

Designing performance audits: setting the audit questions and criteria

1 Introduction

A difficult phase in performance auditing is planning and designing. In this paper the area to be audited – perhaps a result of strategic planning – is taken for granted, and the auditors are familiar with the motives and assumptions behind that decision. The purpose of this paper is to provide guidance on how to manage the subsequent operational planning (regardless of the area to be audited). It focuses on the process of developing audit questions, criteria and design matrix. It builds upon the performance auditing standards and guidelines issued by INTOSAI, and properly done it will help implementing the audit objectives.

For performance audits, the audit objectives are often set out in the form of one overall audit question and a limited number of subsidiary questions (i.e. what is needed to be known) or hypotheses (i.e. what is needed to be confirmed). The aim of the audit is to answer, verify and conclude against these. All evidence gathering, data evaluation and analysis are guided by the audit questions. It's consequently of fundamental importance that they are well-founded, relevant and auditable. Posing questions incorrectly or asking the wrong questions will inevitably lead to audits going in the wrong direction. By doing it right the auditor can save time by not collecting and analysing less relevant information.

It must be underscored, that there is no universally applicable model on how to plan and design performance audits. The methods presented below represent good practices and are often applicable, but they may not fit all audits and the more complicated engagements. The auditor must therefore in each case reflect on whether it's suitable to apply the methods presented below, or if there are better alternatives. In addition, one must keep in mind that a performance audit is a learning process; and it's therefore important to monitor the development, check and (often) adjust the questions and criteria as the audit proceeds and additional knowledge is gained. After all, what counts is the quality and consistency of the final performance audit report.

2 Identifying the principal question or problems to be audited

Performance audit topics are usually selected following the assessment of economy, efficiency or effectiveness problems, as regards their risk, materiality or significance (financial, social and/or political significance) from various perspectives. The audit typically focuses on one or a few major problems or risks identified. A broad perspective may help understanding and analysis of the topic, but the specific issue to be audited needs to be well defined and focused. In order to fulfil the objectives the establishment of key questions is essential. The key questions should guide and safe guard the implementation of the audit objectives.

There are as mentioned in ISSAI 3100 three common approaches in performance auditing: *system-oriented*, *results-oriented* and *problem-oriented*. The system-orientation focuses on whether management and control systems are sound, and the results-orientation examines whether objectives have been met. These two approaches provide answers to audit questions based on audit criteria. The problem-oriented approach has its starting point in a problem or a "known" deviation from what should or could be. It aims at verifying the assumed problem and examining the causes to it. The approach may either apply the technique of providing answers to audit questions or focus on confirming stated hypotheses (the difference between examining questions or statements is in reality not that big).

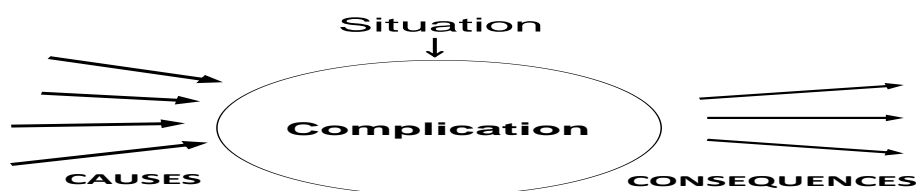
The audit question defines the subject to be audited, the scope and purpose of the audit, and is the basis for the design of the whole audit. For example, the question could indicate whether the audit will assess the performance of management and control systems of a government programme or an organisation, or a more direct assessment of the economy, efficiency or effectiveness of a government programme or activity. It may also address the causes of problems concerning these factors, but it's seldom advisable to audit all three aspects of performance in one audit, since diversified perspectives are difficult to handle (and if the right things are not being done, it's often less important to audit whether it's done economically).

It's advisable to formulate the audit questions and the sub-question in a normative or analytical way, rather than just descriptive. Descriptive questions have the advantage of allowing for answers with a reasonable level of assurance. However, they do seldom add much value to those who seek solid opinions, comprehensive explanations, or well-founded information on how to significantly improve performance.

One technique for developing the main audit question is called the *Situation-Complication-Question* structure. The "Situation" provides background on the subject, in the form of non-controversial statements, which a listener/reader would either know to be true, or willingly accept as such. The "Complication" represents the "so what?" factor, that is, what "complicates" the situation, and makes the subject worthy of audit (for example, overspending, long waiting times, negative sides effects of actions). This introduces a degree of subjectivity in selecting the audit issue, in that we most often have a particular complication in mind to arrive at the proposed audit; while other complications might lead to different audits. As a result of the complication, a potential main issue to examine should arise.

The technique becomes more advanced if two additional components are considered, namely the causes and the consequences, as seen in the figure below. This places the complication in a wider context and makes it easier to define what to audit and how.

Figure 1 *The Situation-Complication-Cause-Consequence technique*

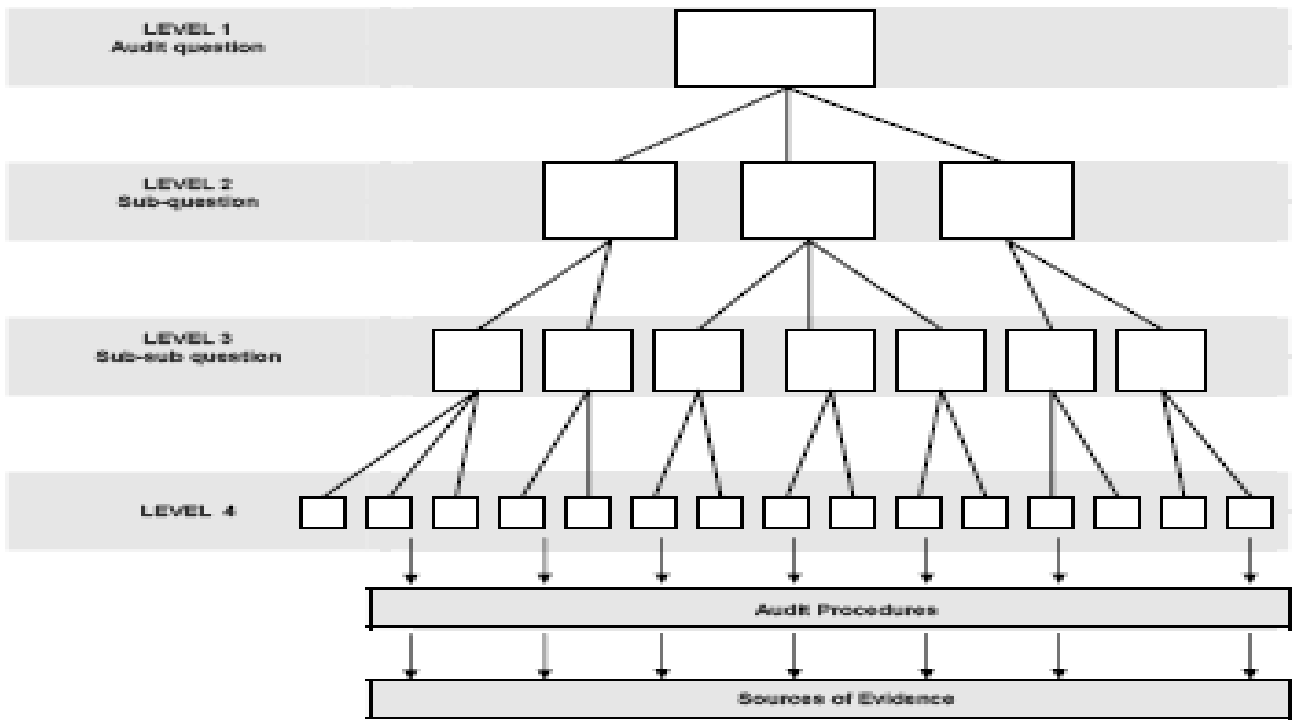


3 Developing the sub-questions or sub-problems

The main audit question now needs to be broken down into sub-questions or lower level questions, the lowest level of which can be answered by carrying out specific audit procedures. One technique called "issue analysis" breaks the main audit question or problem down into a number of lower levels, more detailed questions, to form a pyramid.¹ It's often enough with three levels of questions, but sometimes up to five levels are needed.

Figure 2: *Pyramid of questions*

¹ MINTO B The Minto Pyramid Principle, Ed. Minto International, Inc., 2003.

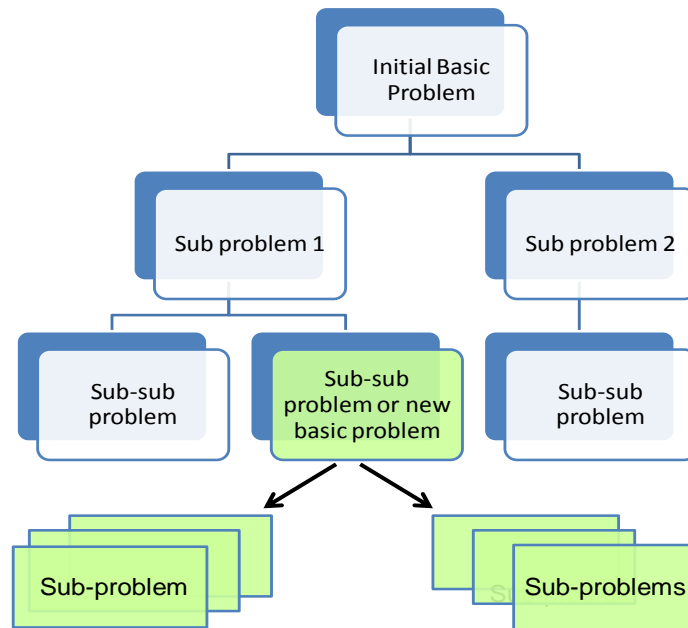


The purpose of the technique is to clarify the feasibility of concluding against the main audit question, and to assure a logical chain from the specific audit procedures to the sub-questions, all the way up to the main audit question. This helps to impose a logical disciplined pattern on one's thinking and to ensure that all aspects of a question or sub-question are considered. It also helps define the scope of the audit. However, when using the technique it may arise that the main audit question needs to be re-formulated or clarified. As a consequence, the process of developing sub-questions needs to be repeated. At the lowest level, it should be possible to establish specific questions or hypotheses that can be tested against sources of evidence.

Sufficient knowledge of the area and an initial set of topics to start the procedure of developing the audit questions, will typically be arrived at through activities such as comprehensive desk research, meetings with auditees and experts, scientists and stakeholders in the field, *brainstorming*, and structured creative thinking. The method of *Programme Logic Modelling* can for instance, be helpful in getting a sufficient overview of the audited area.

The outcome can also be achieved by using a similar technique called the *Problem Tree* (in which the main problem is divided into sub-problems or causal factors). For example, in figure 3 below one sub-problem (green box) became the reformulated problem, and consequently it had to be divided further.

Figure 3: The problem tree



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One way of developing sub-problems or causal factors to be examined, is to ask stakeholders and experts regarding possible causes closely linked to the problem. By sorting out the most likely and relevant potential and testable causes or sub-problems, it is possible to develop a proper audit design. For instance, causes of long processing times may be found in the regulatory or organizational set up, but also in management systems, practices, competences, etc. Stakeholders are likely to put forward various causes, and may in addition; suggest how to develop testable, valid and well-founded hypotheses.

Lower level questions

The following are the characteristics of the lower level audit questions or hypotheses. They should be:

- i. short and clear questions, i.e. unambiguous and easy to comprehend;
- ii. relevant and logically or causally linked to the problem on the level above;
- iii. mutually exclusive, i.e. different and distinct from one another, and not overlapping;
- iv. collectively exhaustive at each level, i.e. taken together, they should be sufficient to answer the higher-level question;
- v. specific or testable (i.e. in principle capable of a “yes/no” response, even though an elaborated answer is often required), so that it is possible to identify what procedures and evidence is needed to provide an answer and to conclude against the question (e.g. “is a comparative analysis of projects undertaken?”, rather than “how are projects selected?”);
- vi. limited to between three and five questions at each level to assure clarity.

When starting the process of breaking down the main question/problem one needs to analyse the basis on which it could most appropriately be broken down. For example, one could use the *time principle* in a sequential cause-effect way, to assess the efficiency and effectiveness of actions, by examining the input, processes and outputs. It would therefore be logical to use the input/process/output principle of time when breaking the questions down to the next level. One could also apply the time perspective, to see if the process was managed successfully in different periods.

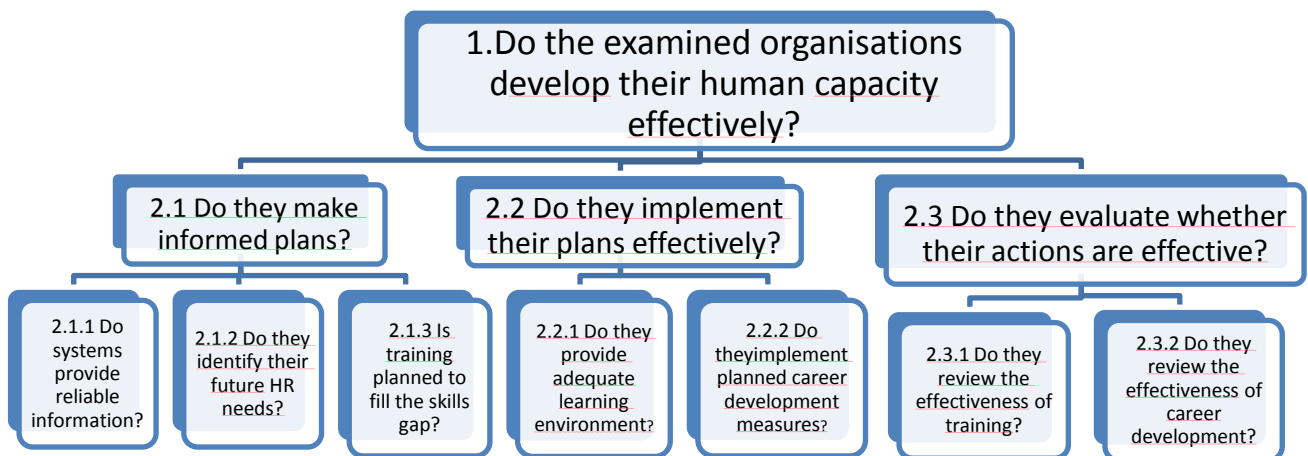
An illustration on structuring questions

If the audit is focused on management systems it is advisable to break the questions down by *management structure*, more specifically by organisations or organisational level. Then, one could analysis the question by *management of costs* (administrative costs, personnel costs etc.) to see if they were all properly managed, i.e. by examining the conditions that should be in place for the costs to be properly

managed. It is also important to note that it is possible to apply different principles for the different levels of questions, and that this will actually often be the case.

Figure 4 below illustrates the audit of a management system. The main audit question is whether government institutions effectively develop their human capacity. This question is divided in a time process-oriented structure, with three steps and questions on the second level and thereafter broken down into a number of sub-questions on the third level.

Figure 4: Time principle or management actions as the basis for structuring questions



4 Audit criteria and design matrixes

Audit criteria, types and sources of evidence and even expected findings for the different questions, have to be considered at this stage. Properly applied, the method should make it possible to focus the audit and determine what resources are needed to complete it. This gives a good overview of the audit, and identifies if proposed parts of the audit cannot be undertaken, due to a lack of criteria or sources of evidence.

The audit criteria define what the undertaking, services, programme or operation will be judged against, e.g. policies, laws, pre-defined targets, professional standards, public opinion, etc. The audit criteria, which can be of a qualitative or quantitative nature, should be reliable, objective, fair, useful, and complete.

It is important to be aware of the character of the audit criteria chosen; they may be normative and specific, or may be more general in nature. The criteria may reflect everything from *what should be* according to laws, regulations or objectives; and *what is expected*, according to sound principles and best practice; to *what could be* (given better conditions). The nature of the audit and the audit questions determines the relevance and the type of suitable criteria. In the problem-oriented approach, the audit criteria have a less significant role, since the starting point is the deviation from criteria. Instead the emphasis is on methodological requirements on how to confirm the hypotheses.

Design matrixes to get an overall structure

A *design matrix* is a tool for determining what to audit and how. It provides a structure for the basic design components. There are various – more or less complicated – versions. In some cases they contain a lot of components: main audit question, sub-questions, what to examine, audit criteria, information needed, how information will be collected, risks involved, complication, comparison or analyses needed, potential conclusions, and likely recommendations, etc. However, in the two simplified models illustrated below, only a few elements are presented. The first example is linked to the case in figure 4 above on the time principle of management action.

Figure 5: A basic design matrix for one of the level 3 question on developing HRM capacity

Level 2 Questions:	Level 3: Questions:	Audit Criteria: What yardstick to use?	Audit evidence: What information is needed?	Methods: How to find, and analyse data?
Does it make informed plans?	2.1.1 Do systems provide reliable information?	<ul style="list-style-type: none"> - A HR management tool should provide reliable information on the skills and qualifications of staff. - It should have a reliable system to review staff competencies annually 	<ul style="list-style-type: none"> - Procedures to ensure that the CV is reliable and current. - To assess the extent to which the CVs are used; - Evidence of training records being current and reliable; - Satisfaction rating of managers 	<ul style="list-style-type: none"> - Interviews, documentary analysis - Qualitative analysis of procedures

The second case is an example of a design matrix for an audit aiming to examine causes of problems (in this case increasing traffic accidents and indications of a lack of efficiency and effectiveness among the more influential, responsible government authorities and their services).

Audit Problem: The police authorities and the authorities responsible for speed limit signs seem, according to statistics, media, etc. to have problems in fulfilling their mission to promote roads safety and reduce traffic accidents efficiently (the indication of the problem is supported by information).

Sub- problem 1: The Traffic Police do not seem to manage the traffic inspection service efficiently.

This problem indicate the following hypotheses to be tested: the resources for drivers' inspections are not fully allocated based on risks or frequency of traffic accidents, and that the inspections are not efficiently carried out (done at the right time, the right place and according to best practice). Sub-problem 1 need to be divided into additional and more specified sub-question or hypotheses (not presented here).

Sub- Problem 2: The speed limits signs are not managed efficiently.

This problem indicate the following hypothesis to be tested: The speed limits signs do not fully correspond to the character and the conditions of the road and to the number of accidents occurred.

Audit Criteria to sub-problem 2: The audit criteria play a less significant role in the problem-oriented approach, but as a general reference they are still useful.

According to traffic policy objectives, the speed limits signs should correspond to road conditions. The minister responsible for the Police Force is required to fix the maximum speed of motor vehicles in any specified road, locality, or classes of road. The same minister is also supposed to evaluate and review the set speed limit when the road conditions change. The Inspector General of Police shall maintain or cause to maintain a suitable system of completing accident reports and submit annual traffic accidents and safety reports. (**Source:** Road Traffic Act of 20XX - Section Y and Z).

Some of the hypotheses linked to sub-problem 2 are presented in the design matrix below.

Figure 7 A basic design matrixes on managing speed limit signs (one of the sub-problems)

Sub Problem 2: The speed limit signs are not efficiently managed			
<i>Hypothesis</i>	What to examine	How to find evidence	How to compile
Hypothesis 2.1: The speed limits are not consistently based on analyses of traffic accidents or roads condition	The system in place for determining speed limit	Review plans, guidelines, analyses & records on speed limits decisions during period X for selected areas and roads (check analyses made and ask experts in the field for good practice) Interview officials at the Min, Police and Road Safety Authorities and experts to get a reliable picture of the relevant traffic accident profiles and the road conditions to check the adequacy of the speed limits set	Compare the motives for the speed limits set with the condition of the roads according to the police and the profile of the traffic accidents for the selected roads. Compare with best practice and present findings in proper tables
Hypothesis 2.2: The conditions of the roads and traffic	The system for monitoring road conditions and	Review the monitoring and evaluation reports on road conditions in spots where frequent accidents occur.	A matrix showing the road name (Region and or District), road conditions

accidents are not regularly monitored	traffic accidents	Interview the officials in the Min, the Police and other authorities that are monitoring road conditions	and frequency of accident monitoring
Hypothesis 2.3: The speed limits are seldom altered when the conditions of the roads have changed.	System for updating and evaluating road condition changes and altering speed limits	Review the reports on conditions for speed limits to be altered and check if road condition has influenced a change of speed limit on particular roads Interview experts, officials in the Min, the Police and other authorities dealing with setting the speed limits and inspecting the drivers' compliance	A matrix showing previous speed limits, altered speed limits, and road conditions. The reasons for the change of the speed limits. A matrix showing the frequency of speed limit changes due to road conditions.

5 Designing performance audits: an overall perspective

In an overall perspective, the following elements are essential to be developed in the planning stage:

- i. The main audit question or problem to be examined;
- ii. The audit criteria, the benchmark or the requirements needed for confirmation of hypotheses;
- iii. The specific issue to be examined for each sub-question;
- iv. The information needed to answer the sub-questions; i.e. kinds of studies needed;
- v. How to collect the information, i.e. kinds of investigations and data gathering techniques needed;
- vi. The degree of accuracy and completeness needed to answer the audit questions/verify the hypotheses i.e. level of ambitions of data accuracy;
- vii. Where to collect information and what examination period to be covered;
- viii. The accessibility, reliability and manageability of available information, i.e. risks or limitations;
- ix. How to compile and analyse information (qualitative and quantitative methods, graphics etc.).

In this paper we have mainly focused on the issue of setting the audit question and criteria, but as seen, there are lot of other issues that need to be considered in the operational planning of a performance audit. One, not mentioned earlier, is the importance of understanding the programme or topic to be audited; its history and context and its various stakeholders and their attitudes and arguments. Preparing activity and follow up plans, budgets and quality assurance steps as well as selecting a competent team and engaging external consultants or experts are other examples of important issues that need to be addressed in this phase besides developing proper design matrixes. In fact, most of these issues need to be monitored and dealt with during the execution and follow up phases.