

QUALITY AUDIT

PhD. Assoc. Prof. Daniela Ghelase
PhD. Assoc. Prof. Luiza Daschievici
"Dunarea de Jos" University of Galati,
Romania

ABSTRACT

The audit is an essential tool for achieving the company's quality objectives. The main purpose of the audit is to evaluate the corrective actions necessary to eliminate deficiencies and the possibilities of improving the company's quality system and its products. Certification of quality systems cannot be obtained without conducting audits of these systems, in relation to international and European standards, applicable in the field.

KEYWORDS: quality management, total quality, quality control, quality audit

1. INTRODUCTION

The term audit comes from the verb "audio" which in Latin means "to listen". In the Middle Ages this term is used in the sense of listening to the parties involved in a lawsuit.

Later, it gained a wide extension, in the Anglo-Saxon countries and in France, in the field of accounting audits, including the Court of Accounts.

British encyclopedias give a wider meaning to this term, according to which audit means "an examination" of a situation, in a certain sector.

In quality management, the term audit is attributed to the process of comparing some performances achieved in the field of quality with the initially imposed standard performances.

The ISO 8402 standard defines quality auditing as a systematic and independent examination to determine whether quality activities and related results satisfy predetermined provisions, as well as whether these provisions are implemented effectively and are adequate to achieve objectives.

Quality audits assess:

a) the quality system of the company as a whole or its elements;

b) company processes;

c) process results (products, services).

Auditing should not be confused with

quality control (keeping a process under control) or inspection (acceptance of a certain product) activities.

The effectiveness of quality audits is highly dependent on the competence and experience of the auditors.

The quality auditor is the person who has the necessary qualification to perform quality audits. He must be authorized at national or international level to carry out a particular audit. The auditor may or may not be a member of the organization, having no connection with the audited processes or the structures involved in them. The main attribute of the auditor is objectivity. Thus, an auditor cannot have personal opinions and does not give advice, not expressing his opinions. The activity it carries out is extremely clear, limited to verifying whether the performances initially imposed by the auditee have been achieved, possibly to what extent.

A chief quality auditor is a quality auditor appointed to lead a quality audit.

Auditee means the organization being audited. It can be a group, a department, a branch or the whole organization (institute, company).

2. THE OBJECTIVES AND IMPORTANCE OF THE QUALITY AUDIT

The main purposes of the quality audit can

be:

1. Evaluation of the conformity of the processes and the results of these processes (products, services) with a certain standard or with another normative document;

2. Evaluation of the conformity of some elements of the quality system or the system as a whole with the specified requirements;

3. Evaluation of the effectiveness of the company's quality system regarding the achievement of the established objectives;

4. Identification of critical points or deficiencies in the performance of activities in the enterprise;

5. Initiating the necessary corrective and improvement measures in the case of processes and the results of these processes (products, services);

6. Monitoring the application of the established corrective and improvement measures.

In conclusion, a company can order the performance of periodic audits to establish whether its products meet the requirements specified in standards or regulations and to evaluate to what extent the processes are kept under control.

Following the audit, the company's quality system can also be evaluated, in relation to a certain standard, or it can be checked whether this system is implemented.

On the other hand, following the audit, measures can be taken to reduce quality costs, if they have reached a critical point. Based on the audit results, the organization can carry out actions to improve the quality of processes, products and its own quality system, reducing deviations and increasing the degree of satisfaction of requirements.

3. TYPES OF QUALITY AUDITS

Depending on their object, quality audits are of three types (Fig. 1):

a) product or service quality audit, when the product or service performed by the enterprise is evaluated;

b) process quality audit, when the processes carried out at the enterprise level are evaluated;

c) the quality audit of the quality system, when the quality system implemented in the company is evaluated.

On the other hand, quality audits can be performed for internal or external purposes. Thus, it is possible to achieve (Fig 2):

- a) internal quality audits (self-assessment);
- b) external quality audits.

Internal quality audits are of great importance because they represent the method

that, by impartial means, provides management with information on the state of the quality system.

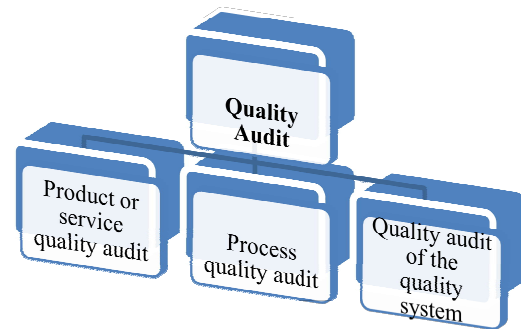


Fig.1 Audit types, depending on their object

The purpose of these audits is to detect non-conformities and evaluate the corrective or improvement actions necessary within the own organization. They are carried out by the company itself, being called "first part" audits, and represent a combination of the quality audit of the product or service, the process and the company's quality system.

The main purpose of external quality audits is to obtain a proof of the supplier's ability to ensure the achievement of the required quality. They are carried out by the beneficiaries of the enterprise through their own audits and are also called "second part" audits.

The external audit is also carried out to obtain the certification of the company's quality system. In this case, the external audit is carried out by a neutral organization at the request of the company, which wants to audit the quality system, or at the request of another party (beneficiary of the company or an independent organization), the audit being called a "third part" audit.

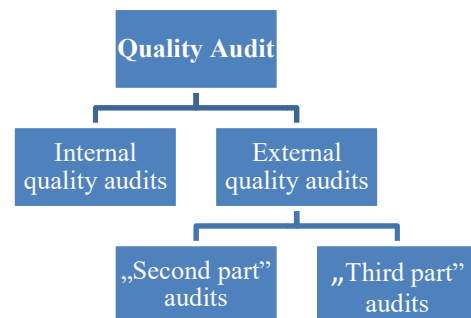


Fig.2 Types of audits, depending on their purpose

4. STRUCTURE OF THE QUALITY AUDIT PROGRAM

In order to accept the goals and rules under which the audit will be carried out, collaboration between the three participating groups is necessary:

1. Leaders of the activities that will be the subject of the audit;

2. The heads of the department (departments) dealing with internal audit;

3. Top management that is hierarchically directly responsible for the previously mentioned departments.

If there is no agreement between those mentioned above, the audit program may fail. The failure paths can be:

- a conflictual relationship between the auditors and the managers of the directly productive units;

- failure to pay due attention to the auditors' reports by the managers of the directly productive units.

Legitimation of the audit will be done by publishing a statement of intentions regarding the goals, policies and methods that will be followed in the future, a statement that will constitute a true guide for all those involved.

The structure of an audit plan is presented in table 1.

Table 1

STEPS	Who will answer?		
	1	2	3
Establishing the goals to be achieved through the audit	x	x	x
Establishing policies, procedures and other rules to be followed	x	x	
Final approval			x
Creation of charts for audits	x	x	
Audits management	x		
Verification of highlighted facts		x	
Publication of a report with facts and recommendations	x		
Discussing of reports	x	x	x
Discussing the actions to be taken accordingly		x	
Following them	x		

5. PLANNING AND CARRYING OUT THE QUALITY AUDIT

The phases of the audit are presented in figure 3. Prior to the development of these phases, several steps related to the policy addressed must be completed:

1. Legitimacy- It is determined who will conduct the audit, who will be the subject of the audit, who will be interviewed by the auditor. Legitimacy is conferred by the very experience in such activities, the auditor acting on the basis of the initial plans and the subsequent agreements reached during the discussions with the interested parties;

2. Graphics- Most audits are carried out on the basis of charts drawn up in advance. The motto is "No

surprises, no secrets", allowing those responsible to prepare jobs and staff;

3. Use of standards- The auditor will have to compare the existing activities and their results with some standard objectives, thus avoiding that the auditor makes subjective judgments. Even if such a situation is avoided, the subjectivity of the auditor could be manifested when choosing the standard variant;

4. Fact check- The realities found on the ground by the auditor will be included in the report that will reach the top management;

5. Discovery of causes- This task may fall to the auditor or may fall to those in the productive sphere;

6. Recommendations and remedies- Due to his status of independence and impartiality that he must demonstrate, the auditor avoids getting involved in the design of remedies for the situations found. The task of the auditors is to make sure that what is specified is done exactly.



Fig. 3 The phases of the audit

6. AUDIT REPORTING

The data and conclusions of the audit must be entered in a report, the summary of which will be presented at the post-audit meeting.

The report must be made in collaboration by the auditor and the auditee.

The report will contain:

1. Purpose of the audit;

2. Details of the audit plan, including the audit of personnel, data, activities that were audited. Details are usually contained in appendices;

3. Standards, checklists or other reference documents that were used during the audit;

4. Observations, conclusions and recommendations, including the data that formed the basis of their formulation;

5. Recommendations for improvement opportunities;

6. Recommendations for corrective actions at the production line level that are proposed and will be implemented;

7. Audit report distribution list.

The conclusions of the audit report must be brought to the attention of the heads of the departments whose processes were audited, in order to establish and apply the necessary corrective or improvement measures.

In order to fulfill all the requirements of an audit, the auditor must possess the following qualifications:

- objectivity;
- perseverance;
- practical spirit;
- punctuality;
- communication ability;
- positive attitude;
- organizational capacity.

The auditors are trained and tested both in relation to the technical aspects, as well as to the psychological aspects, related to interpersonal relations.

Maintaining the auditor's competence is achieved by:

- ensuring permanent knowledge of standards related to quality systems, auditing procedures and techniques;
- participation in training courses and evaluation of their competence, at least once every three years.

We emphasize that, due to his quasi-independent status, the auditor can penetrate any hierarchical level, his reports having access to the top.

A pertinent observation of an auditor will surely reach, sooner or later, the person who has decision-making power in such a matter.

If the proposal had come from executive staff, the proposal would probably never have reached the right level and person.

8. CONCLUSIONS

The paper presents the importance of quality audit as one of the main factors in preventing quality problems.

The purpose of the quality audit is to evaluate the conformity of the quality characteristics of a product or process with the client's requirements or with the requirements specified in the reference documents: standards, technical specifications, manufacturing documents.

The effectiveness of the product or process quality assurance measures is also evaluated.

On this occasion, the reference documents are also checked to determine if they are appropriate for achieving the quality objectives.

Based on the result of the quality audit, corrective or improvement measures are established for the audited product or process.

REFERENCES

- [1] **Duffy, G.**, *The ASQ Quality Improvement*, ASQ Editura, 2013.
- [2] **Ghelase, D.**, *Sisteme de Asigurarea Calitatii*, Braila, Editura Ceprohart, 2002.
- [3] **Ghelase, D., Daschievici, L.**, *Quality Management Tools*, The Annals of "Dunarea de Jos" University of Galati, Fascicle XIV Mechanical Engineering, ISSN 1224-5615, Vol. 2, pg. 33-38, 2019.
- [4] **Ghelase, D., Daschievici, L.**, *New Quality Management Tools*, The Annals of "Dunarea de Jos" University of Galati, Fascicle XIV Mechanical Engineering, ISSN 1224-5615, Vol. 1, pg. 15-18, 2020
- [5] **Niculita, L.**, *Managementul si Ingineria Calitatii*, Bucuresti, Editura Academiei Romane, 2005.
- [6] **Paraschivescu, A.O.**, *Managementul Calitatii*, Editura Tehnopress, 2020.