be an indirect indicator of customer satisfaction (see 7.3.2). Collectively, ISO 10001, ISO 10002 and ISO 10003 provide guidance which can help to minimize customer dissatisfaction and enhance customer satisfaction. This International Standard complements ISO 10001, ISO 10002 and ISO 10003 by providing guidance on the monitoring and measuring of customer satisfaction. The information gained can guide the organization to take actions which can help to sustain or enhance customer satisfaction.

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INTERNATIONAL STANDARD ISO 10004:2012(E)

Quality management — Customer satisfaction — Guidelines for monitoring and measuring

1 Scope

This International Standard provides guidance in defining and implementing processes to monitor and measure customer satisfaction.

This International Standard is intended for use by organizations regardless of type, size or product provided. The focus of this International Standard is on customers external to the organization.

2 Normative references

The following referenced documents are indispensable for the application of this document: For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 9000:2005, *Quality management systems — Fundamentals and vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 9000:2005 and the following apply.

3.1
product
result of a process

NOTE 1 Product can be a service, software, hardware or processed material.

NOTE 2 Adapted from ISO 9000:2005, definition 3.4.2, whose original three notes have been condensed into Note 1.

3.2
customer
organization or person that receives a product

NOTE 1 Customers might include other interested parties who might be affected by the products provided by the organization and who might influence the success of the organization.

NOTE 2 While a customer can be internal or external to the organization, the focus of this International Standard is on the external customer.

NOTE 3 Adapted from ISO 9000:2005, definition 3.3.5, whose original note has been expanded into Notes 1 and 2.

EXAMPLE Consumer, client, end-user, retailer, beneficiary, purchaser.

3.3
customer satisfaction
customer's perception of the degree to which their expectations have been fulfilled

NOTE The definition of customer satisfaction differs from that in ISO 9000:2005, in that the provisions of this International Standard are intended to assist in the identification of customer expectations entirely from the point of view of the customer's vision of the expected product; while the definition in ISO 9000:2005 involves the organization's understanding of the customer's requirements.

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3.4
organization
group of people and facilities with an arrangement of responsibilities, authorities and relationships

NOTE Adapted from ISO 9000:2005, 3.3.1. Notes have been deleted.

EXAMPLE Company, corporation, firm, enterprise, institution, charity, sole trader, association, government agency, non- governmental organization or combination thereof.

3.5
complaint
expression of dissatisfaction made to an organization (3.4), related to its products, or the complaints-handling process itself, where a response or resolution is explicitly or implicitly expected

[ISO 10002:2004, definition 3.2]

NOTE Complaints can be made in relation to the processes for monitoring and measuring customer satisfaction (3.3).

4 Concept and guiding principles

4.1 General

The concept of customer satisfaction outlined in 4.2, and the guiding principles set out in 4.3, provide the basis for effective and efficient processes for monitoring and measuring customer satisfaction.

4.2 Concept of customer satisfaction

Customer satisfaction is determined by the gap between the customer's expectations and the customer's perception of the product as delivered by the organization, and of aspects related to the organization itself.

To achieve customer satisfaction, the organization should first understand the customer's expectations. These expectations might be explicit or implicit, or not fully articulated.

Customer expectations, as understood by the organization, form the primary basis of the product that is subsequently planned and delivered.

The extent to which the delivered product and other organizational aspects are perceived by the customer to meet or exceed expectations determines the degree of customer satisfaction.

It is important to make a distinction between the organization's view of the quality of the delivered product and the customer's perception of the delivered product and of other organizational aspects, because it is the latter that governs the customer's satisfaction. The relationship between the organization's and the customer's views on quality is further described by the conceptual model of customer satisfaction, as presented in Annex A.

Since customer satisfaction is subject to change, organizations should establish processes to monitor and measure customer satisfaction on a regular basis.

4.3 Guiding principles

4.3.1 Comprehension

The organization should clearly and fully understand the customer's expectations, and the customer's perception of how well those expectations are met.

4.3.2 Integrity

The organization should ensure the relevance, correctness and completeness of data pertinent to customer satisfaction.

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4.3.3 Relevance

The information derived from customer satisfaction data should be meaningful and useful.

4.3.4 Timeliness

Gathering and dissemination of information should be done at the appropriate time, consistent with the organization's objectives.

4.3.5 Communication

The organization should ensure that customer satisfaction information is communicated to interested parties, as appropriate.

4.3.6 Continuity

The organization should ensure that monitoring of customer satisfaction is ongoing and continuous.

4.3.7 Responsiveness

Customer satisfaction information should be used as a basis for action to support the achievement of the organization's objectives

4.3.8 Transparency

Relevant customer satisfaction information and resulting actions should be shared with customers.

4.3.9 Accountability

The organization should establish and maintain accountability for the decisions and actions taken with respect to monitoring and measuring customer satisfaction.

4.3.10 Commitment

The organization should be actively committed to defining and implementing processes to monitor and measure customer satisfaction.

5 Framework for monitoring and measuring customer satisfaction

The organization should establish a systematic approach to monitoring and measuring customer satisfaction. This approach should be supported by an organizational framework to enable the planning, operation, maintenance and improvement of processes for monitoring and measuring customer satisfaction.

Planning includes determination of the methods of implementation, and the allocation of necessary resources (see Clause 6).

Operation includes identifying customer expectations, gathering and analysing customer satisfaction data, providing feedback for improvement and monitoring of customer satisfaction (see Clause 7).

Maintenance and improvement includes the review, evaluation and continual improvement of processes for monitoring and measuring customer satisfaction (see Clause 8).

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6 Planning

6.1 Defining the purpose and objectives

As a first step, the organization should clearly define the purpose and objectives of monitoring and measuring customer satisfaction, which might, for example, include the following:

— to evaluate customer response to existing, new or re-designed products;

— to obtain information on specific aspects, such as supporting processes, personnel or organization behaviour;

— to investigate reasons for customer complaints;

— to investigate reasons for loss of customers or market share;

— to monitor trends in customer satisfaction;

— to compare customer satisfaction in relation to other organizations.

The purpose and objectives influence what, when, how and from whom the data are gathered. They also influence how the data are analysed and how the information is ultimately to be used.

The objectives of monitoring and measuring customer satisfaction should be defined in a manner such that their fulfilment can be measured using performance indicators as specified by the organization.

6.2 Determining the scope and frequency

Based on the purpose and objectives, the organization should determine the scope of the planned measurement, in terms of both the type of data that is sought, and from where it is to be obtained.

The type of information gathered can range from data regarding a specific characteristic, to assessment of overall satisfaction. Likewise, the scope of assessment depends on the type of segmentation, such as:

— by customer,

— by region,

— by time period

— by market, or

— by product.

The organization should also determine the frequency of data gathering, which can be on a regular basis, on an occasional basis, or both, as dictated by business needs or specific events (see 7.3).

6.3 Determining implementation methods and responsibilities

Some information regarding customer satisfaction might be obtained indirectly from the organization's internal processes (e.g. customer complaints handling) or from external sources (e.g. reports in the media). Usually, the organization needs to supplement such information with data obtained directly from customers.

The organization should determine how customer satisfaction information is to be obtained, and who is responsible for that activity. The organization should also determine to whom the information is to be directed for appropriate action.

The organization should plan to monitor the processes for obtaining and using customer satisfaction information, as well as the results and effectiveness of these processes.

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6.4 Allocating resources

The organization should determine and provide the necessary competent human and other resources for planning, monitoring and measuring customer satisfaction.

7 Operation

7.1 General

To monitor and measure customer satisfaction, the organization should:

— identify customer expectations;

— gather customer satisfaction data;

— analyse customer satisfaction data;

— communicate customer satisfaction information;

— monitor customer satisfaction on-going.

These activities and their relationship are depicted in Figure 1, and described in 7.2 to 7.6

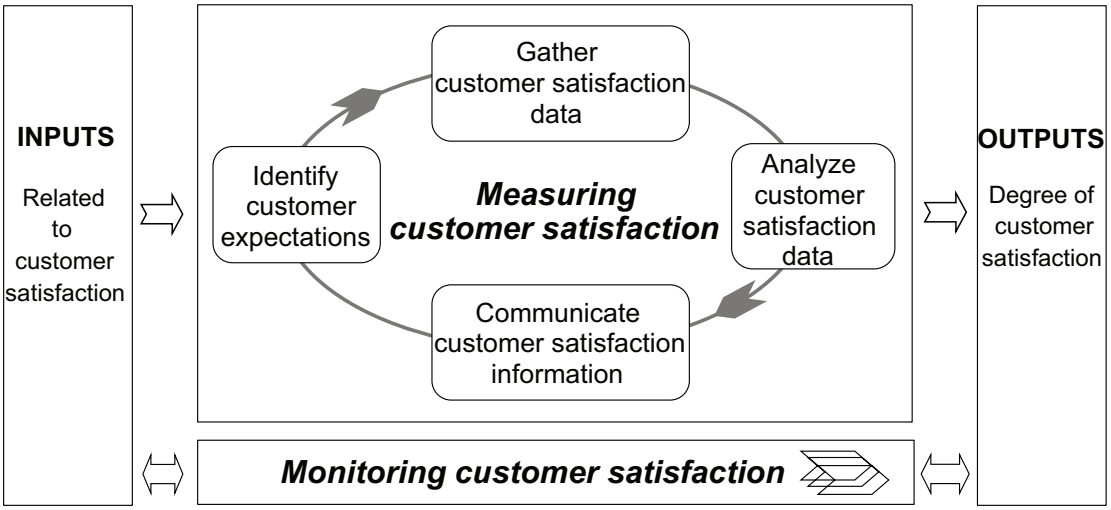

Figure 1 — Monitoring and measuring customer satisfaction

7.2 Identifying customer expectations

7.2.1 Identifying the customers

The organization should identify the customers, both current and potential, whose expectations it intends to determine.

Once the "customer" group has been defined, the organization should identify the individual customers whose expectations are to be determined. For example, in the consumer goods sector, such individuals might be regular customers, or they might be occasional customers. When the customer is an enterprise, one or more persons in that enterprise (e.g. from purchasing, project management or production) should be selected.

Further examples of various types of customers and considerations are provided in Clause B.2.

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7.2.2 Determining customer expectations

When determining customer expectations (see Figure A.1), the organization should consider the following:

— stated customer requirements;

— implied customer requirements;

— statutory and regulatory requirements;

— other customer desires ("wish list").

It is important to recognize that a customer might not always explicitly specify all aspects of the product. Items that are presupposed might not be specified. Some aspects might be overlooked, or may not be known to the customer.

As outlined in the conceptual model (see Annex A), it is crucial that the customer's expectations are clearly and completely understood. How well these expectations are met will influence the customer's satisfaction. Examples of various aspects to consider in order to better understand customer expectations are provided in Clause B.3.

The relationship between customer expectations and customer satisfaction is further discussed in Clause B.4.

NOTE Information regarding customer expectations can also be used in preparing codes of conduct for customer satisfaction (see ISO 10001:2007, Clause 6).

7.3 Gathering customer satisfaction data

7.3.1 Identifying and selecting characteristics related to customer satisfaction

The organization should identify the characteristics of the product, of its delivery and of the organization, which have a significant effect on customer satisfaction. For convenience, the characteristics can be grouped into categories such as:

a) product characteristics;

   EXAMPLE Performance (quality, dependability), features, aesthetics, safety, support (maintenance, disposal, training), price, perceived value, warranty, environmental impact.

b) delivery characteristics;

   EXAMPLE On-time delivery, completeness of order, response time, operating information.

c) organizational characteristics.

   EXAMPLE Personnel characteristics (courtesy, competence, communication), billing process, complaints handling, security, organizational behaviour (business ethics, social responsibility), image in society, transparency.

The organization should rank the selected characteristics to reflect their relative importance, as perceived by the customer. If necessary, a survey should be carried out with a sub-set of customers to determine or verify their perception of relative importance of characteristics.

7.3.2 Indirect indicators of customer satisfaction

The organization should examine existing sources of information for data that reflect characteristics related to customer satisfaction, e.g.

— frequency or trend in customer complaints and disputes (see ISO 10002:2004, Clause 8, and ISO 10003), calls for assistance, or customer compliments;

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— frequency or trend in product returns, product repair or other indicators of product performance or customer acceptance, e.g. installation or field inspection reports;

— data obtained through communication with customers, e.g. by marketing, customer service personnel;

— reports from supplier surveys conducted by customer organizations, which can reveal how the organization is perceived in relation to other organizations;

— reports from consumer groups that might reveal how the organization and its products are perceived by consumers and users;

— media reports which might reveal how the organization or its products are perceived, and which might themselves also influence customer perceptions;

— sector/industry studies, e.g. involving a comparative assessment of characteristics of the organization's product;

— regulatory agency reports or publications;

— comments and discussion in social media.

Such data can provide insight into the strengths and weaknesses of the product and related organization processes (e.g. product support, complaints handling and customer communication). The analysis of such data can help to shape indicators of customer satisfaction. It can also help to confirm or supplement customer satisfaction data gained directly from the customer.

7.3.3 Direct measures of customer satisfaction

7.3.3.1 General

While there might be indirect indicators of satisfaction (see 7.3.2), it is usually necessary to gather customer satisfaction data directly from customers. The method(s) used to gather customer satisfaction data depend on various factors, e.g.

— the type, number and geographical or cultural distribution of customers;

— the length and frequency of customer interaction;

— the nature of the product provided by the organization;

— the purpose and cost of the assessment method.

The organization should consider the practical aspects described in 7.3.3.2 to 7.3.3.4 when planning the approach and methods to use for gathering customer satisfaction data.

7.3.3.2 Selecting the method for gathering customer satisfaction data

The organization should select a method for gathering data that is appropriate to the need and the type of data that is to be collected.

The method most commonly used for gathering such data is a survey, which can be either qualitative, or quantitative, or both.

Qualitative surveys are those that are typically designed to reveal characteristics of the product, delivery or the organization that are relevant to customer satisfaction. They are typically undertaken to understand or explore individual perceptions and reactions, and to uncover ideas and issues. They are relatively flexible in application, but can be subjective.

Quantitative surveys are those that are designed to measure the degree of customer satisfaction. They are typically conducted to collect aggregate data, using fixed questions or criteria. They are used for determining status, benchmarking, or tracking changes over time.

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Brief descriptions of these types of survey methods and a comparison of their relative advantages and limitations are provided in C.2.4.

7.3.3.3 Selecting sample size and method of sampling

The organization should determine the number of customers to be surveyed (i.e. the sample size) and the method of sampling, in order to measure customer satisfaction. The goal is to obtain reliable data at minimum cost. The accuracy of the data gathered is governed by the size of the sample and the way the sample is selected, i.e. the method of sampling.

The sample size can be determined statistically to ensure the precision and confidence levels required in the findings. In addition, the method of sampling used should ensure that the resulting sample represents the population well. Both aspects are further discussed in Clause C.3.

7.3.3.4 Developing the customer satisfaction questions

The product and the characteristics to be surveyed should be clearly defined. In addition, other characteristics can also be surveyed [see 7.3.1, c)]. When developing the questions to be posed, the organization should first determine the broad areas of interest, and then the sub-set of questions within those areas, with sufficient details to provide information about customer perception.

The scale of measurement, which depends upon how questions are worded, should also be clearly defined. Further guidance on defining the questions and consolidating them into a questionnaire is provided in Clause C.4.

7.3.4 Collecting customer satisfaction data

The collection of data should be systematic, detailed and documented. The organization should specify how the data are to be collected. When selecting the method(s) and tool(s) for collecting data, certain aspects should be considered, e.g.

a) customer type and accessibility;

b) timelines for data collection;

c) available technology;

d) available resources (skills and budget);

e) privacy and confidentiality.

When determining the frequency, period or trigger for collecting customer satisfaction data, the organization should consider aspects such as the following:

— the development or launch of a new product;

— the completion of significant project milestones;

— when some relevant change is made in the product, processes or business environment;

— when there is decrease in customer satisfaction, or variability in product sales (by region, or season);

— the monitoring and sustaining of on-going customer relationships;

— customer tolerance to frequency of surveys.

The data collection might be done by the organization itself. This can be economical and, given the organization's knowledge of the product or the customer, it might yield better information. This can also result in a stronger relationship with the customer and a better understanding of customer issues. However, there is a risk that the data might be biased by the relationships of individuals involved in the survey. This risk can be avoided if the data collection is conducted by an independent third party.

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7.4 Analysing customer satisfaction data

7.4.1 General

Once the data related to customer satisfaction has been collected, it should be analysed to provide information, which typically includes the following:

— the degree of customer satisfaction and its trend;

— aspects of the organization's product or processes that might have significant impact on satisfaction;

— relevant information on competitor's or comparable organizations products and processes;

— strengths and primary areas for improvement.

When analysing customer satisfaction data, the organization should consider the activities described in 7.4.2 to 7.4.6. Further guidance on each of these activities is provided in Annex D.

7.4.2 Preparing the data for analysis

The data should be checked for errors, completeness and accuracy, and it should be grouped into defined categories, if necessary.

7.4.3 Determining the method of analysis

The method(s) of analysis should be selected depending on the type of data collected and the objective of the analysis. The various methods for analysing data can be classified as either

a) direct analysis, involving analysis of the customer's responses to specific questions, or

b) indirect analysis, involving the use of various analytical methods to identify potentially influential factors from a body of data.

Typically, both categories of analysis can be used to extract useful information from customer satisfaction data.

7.4.4 Conducting the analysis

The data should be analysed to gain information such as:

— customer satisfaction (overall or by customer category) and trends;

— differences in the degree of satisfaction by customer categories;

— possible causes and their relative effect on customer satisfaction;

— customer loyalty, which is an indicator that the customer is likely to continue to demand the same or other products from the organization.

7.4.5 Validating the analysis

The analysis and its conclusions should be validated, which can be done by various means, e.g.

— segmenting the data to determine possible sources of variability;

— determining the relevance of product characteristics: the characteristics identified as potentially relevant to the customer and their relative importance to the customer (including possible changes in characteristics and the relative importance of the characteristics over time) greatly influence the results of the analysis performed;

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— assessing the consistency of the results, by comparison with other indicators or trends in areas that also reflect customer satisfaction, e.g. product sales and customer complaints.

7.4.6 Reporting results and recommendations

The results of the analysis conducted should be documented and reported, together with possible recommendations to assist the organization in identifying areas for improvement, in order ultimately to enhance customer satisfaction and serve the larger interests or mandate of the organization.

The report should provide a clear and comprehensive indicator of customer satisfaction. In addition to the data collected directly from customers, there might be other characteristics or measures that reflect customer satisfaction, e.g. those cited in 7.3.2.

Key measures of relevant characteristics can be combined into a consolidated value termed the "customer satisfaction index" (CSI). The CSI might, for example, be a weighted average of customer satisfaction survey results and the number of complaints received. The CSI can be a convenient and useful way of measuring and monitoring customer satisfaction over time or space.

The report should also identify the relevant characteristics and components of customer satisfaction, as well as the potential causes of and contributors to customer dissatisfaction.

7.5 Communicating customer satisfaction information

The information gained from the measurement and analysis of customer satisfaction data should be directed to the appropriate functions in the organization, so that steps might be taken to improve the products, processes or strategies, in order to serve the objectives of the organization.

In order to help achieve this, the organization can

— identify or establish the forums and processes to review customer satisfaction information;

— determine what information should be communicated to whom (including customers);

— formulate action plans for improvement;

— review implementation of action plans and outcomes in appropriate forums, e.g. management reviews.

The on-going implementation of such actions can enhance the effectiveness and efficiency of the organization's quality management system.

Customer satisfaction information (both positive and negative) can help guide the organization to address issues related to meeting stated customer requirements. It can also help the organization to understand and address the customer's expectations, or issues related to the customer's perception of the delivered product or the organization, and thereby enhance customer satisfaction.

Generic guidance on some of the ways in which the information might be used is provided in Annex E.

7.6 Monitoring customer satisfaction

7.6.1 General

The organization should establish a process for monitoring customer satisfaction, to ensure the information gathered is relevant and that it is used effectively to support the organization's objectives. Guidance on monitoring activities is provided in 7.6.2 to 7.6.5.

7.6.2 Examining the customers selected and the data gathered

The organization should verify that the customer(s) or customer group selected are aligned to the purpose of data gathering, and that they are complete and correct. The organization should examine the sources of customer satisfaction data, both direct and indirect, for validity and relevance.

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7.6.3 Examining customer satisfaction information

Customer satisfaction information should be monitored by the organization at defined intervals, and by the appropriate level of management. The nature and scope of information monitored is unique to the organization's needs and goals, and might include, for example:

— trends in customer satisfaction data (overall and, for example, by product, region, type of customer);

— comparative or competitor information;

— strengths and weaknesses of the organization's product, processes, practices or personnel;

— challenges or potential opportunities.

7.6.4 Monitoring actions taken in response to customer satisfaction information

The organization should monitor the process by which relevant customer satisfaction information is provided to appropriate functions, in order to take actions intended to increase customer satisfaction.

The organization should also monitor the implementation of actions undertaken, as well as the effect of such actions on customer response related to specific characteristics, or on the overall measure of satisfaction, or support other organization objectives.

For example, if customer feedback is related to "poor delivery", the organization should verify that actions are taken to improve delivery, and that this is reflected in improvement of customer satisfaction in subsequent customer feedback.

7.6.5 Assessing the effectiveness of actions taken

In order to assess the effectiveness of actions taken, the organization should verify that the customer satisfaction information gained is consistent with, or is validated by, other relevant business performance indicators.

For example, if the organization's customer satisfaction measurements show a positive trend, it should typically also be reflected in related business indicators such as increased demand, increased market share, increased repeat customers and increased new customers. If the customer satisfaction measurement trend is not reflected in other business performance indicators, it might point to a limitation or flaw in the customer satisfaction measurement and communication processes.

Alternatively, it might indicate that the measurement of customer satisfaction failed to consider other factors that influence the customer's decision.

8 Maintenance and improvement

The organization should periodically review its processes for monitoring and measuring customer satisfaction, in order to ensure that they are effective and efficient and that they yield information that is current, relevant and useful. Typical actions to consider include the following:

— ensuring that there is a plan, schedule and defined process for monitoring and measuring customer satisfaction;

— reviewing the process of selecting customers and characteristics to ensure they are aligned with business goals and priorities;

— ensuring that the process for capturing customer expectations (implicit and explicit) is current and comprehensive in scope and that it includes verification, where possible with the customer;

— reviewing the indirect indicators of customer satisfaction, including lost customer analysis, to ensure the sources are current, comprehensive and relevant;

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— ensuring that methods and processes for direct measurement of satisfaction reflect changing customer conditions and business goals;

— reviewing the methods of analysis of customer satisfaction data to ensure they are valid and adequate;

— verifying that the various components and their relative weights reflect current business priorities, if the customer satisfaction data are consolidated into an indicator such as CSI;

— periodically reviewing the process for validating customer satisfaction information against internal data or other business indicators;

— verifying that the forum and process for on-going review of customer satisfaction information is appropriate and adequate;

— verifying that the process for communication of customer satisfaction information to relevant functions is operational and effective, e.g. determining if the recipients find the information useful or if the information is utilized;

— identifying impediments and aids to communicating customer satisfaction information in order to promote improvement

NOTE Information from the use of code of conduct for customer satisfaction (see ISO 10001), complaints handling processes (see ISO 10002) and dispute resolution processes (see ISO 10003) can assist in the maintenance and improvement of processes for monitoring and measuring customer satisfaction.

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Annex A
(normative)

Conceptual model of customer satisfaction

A.1 General

This annex provides further information on the conceptual model of customer satisfaction (introduced in Clause 4). It serves as the basis for the guidance provided in this International Standard.

A.2 Conceptual model of customer satisfaction

The relationship between the organization's perspectives and the customer's perspectives regarding product quality is illustrated by the conceptual model in Figure A.1.

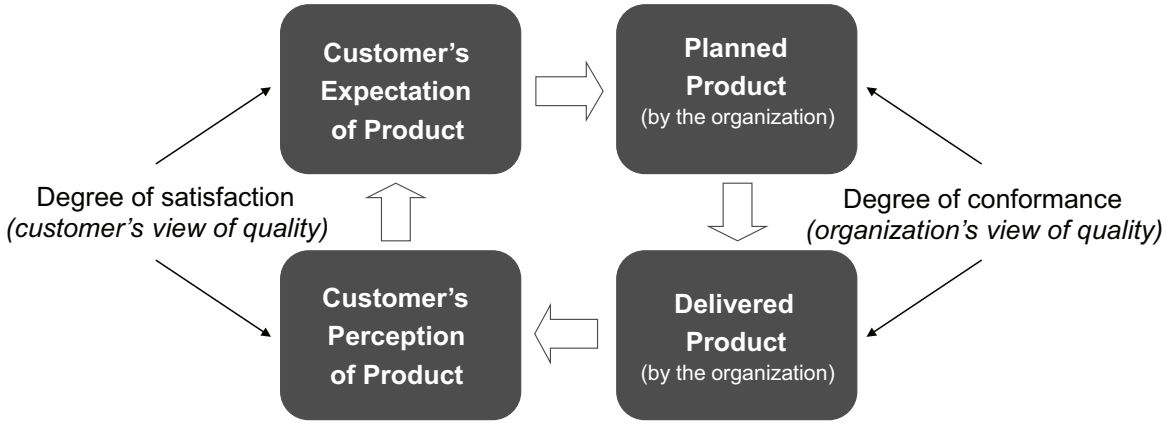

Figure A.1 — Customer satisfaction conceptual model

NOTE Customer's perception of product also includes other organizational aspects

In this model, the customer's expectation of product characterizes the product the customer would like to receive. The customer's expectations are mainly shaped by the customer's experience, the information available and the customer's needs. These expectations might be reflected in defined requirements, or they might be assumed and undefined.

The planned product characterizes the product that the organization intends to deliver. It is generally a compromise between the organization's understanding of the customer's expectations, the organization's capabilities, its internal interests and the technical, statutory and regulatory constraints applicable to the organization and the product.

The delivered product characterizes the product that is realized by the organization.

The degree of conformity, which constitutes the organization's view of quality, is the extent to which the delivered product conforms to the planned product.

The customer's perception of product characterizes the product as the customer perceives it. This perception is shaped by the customer's needs, the business environment and alternatives available in the market.

Satisfaction is a judgement, an opinion expressed by the customer. The degree of satisfaction reflects the gap between the customer's vision of the expected product, and the customer's perception of the delivered product including other organizational aspects.

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Therefore, attention should be paid to both dimensions:

a) the internal measures of quality in the realization processes;

b) the external measures of the customer's view of how well the organization has met the customer's expectations.

As illustrated in the conceptual model, in order to improve customer satisfaction, the organization needs to close the gap between quality expected by the customer and the customer's perception of delivered quality. In order to do so, the organization should address each of the stages in the conceptual model cycle, i.e.

— thoroughly understand the customer's expectations when defining the planned product and ensure that the customer is fully informed about the product's features and limitations (this is the area of requirements capture, communication and product design);

— deliver product in conformity with the planned product (this is the area of operational management and process control);

— understand the customer's perception of the delivered product and enhance customer satisfaction through improvements to the product and improved information about the product and its constraints (this is the area of communication, marketing and customer relations).

The organization should consider that customer satisfaction is related not only to product and delivery characteristics, but also to other organizational aspects.

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Annex B
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Identification of customer expectations

B.1 General

This annex provides further information and guidance on identifying customer expectations, as outlined in 7.2.

B.2 Identifying the customers

The different types of customers to be surveyed (for determination of customer expectations or customer satisfaction) are listed below, illustrated by examples of customers in different sectors.

a) Current customers are those who have bought the organization's products recently. These might be:

   1) regular customers who buy the organization's products or services;

   EXAMPLES Customers of a bakery; users of public transportation

   2) occasional customers who periodically buy the organization's products.

   EXAMPLES Customers of computer shops or a pharmacy.

b) Direct customers are those who buy products directly from the organization. Such customers usually specify their expectations directly to the organization.

   EXAMPLES Customers of welding equipment or tailoring service

c) Indirect customers are those who buy the organization's products through a dealer or another organization. In such cases, it is important for the organization to understand the expectations of the dealer, as well as the expectations of the target customer.

   EXAMPLES Customers of cell-phones

d) Potential customers are those who might be interested in the organization's products, but have not yet bought the product. The expectations of such customers might be influenced by the image of the organization, because they have no experience in dealing with the organization.

e) Lost customers are those who have previously bought the organization's product, but have ceased to make further purchases. In such cases, the organization should seek to understand the reasons for the change in the customer's preference.

B.3 Aids to understanding customer expectations

It is the organization's responsibility to understand the customer's expectations and to translate them into requirements. The organization can gain a deeper understanding of customer expectations by considering such aspects as the following:

— the role played by the customer in designing and delivering the product (where applicable);

— ensuring that customer feedback is designed to reveal information on the customer's expectations and perceived value of the delivered product;

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— the role of other parties (e.g. a third-party deliverer, or a partner, or both) which might affect the satisfaction of customers;

— how the customer intends to use or deploy the product.

B.4 Customer expectations and customer satisfaction

Customer satisfaction contains the following two separate segments:

a) satisfaction with specific elements or aspects of the delivered product;

b) overall satisfaction of the customer, which is not the sum (or average) of the individual elements and should therefore be evaluated separately.

The customer often specifies certain elements of the product that directly impact satisfaction. However, satisfaction is affected by other characteristics, whose relationship is illustrated in Figure B.1.

NOTE Figure B.1 is based on the Kano model (see Reference [8])

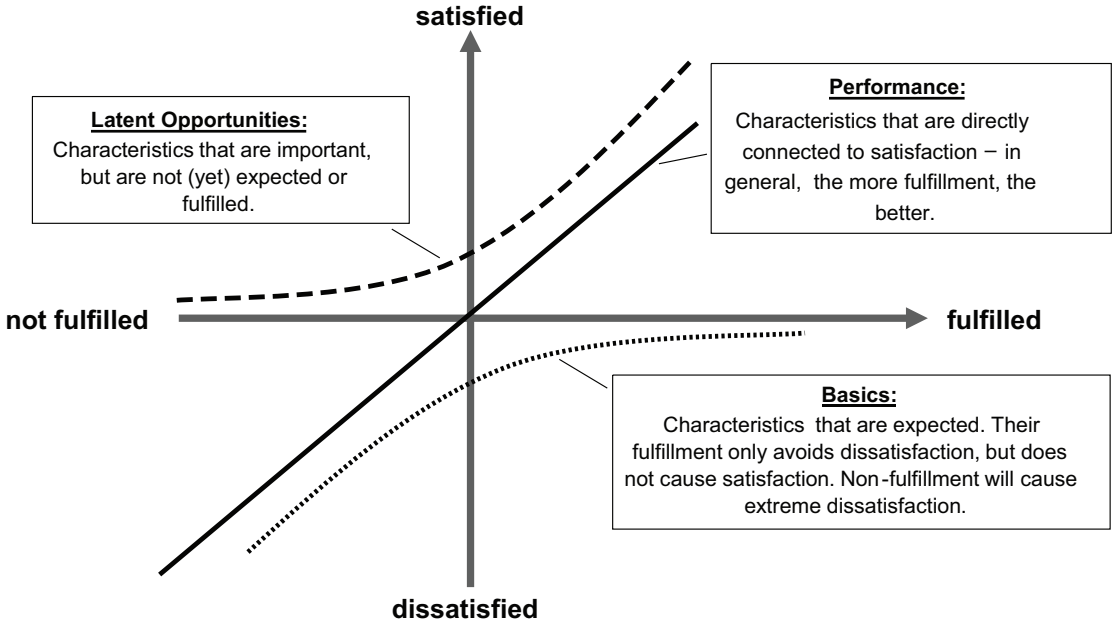

Figure B.1 — Relationship between various characteristics and customer satisfaction

The model in Figure B.1 links the degree of satisfaction with the fulfilment of expectation, from which different categories of influential characteristics emerge, as described below.

— "Basics" are characteristics of the product which the customer expects. Their fulfilment only prevents dissatisfaction. These are usually not expressed explicitly, but they are important.

EXAMPLE The fact that a pizza is served hot; an anti-lock braking system (ABS) in new cars.

— "Performance" are characteristics of the product which directly affect the satisfaction or dissatisfaction of the customer, i.e. the better these are fulfilled, the higher the customer's satisfaction. The customer explicitly looks for these characteristics and attaches a high value to them.

EXAMPLE The load volume of a passenger car; gasoline consumption; the size of a pizza.

— "Latent opportunities" are characteristics of the product which are potentially very important or attractive to customers, but which are not currently articulated or anticipated. These offer future development opportunities and competitive advantage. If such opportunities are not fulfilled, they do not cause dissatisfaction since they were not expected or anticipated, but their fulfilment can

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have very positive effect on satisfaction. However, it is important to note that such characteristics are subject to change and might rapidly become "expected" factors.

EXAMPLE Unexpected free fresh flowers in hotel room; service updates for software; additional product training support.

The characteristics considered above should be regularly monitored because customer expectations continually change. For example, air conditioning in automobiles was a motivation factor when it was first introduced, but is now considered a standard (i.e. basic) feature.

The organization should consider these characteristics when defining the product. By going beyond the customer's stated expectations, the organization can enhance customer satisfaction.

The categories described above can further help the organization to prioritize potential actions for improvement that might result from the analysis of customer data, as described in D.4.3.

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Annex C
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Direct measurement of customer satisfaction

C.1 General

This annex provides further information and guidance on the steps and activities associated with direct measurement of customer satisfaction, as outlined in 7.3.3.

C.2 Customer satisfaction survey methods

C.2.1 General

Survey methods measuring customer satisfaction can be broadly categorized as qualitative or quantitative. The organization should select survey methods that are appropriate to the objectives and to the type of data to be collected.

C.2.2 Qualitative surveys

C.2.2.1 General

The primary methods used for conducting qualitative surveys are in-depth personal interviews and discussion groups.

C.2.2.2 In-depth personal interviews

In-depth personal interviews can provide a wealth of information about factors that influence satisfaction and their relative importance, as well as an insight into customer expectations and perceptions. They can be conducted face-to-face or via telephone.

Face-to-face interviews allow a deeper understanding of customer expectations. Their duration can range from 45 min to 60 min, or longer. The interview might be partially structured, i.e. based on an outline which helps to address certain basic themes. It is important to allow the respondent to answer freely, and to record responses literally.

Telephone interviews are less costly and can provide results faster.

C.2.2.3 Discussion groups

Discussion groups are typically composed of five to ten participants. They provide less information at the individual level, but the confrontation and exchange of opinions in the group can reveal common opinions and perceptions regarding the principal strengths and weaknesses of the organization's product, as well as the relative importance of the factors of satisfaction. Discussion groups are often a fertile source of information and ideas for improvement.

The two approaches cited above might be combined. For example, in-depth interviews might be followed up with discussion groups. The number of interviews or groups depends on the specific purpose of the survey and on the degree of similarity in the types of customers.

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C.2.3 Quantitative surveys

The principal methods of obtaining data through quantitative surveys are the following:

— face-to-face interviews or telephone interviews;

— self-completion questionnaires, which might be sent by post, or distributed along with the product, or provided online (via the Internet).

Personal face-to-face interviews are less popular because of the cost and the difficulty in obtaining interviews with industrial customers. The more frequently used methods are questionnaires administered by telephone and self-completion questionnaires by mail.

C.2.4 Comparison of survey methods

The relative advantages and limitations of some popular survey methods are summarized in Table C.1.

Table C.1 — Comparison of survey methods

Method	Advantages	Limitations
Face to face interview	— Contact and personal attention — Possibility of complex and directed questions — Flexibility in conducting interview — Immediate availability of information — Ability to verify information	— Takes more time, therefore slower — More costly, especially if interviewees are geographically dispersed — Risk of possible distortion introduced by interviewer
Telephone interview	— Lower cost than face-to-face interview — Flexibility — Ability to verify information — Greater speed of execution — Immediate availability of information	— Non-verbal responses cannot be observed (no visual contact) — Risk of distortion by the interviewer — Information limited by relatively short duration of interview (20 min to 25 min) — Customer reluctance to participate
Discussion group	— Lower cost than individual interviews — Partially structured questions — Spontaneous responses resulting from group interaction	— Requires experienced facilitator and related equipment — Outcome depends on participant's familiarity with technique — Difficult if customers are dispersed over wide region
Mail survey	— Low cost — Can reach a widely dispersed geographic group — No distortion by the interviewer — High level of standardization — Relatively easy to manage	— Low response rate — Self-selection of respondents might result in skewed sample that does not reflect the population — Possible difficulty with unclear questions — Lack of behaviour control in answers — Longer time for data collection
Online survey (Internet)	— Low cost — Previously prepared questions — No distortion by interviewer — High level of standardization/comparativeness — Fast execution — Easy evaluation	— Low response rate — Lack of behaviour control in answers — Delay in availability of data — High probability of interruption in case of unclear questions — Assumes customer has the equipment and is familiar with the technology

The advantages and limitations noted in the table assume that data-gathering is done by the organization. If the survey activity is sub-contracted, some of the comments might not apply.

If the survey response rate is low, the organization should consider other ways of supplementing or verifying the information obtained.

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C.3 Sample size and method of sampling

C.3.1 Sample size

The sample size should be statistically determined to ensure a specific level of confidence in the results, within a defined margin of error.

The statistically computed sample size might be larger than the size that the organization can support. In practice, the sample size selected is generally a compromise between the desired accuracy and confidence level and the cost or difficulty of sampling.

In the case of qualitative surveys, the sample size is typically small and is usually based on business judgment.

If the number of customers is relatively small, as in a business-to-business context, the entire population might be surveyed. In such cases, several people from each business might be selected.

C.3.2 Method of sampling

The organization also needs to determine how the sample is to be selected, so that the findings are representative of the customer population. Two widely used sampling methods are described below.

One approach is to select customers through a "random sample", i.e. where the chance of selecting any customer in the population is the same. This might be used when the population is relatively homogenous, or when there is little or no information about the composition of the population.

Another approach is to use "stratified sampling", in which the customers are grouped into various categories (or "strata") in accordance with some criteria, e.g. location, product knowledge or usage, size, attitude (tolerant/complaining), gender/age of customers and potential value to the organization. Proportional samples are then drawn from each specified stratum of the population.

Random sampling is appropriate if the objective is to obtain information for the population as a whole, Stratified sampling is appropriate when the objective is to ensure that information is gathered from each specified stratum of the population.

C.4 Developing the customer satisfaction questionnaire

C.4.1 Defining the questions

C.4.1.1 General

The design and content of the questions depend on the context and goal in each case, but the steps and considerations outlined below are generally applicable.

C.4.1.2 Determining the information needed

The organization should ensure that the information being sought fully addresses all components of the issue being studied. In addition to the traditional characteristics of quality, delivery and price, there might be other characteristics important to the customer, e.g. communication, or the organization's behaviour, or the organization's stance on public issues. Demographics and other relevant characteristics of the target population should also be considered.

C.4.1.3 Selecting the method for gathering information

The method selected by the organization for gathering information is influenced by the type of information being sought, and by logistical considerations in reaching the target population. Logistical considerations could include time, geography, demography, accessibility or other aspects.

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C.4.1.4 Defining the content of individual questions

The organization should formulate the individual questions to solicit the information required, and ensure the questions are clear to the respondent.

It is also good practice to invite customer comments and suggestions when formulating the questions, in order to avoid ambiguous or confusing customer responses.

C.4.1.5 Considering the respondent

The manner of questioning should consider how articulate, how well informed, or how familiar the respondent is with the product and the organization. The organization should minimize the effort required of the respondent, and ensure the search for information is seen to be appropriate and legitimate.

C.4.1.6 Choosing the question wording

The organization should:

— define clearly the issue in terms of who, what, when, where, why and how;

— use ordinary language, i.e. words that match the vocabulary of the respondents;

— avoid ambiguous words (e.g. “occasional” or “professional”);

— avoid language that might provide cues to the respondent or bias the respondent by indicating the organization’s expectations.

C.4.2 Design of questionnaire

C.4.2.1 General

The questionnaire should begin with clear instructions for use. If appropriate, it should provide guidance on how to address quantitative and/or qualitative questions.

When designing the questionnaire, the considerations outlined below can facilitate the gathering of desired information.

C.4.2.2 Choosing the question structure

The organization should organize the questions in logical sequence where possible, and use more than one question to make it easier for the respondent, if the response involves numerous alternatives.

The questions should be asked in logical order, starting with general questions, followed by more specific queries. Likewise, the priority should be on obtaining basic information first, while the relatively difficult, sensitive or complex questions should follow later.

C.4.2.3 Determining form and layout

The questionnaire should be easy for the respondent to follow, e.g. containing logically arranged and numbered questions in each section, with clear directions or instructions. Likewise, the layout should be designed to facilitate the analysis of the data gathered, e.g. using vertically aligned columns for responses.

C.4.2.4 Establishing the measurement scale

The measurement scale depends on the type of information being sought and should be clearly defined. When assessing attitudes, a 5-point scale for categories across a continuum is often used.

EXAMPLE 1 “Strongly agree”; “Agree”; “Neutral”; “Disagree”; “Strongly disagree”.

Where greater discrimination is required, a wider scale, e.g. 10-point, might be used.

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If the need is to compel the respondent to take a position and avoid a neutral response, the questionnaire can make use of an even number of scale points (e.g. 4 or 6).

EXAMPLE 2 "Very satisfied"; "Satisfied"; "Dissatisfied"; "Very dissatisfied".

C.4.2.5 Validating by conducting a "pre-test"

A "pre-test" is a preliminary survey conducted with a small, but representative, set of respondents, in order to assess the strengths and weaknesses of the questionnaire. It is a strongly recommended practice, even though it might not be feasible if the number of respondents is limited.

Where possible, all key aspects of the questionnaire should be tested, using the same methods (e.g. by mail or telephone) as in the actual survey. This should be repeated with each significant revision of the questionnaire.

The pre-test results should be analysed to evaluate the method of survey, its scope and clarity, as well as the reaction of respondents, and the survey should be amended as appropriate. For example, if the questionnaire is found to be too long, it might be divided into shorter questionnaires that take less time.

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Annex D
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Analysis of customer satisfaction data

D.1 General

This annex provides further information and guidance on the analysis of customer satisfaction data, as outlined in 7.4.

D.2 Preparation of data for analysis

D.2.1 Data verification

The organization can verify the collected data, e.g. by checking the following aspects:

— errors or mistakes in the data: these might need to be corrected or removed in order to avoid misleading conclusions;

— completeness of data: it is important to check whether the data obtained from the customer is complete, and to decide on how incomplete responses or non-responses are to be treated;

— accuracy of data: if sampling techniques are used, it is advisable to confirm that the sample size and method are consistent with the confidence level and margin of error that might have been specified.

D.2.2 Data categorization

Where applicable, the data collected should be prepared for analysis by

— coding open-ended responses into categories, and

— coding responses into groups or segments of respondents.

D.3 Determination of methods for analysis

D.3.1 General

The organization can select the methods of analysis to be used, depending on the data collected and the objectives. Guidance on the use of some of the statistical techniques cited below can be found in ISO/TR 10017 and ISO/TR 13425.

D.3.2 Direct analysis

The goal of this analysis is to describe or evaluate the answers of respondents to specific questions. Some commonly used methods of analysis and their objectives are presented in Table D.1.

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Table D.1 — Methods of direct analysis

Method	Objective	Example
Mean	To determine the average response	On a scale of 1 to 10, if the responses are 4, 5, 7, 7 and 9, the arithmetic mean is 6.4. The arithmetic mean is a commonly used measure of average value.
Median	To identify the middle response	If all responses are listed in numerical order, the median is the response in the middle. In the above example, the median is 7. [a]
Range	To determine the interval between the smallest and largest values	The age of participants in a meeting ranges from 20 to 65.
Standard deviation	To determine the degree of variability in the data	Units produced by machine A have greater variability than those produced by machine B
Cross-tabulations	To summarize the distribution of response by some other variable of interest	78 % of London respondents rate overall satisfaction a 9 or a 10, compared to 60 % of Paris respondents.
Pareto analysis	To classify data into categories to assist in prioritizing issues	In terms of product quality, it is observed that the majority of problems (80 %) are due to a few key causes (20 %).
Trend analysis	To identify direction (e.g. improving, deteriorating)	The number of complaints has increased by 5 % each year.
Statistical control charts	To monitor performance and identify statistically significant (i.e. non-random) variation	The error rate in shipments delivered in the last quarter was significantly higher than expected.
Student *t*-test	To test for statistically significant differences between two independent groups	London respondents are significantly more satisfied overall than Paris respondents.
Analysis of variance	To test for statistically significant differences between three or more independent groups	Overall satisfaction differs significantly among London respondents, Paris respondents and Berlin respondents.

[a] For an even number of responses, the median is the average of the two middle responses.

D.3.3 Indirect analysis

The goal of this analysis is to identify factors that have a significant effect on satisfaction, and the relationship between factors. Some commonly used methods of analysis and their objectives are presented in Table D.2.

Table D.2 — Methods of indirect analysis

Method	Objective	Example
Weighted data analysis	To determine the weighted average response	The mean rating for overall satisfaction is 7, considering different kinds of customers and their relative importance.
Correlation	To determine if responses to one question can be used to predict response to another question, and to measure the strength of relationship between variables	Of the various aspects of office operation, satisfaction with "cleanliness" is found to be the best predictor of overall satisfaction, i.e. respondents who are satisfied with cleanliness tend to be satisfied overall, and respondents who are dissatisfied with cleanliness tend to be dissatisfied overall.
Regression	To analyse the relationship between two or more variables, and to measure the effects of one or more variables on a specific response	As satisfaction with cleanliness decreases, overall satisfaction decreases.

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D.4 Conducting analysis

D.4.1 General

The results should be systematically processed in accordance with the type of analysis selected.

D.4.2 Data stratification

Data can be classified into defined strata or categories before conducting the analysis. This can reveal useful information, such as differences in the degree of customer satisfaction, e.g. by analysing repeat customers versus one-time buyers, the gender of the buyer, the age of the buyer, the customer location, or by product characteristics such as price and features.

D.4.3 Prioritization

The organization can determine and focus on those characteristics of the product and other organizational aspects whose improvement would have the more significant effect on satisfaction. Therefore, it is necessary to know the importance the customer attaches to specific characteristics and the effect of those characteristics on overall satisfaction (see also Clause B.4).

— Infrastructure characteristics are those that are accorded a low level of importance by the customer but are necessary for the operation of the business or the product, for example: the plate on which a pizza is served. If they were improved, they would have little impact on overall satisfaction. The organization can consider eliminating or reducing investment in them, to reduce costs or provide greater value to the customer.

— Basic characteristics (see Clause B.4) have relatively effect on satisfaction, once a certain threshold has been achieved. As with infrastructure characteristics, the organization can consider reducing or eliminating investment in basics. However, their performance should not fall below acceptable level, as that might have a negative impact on overall satisfaction.

— Performance characteristics (see Clause B.4) are important to customers and have a significant effect on overall satisfaction. These are obvious areas of focus. Their level of performance should be maintained, or further improved, if it is found to be cost-effective.

— Latent opportunities encompass characteristics that are currently not recognized or deemed important by the customer (see Clause B.4). If improved or fulfilled, such characteristics, could significantly increase overall satisfaction; they offer the highest potential for improvement of satisfaction.

To help prioritize improvement actions, the various characteristics can be conveniently examined by classifying them in four zones, as illustrated in Figure D.1.

Characteristics in zones 3 and 4 offer the highest potential impact on overall satisfaction.

Figure D.1 — Classification of characteristics

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Such classification may require further study of the relationship between specific characteristics and satisfaction. The information can help the organization to prioritize actions that could lead to increased customer satisfaction.

D.5 Validation of analysis

The soundness of conclusions reached through the customer satisfaction analysis process can be validated by checking, amongst other aspects, those listed below.

a) Segmentation: if there is a high degree of variability in the responses, it might be due to variability in the quality of the products delivered and other organizational aspects, as well as different expectations of different customer segments. However, if other measurements indicate that product quality is stable, the variability in response might point to poor customer segmentation.

b) Relevance of the characteristics: one of the goals of analysis is to identify characteristics which can have a significant influence on customer satisfaction, as well as their importance, which would allow the organization to focus its improvement efforts on key characteristics. If the analysis suggests that characteristics with high influence on customer satisfaction might have been overlooked, they might be identified through appropriate research (e.g. focus groups or open questions). The effect of such characteristics on customer satisfaction should be assessed in the next measurement cycle. The individual characteristics that make up overall satisfaction, and their relative importance, can change over time.

c) Consistency of the results: the trend in customer satisfaction measurements should be consistent with other indicators that reflect satisfaction, e.g. repeat purchases or market share. If a positive trend in satisfaction is contradicted by negative trend, for example in sales, it could be for several reasons, e.g.

   — the views of the people surveyed are not shared by those who make the decision to purchase;

   — there has been an increase in the customer's satisfaction with a competitor's or comparable organization's product;

   — the price differential outweighs the improvements in other characteristics.

D.6 Reporting of the analysis

D.6.1 General

In addition to reporting the overall customer satisfaction and its trend, the organization can report the relevant characteristics and causes, as well as the components and contributors of customer satisfaction or dissatisfaction.

D.6.2 Presentation of results

The organization can present the results of the analyses tailored to the needs of the audience. It is good practice to avoid identifying specific customers. When identification is intended, prior approval by the customer interviewed is necessary. It should also be in accordance with applicable requirements, regulations and the organization's privacy policy.

Graphic representations are an effective way of displaying information and can be considered when presenting findings, with supporting data gathered in annexes.

A customer satisfaction index (CSI) can be an effective tool for monitoring, reporting and tracking the performance of the organization or its specific aspects, with regard to customer satisfaction. It can be an element of the organization's performance "dashboard", and also a component of the organization's reward system.

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D.6.3 Formulation of conclusions and recommendations

The results of the analysis of customer satisfaction data can help the organization to identify the primary areas for improvement, as well as the potential impact of such improvement.

When identifying areas for improvement or recommending specific actions, the organization should give priority to addressing the causes for customer dissatisfaction.

The organization should also seek to understand the reasons for the difference between the product quality expected by the customer and the quality of the delivered product as perceived by the customer (as shown in the conceptual model in Figure A.1), and should take steps to reduce that gap.

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Annex E
(normative)

Using customer satisfaction information

E.1 General

This annex provides guidance by means of examples on how customer satisfaction information might be used to guide improvement in the organization's product or processes, as outlined in 7.5.

E.2 Communicating customer satisfaction information

The analysis of customer satisfaction data can provide insight into factors that influence satisfaction. Such information should be reviewed by top management and directed to pertinent functions in the organization for action to be taken that leads to improvement.

The function to which the information should be directed depends on the nature of the information, as illustrated by the examples below.

EXAMPLE 1 The information might be directed to the top management of public or private sector organizations to assist in formulating policies or strategies.

EXAMPLE 2 The information might be directed to the procurement function, if the analysis indicates high customer satisfaction with the quality or functionality of components purchased from specific suppliers.

EXAMPLE 3 The information might be directed to sales, if the data indicates low customer satisfaction with the performance or attitude of staff in direct or indirect contact with customers, indicating the need for better training.

EXAMPLE 4 The information might be directed to the product support function, if the data indicates low customer satisfaction with the speed or quality of response to customer requests for help.

EXAMPLE 5 The information might be communicated to all employees as a step towards organizational improvement.

In the examples above, the information provided to appropriate functions can guide the organization in taking improvement actions and can lead to increased customer satisfaction.

The organization should also consider sharing relevant customer satisfaction information and resulting improvement actions with customers. This can demonstrate the organization's responsiveness to customer issues and encourage customer participation in future measurement of satisfaction.

E.3 Using customer satisfaction information

It can be useful to refer to the conceptual model of customer satisfaction (see Clause 4 and Annex A) in order to ensure that the information gained is fully and effectively utilized.

The information gained may provide insight into reasons for the gap between customer's expectation, and the customer's perception of the delivered product. Logically, the gap could be because of the following.

— The organization failed to understand customer expectations well, and therefore delivered a product below expectations. In this case, the organization should improve the process for understanding expectations, and for fulfilling them.

— The customer had un-realistic expectations, which the organization failed to address and correct. The organization should then inform the customer of the limitations of such expectations and why (via benchmarking, technology briefings, etc.).

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— The customer's perception of the delivered product is marred by insufficient understanding of the product. In such case, the organization should undertake to inform the customer of the full potential of the product (features, performance, etc.). It may also be appropriate to benchmark against relative value of comparable products and organizations.

— The customer's expectations changed, in which case the organization may consider improving the product offering (features, training, support, etc.); or exploring another use or further application of the product.

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Annex F
(informative)

Relationship between this International Standard, ISO 10001, ISO 10002 and ISO 10003

Figure F.1 is a depiction of the organization's processes related to code of conduct, complaint handling, external dispute resolution, and customer satisfaction monitoring and measuring.

Guidance in this International Standard can be used to support the processes addressed in ISO 10001, ISO 10002 and ISO 10003. Outputs from the processes based on ISO 10001, ISO 10002 and ISO 10003 can be used as input for customer satisfaction monitoring and measurement.

NOTE A complaint can be initiated by a customer or another complainant.

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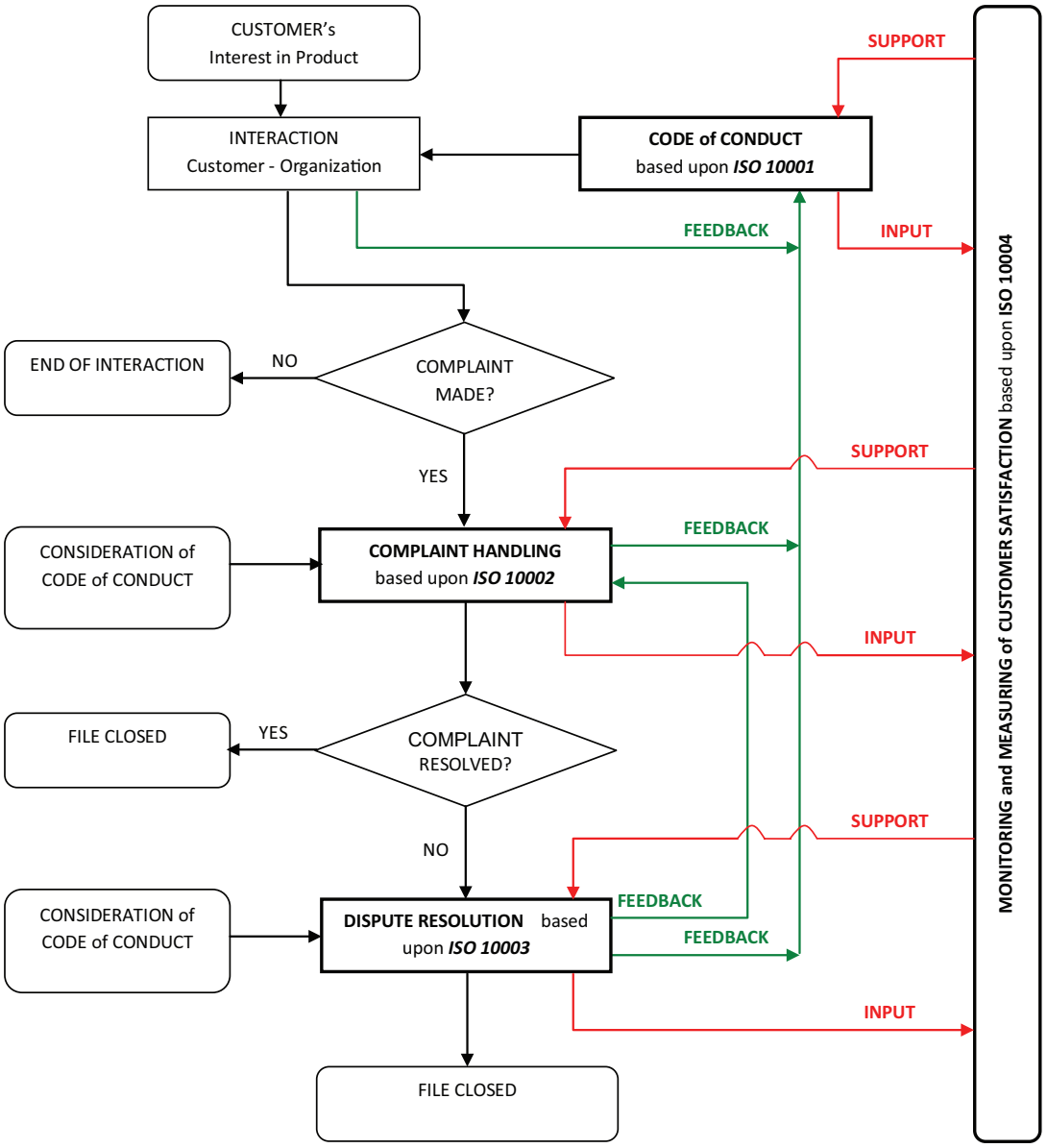

Figure F.1 — Relationship between this International Standard, ISO 10001, ISO 10002 and ISO 10003

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