

## Effectiveness of planning internal audits of the quality system

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### Abstract

The article describes the process of planning internal audits carried out in the framework of a quality management system based on ISO 9001. The article presents some errors made in the planning process of internal audits. These errors are classified as potential causes of poor effectiveness audits. In the first part this article contains theoretical considerations in the planning of internal audits of quality management systems. The second part of the article presents the results of research. These results illustrate the effects of errors in the planning process of the audit. At the end recommendations for persons responsible for planning audits are included. These recommendations should improve the effectiveness of the internal audit planning, and thereby their value to the organization.

### Introduction

Organizations that have a certified quality management system ISO 9001 provide the products accordance with the requirements. These requirements can be defined in many areas, including: legal, technical, market. Market requirements are the final consumer that needs the product or service – the customer's requirements. In order to provide customers products and services in accordance with the requirements each organization must operate in a structured manner on the basis of a stable organizational structure and the necessary resources. Therefore, these factors should be systematically tested. Top management organizations should have full control over the condition of the quality management system. This systematic testing, which is the main beneficiary of top management, is called auditing. The primary objective of the audit is to verify that the organization operates in accordance with the requirements, and based on the resources required.

In order to illustrate the errors in audit planning article provides the results of independent studies. The studies were performed between 2011 and 2012 in the 2<sup>nd</sup> industrial enterprises operating in the Polish market. The studies were performed

using a survey sheet, different for each company. Companies were chosen randomly to study. Number of respondents in each of the companies is shown in table 1.

Table 1. Number of respondents in each of the companies [own study]

	Company A	Company B
Number of workers	98	270
Number of responders	17	55
Number of responders [%]	17.35	20.37

The results are not representative. The results are used only to illustrate examples of the effects of errors in the audit planning process.

### Quality management system audit

ISO 9000 standard defines audit as: systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled [1]. The criterion should be a requirement, which is the desired state [2].

The organization shall conduct internal audits at planned intervals to determine whether the quality management system:

- conforms to the planned arrangements, to the requirements of this International Standard and to the quality management system requirements established by the organization;
- is effectively implemented and maintained [3].

Organizations operating in accordance with the requirements of ISO 9001 are required to systematically study the ability of the organization to carry out the requirements – the primary objective of their system. The test is performed directly in the workplace. Internal audits are conducted by qualified internal auditors [4].

Auditing the quality system is a test. The auditor acts as a researcher – diagnostician system. The task of the researcher is to search for evidence for the proper functioning of the system in practice. The main criteria are the requirements of system documentation. Therefore, the auditor, in particular, is looking for evidence of compliance procedures and practice. The results of the audit should be a source of reliable information about the state of the system. This information will allow the improvement of the system. The literature also found that “the main purpose of the audits is to look for weaknesses in the system, in order to be able to make improvements” [5]. However, auditing is not the same as controlling and searching problems. Although, these processes are often identified due to the objective of ensuring compliance of the actual activities of the planned activities [6]. Audit, unlike commonly understood control, can not be directed at look for non-compliance (faults), or workers blame for their occurrence.

Audits are used to determine the extent to which the quality management system requirements are fulfilled. Audit findings are used to assess the effectiveness of the quality management system and to identify opportunities for improvement [1].

The importance of the audit for the organization is well illustrated by the statement that audits are an important part of the quality management system for the smooth functioning of the system. Audits conducted independently and professional supply for management chief evidence that the system meets the prescribed requirements [7].

### Internal audit planning

An audit programme shall be planned, taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. The audit criteria, scope, frequency and methods shall be defined. The selection of auditors and conduct of audits shall ensure objectivity and impartiality of the audit process [3].

Preparing the audit plan, especially on an annual basis is not an easy task. Audit planning should be initiated at gathering all the information about the organizational structure, existing procedures and processes in an organization. The difficulty in the correct planning audits is directly proportional to the size and complexity of the organization. Audits usually are planned by member of the organization’s management. The audit plan includes information such as:

- what will be tested? [what part of the organization, to what extent?];
- when?
- by whom? [what will be the team of auditors?];
- for what purpose?

Answering these questions requires dividing the organization into elements. A single audit should not apply to the whole organization. The audit scope should be limited and as much as possible precisely. In another case, an audit may be ineffective, but not contrary to the requirements of ISO 9001. Too wide range of auditing will generate organizational problems. This approach usually will require the involvement of the entire team of auditors, the entire staff of the organization covered by the system. This can cause paralysis of the organization. In addition, it will be the reason generalization of the conclusions of the audit. Responsibility for the results of the audit will be difficult to determine. This approach should be avoided. Organization should be divided into parts for auditing.

The organization can be divided into parts to audit such as:

- organizational unit;
- process;
- procedures;
- product;
- contract / order.

In organizational terms the easiest way is to audit the entity’s organizational structure. The audit does not require complicated logistics planning. The team, department, division, department areas are usually precise spatial and functional boundaries. Disadvantage to this is impossibility testing of the system in terms of co-operation between individuals, on the border processes. Cooperation in these points is critical to the point of view of the effectiveness of the process approach.

The division audits on the processes the organization is the second method of selecting items for auditing. The organization of such an audit can be difficult. Especially those of wide range, multi workplaces, or even multiple unit. The process is an essential element of the quality management system. Therefore, an audit should be focused on

processes. During the audit processes is easier to examine their progress and adequacy of resources.

Auditing procedures may also apply. Usually selected for audit are formal procedures. The level of difficulty of the test system in such a system depends on a specific procedure. In particular, their scope and detail. Comprehensive procedures are causing organizational difficulties. Especially procedures covering several processes. The advantage of this approach is the possibility of cooperation between the auditing process.

The audits focused on products and contracts / orders are difficult to realize. Audit focused on a particular product may be very wide. Often will cover all organization. This approach limits the audit to the implementation of a specific product, model or type. Auditing the contract / order is most common in special cases, such as complaints or defects identified during the final inspection. These can be complex audits, which are difficult to schedule. The scope of this is limited only by the contract / order from a particular customer.

The answer to the second question (when to audit?) will be crucial for the timing of the audit. The person responsible for the planning of audits must be aware of not only the audited element placed in the plan. That person should choose a convenient time for auditing, taking into account the importance process and the risks they bring to quality. These factors determine the decision on the frequency of audits. Key processes for the realization of the requirements should be included in the audit plan accordingly often.

From the point of view of the effectiveness of the audit plan, the terms included in it should be appropriate for the auditors and audited persons. Both parties must have adequate time to prepare for the test. Otherwise, it will be superficial action, carried out under pressure on time. The credibility of the information obtained in this way may be questionable. At best, audits will be carried out after the deadline. Unfortunately, this approach puts into question the sense of setting deadlines audits. There is a risk that the staff watching the frequent delay of audit concludes that we should not worry about audit plan. As a result, audits will be regarded as something less serious.

In order to improve the effectiveness of audit planning should take into account plans for holidays, seasonality of processes, business cycles, contracts / forward contracts.

Selection of audit team is very important activity. In deciding the size and composition of the audit team, consideration should be given to the following [2]:

- audit objectives, scope, criteria and estimated duration of the audit;
- whether the audit is a combined or joint audit;
- the overall competence of the audit team needed to achieve the objectives of the audit;
- statutory, regulatory, contractual and accreditation/certification requirements, as applicable;
- the need to ensure the independence of the audit team from the activities to be audited and to avoid conflict of interest;
- the ability of the audit team members to interact effectively with the auditee and to work together;
- the language of the audit, and an understanding of the auditee's particular social and cultural characteristics. These issues may be addressed either by the auditor's own skills or through the support of a technical expert.

The audit objectives define what is to be accomplished by the audit and may include the following [2]:

- determination of the extent of conformity of the auditee's management system, or parts of it, with audit criteria;
- evaluation of the capability of the management system to ensure compliance with statutory, regulatory and contractual requirements;
- evaluation of the effectiveness of the management system in meeting its specified objectives;
- identification of areas for potential improvement of the management system.

In order to maximize the value of audits, audit planning should focus on [8]:

- reducing the number of superficial audits;
- establishing precise objectives and scope of the audit;
- improving the competence of auditors, rather than increasing their number;
- ensuring adequate time to prepare for the audit and the main audit.

### Principles of auditing

Auditing should be implemented based on a few principles [2]:

- a) Ethical conduct: the foundation of professionalism. Trust, integrity, confidentiality and discretion are essential to auditing.
- b) Fair presentation: the obligation to report truthfully and accurately. Audit findings, audit conclusions and audit reports reflect truthfully and accurately the audit activities. Significant obstacles encountered during the audit and

- unresolved diverging opinions between the audit team and the auditee are reported.
- c) Due professional care: the application of diligence and judgement in auditing. Auditors exercise care in accordance with the importance of the task they perform and the confidence placed in them by audit clients and other interested parties. Having the necessary competence is an important factor.
  - d) Independence: the basis for the impartiality of the audit and objectivity of the audit conclusions. Auditors are independent of the activity being audited and are free from bias and conflict of interest. Auditors maintain an objective state of mind throughout the audit process to ensure that the audit findings and conclusions will be based only on the audit evidence.
  - e) Evidence-based approach: the rational method for reaching reliable and reproducible audit conclusions in a systematic audit process. Audit evidence is verifiable. It is based on samples of the information available, since an audit is conducted during a finite period of time and with finite resources. The appropriate use of sampling is closely related to the confidence that can be placed in the audit conclusions.

By using these principles, especially when planning an audit is an effective and reliable tool for supporting policy and management supervision. Provide information on which an organization can improve its operations and results. Compliance with these rules is a necessary condition to ensure that the conclusions of the audit are appropriate and sufficient. Audit carried out on the basis of these principles will enable auditors working independently investigate similar situations to similar conclusions.

### Potential problems in the planning process audits of the quality system

Auditing is a process that requires precise planning, because that is parallel to the normal operation of the organization. It is natural that it can not interfere with the process and impede the tasks. The results of studies carried out in first ("A") industrial companies allow to define the scale of difficulties that are associated with the realization of internal audits. Figure 1 shows the opinions of the respondents on this topic. The vast majority of respondents think that the audit process hinders the execution of duties.

One of the key traits of effective audit planning is their punctuality. Because auditing disrupts the normal operation of the organization, audit schedul-

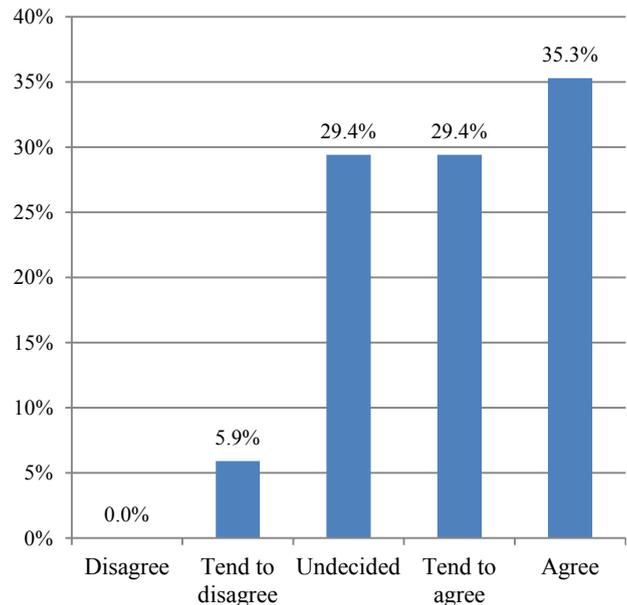


Fig. 1. Opinion on situation: Internal audit impedes normal duties for the audited persons in company "A" [own study]

ing is very important. In practice, internal audits are scheduling for year in advance. It is hard to establish precise terms that will suit both parties of audits. That is why it is risky to enter the annual audit plan the exact date. Such practices are the reason audits are not carried out on time or conducted them under time pressure. Problems in the timely completion of audits generate a number of random factors appearing (leave, sickness absences or additional production orders). This casts doubt on the desirability of a precise planning of audit. Very important in the audit process is a lead auditor. The lead auditor prepares the audit plan, conducts the meetings, and submits the formal audit report. Lead auditor should have some flexibility in the implementation of the annual plan. Enough if audit plan specifies the approximate time – the number of weeks or even a month. Determining the exact date will be held in the preparatory phase of the audit. The precise date will be determined by the lead auditor and audited.

This is to avoid the situation shown in figure 2 in which 12.7% of respondents find it difficult to answer the question of whether an audit of the organization shall be held as scheduled, and 7.3% of respondents said that the audits are late.

It is important to plan the audit, which will ensure that this process will take place within the prescribed period, taking into account the needs of both, auditors and audited. This will be achieved through a flexible approach to the planning of internal audits. This will improve their punctuality. Both, persons audited and the auditors will have adequate time to preparing for audit.

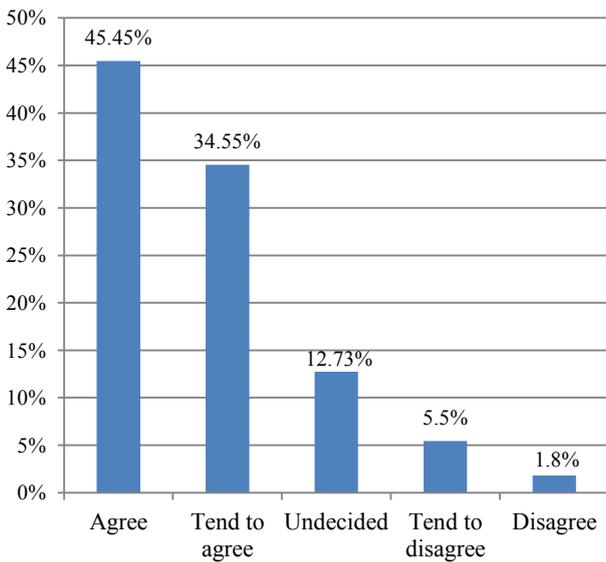


Fig. 2. Opinion on situation: Internal audits carried out in accordance with the plan in company “B” [own study]

The results take into account the needs of audited in the audit plan are shown in figure 3. The majority of respondents expressed a positive opinion on the subject. Unfortunately, only 35.3% of respondents agreed with the given statement. The majority of respondents (47.1%) less strongly confirmed that the audit plans address the needs of audited persons.

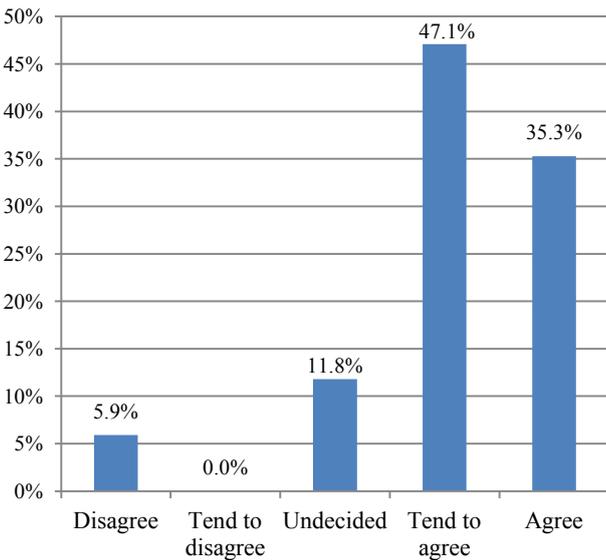


Fig. 3. Opinion on situation: Audited person’s needs are included in the audit plan in company A [own study]

Figure 4 shows the results of tests carried out in the other companies. The majority of respondents welcomed the practices in your organization. Over 10% of respondents disagree or tend to disagree the submitted thesis. Such a situation does not allow a positive assessment practices in planning audits in company B.

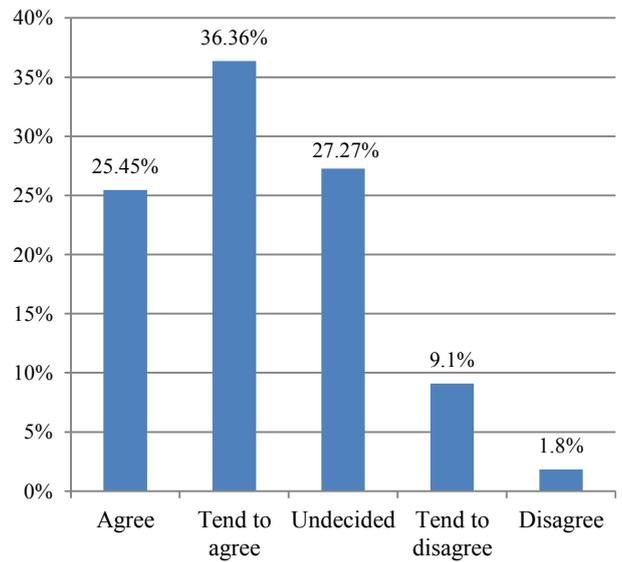


Fig. 4. Opinion on situation: Audited person’s needs are included in the audit plan in company B [own study]

Definitely looks better taking into account by the needs of auditors, lead auditors. The auditors have to consider the thesis: internal audit plan is in line with the needs of auditors. The results are presented in figure 5.

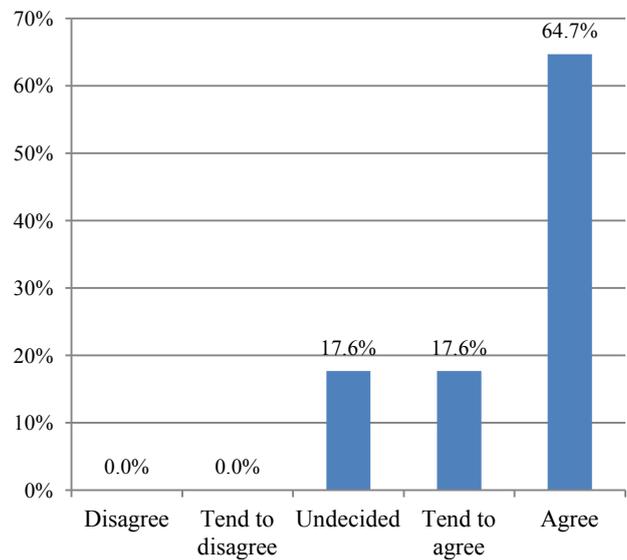


Fig. 5. Opinion on situation: Internal audit plan is in line with the needs of auditors. Company A [own study]

Auditors’ opinions are divided. In most cases, the practice in this area have been evaluated positively. One can only surmise that the reason for indecision 17.6% of respondents was the lack of attempts submit suggestions to the plan audits.

As mentioned earlier, the principle is that the quality system audit is not an unexpected check. Audited person shall be informed in advance of the planned date of the audit and its scope. The natural consequence of such practices is an opportunity to prepare for the audit of the audited. The results of

research in this area shown in figure 6. According to a study respondents do not always have such a possibility. Only 17,6% of respondents stated definitely that they have the opportunity to prepare for the visit of the auditor.

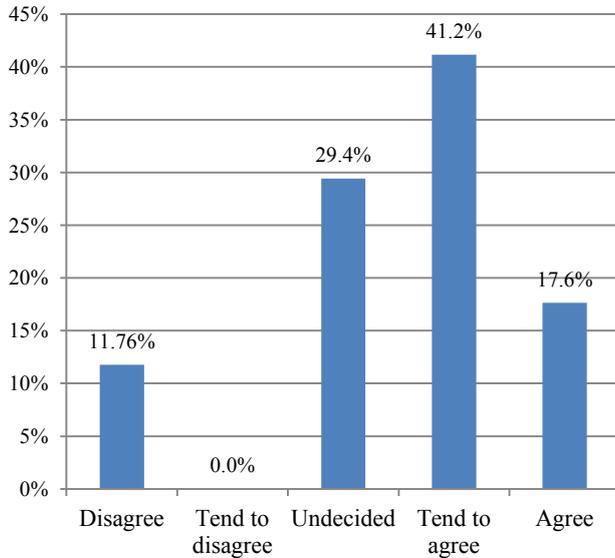


Fig. 6. Opinion on situation: Audited persons have time to prepare for an audit. Company A [own study]

One of the basic principles of auditing the auditor's are impartiality and objectivity in the evaluation of system performance. In special cases, such as micro-enterprises, auditors in accordance with the ISO 9001 standard should not have to audit their own work. Auditors relation with the auditee should be the smallest as possible. This will allow an independent and objective diagnosis of the test system. Therefore, when planning an audit should

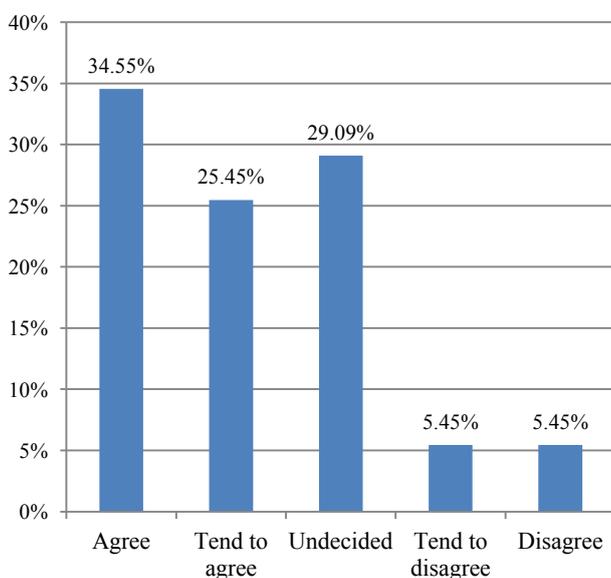


Fig. 7. Opinion on situation: Auditors maintain an objective state of mind throughout the audit process. Company B [own study]

be aware of this rule, which, as is clear from the study (Fig. 7), is not always observed in company B.

Developing internal audit plan should take into account not only formal relation, but also interpersonal relations. This will allow the selection of independent and objective auditors. The first task should not be a problem, just an analysis of the organizational structure. Unfortunately, understanding the relation between the employee is not easy, especially for large organizations. Direct consultation with the management of the audited units before determining the final version of the audit plan seems to be necessary.

## Conclusions

Internal audits are carried out in each of the company having a certified quality management system complies with the requirements of ISO 9001. Internal audit plays a crucial role in the functioning of the system. First of all, provides information on the functioning of the quality management system. The value of this information is directly proportional to the professionalism of execution of audits. Internal audits are cost-intensive activity. Internal audits require interruption of the normal duties of employees – auditors and audited. Since the company engages its resources in the process of auditing, it should be the most efficient.

One of the main factors determining the efficiency of the audit is their proper planning. This is a basic condition for auditing, which minimally interfere with the normal operation of the organization. Frequently practiced annual internal audit plans should not be very precise in terms of time. Audits carried out after the deadline, there is a risk that the staff will ignore the audit plans and, consequently, this will have a negative impact on the perception of the quality management system. Flexible approaches to audit planning, in particular to the terms and composition of auditors, minimize such risk. It is good practice when planning audits to be carried out a series of consultations that will lead the organization to the general acceptance of the plan by the audited and the auditors.

To sum up, to improve the timeliness and effectiveness of the internal audit are recommended:

- flexible approach to the audit terms, taking into account as wide as possible the interests of auditors and audited. This will allow to good preparation for the audit, which is particularly important for auditors;
- flexible approach to determining the team of auditors. The annual plan should not indicate

fixed audit team. A precise determination of the audit team for the year ahead increases the risk of interference by the random factors. Flexible approach to audit planning will prevent this. Such a plan will be resistant to fluctuations in staffing, changes in organizational structures and interpersonal relations;

- extensive consultation with the creation of the annual internal audit plan will allow for the full acceptance of the plan by staff. As a result, this will allow fully consistent realization of the annual audit plan.

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