



MINISTRY OF PUBLIC FINANCE

Central Harmonization Unit for Public Internal Audit

GUIDELINES

FOR PERFORMANCE AUDITING

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The Guide was elaborated for auditors working in the field of public internal audit in Romania. The responsibility for applying this guide in practice rests with those who take over the information.



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1 THEORY

1.1 INTRODUCTION

In the last decades, the internal audit has become one of the most important tools of companies, public institutions and other types of organizations to discover malfunctions of their operations, to minimize risks, to develop their systems and, above all, to achieve their goals. Internal audit is a key function for overseeing the achievement of institution's goals. But how can we measure the level of goal achievement? And isn't it important how institutions achieve their goals? Especially in the public sector under-takings, programs, systems, activities or organisations must perform in accordance with the principles of economy, efficiency and effectiveness. This is the point when **PERFORMANCE AUDIT** enters the stage.

Performance audit is a new concept in Romania, as in many other European countries, and not many people fully understand what it is, after all. These Guidelines try to explain what Performance audit is, what role it plays as a tool to improve an institution's outcome and impact and how a proper Performance audit can be done.

1.2 WHAT IS PERFORMANCE AUDIT?

Performance audit is a relatively new field in audit theory as compared to other types of audits like compliance audit or systems audit. This new type of audit has evolved to meet the need for greater information by the citizens and its representative, Parliament, mainly regarding the efficiency and economy in the use of resources by the public managers acting on behalf of the executive. The scope of performance audits may comprise the uncovering of fraud, waste and abuse, even though habitually these are not included in the scope.

A performance audit of public organizations is a systematic, focused, organized and objective examination of government activities. Its scope includes the examination of economy, efficiency, cost-effectiveness and environmental effects of government activities; procedures to measure effectiveness, accountability relationships, protection of public assets, and compliance with authorities. The subject of the audit can be a government entity or activity, or a government-wide functional area.

The International Organization of Supreme Audit Institutions, INTOSAI, issues in the "*Fundamental Principles of Performance Auditing*", ISSAI 300, a performance audit is

*"an independent, objective and reliable examination of whether government undertakings, systems, operations, programmes, activities or organisations are operating in accordance with the principles of economy, efficiency and effectiveness and whether there is room for improvement."*¹

¹ INTOSAI, ISSAI 300, Fundamental Principles of Performance Auditing, page 2

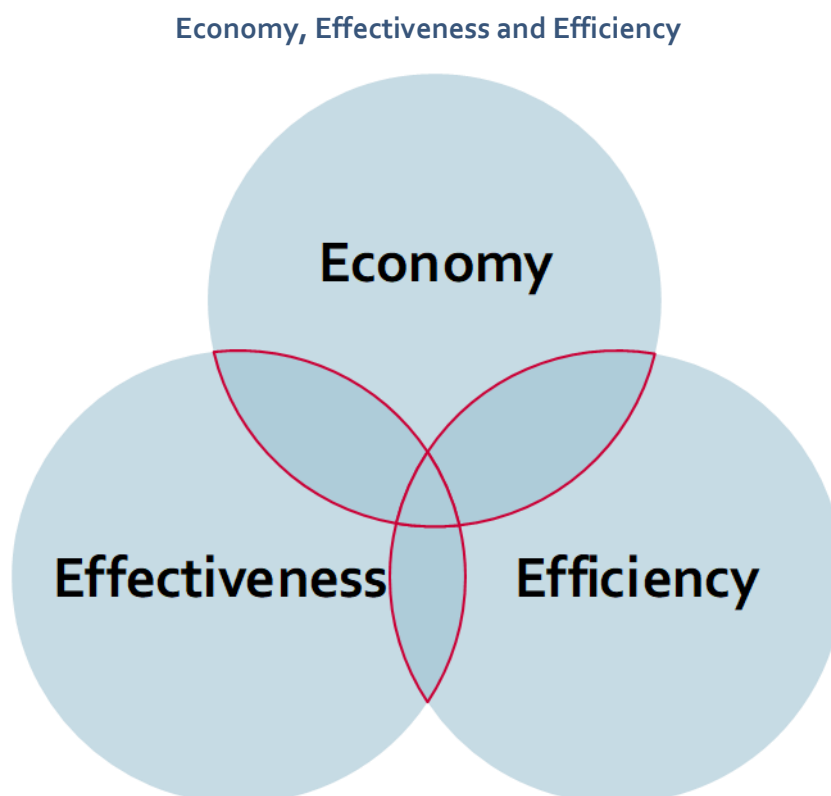
And INTOSAI continues

"Performance auditing seeks to provide new information, analysis or insights and, where appropriate, recommendations for improvement. Performance audits deliver new information, knowledge or value by:

- *Providing new analytical insights (broader and deeper analysis or new perspectives);*
- *Making existing information more accessible to various stakeholders;*
- *Providing an independent and authoritative view or conclusion based on audit evidence;*
- *Providing recommendations based on an analysis of audit findings.²*

1.3 THE FAMOUS "THREE E'S"

Performance audit basically deals with Economy, Efficiency and Effectiveness – known as the famous "Three E's".



² ibid.

1.3.1 ECONOMY

Economy can be understood as

Minimising the cost of resources used by acquiring them in due time, appropriate quantity and quality and at the best price.³

Judging economy in itself implies forming an opinion on the resources (human, financial and material) deployed. This requires assessing whether given the context, resources have been acquired, held and used economically and acquired in due time, in appropriate quantity and quality at the best price. The performance auditor needs to examine whether the means chosen represent the most or at least a reasonable economical use of public funds.

1.3.2 EFFECTIVENESS

Effectiveness can be understood as

Meeting the objectives set and achieving the intended results.⁴

Basic Question:

Are the right things being done?

Effectiveness is essentially a goal-attainment concept. It addresses the issue of whether the programme/activity has achieved its objectives. When focusing on effectiveness, it is important to distinguish between the immediate outputs or products and the ultimate impacts or outcomes. Outcomes are important to the effectiveness of programmes/activities but may be more difficult to measure and assess than the inputs and outputs. Outcomes will often be influenced by external factors and may require long-term rather than short-term assessment.

In auditing effectiveness, Performance audit may, for instance:

- assess whether the objectives of and the means provided (legal, financial, etc.,) for a new or ongoing public sector programme are proper, consistent, suitable or relevant to the policy;
- assess and establish with evidence whether the observed direct or indirect social and economic impacts of a policy are due to the policy or to other causes;
- identify factors inhibiting satisfactory performance or goal-fulfilment;
- assess whether the programme complements, duplicates, overlaps or counteracts other related programmes;
- assess the adequacy of the management control system for measuring, monitoring and reporting a programme's effectiveness; and
- identify ways of making programmes work more effectively.

³ Cf. Ibid.

⁴ Cf. Ibid.

1.3.3 EFFICIENCY

Efficiency can be understood as

getting the most from the available resources. It is concerned with the relationship between resources employed and outputs delivered; in terms of quantity, quality and timing.⁵

Basic Question:

Are things being done in the right way?

The principle of efficiency means getting the most from the available resources. Efficiency exists where the use of financial, human, physical and information resources is such that output is maximised for any given set of resource inputs, or input is minimised for any given quantity and quality of output. The main issue to be examined here is whether the resources have been put to optimal or satisfactory use or whether the same or similar results in terms of quality and turn-around time could have been achieved with fewer resources. It refers to the relationship between the quality and quantity of goods and services yielded and the cost of resources used to produce them, in order to achieve the results.

A finding on efficiency can be formulated by means of a comparison with similar activities, with other periods or with a standard, which the entity has explicitly adopted. Assessments on efficiency might also be based on conditions that are not related to specific standards, i.e., when matters are so complex that there are no standards. In such cases, assessments must be based on the best practices and available information.

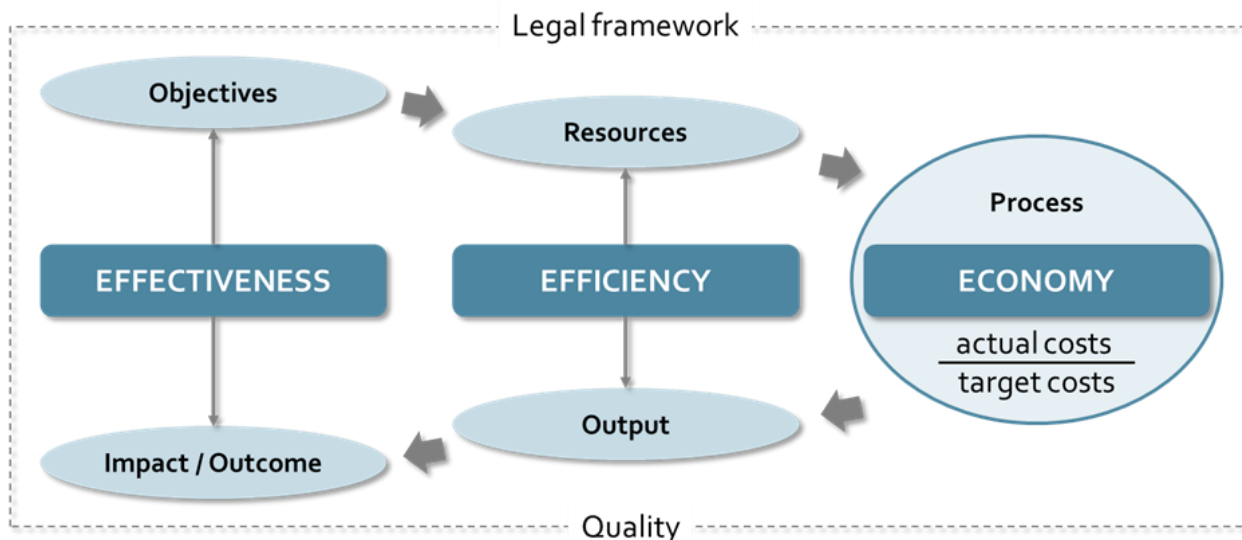
Auditing efficiency embraces aspects such as whether:

- human, financial and other resources are efficiently used;
- public sector programmes, entities and activities are efficiently managed, regulated, organised and executed;
- services are delivered in a timely manner; and
- the objectives of public sector programmes are met cost-effectively.

⁵ Cf. Ibid.

1.3.4 CORRELATION BETWEEN EFFECTIVENESS, EFFICIENCY AND ECONOMY

The correlation between effectiveness, efficiency and economy can be showed as followed:



The above chart shows the relationships between effectiveness, efficiency and economy. To achieve its objectives, the audited entity uses resources (staff, time, money, etc.). These resources are consumed in the course of a work process. At the end of this work process there is a certain output. This can be a product, an information, a document or other results of administrative actions. This output is used by the audited entity to achieve its objectives.

Additionally, the chart shows also the most important components to be used to evaluate these three basic categories (effectiveness, efficiency and economy).

In order to assess effectiveness, we need to put the degree of goal achievement in relation to the impact achieved. We evaluate the effectiveness of performance in relation to achievement of the objectives of the audited entity and we evaluate the actual impact of activities compared with the intended impact.

To assess efficiency, we need to look at the relationship between the input of resources and output. Efficiency is the difference between resource-use and output. The audit can include the efficiency of utilization of human, financial, and other resources, including examination of information systems, performance measures and monitoring arrangements, and procedures followed by audited entities for remedying identified deficiencies. The smaller the resources used and the greater the output, the better.

In order to assess the economy, we have to look at the costs. Economy is closely related to efficiency. Instead of economy, you can also say cost efficiency. We ask here, how well is the work process suited to achieving the planned output as cheaply as possible? We look at how much money is used to achieve the desired output. Or in other words, how much money is consumed in the work process and can the working process be changed to achieve the same output in a cheaper way. We evaluate the economy of administrative activities in accordance with sound administrative principles and practices, as well as management policies.

1.4 THE TWO BASIC QUESTIONS

As already mentioned in the previous chapters Performance audits may find answers to the following questions:

Are the right things being done?
Are things being done in the right way?

In the effort to find answer to the first question, adequate caution should be exercised by not going beyond the audit mandate by respecting the roles assigned to executive and audit. However, the correctness of the information or inputs that were considered while framing the policy and sufficiency of the programmes and resources to fulfil the policy objectives may be assessed and reported.

The second question means, broadly speaking, whether policy decisions are being carried out properly. This question is usually associated with an assessment *vis-à-vis* norms i.e., the performance auditor wants to know whether the executive has observed the rules or the requirements consistent with the programme. Up to this point, performance auditing is mainly concerned with different aspects of the economy or the efficiency of operations. The scope for analysis becomes considerably greater by posing the second question, i.e., whether the right things are being done. In other words, effectiveness of the operations would be examined by asking questions whether the adopted policies have been suitably implemented. A performance auditor might, for instance, find a chosen measure ineffective and inconsistent with the policy objectives.

1.5 OBJECTIVES OF PERFORMANCE AUDIT

The main objective of performance auditing is to constructively promote economical, effective and efficient governance. It also contributes to accountability and transparency. Performance auditing promotes accountability by assisting those charged with governance and oversight responsibilities to improve performance. It does this by examining whether decisions by the legislature or the executive are efficiently and effectively prepared and implemented, and whether taxpayers or citizens have received value for money. It does not question the intentions and decisions of the legislature, but examines whether any shortcomings in the laws and regulations or their way of implementation have prevented the specified objectives from being achieved. Performance auditing focuses on areas in which it can add value for citizens and which have the greatest potential for improvement. It provides constructive incentives for the responsible parties to take appropriate action. Performance auditing promotes transparency by affording parliament, taxpayers, those targeted by government policies, media and other stakeholders an insight into the management and outcomes of different

government activities. It thereby contributes in a direct way to providing useful information to the citizen, while also serving as a basis for learning and improvements.⁶

1.5.1 SUBJECT MATTER

Performance audit is not excessively subject to specific requirements and expectations, being more flexible in its choice of subjects, audit objects, methods, and opinions, comparing to compliance- or financial audit that apply relatively fixed standards. Performance audit is not a regular audit with formalized opinions, and it does not have its roots in private sector auditing. It is by nature comprehensive and open to judgments and interpretations and uses many investigative and evaluative methods. More details about this in the following chapters 2 and 3.

The purpose of performance auditing can be: audit of achievement of objective, audit of effects, measuring economy audit, focusing mainly on the goals of the organisation/programme.

The subject matter of a performance audit need not be limited to specific programmes, entities or funds but can include activities (with their outputs, outcomes and impacts) or existing situations (including causes and consequences). The subject matter is determined by the objective and formulated in the audit questions.

1.5.2 AUDIT CRITERIA

Audit criteria within the context of performance audit are audit specific, reasonable standards of performance against which the economy, efficiency and effectiveness of operations can be evaluated and assessed. The auditor may sometimes be involved in developing or selecting the criteria that are relevant to the audit as further discussed under chapter 2 and 3.

1.5.3 AUDIT APPROACH

The approach of Performance Auditors is comprehensive and open. The focus on outcome, impact and objectives implements a more objective oriented approach than a problem oriented approach. But nevertheless even problem orientation can be part of performance audits – a blend of problem- and objective orientation is possible and sometimes can be necessary.

The steps made for carrying out a performance audit can be:

a) Audit of achievement of goals – assessing the degree to which actions have achieved projected goals;

⁶ Cf. Ibid., page 3

b) Audit of effects – settling on whether and to what extent the measures were “effective” and therefore appropriate for achieving the goal;

c) Economy audit examines whether the measures were implemented with budgeted resources – implementation economy audit (e. g. highway construction) and whether the measures, taken as a whole, were economical with respect to the definition of goal (e. g. to improve income in a certain region by building a highway – the highway construction alone is not decisive) – measure economy audit.

1.6 OUTCOMES OF PERFORMANCE AUDITS

Performance audits provide entities and stakeholders with information and assurance about the quality of management of public resources and also assist public sector managers by identifying and promoting better management practices.

Performance auditing may, therefore, lead to better accountability, improved economy and efficiency in the acquisition of resources, improved effectiveness in achieving public sector programme objectives, a higher quality in public sector service delivery and improved management planning and control. It is an important responsibility of the auditor to ensure that through each performance audit one or more of these objectives are met.

Performance auditing is a means to an end and not an end by itself. Performance audit should be aimed at adding value to the Management by way of reliable, objective and independent information, highlighting the shortcomings in programme planning, implementation, information systems affecting the outputs and outcome specifically and quality of expenditure or management generally. In addition, performance audit reports provide valuable information and independent assessment on programme management and the extent of fulfilment of the policy objectives to the stakeholders including the Parliament, the State Legislatures and the general public. Thus, good quality performance audit contributes to good governance.

The users of performance audit reports expect reliable reports. All performance audits should, thus, be planned and performed keeping in view the expected outcome. It is a good practice to evaluate the real impact of performance audit on entity policies and programmes.

2 AUDIT PROCEDURE

Performance audit is a very complex engagement. Usually more than two persons – an auditor and a supervisor - are needed to perform the audit. Very often you have 2 up to 4 auditors cooperating. Maybe it is only a theoretical discussion to see a performance audit as a small project or not. But undoubtedly the use of project structures and project instruments are very useful as there are clearly defined starting and closing events, very well structured processes and the goal to add value to the audited organisation. Beside this, performance auditing is far more than following check lists. It is necessary to shape an audit design that fits best to the given audit mandate. The proposed project instruments help to better understand the audit issues which are embedded in a complex multilevel environment, they shall sharpen the focus of the work like scientific research questions do and they also indicate how to methodologically proceed.

The audit documentation has to be done thoroughly, also for quality assurance reasons.

2.1 AUDIT PLANNING

Audit planning starts when the auditors (and the supervisor) meet for the first time and ends when the auditors start their field work.

Remark. It is very important that there are at least 2 meetings in the audit planning phase: one at the beginning of the planning and another at the end of this phase.

In rare cases it might be necessary to re-open the planning phase afterwards if very important unforeseen situations occur. If this goes beyond the audit framework given and affects the audit mandate itself the responsible person for the audit plan has to be asked for permission.

Example: The audit mandate is about the efficiency of procurement processes. During field audit it is stated that the by far most critical figures are with direct placement. The open question then is: should the work be continued with or without an additional emphasis. (It might be decided to have a separate audit, etc.)

2.1.1 STRUCTURE

The whole performance audit has to be documented in a structured way. The documentation can be seen as living paper with versions to be stored time by time for reasons of traceability. For this an electronic documentation is used.

The cover of the file includes: the topic of the audit, the structure or structures audited, a reference to the audit plan, the names of the members of the audit team, the name of the coordinator, the name of the supervisor.

The structure of the internal audit mission file, related to the activities within the internal audit mission, is as follows:

Section	Activity		Documents issued	
	Activity code	Activity name	Document code	Document name
A	Initiation of the mission			
	A01	Elaboration of the service order	A01-VV	Service order
	A02	Preparation of declarations of independence	A02.XX-VV	Declarations of independence for each team member, including the coordinator and supervisor
	A03	Elaboration of the notification of the audited structure	A03-VV	Notification of the audited structure
	A04	Planning and conducting the opening meeting	A04-VV	Minutes of the opening meeting
B	Mission planning			
	B01	Environmental analysis	B01.01-VV	Analysis of previous audits
			B01.02-VV	Identifying and analyzing relationships
			B01.03-VV	Mind Mapping
	B02	Preliminary study	B02-VV	Preliminary study
B03	Issuing the audit program	B03.01-VV	Initial audit program	
		B03.02-VV	Final audit program	
B04	Issuance of the document addressing the intervention on the spot	B04-VV	On-site intervention approach	
C	On-site intervention			
	C01	Issuing worksheets	C01.XX-VV	Worksheets
	C02	Issuance of FIAPs	C02.XX-VV	FIAPs
	C03	Issuance of FCRIs	C03.XX-VV	FCRIs
	C04	Planning and conducting the closing meeting	C04-VV	Minutes of the closing meeting
D	Report			
	D01	Elaboration of the draft report	D01-VV	The draft report
	D02	Communication of the draft report	D02-VV	Communication address of the draft report to the audited structure, to express a point of view
				The point of view on the draft report, expressed by the audited structure
	D03	Receiving the views of the audited structures	D03	
	D04	Planning and conducting the conciliation meeting	D04-VV	Minutes of the conciliation meeting
	D05	Issuance of the final report	D05-VV	The final report
	D06	Submission of the final report for approval	D06-VV	Address for submission of the final report for approval
	D07	Endorsement of the final report	D07-VV	Final report approved
D08	Communication of the final report to the audited structure	D08-VV	Address of transmission of the final report to the audited structure	
E	Monitoring the implementation of the recommendations			
	E01	Receiving the action plan	E01-VV	The action plan
	E02	Elaboration of FUR	E02-VV	Recommendation implementation tracking form
	E03	Informing the management about the stage of implementation of the recommendations	E03-VV	Address to the entity's management regarding the stage of implementation of the recommendations

Remark: XX represents the serial number of the document. It is applicable where several similar documents are issued. For example, a statement of independence is issued for each auditor on the team. VV is the version of the document. Version 01 is the version first issued by the auditor. If the supervisor requests changes, the modified document will have version 02.

The subsequent sub-chapters 2.1.2 – 2.1.7 explain in detail most important aspects of the audit documentation with regard to performance auditing.

2.1.2 ENGAGEMENT LETTER

The engagement letter is drawn up by the auditors, endorsed by the supervisor and signed by the head of the audit structure and represents the written assignment given to the audit team.

The engagement letter will be documented through a standard form of the following type:

Engagement letter										
The theme of the mission <i>(to be audited; the text will be as in the audit plan)</i>										
Mission start event: <ul style="list-style-type: none"> Opening session 	Start date (Plan): <ul style="list-style-type: none"> 									
Closing event: <ul style="list-style-type: none"> Transmission of the draft report to the audited structure 	Closing date (Plan): <ul style="list-style-type: none"> 									
The general objective of the audit mission: <i>it will be defined in correlation with the theme of the audit mission</i>										
Audit procedures: <ul style="list-style-type: none"> Preparation fact finding & critical interpretation evaluation & recommendation reporting 	Resources: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Resources</th> <th style="width: 20%;">Days per person</th> <th style="width: 20%;">Costs</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Internal auditors</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">External costs</td> <td></td> <td></td> </tr> </tbody> </table>	Resources	Days per person	Costs	Internal auditors			External costs		
Resources	Days per person	Costs								
Internal auditors										
External costs										
Supervisor: <ul style="list-style-type: none"> 	Coordinator: <ul style="list-style-type: none"> 									
Audit team: <ul style="list-style-type: none"> 	External Experts: <ul style="list-style-type: none"> 									

The general objective of the internal audit mission will be broken down into specific objectives; they are a result of the audit planning work and specify the issues that will be audited. The supervisor should ensure that the specific objectives cover the topic of the mission in its entirety, without relevant gaps or issues not covered.

The "non-targets" are to clarify what is not to be audited if there might rise some doubt about that.

Example: The efficiency of the management of a certain project has to be audited. Is the business case of this project to be audited too? If no: then this should be mentioned as non-target.

2.1.3 ANALYSES OF ENVIRONMENT

Environments are organisational (sub-)units which affect the audit issue. Depending on the audit issue it often is not necessary to audit every (sub-)unit, but it contributes to the oversight to have them in one picture. The internal audit team and the supervisor are considered as internal environments.

Recalling previous audits regarding the same or similar audit issue or the same units are very useful to put the audit issue in a broader context.

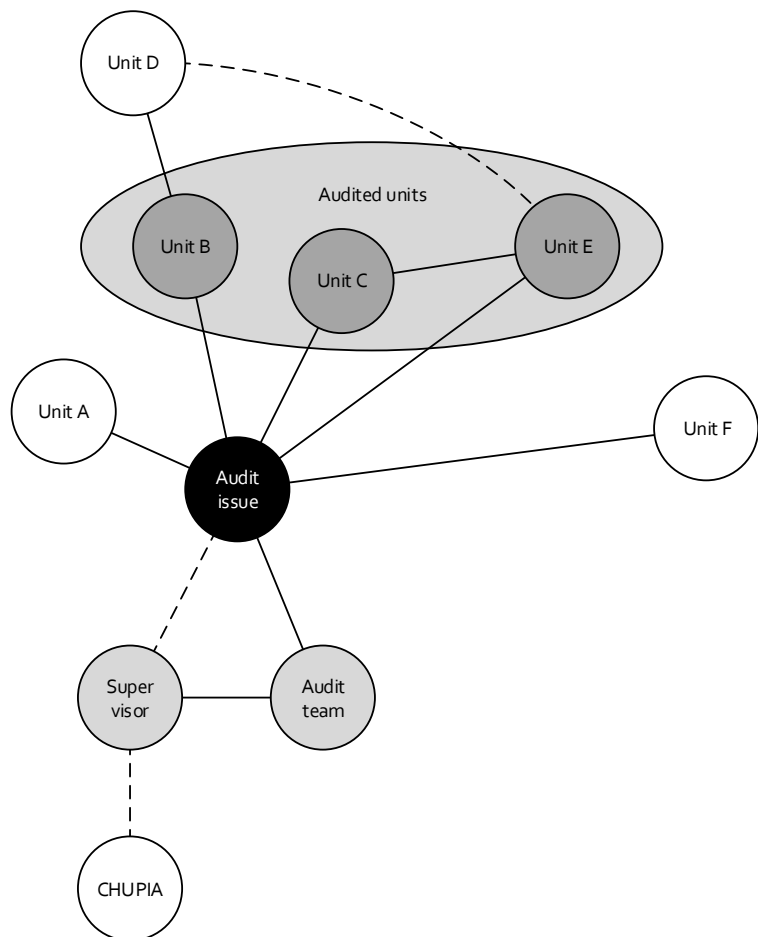
2.1.3.1 DEPICTING THE RELATIONSHIPS

By using a graph, the influence a unit has with respect to the audit issue can be indicated, the audited (sub-)units can be differed from the other, the cooperation of (sub-)units inside of groups can be shown, etc.

Example

The picture indicates that Units B, C and E are audited. Unit E and Unit C are in a close working relationship, the same is with Unit B and Unit D. The dotted lines show relationships which are not so important with regard to the audit issue. E.g. the supervisor directly interacts with the Audit Team (of course), but in principle does not directly intervene in the audit engagement. The relationship Unit B to Unit D is outside the scope of audit, but anyway the interface between these units has to be audited.

Additionally (not shown here) the size of the bubbles could show the importance of the unit (by staff or by budget etc.).



2.1.3.2 ANALYSES OF RELATIONSHIPS

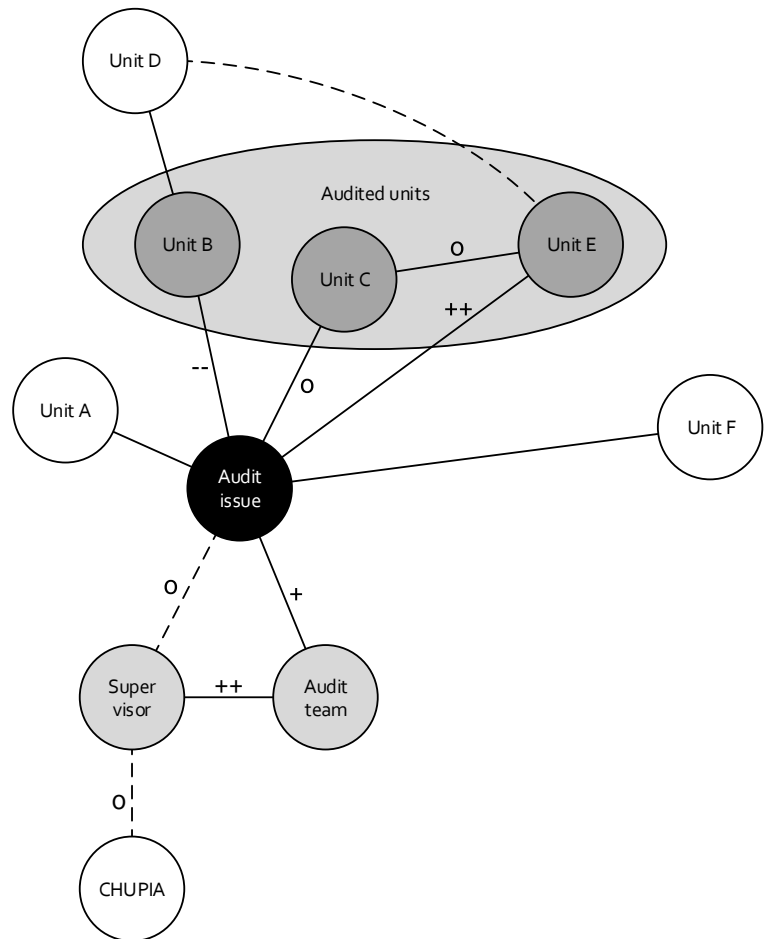
The analyses of the relationships is done to optimize the cooperation with shareholders. The audit environment relationships are described and analysed in terms of conflicts or potentials. Based on this analysis, concrete strategies and activities for successful relationships can be planned.

The result of the analyses is shown in two ways.

The first way is integrated in the picture shown above, e.g. by using the symbols ++ / + / 0 / - / -- .

Example

The audit team is well composed and very interested to do the concrete audit, but it is not very experienced in performance auditing etc.(+). The supervisor is not a person steering and criticising the audit team but is highly motivated and gives good advice on methodologies etc (++). Unit E highly welcomes the audit, Unit B dislikes to be audited (maybe because Unit B is not linked to Units C and E and enjoys its independency). Units A, C and E are not necessarily to be analysed.



The second way is using a table with naming the environment, indicating the potentials and conflicts and describing in brief the activities of the auditors to be carried out.

Example:

Analyses of relationships		
Environment	Relationship (Potential/Conflict)	Activities
Unit B	Unit B is afraid to lose its independency or even to be merged with Unit E. The information will be given restricted or even manipulated.	Explain in detail the targets and the non-targets of the audit. Keep the problems in mind when introducing the interviews. etc.
Etc.		

2.1.3.3 PREVIOUS AUDITS

Sequential or parallel audits and related previous audits are described and the relationships are explained.

Example:

Links to other audits		
Topic of the Audit	Relationship	Activities
Audit XY	Audit is done at the same time, same / similar audit issue	Coordinate with audit team XY
Audit AB Audit CD	Audit AB, audit CD, and our audit are strongly linked, in total the three audits form an opinion on a complex situation	Coordinate with audit teams AB and CD
Audit EF	Annual audit plan 20xx	Read the audit report (similar audit issue)
Audit GH	Annual audit plan 20xx	Contact a member of the audit team (special audit methodology)
Etc.		

2.1.4 CORE AUDIT AREAS

The audit mandate fixes the audit issue and roughly the audit targets. In total the mandate forms a frame which has to be observed by the audit team: the content of the audit design has to cover all given aspects and is not allowed to exceed the frame (no gaps, no issues without mandate).

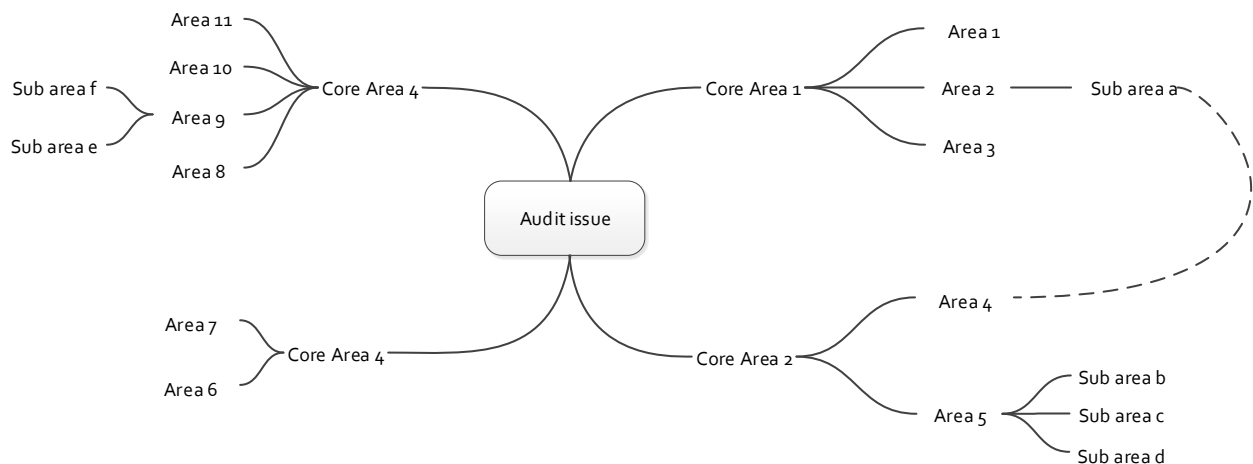
The core areas try to best meet the targets of the mandate.

In a first step a mind map is created, then the research questions are elaborated. To double check the result with the intention of the mandate, the strategic focus of the audit is described.

2.1.4.1 MIND MAP

Mind mapping is a creative tool of visualisation to put issues in an order.

Example:



The mind map shows that four core areas with in total eleven areas and (at least) six sub areas were found, which are worth to be audited. The position of area 2 indicates that area 2 has to be seen in the context of core area 1 and is not a core area for itself. Auditors therefore shall not expand area 2 as broad as possible but focus only an area 2 aspects with regard to core area 1.

The dotted line between sub area a and area 4 is a hint to a strong thematic linkage. It could be that both areas are merged in one single chapter of the report.

2.1.4.2 RESEARCH QUESTIONS

The audit issue including the audit areas at their different levels have to be summarised to a few questions which in total reflect the complete audit target. The number of the questions should not exceed five to six. The nature of the questions shall not lead to simple descriptions but to evaluations.

***Example:** The question "How is the organisational structure of the audited unit?" is not sufficient. Because it causes an answer which is solely descriptive, like " In the organisation there are nn persons engaged, which corresponds to mm full time equivalents. The organisational chart is like this... etc.". A research question could be: "How effective does the organisational structure contribute to the performance of the audited unit?"*

2.1.4.3 STRATEGIC FOCUS

The strategic focus describes in brief the main target of the audit and its context. If possible, the linkage between the strategy of the whole administration, standardised systems and the audit target is pointed out.

***Example:** The further development of risk management systems is one of the main targets of the public administration, stipulated in ...(law / government programme / ...). In accordance with the Supreme Court of Auditors the COSO ERM model is applied. The audit focusses on essential aspects of the risk management system with regard to operational risks. ...*

2.1.5 AUDIT METHODS

The accurate selection of audit methods has to be done during the planning phase. At the end of the audit a review has to be done.

The aggregated information about lessons learned of all audits is very important to supervisory functions.

Example:

Audit methods	How to	Why	Lessons learned
Data analyses	Use of own IT access to xy system	Analyses of performance indicators, Selection of single cases	Works well, but incomplete picture, data not always updated – Useful, but additional methods necessary
Etc.			

2.1.6 MILESTONES

Performance audit needs discipline: A strict focus on the audit target is need. To support supervision, quality assurance, efficiency and effectiveness of audit work a time table is need. The relevant events are fixed as milestones, describing the actions, the plan date and the actual date and naming the person / function competent for approval.

Example:

MILESTONES				
Event		Description of the action	Scheduled Date	Effective Date
M1	Complete mission planning	Preliminary study signed by the supervisor		
M2	Start of the intervention on the spot	Communication of the document addressing the intervention on the spot		
M3	Completion of the intervention on the spot	Supervisor signing the closing meeting minute		
M4	Draft audit report submitted to the point of view	Draft report and its forwarding address to the audited structure signed by the head of the audit structure		
M5	Final report submitted for approval	The final report and its submission address for approval signed by the head of the audit structure		

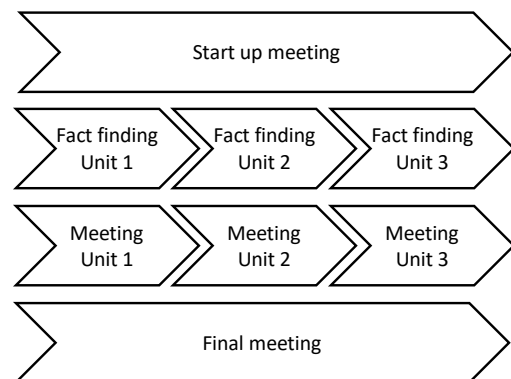
2.2 FIELD WORK

The planning of a performance audit takes a long time. It is necessary to get a good understanding of the type of business, of the organisation, of the regulations and standards and an adequate design of the audit has to be tailored.

Field work is the subsequent working phase. It is the audit work mainly done at the premises of the audited unit or in direct contact with representatives of the audited unit(s) or other persons, but also includes data analyses.

Example: Field work could include interviews, questionnaires, walk through tests, etc. etc. (see chapter 3). Whether the analyses of data very often is done as desk audit at the bureaus of the auditors it is also seen as part of the field work.

Field work starts with the first meeting at the premises / bureaus of the audited unit and ends with the final meeting. If more than one unit is audited a joint start-up meeting and a joint closing meeting is necessary. The work to be done with regard to the different units is done separately, also the findings are discussed separately.



2.2.1 START-UP

The start-up meeting is the first meeting with the head and / or other representatives of the audited unit. Information is given in general about the nature of performance audit and the audit processes, furthermore the scope the audit is explained and basics are fixed like needed infrastructure, selection of persons to be interviewed etc. A start-up document including all this information should be provided.

*It is recommended to include an **approximate** schedule of the audit engagement, highlighting the audit steps, such as:*

Calendar week (SC) Activity	20 ... (Year)															
	21	22	2. 3	24	25	26	27	28	29	30	31	32	33	34	35	36
Mission preparation																
▪ First meeting (Start-up)	■															
▪ Analysis of first documents	■	■														
▪ Establishing the audit program		■	■													
▪ Developing the on-site intervention approach			■													
Field work (Fact finding)																
▪ Document analysis			■	■	■	■	■	■	■							
▪ Interviews				■	■	■	■	■	■							
▪ Other types of checks							■	■	■							
▪ Preliminary findings							■	■	■	■						
▪ Communication with audited structures										■						
Field work (evaluation of results)																
▪ Evaluation of the positions of the audited structures										■	■					
▪ Formulation of findings											■					
▪ Formulation of recommendations												■				
▪ Closing session													■			
▪ Elaboration of the draft report													■	■		
Report																
▪ Communication of the draft report															■	
▪ Conciliation meeting																■
▪ Preparation of the final report																■

Remark: The fields with (here) blue colour indicate that this work has to be done at the premises / bureaus of the audit units.

2.2.2 FACT FINDING

Which kind of facts should be examined, is fixed in the planning phase. How to find facts, is a matter of methodology.

However, the fact finding process of performance audit is based on principles, like:

- Systems and not persons are audited.
- Auditors and managers have the same point of view towards the audit issue. Their common goal is to improve systems and the outcome of the unit.
- Information is given open minded, there are no hidden agendas.
- Investigations are never part of the audit.
- Findings are strictly differentiated from their interpretation.
- Findings are always evidence based.

At the end of the fact finding process of the field work, which is when the audit team has finished its field work, the head of the audited unit has to be informed about the findings. At least at that time both have to agree on the facts otherwise the audit has to be continued.

Example: The auditors state, a certain employee has two IT-roles: one as an executive officer and one as supervisor. In cases he uses both roles and in cases he uses his supervisor role whether no executive officer was integrated. Both, the auditors as well as the managers of the audit unit, should agree with the facts, otherwise the audit has to be continued.

2.2.3 EVALUATION

Evaluation compares an as-is situation with an as-should situation and assesses the gap.

The problem with performance audit is that very often there is no detail-defined target situation.

Example: The unit has to do a project (outside EU-funds), but it is not defined which project management standard has to be applied (PRINCE 2, IPMA, PMI, ...?) Maybe there are some project management principles defined by law or regulation, but is there enough information about the minimum requirements of a business case, or about the conditions under which a developing situation is observed as discontinuity, etc.

If no detail-defined target situations exists, the auditors have to rely on generally recognised standards and or on literature of the scientific or administrative community. Sometimes also benchmarking could be helpful. As a matter of transparency and traceability the sources used for evaluation have to be disclosed.

Even systems which are formally not implemented can be audited and evaluated by using generally recognised standards and classifying with a (rough) maturity model.

Example: There are no explicit rules about a risk management system. Based on COSO I model some essential components are actually in place. All in all the given situation could be estimated as level 1 of 5.

Another problem with performance audit is the variety of addressed levels. They have to be clearly described in the report.

Example: See example 3.2.2 (findings).

Level 1: The situation regarding the IT-roles is a breach of the 4-eyes.principle.

Level 2: The Internal Control system of the audited unit is effected and by this – and other findings – weakened.

Level 3: The findings are obviously linked with deputy functions, they have a double–role by nature. This information has also to be given

2.2.4 RECOMMENDATIONS AND THEIR ACCEPTANCE

Recommendations are proposals of internal auditors for improvement.

The audited unit and other responsible functions should move in the proposed direction. The goal of internal audit, namely to add value, aims to a systemic approach of further development and not to details in the system. The recommendation is a "where to go" and not a "how to do".

Example: Coming back to example 3.2.2, continued in 3.2.3:

The recommendation would be: "Improve your Internal Control System regarding the 4-eyes-principle." A recommendation with respect to the certain employee will only be given, if this is an extraordinary situation, not comparable to others.

The acceptance of the recommendations is made by the management of the audited structure. The accepted recommendations are the recommendations agreed with the structure audited since the field work. This cannot prevent the audited structure from commenting or commenting on the draft report on these recommendations.

2.2.5 INFORMATION

Auditors provide information and communicate regularly with the audited structure. The minimum information to be provided is:

The action	Method of communication / Information provided
Audit announcement	By mail or telephone and then written address
Opening session	Organized by post or telephone and documented by the minutes of the meeting, including the approach to the intervention on the spot
Interviews	Raw information on questions and what they are for Feedback to the interviewee on the information received.
Closing session	Information about the facts found Meetings on findings, evaluations and recommendations
Draft report	Document sent to the auditors and to the people who participated in the final meeting for the last corrections, but not for justification.
Final report	Document sent first to the person who signed the audit mandate, for notification, then sent to the responsible managers.

2.3 REPORTING

The audit report is the final product of audit work informing about the audit results. As there is but one audit report it has to cover needs of information of different shareholders. No side letters are written.

Example: The person signing the audit mandate and audit committees are mostly interested in the "big picture" shown in the summary. The audited units and the persons responsible for implementations are interested in detailed information.

The draft report includes the results of the final meeting and conforms in principle fully to the final report. The auditees have a last chance for editorial corrections. According to benchmarks two weeks to react on the draft can be seen as sufficient.

2.3.1 REPORT STRUCTURE

The structure of the report is as follows:

First page: includes audit topic, audit structure or structures reference to the audit plan, name of audit team members, name of coordinator, name of supervisor, date and report number.

The report further contains:

- Information about the people to whom the final report will be distributed
- content
- List of graphs and list of tables
- Explanation of abbreviations
- Summary of the report
- Information on the audit context and audit procedure
- Information about the audit objectives and audit methodology used
- Findings and recommendations (audit results)
- Opinion
- Recommendations accepted

2.3.2 MANAGEMENT SUMMARY

The management summary is a product for its own. It summarises the audit results in brief.

As performance audit very often addresses very complex situations it is preferred to write articles instead of using survey tables. The summary could start with a sentence introducing the importance of the issue or the main problem, and could be structured by paragraphs addressing main audit areas. These paragraphs could be headed by evaluations.

Example: *[Introducing sentence]*

The average volume of procurement is ..., the average volume of direct placement is To meet the targets of cost efficiency and compliance a tailor-made internal control system is implemented. The quality of this system shall be improved.

[Headline first paragraph]

The internal control systems has weaknesses regarding the four-eyes-principle

[Paragraph]

Employees, especially deputies, have executive und supervisory IT-roles at the same time. Cases of self-approval and cases without any executive process have been observed.

etc. (Next headline, next paragraph)

2.3.3 AUDIT RESULTS

The audit report has strictly to separate findings, opinions of the auditors and recommendations.

2.3.3.1 VISUALIZATION OF TEXT

For better understanding the findings are written in different letters than opinions (e.g. Italic) and recommendations (e.g. Bold).

Example:

[Finding]

Deputy officers have different IT-roles at the same time: they could act as executive officer and as supervisor. aa persons use both roles in nn cases and bb persons us their supervisor role in mm cases whether no executive officer was integrated.

[Opinion / evaluation]

The Internal Control system of the audited unit is weakened by this and other findings (see..).

[Recommendation]

The problem regarding the 4-eyes –principle has to be resolved.

2.3.3.2 VISUALIZATION OF AUDIT RESULTS BY GRAPHS AND TABLES

To better explain facts and audit results, a number of different types of visualization are at disposal, e.g. for complex issues in the report, a graphical visualization is recommended. For example, the following:

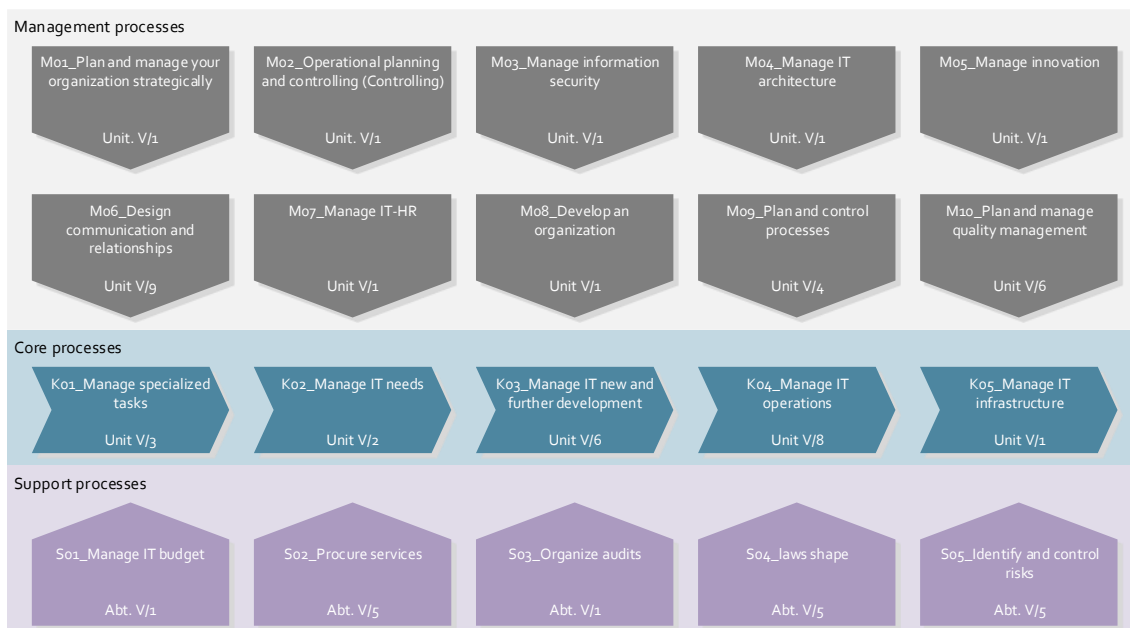
- First entry into the audit area
- Presentation of the basic topic
- Presentation of statistical results
- Visualize and document weak points
- Recognition of processes, value streams and quantities
- Detection of control deficits
- Comparability of statements between groups
- Detecting differentiated reviews
- Visualization and assessment of the maturity of processes or organizations
- etc.

Below you will find examples of visualisations in the context of performance audits. The examples given here are only intended to serve as a guide. Depending on the type of performance audit, different types of visualization of test results are appropriate. It is the responsibility of the auditors to prepare the results in an understandable and comprehensible manner.

Most graphic tools can be found here: <https://www.amcharts.com/javascript-charts/>

Entry and orientation

The following figure shows an overview of the management processes, the core processes and the support processes of an IT organization. It serves as a first overview of the essential processes of the organization.





The chart on the left side (**pie chart**) shows an overview of risks by risk category. This can be chosen as a start in the area of a performance audit in risk management.

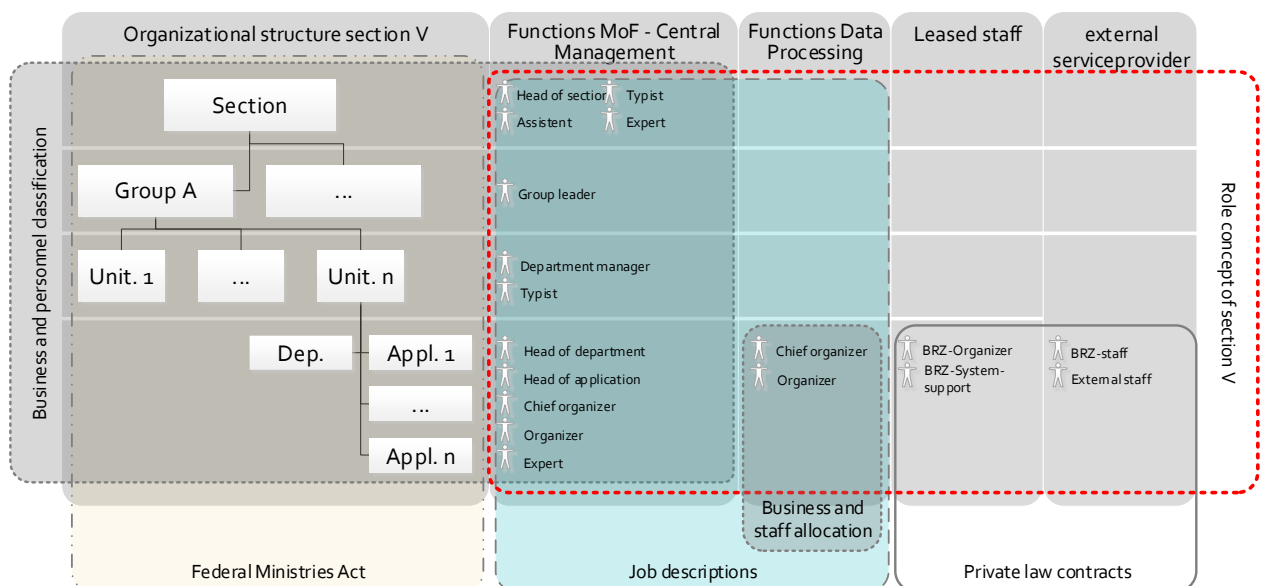
Basic topic

The following graphic shows a basic concept of the structure of a target hierarchy. It provides a first approach to bring the report recipients closer to the basic topic.



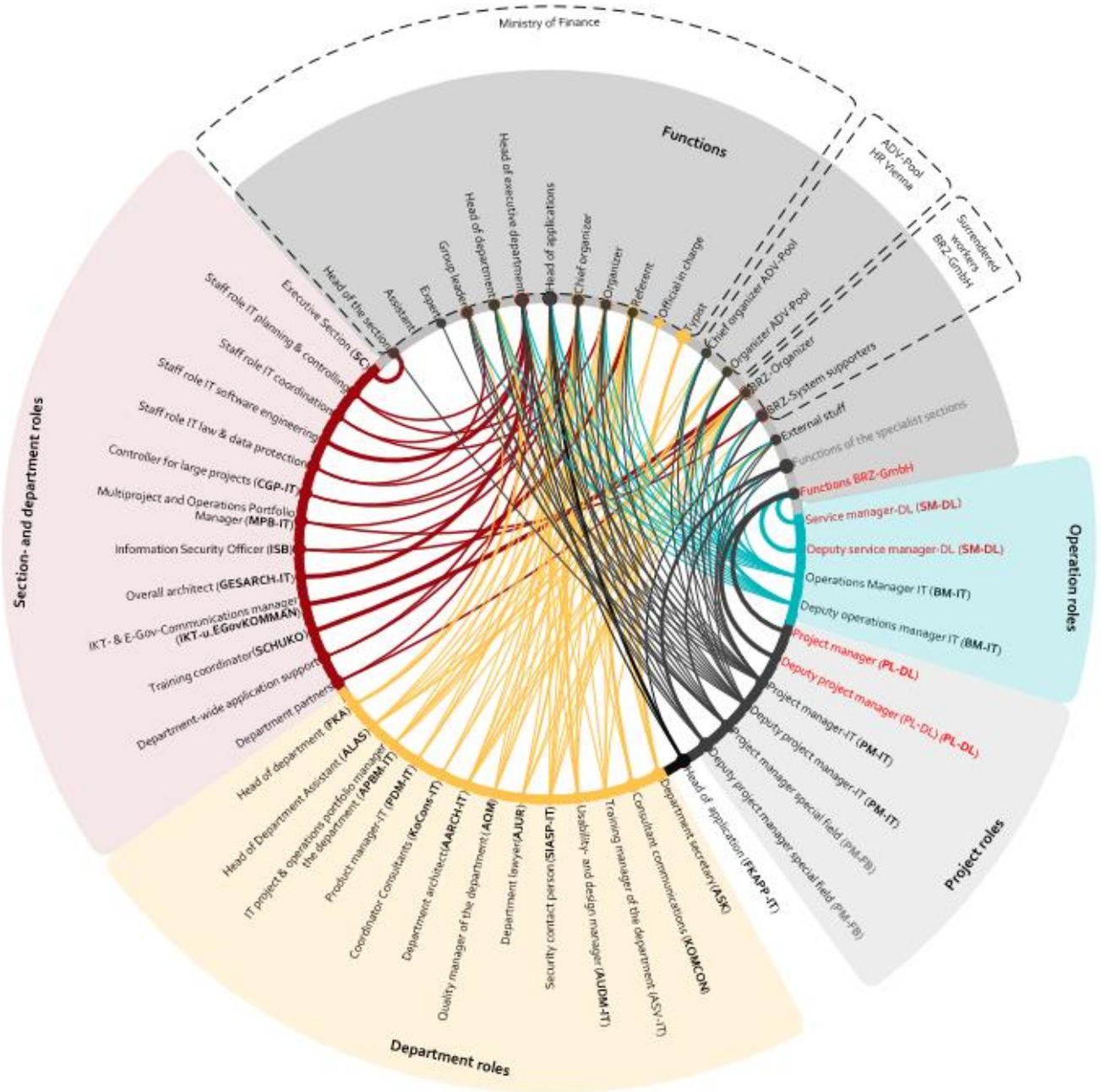
Connections thematically

The following graphic shows correlations between organizational structure, functions, job descriptions, laws, contracts and internal rules in an IT organization.



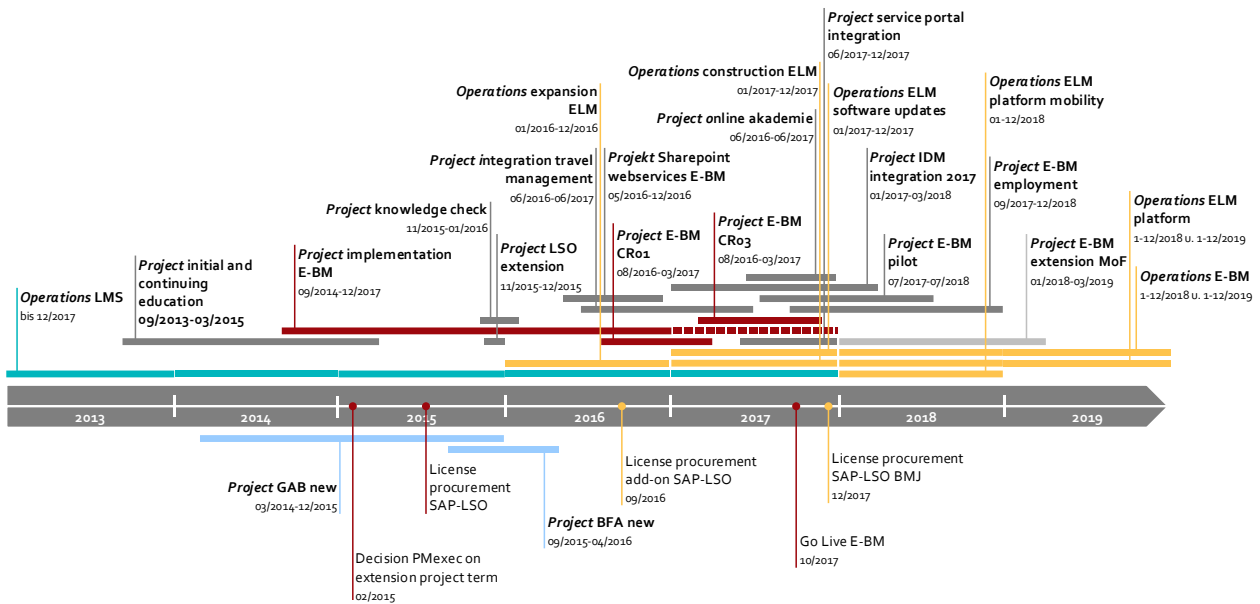
Connections functional

The following graphic (**chord diagram**) shows the functional relationships of a role concept in the IT area. The chord diagram shows the detailed relationships between roles and functions.



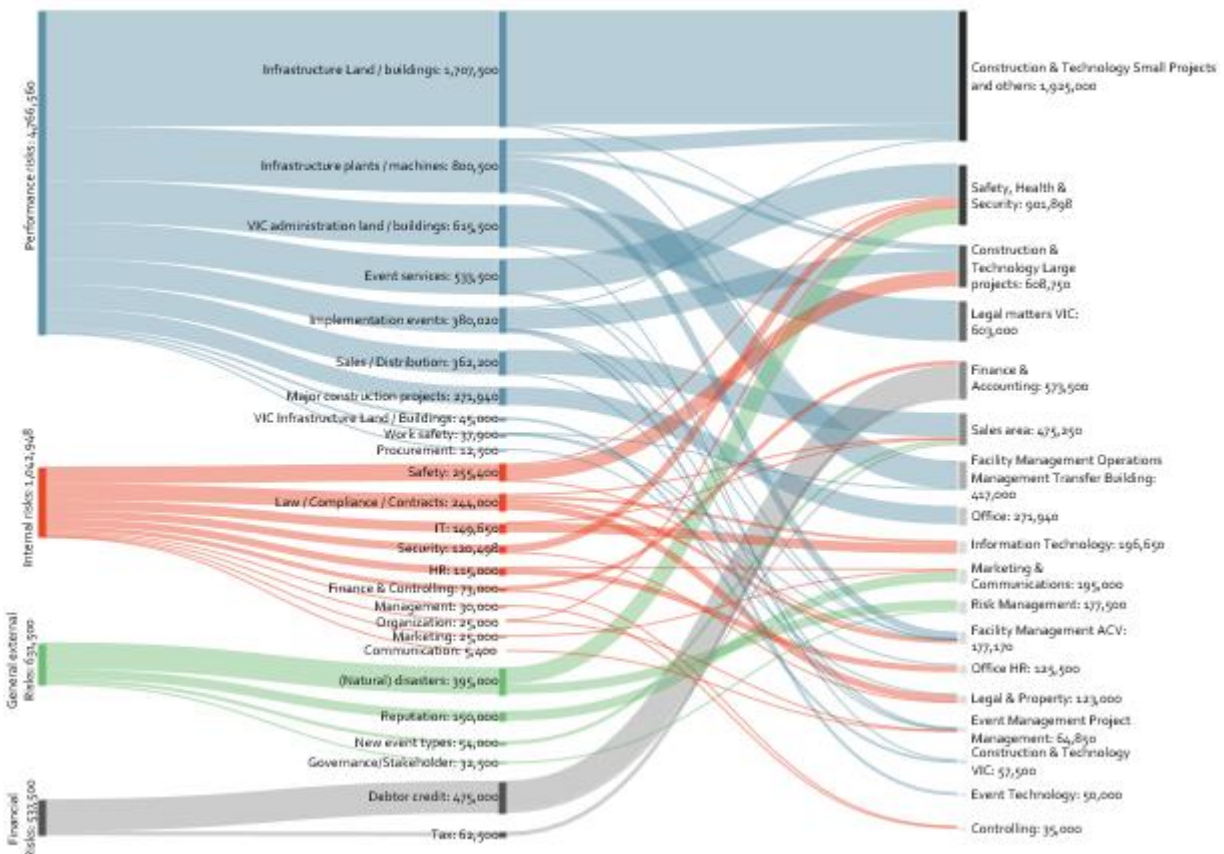
Connections temporal

The following graphic (timeline) shows connections of projects in their time sequence.



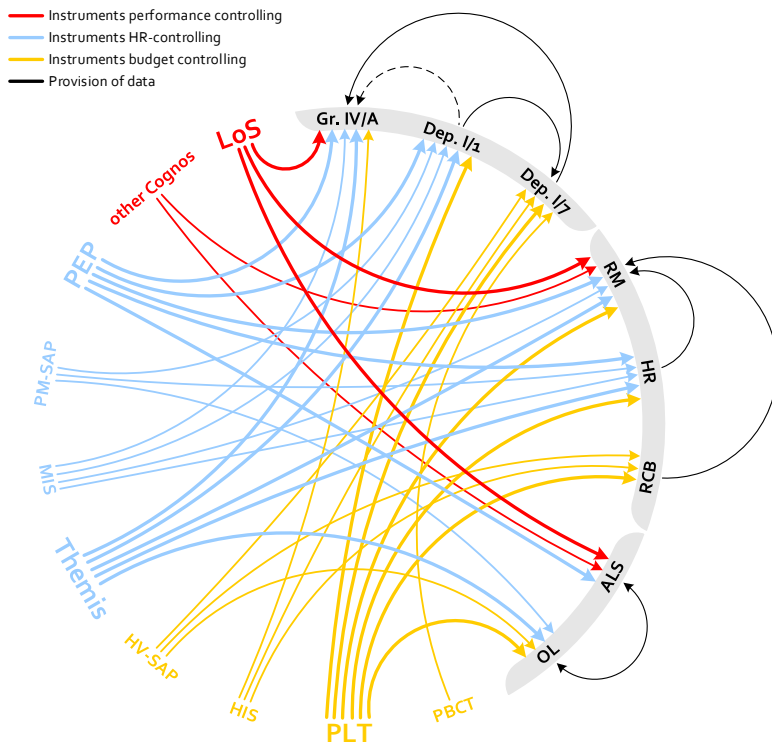
Dynamic allocation, mass flow

The following figure (Sankey chart) shows the dynamic allocation of risks between organizational units and risk categories. With a Sankey diagram, the flow of quantities can be displayed well.



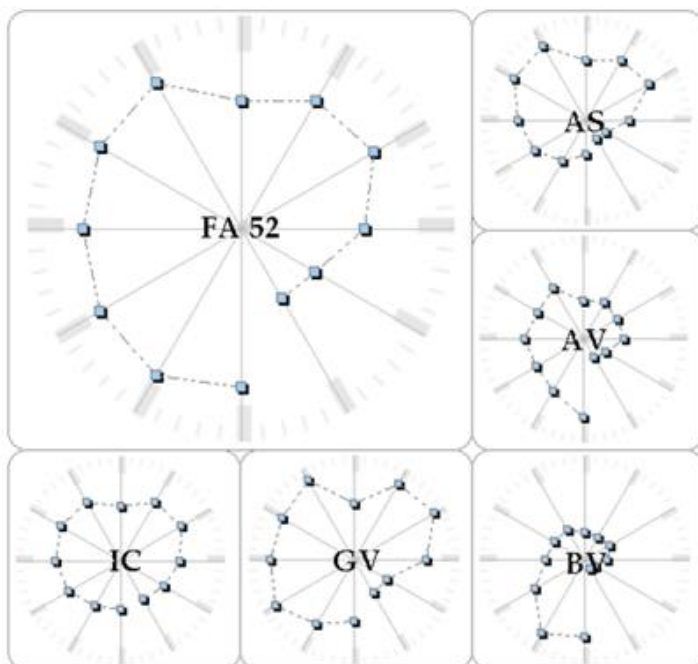
Information flow

A **chord diagram** can also be used well to represent information flows. The following figure shows the information flows from IT applications to specific organizational units.



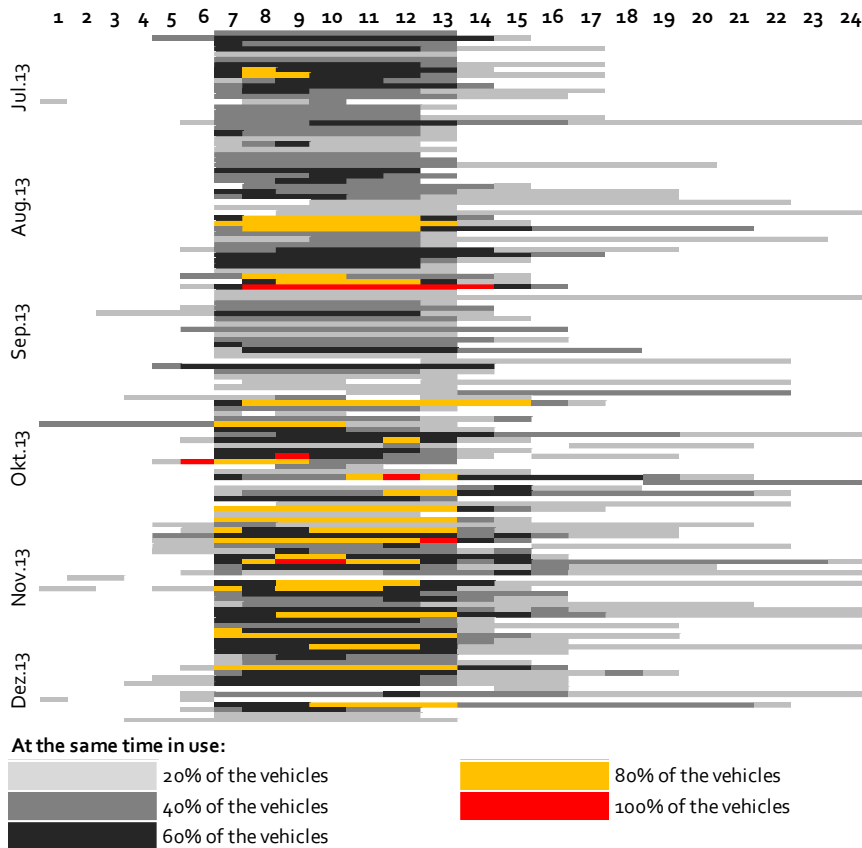
Visualization of processing times

Spider diagrams are very well suited for the visualization of execution times, as they can depict times. The following figure shows such processing times according to the number and time of the settlements.



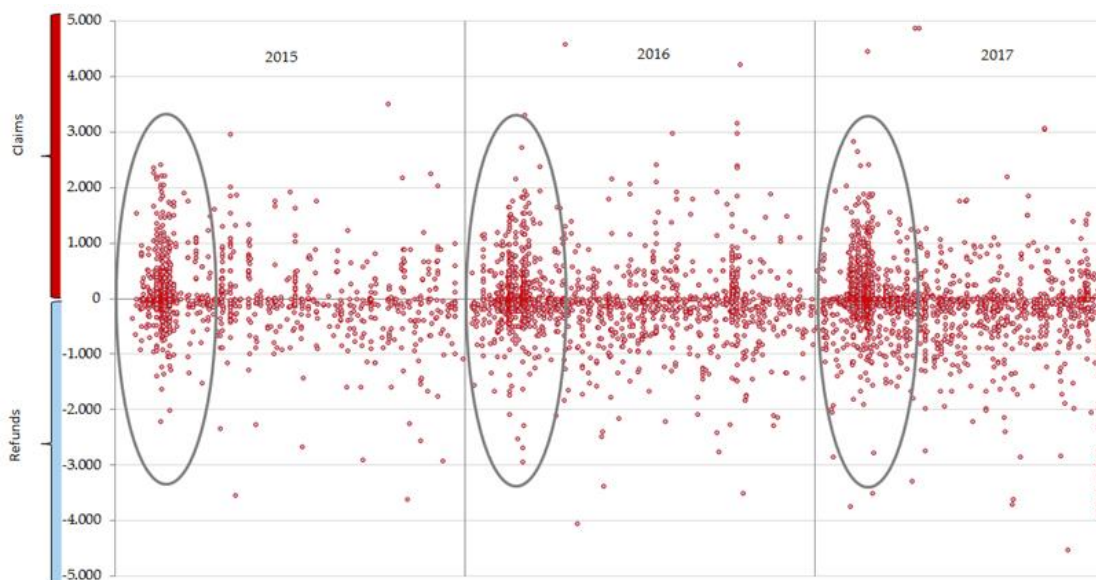
Workload

The workload of resources can also be graphically displayed (**heat map**). The following figure shows the results of a workload analysis of vehicles at certain times.



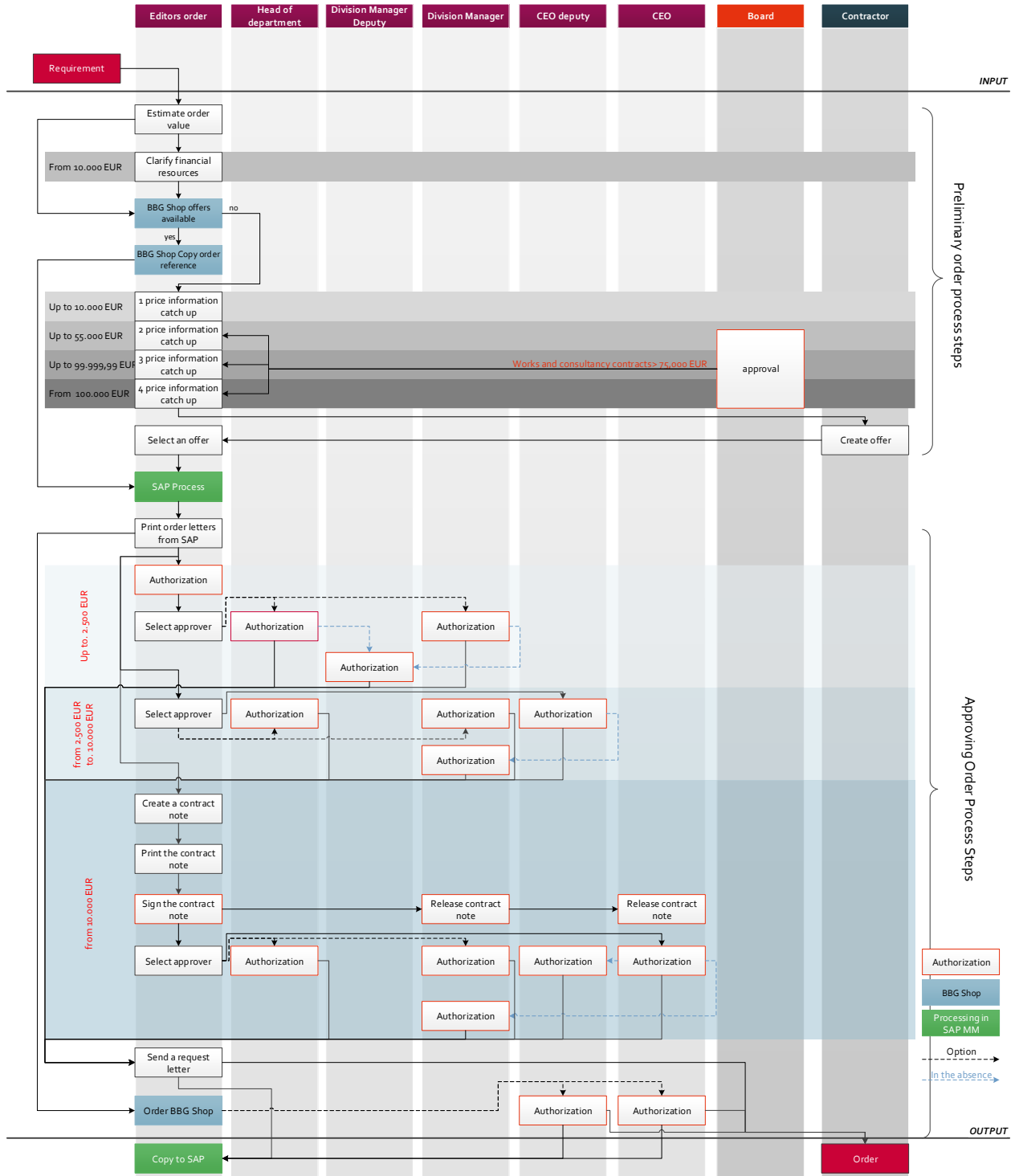
Correlations

To represent correlations **dot diagrams** are well suited. In the following, correlations of tax assessments by amounts and temporal frequency are shown.



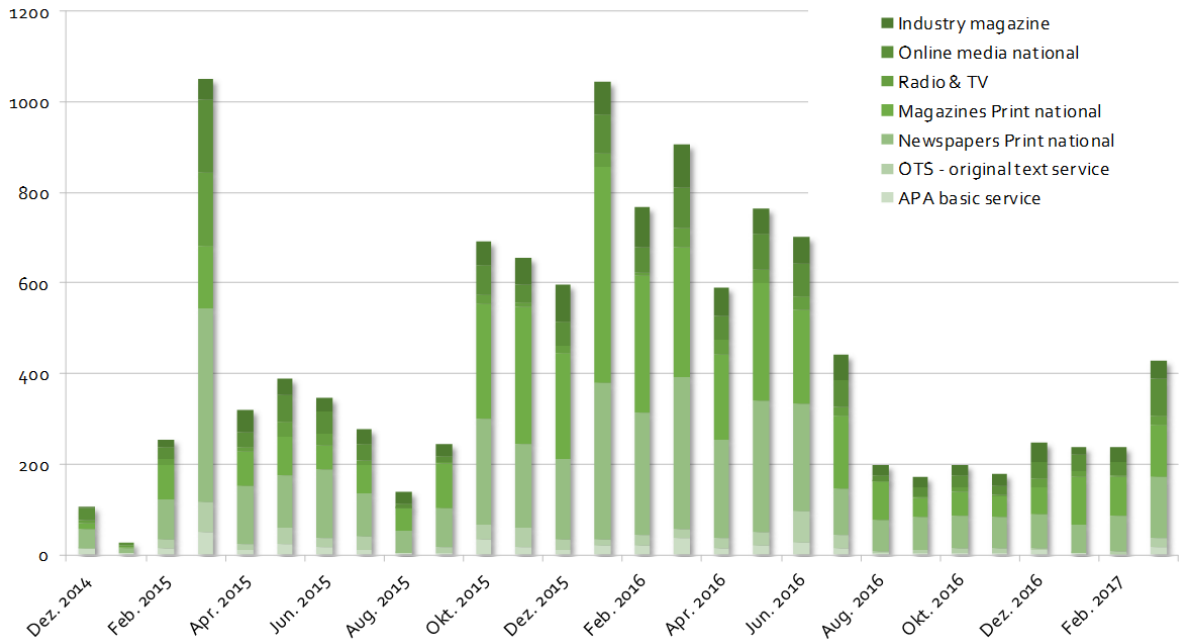
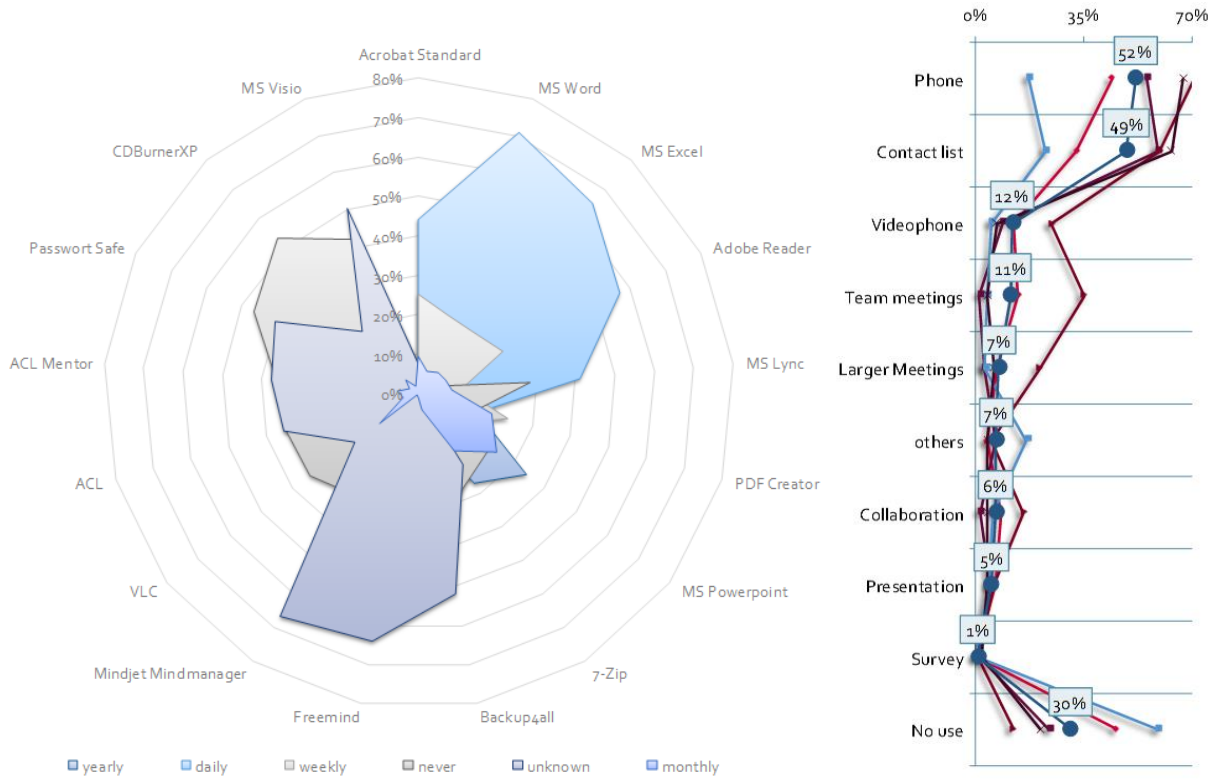
Processes

Processes can be presented in many ways. A good method of representation from an audit point of view are so-called **swim lane models**. In the individual swim lanes, the responsible persons / organizations are depicted.



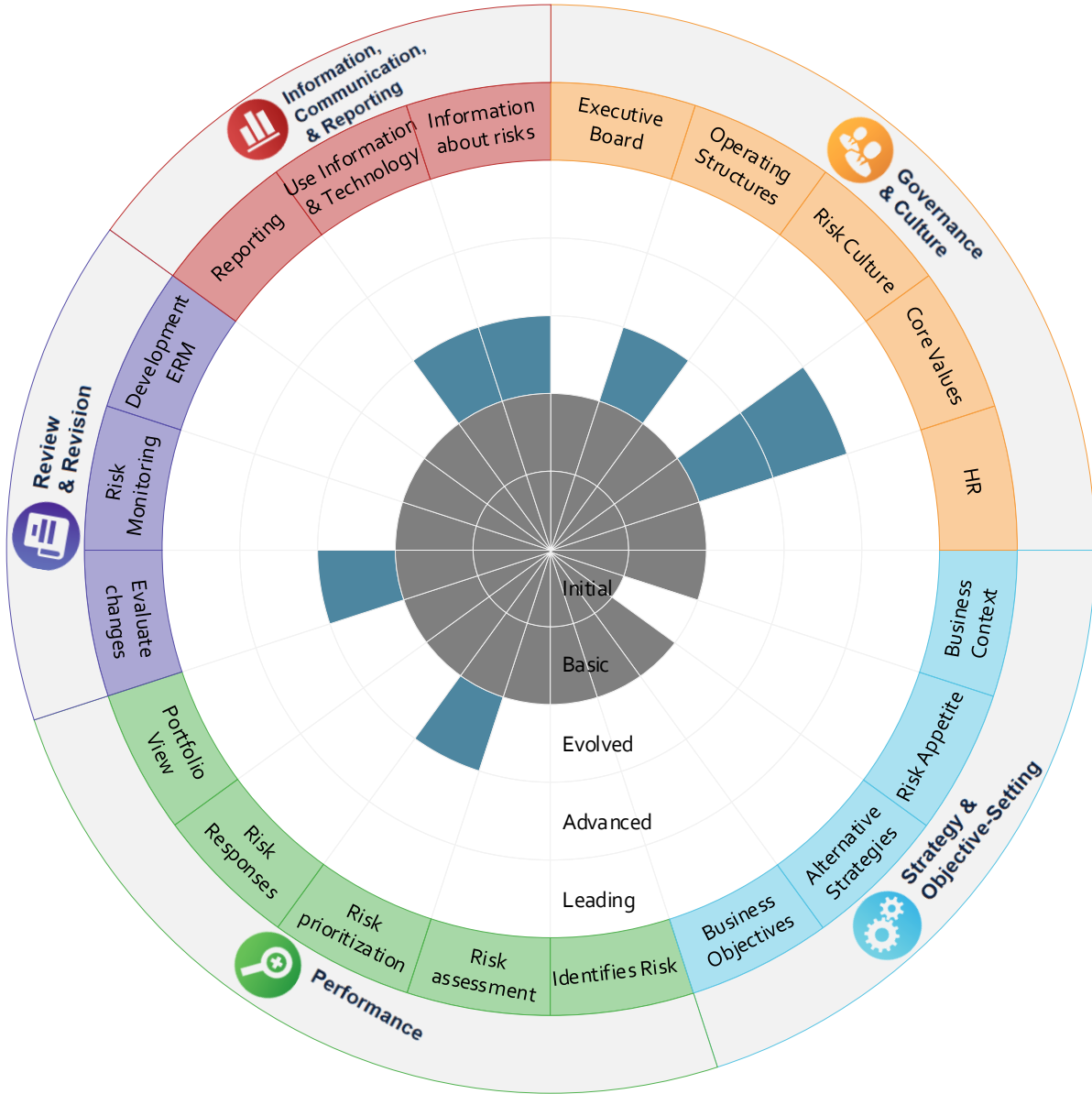
Descriptive statistics

The descriptive statistics can be presented in a number of different diagrams and tables. Below are some examples of graphs from a descriptive statistic.



Maturity

The maturity of an organization can be represented graphically in a variety of ways. The following figure (**sun burst diagram**) shows the maturity level of an organization in risk management as assessed by the current COSO ERM model.



2.3.4 EVALUATION

The evaluation forms a complete picture on the audit results with regard to the audit issue. It summarises all audit opinions.

2.3.5 RECOMMENDATIONS

Recommendations are written in the chapter Audit results on different, appropriate places of the report and are repeated in the Chapter Evaluation by using one table to have a better survey.

2.3.6 AGREEMENTS

The agreements are fixed at the final meeting and are listed in a table. (See also chapter 2.2.4)

2.4 FOLLOW UP

A follow up audit is done in very rare cases. As performance audit focusses on systems and outcomes, there is the possibility to check the improvement of these systems or their increase of results when doing another performance audit (indirect follow up).

Usually the monitoring of agreements is sufficient. The person in charge of implementation reports on the fixed date to the auditors about the status of information. After a quick check of plausibility, the status of implementation is reported to the supervisory functions including the person having signed the audit mandate.

3 AUDIT METHODS

The following chapters describe qualitative and quantitative audit methods. The use of these methods is not limited to performance audits. However, the use of methods differs according to the type of audit. For example, qualitative interviews are used in performance audits as well as in compliance audits. However, the questions differ significantly from each other.

A comparison in the application of audit methods between compliance audit and performance audit is presented in the chapter Appendix.

3.1 QUALITATIVE METHODS

Qualitative methods provide differentiated and detailed descriptions of individual opinions and impressions. They start where big data, technical measurement methods and quantitative investigations cannot provide sufficient information about the background of human behaviour.

The characteristics of qualitative methods are:

- Relatively open and flexible approach
- Small number of persons
- More in-depth considerations and case studies
- Mostly no claim to representativeness
- Based on the understanding of meaning (motives, intentions)
- No statistical evaluation

The following chapters describe qualitative methods suitable for use in performance audits and what to look for when using them.

3.1.1 NARRATIVE INTERVIEW

The narrative interview aims at the elicitation and maintenance of longer narratives initially without further interventions on the part of the interviewer. Within the framework of audits, it is well suited for a first extraction of information during the start phase of an audit.

After a declaration and introduction phase, an initial question formulated as openly as possible should encourage the interviewees to talk informally and give them enough space for their descriptions and justifications.

The narrative phase may well be permeated with pauses and silence and the interviewers have the role of attentive listeners. If necessary, unclear questions or inconsistencies in the narrative can be clarified in a demand phase.

In summary, the following points can be recorded for narrative interviews at Audits:

- Opening of the conversation with an initial question
- Initial question should stimulate the interview partner to tell a story
- Suitable for a first information acquisition
- Useful at the preparation of the audit (approach the topic)

Phases of the narrative interview

1. Declaration phase: The interviewer explains the interviewee that it is not a question-answer interview, and when the interviewee is talking the interviewer will listen him carefully.
2. Introduction: The interviewer explains which aspect interests him in particular.
3. Record phase: The interviewee tells the story until he ends the story by himself.
4. Question phase: If something has remained unclear, the interviewer can ask now.
5. Balancing: Interviewer and interviewee can talk about the course of the interview.

Examples for initial question

"You came to the department from another organizational unit. Can you still remember how the first days in the department were? What have you done? How did you feel?"

"We are interested in work processes related to education. You are the head of the personnel development department. What are the considerations in your department for training employees? How are the work processes regulated and where do you see possibilities for improvement?"

3.1.2 EXPERT INTERVIEW (GUIDED INTERVIEW)

The interview is a conversation with asymmetrically distributed roles. The interviewer asks questions and the interviewee talks about their experiences and their view on a particular topic. In contrast to a questionnaire, the answers are given in an interview. Only open questions are asked.

Guided interview is a collective term for semi-standardized interview types that are used to compare people's perspectives. Therefore, relevant areas of the topic should already be known at the beginning (eg from narrative interviews).

In a guide interview, the interviewee has a specific and professional knowledge. This knowledge is of interest to the audit team.

As part of the audit, the interview will be conducted with partially standardized questions. The questions are based on central topics. These ideally match the audit priorities.

There are no given answers to the questions. There is also no obligation to answer the questions. It is also permissible to be unable to answer or answer questions.

The guide serves as orientation for the interviewer. Based on the guideline, the interviewer can check if he has queried all topics and aspects. The use of the guideline is flexible. It is not necessary to process all questions one after the other.

Rules for creating a guide

- Information on the topic to the interviewee
- Promise of anonymity
- Capture metadata (location, time, duration, ...)
- Create central topics derived from audit issues
- Create main and sub-questions based on the audit issues

Rules for questions

- No questions about theoretical categories
- Questions about concrete facts of the interviewed person
- Short and understandable questions, no long questions
- Open questions, no closed questions (f.e. yes / no)
- Suggestive question
- Targeted demand

3.1.3 GROUP INTERVIEW

The group interview is a special form of interview. In a group interview, several people are interviewed at the same time. The persons to be interviewed are affected by a topic equally or similarly. That's why you can ask them at the same time. Not the individual person is the focus but the thematic statements within the group.

The following points should be noted in a group interview:

- Maybe group interview is used instead of single interview (economic reasons)
- Focused interviews with small groups of (max. 6-8) people to one certain topic
- Performing like a guided interview
- It is important to ensure that not individual interviewees dominate the group
- Encouraging reserved members
- Try to get answers from the whole group
- Balance between (directive) control of the group and its (non-directive) moderation

3.1.4 OBSERVATION

The observation is one of the central data collection methods in audits and refers to the visual and / or auditory consideration of events such as social or interactive processes and situations as well as

action sequences. Observations can be categorized in a number of ways: according to a high or low level of structuring, participatory or non-participative, open or obscured.

Observations are an essential part of everyday life. In contrast to the daily observations, audit observations are systematic and objective. They are a specific approach in which data on the objects of investigation are not based on their direct information (expert interview, narrative interview), but are collected indirectly by the auditor. Observation is therefore generally the attentive, planned and purposeful perception of processes, events and behaviours depending on certain situations. The aim of the observation is to grasp the object of the respective interest as precisely as possible. It is a basic method of data collection and fact collection at the time of the incident. An observation describes or reconstructs the reality of an audit question by means of a clearly describable method. The observation is one of the essential qualitative audit methods besides the interview.

Situations in which observations are made may be specially arranged for the purpose of the audit and thus be of an artificial nature as well as taking place in a natural environment (field observation).

Types of observations:

- Unstructured, partially or fully structured
 - For initial orientation, observations are often unstructured, with few constraints and few limitations. The observers perceive what seems important to them and then mostly record the observation in writing.
 - Observations can also take place partially or fully structured, as mostly quantitative methods, using a fixed, proven, detailed observation scheme, feature or category system and few degrees of freedom for the observers.
- Participating or not participating
 - Depending on the degree of involvement of the auditors is between
 - complete participation,
 - participating observation,
 - observing participation and
 - distinguished from non-participating observation.

The type of participation can be active or passive. With active participation, the observers are integrated. With passive participation they are present, but behave distanced and only record, log. In the case of non-participating observation, the auditors are not present in person, have no direct contact with the event. The corresponding situation is recorded, for example, via the media.

- Direct or indirect

The distinction between direct and indirect observation refers to the view of the observed. If these are perceived by the auditors, if they are present, then there is a direct observation. If they do not do so and the observations are made by means of technical aids (such as audio / video recordings), this is indirect observation.

- Open or hidden

In open forms of observations, the auditors reveal themselves as such, in hidden forms they do not. In open forms, it should be remembered that the observed behave differently in the presence of the auditors. Covert observations may lead to moral / personal conflicts.

Planning phase

In the planning phase of systematic observations, it is necessary to determine what is observed exactly by whom, when and where. To be defined are

- the behavioural characteristics to be observed ("What should be observed: the general action / behaviour of certain living beings or only certain actions / behaviours?)
- the situation characteristics (in which situations should the behavioural characteristics be observed?)
- The measurement or registration procedures (How to complete the documentation, what to record, to determine if a particular phenomenon is occurring, or how often it occurs in a given period of time? How to do this Documentation?)

Problem areas / sources of error

- Lack of objectivity of the observers
 - The observers have a specific audit goal in mind and more or less unconsciously see only what they want to see, they are biased.
 - The data acquisition and evaluation is carried out by only one person, is therefore subjective to a greater or lesser extent.
 - The auditors may not be able to do justice to their dual function as group members and observers during the participant observation; they may come into conflict situations or may only write situations later from memory, which can lead to inaccuracies.
- Reactivity of the observers
 - Persons under observation behave less naturally (less spontaneously and informally), at least in the early stages of observation. There is therefore a risk that the observers will register an adulterated behaviour, which affects the value of the investigation.

3.1.5 PROCESS ANALYSIS

Process analysis is an audit method that helps to increase the efficiency and effectiveness of a process. It assesses how well the process achieves its end goal. Process analysis identifies and examines every part of the structure, including the process itself, the participating parties, the information exchange, and others. Accordingly, it can help identify potential improvements within the process, making it easier to carry out a re-engineering initiative sometime down the line.

In most cases, business process analysis can be helpful with:

- Finding the reasons behind systematic delays
- Clearing out the “right” way of doing the process
- Determining whether or not the process is operating at maximum potential capacity
- Finding out whether the process should be improved or re-engineered

In a performance auditors evaluate processes and think of how to improve them. As the time goes, new technology becomes available, making the as-is process obsolete or easy to improve. Or, the as-is process may be using up too many resources, or simply be inefficient due to outdated technology.

Outcome of a process analysis

- Doing a thorough business process analysis helps sort out which parts of the documentation are still relevant.
- See if the process is expensive or wasteful.
- Find causes for inefficiencies and delays within the process.
- Process analysis helps to dissect the process into smaller chunks, making it easier to understand & analyse. This makes it easier to understand if a process is underperforming and if it’s possible to be improved.
- Uncover unnecessary risks within the process.

Overall, process analysis allows you to study the processes in detail and examine them from different angles to improve efficiency. The data you obtain is useful to both assess how well the current processes are working and develop new ones.

How to Do Process Analysis

<p>1. Determine the process to analyze</p>	<p>Regardless of what bigger objective you are after, the first thing to do is to identify which process you are going to analyze. Typically, you would analyze business-critical processes. These would include processes that have a direct influence on the end product, revenue, expenses, and other critical components.</p> <p>On the other hand, you could also analyze a new process wich is recently implemented, as a means of ensuring that it’s working as intended.</p>
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	<p>When selecting the process to analyze, be sure to note the exact start and end point. Since processes can be really intertwined, your analysis might get messy.</p>
2. Collect necessary information	<p>Once you've settled on the process, you need to collect as much information as possible to analyze it. In this step, your main goal is to go through all the sources of information about the process, be it skimming the documentation or interviewing the people involved.</p>
3. Map the process	<p>To be able to move on to the analysis, you have to put your findings into some structured form.</p> <p>Process mapping involves visualization of the business process. When mapping the process, your goal is to filter all the relevant information you collected and present it in a neat and structured way. Process mapping allows you to clearly visualize the process you are dealing with and better understand the roles of various stakeholders. It makes it much easier to see what works and what doesn't, what risks are associated with various components of the process, and generally see the big picture.</p> <p>There are a number of ways to map a business process. You can construct workflow diagrams, flowcharts or a value stream map.</p>
4. Analyse the process	<p>Now that you have all the needed information, it's time for analysis. With all the data you've gathered at this point, you should already have a clear idea of what you can improve. To find even more potential improvements, however, you can also ask yourself such questions as:</p> <ul style="list-style-type: none"> ▪ What are the most important components of the process? ▪ What is their impact? ▪ Would improving just these components alone be enough? ▪ Are there any systematic delays or issues in the process? ▪ Can you see the reason why it happens? ▪ Is there a way to fix them? ▪ How big is their influence on the output? ▪ Does a particular component of the process require too many resources? ▪ Is there a way to change it? <p>These are just a few of the questions to keep in mind. As you dig deeper, you will understand better what exactly needs to be taken care of.</p>
5. Determine potential improvements	<p>The point of everything you've done so far is to understand how you can make your business process better. Using your findings from the previous steps, you can sort out the flaws and come up with potential improvements.</p> <p>The kind of improvements that would work for your organization depends on your specific situation. There is no one size fits all solution, and you may need to go creative to come up with potential improvements. Make sure to keep in mind the long-term effects of any changes you'll make – while something might seem amazing in the short-term, it might turn out to be disastrous down the line. For example, by improving process speed, you might have also doubled the defect risk rate, which puts you back on square one.</p>

	<p>Depending on your findings, you might also decide whether you're making small, modest changes to the process, or completely reengineering it. While the later might take more resources and time, the effects can be very consequential.</p>
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3.1.6 QUALITATIVE DATA ANALYSIS

As part of a qualitative data analysis, the material is evaluated in various interpretation steps and based on the statements of the interviews, a category system is developed or classified into an existing category system (Main- and sub issues).

The qualitative data analysis provides for a structured procedure, for example by generalizing interview statements. From the generalized statements, reductions are made in order to arrive at a general statement.

QDA software supports the evaluation of qualitative data. The programs are tools that are used as evaluation methods during audits, but must not be misunderstood as an independent analysis technique. The use of QDA software has largely replaced the Paper Pencil evaluation. Text passages (but also pictures and film sequences) are now mainly processed and analysed on the computer in digital form.

Important functions of the programs include:

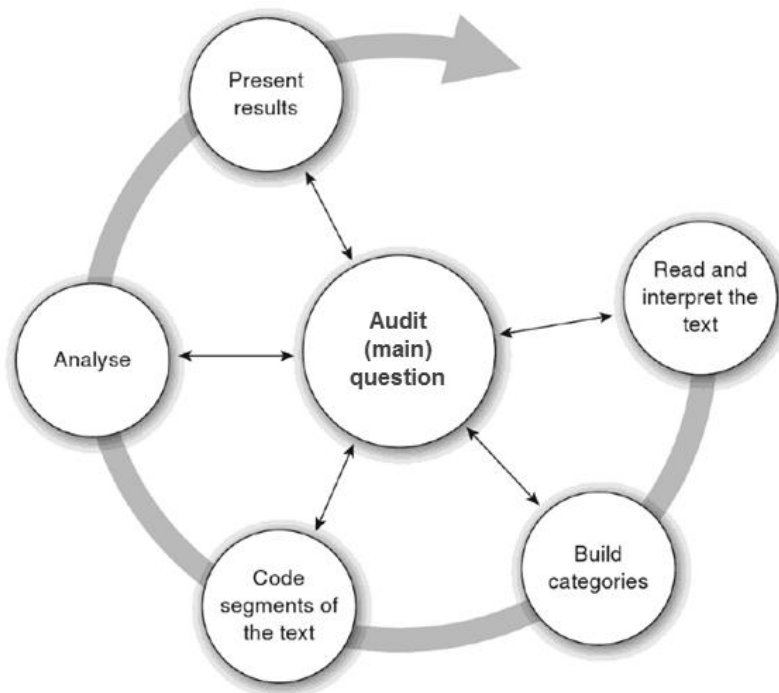
- Data management (eg compilation of text passages for special encodings)
- Category management (compilation of categories and subcategories, attachment of notes to categories)
- Memoing (capturing ideas to text passages, categories, and all cases)

Many programs are characterized by additional features. So there are z. B. Functions for searching text segments including word-based frequency evaluations or for visualization through graphical representations, the so-called qualitative modelling. Also, the data can often be made available through the export and import functions for statistical analysis in mixed-methods design.

Advantages of using QDA software are generally the processing of large amounts of data and the clear structuring of data, the possibility of integrating different data types and linking them together in a multimedia manner, as well as improved documentation and increased transparency. In addition, another advantage is the fact that the software usually allows the simultaneous or parallel processing of records and thus supports teamwork.

What It Does	Potential Benefits	What It Does Not
<ul style="list-style-type: none"> ▪ Structure and Organize ▪ Explore ▪ Comment ▪ Memo ▪ Code and Retrieve ▪ Visualize 	<ul style="list-style-type: none"> ▪ Can Deal with Large Data Sets ▪ Frees Time to Focus on Analysis ▪ Improves Validity/Auditability ▪ Improves Credibility 	<ul style="list-style-type: none"> ▪ Analytic Thinking ▪ Error-Free Auto Coding ▪ Eliminate Bias ▪ Advanced Quantitative Analysis

Process of qualitative data analysis



3.2 QUANTITATIVE METHODS

3.2.1 (ONLINE) SURVEY

As a method of empirical data collection, the survey is targeted and highly structured. The individual phases of a quantitative survey are in detail:

- Planning the audit design including the questionnaire design
- Conducting the survey
- Evaluation of results
- Data interpretation and presentation

The answer options for a quantitative survey are largely given to the respondents. The questions are formulated in a closed manner, meaning that, for example, only "yes" and "no" can be answered. In

summary, an empirical survey can thus be defined as a planned procedure with a structured objective, in which a larger number of people are led through a series of targeted questions about information. During the survey, a few preliminary considerations must first be made and important decisions made. These concern turn the "audit design", i.e. the overall plan of all in a specific order to be completed steps. Of course, as with other quantitative-empirical methods, you must, of course, first determine your interest:

- What do you actually want to find out through a survey?
- What interests you and why?

In principle, quantitative surveys have a low degree of freedom for both the questioner and the respondent, and the interview style is direct and neutral.

Strengths and weaknesses of the survey:

Which type of survey is used depends on the respective topic and the framework conditions of the audit. The preparation of a questionnaire, its distribution, the waiting for the return and the evaluation of the results is more complex and requires specific previous knowledge. The written survey provides quantitatively more meaningful data.

The advantages of an online survey are the relatively low costs. Many people can be contacted at once with one and the same template, which is then duplicated. Also, the organization effort is lower, because the respondents fill so independently.

The big disadvantage of a written survey is that a respondent cannot control the response process. In case of any ambiguity and misunderstandings that are still present despite the "pre-test", one cannot provide any information here and above all, they have no insight as to whether the interviewee has really and consistently worked through their questionnaire.

Written (online) survey

A questionnaire should meet certain requirements:

- He must formulate the questions clearly and unequivocally
- Its handling should be easy
- The instructions for filling in must be exact
- The structure of the questions should follow an inner logic
- The answers should be appropriate for the content as well as for a later evaluation.

For some questions, the answer options "yes", "no", "no matter" will not suffice. With the question: "Are you satisfied with the educational offer in the organization?" A so-called "polarity profile" would certainly be more informative than a purely closed answer in the sense of yes / no: the answer would then rather be represented on a scale with the poles. On the other hand, such a response scheme is more complex to evaluate than would be the case with a mere count of yes and no.

Not only the answers, but also the way you formulate your questions, decides to a considerable extent on whether a questionnaire is completed at all. Questions should be formulated in such a way that nobody feels cornered and still obtain meaningful results.

There are a number of other tips and tricks for designing the best possible questionnaires: e. It is important to remember that at the end of the answering process respondents are threatening to lose both their attention and interest. Therefore, at the end of the questionnaire the questions should be shorter. Below are some key principles for questionnaire design.

Important rules for the design of your questionnaire

- Always make questions as simple, clear and understandable as possible and as short as possible. Complex sentences, double negations, foreign and specialist words are to be avoided. Accordingly, the questions should rather be based on the simple language.
- Formulate questions as concretely as possible. Unclear questions should be avoided.
- Formulate questions as neutral as possible. Accordingly, the answers must be qualitatively balanced.
- Suggestive questions are to be omitted, as are rhetorical questions. ("Do you agree ...?", "Are you, like most employees, of the opinion that ...?").
- The number of answers must be manageable and yet informative. Especially in the case of polarity profiles, there should be the same number of answer options left and right of the middle position, otherwise experience shows that preference is given to the page with the majority of categories.
- Questions should not be overcharged. This applies on the one hand to expertise required of non-experts and on the other to over-estimating estimates ("How many hours do you spend a year at work?").
- The questionnaire must contain the measurement units and relations to which the question relates. (The question "How much do you read a week on average?" Must logically include a minute or hour scale). In addition, it makes sense to subdivide scales meaningfully. (The question about the duration of reading can be categorized in the form of "under an hour, 1-2 hours, ..., more than 8 hours", etc. A pre-test can provide information about the reasonable number and the Scope of each category).
- The order of the questions must be considered: neither should this be too long nor should the order express a hidden rating.
- Your questionnaire should, of course, contain personal information about the characteristics you are interested in. Of course, you have to make sure that such information may not be at the expense of anonymity. It may be that information about gender and age, possibly also about education or the region of origin.

Summary of the individual work steps of a survey

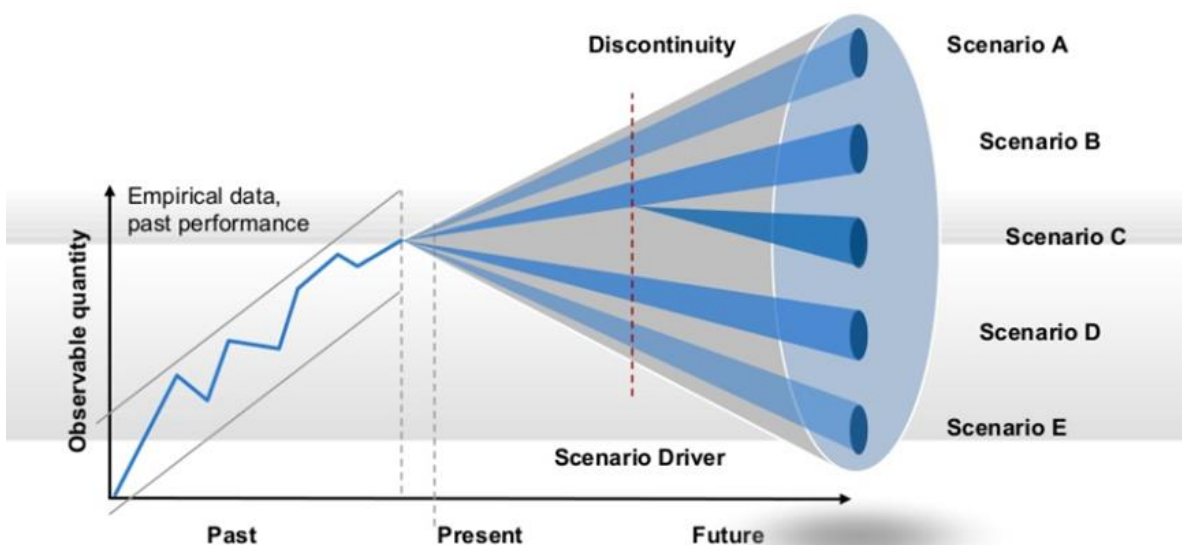
1. Collection of documents on the subject of the audit, reading into the examination material, preliminary considerations, formulation of the main questions
2. Target group definition (depending on the audit question)
3. Development of the survey instrument (design of the questionnaire)
4. Pre-testing
5. Conduct of the survey
6. Review and count the answers.
7. Statistical analysis and analysis of the data
8. Presentation and interpretation of the results

3.2.2 SCENARIO ANALYSIS

The scenario analysis simulates alternative scenarios in which the organization can be located. A scenario is a description of a possible future situation. Each of the scenarios allows for different conclusions and development opportunities. The consequences are analysed in as much detail as possible.

The basic idea of the scenario analysis in an audit is to describe an alternative state and to derive consequences for the management based on this description. As a rule, the knowledge thus obtained is used in order to arrive at concrete recommendations based thereon.

The graphic illustration is a funnel. It starts at the time of the present. To develop different scenarios, data from the past are used. However, the further the scenario goes in the future, the more uncertain the data becomes and the more variations are possible. The limit of this technique of best-case and worst-case scenarios created.



So, a scenario are simulations of alternative environmental situations in which the organization can be located. Scenarios are a description of possible future situations and each of the scenarios allows different conclusions and development opportunities.

Scenario analysis - sequences

- Analysis
 - Analysis of the internal situation
 - Definition of the concrete area of the scenario analysis
 - Consideration of external spheres of influence
 - Determination of influencing factors
- Trend projections
 - Formulate measures to describe the environment
 - Identify trends
 - Description of the current & future state of influence factors
 - Collection of possible internal and external disruption events
- Evaluation
 - Verification of the consistency and logic of the alternatives
 - Evaluate the scenario development
 - Conclusion of the consequences
 - Derivation of opportunities and risks and activities based on them

Advantages and disadvantages of scenario analysis

advantages	disadvantages
<ul style="list-style-type: none"> • promotes flexibility • Horizon of decision-makers is increased • Improvement of planning methodology 	<ul style="list-style-type: none"> • sometimes expensive • sometimes very complex • Error rate increases with complexity reduction

The scenario analysis can therefore be used in audits to illustrate the effects of deviations from strategic planning. This enables the management to identify decision-making bandwidths early based on audit results. Scenario analysis helps to identify opportunities and risks early. Scenario analysis is therefore an instrument that helps an organization to improve planning quality and implement effective risk prevention.

3.2.3 DESCRIPTIVE STATISTICS

Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. Together with simple graphics analysis, they form the basis of virtually every quantitative analysis of data.

With descriptive statistics you are simply describing what is or what the data shows. Descriptive Statistics are used to present quantitative descriptions in a manageable form. In an audit we may have lots of measures. Or we may measure a large number of people on any measure. Descriptive statistics help us to simplify large amounts of data in a sensible way. Each descriptive statistic reduces lots of data into a simpler summary.

Univariate analysis involves the examination across cases of one variable at a time. There are three major characteristics of a single variable that we tend to look at:

- the distribution
- the central tendency
- the dispersion

In most situations, we would describe all three of these characteristics for each of the variables in our audit.

The Distribution

The distribution is a summary of the frequency of individual values or ranges of values for a variable. The simplest distribution would list every value of a variable and the number of persons who had each value. For instance, we describe gender by listing the number or percent of males and females.

One of the most common ways to describe a single variable is with a frequency distribution. Depending on the particular variable, all of the data values may be represented, or you may group the values into categories first (e.g., with age, price, it would usually not be sensible to determine the frequencies for each value. Rather, the value is grouped into ranges and the frequencies determined.). Frequency distributions can be depicted in two ways, as a table or as a graph. Table 1 shows an age frequency distribution with five categories of age ranges defined. The same frequency distribution can be depicted in a graph as shown in Figure 1. This type of graph is often referred to as a histogram or bar chart.

Distributions may also be displayed using percentages. For example, you could use percentages to describe the:

- percentage of people in different income levels
- percentage of people in different age ranges
- percentage of people in different ranges of standardized test scores

Central Tendency

The central tendency of a distribution is an estimate of the "centre" of a distribution of values. There are three major types of estimates of central tendency:

- Mean
- Median

- Mode

The Mean or average is probably the most commonly used method of describing central tendency. To compute the mean all you do is add up all the values and divide by the number of values. For example, the mean or average quiz score is determined by summing all the scores and dividing by the number of students taking the exam. For example, consider the test score values:

15, 20, 21, 20, 36, 15, 25, 15

The sum of these 8 values is 167, so the mean is $167/8 = 20.875$.

The Median is the score found at the exact middle of the set of values. One way to compute the median is to list all scores in numerical order, and then locate the score in the centre of the sample. For example, if there are 500 scores in the list, score #250 would be the median. If we order the 8 scores shown above, we would get:

15,15,15,20,20,21,25,36

There are 8 scores and score #4 and #5 represent the halfway point. Since both of these scores are 20, the median is 20. If the two middle scores had different values, you would have to interpolate to determine the median.

The mode is the most frequently occurring value in the set of scores. To determine the mode, you might again order the scores as shown above, and then count each one. The most frequently occurring value is the mode. In our example, the value 15 occurs three times and is the mode. In some distributions there is more than one modal value. For instance, in a bimodal distribution there are two values that occur most frequently.

Notice that for the same set of 8 scores we got three different values -- 20.875, 20, and 15 -- for the mean, median and mode respectively. If the distribution is truly normal (i.e., bell-shaped), the mean, median and mode are all equal to each other.

Dispersion

Dispersion refers to the spread of the values around the central tendency. There are two common measures of dispersion, the range and the standard deviation. The range is simply the highest value minus the lowest value. In our example distribution, the high value is 36 and the low is 15, so the range is $36 - 15 = 21$.

The Standard Deviation is a more accurate and detailed estimate of dispersion because an outlier can greatly exaggerate the range (as was true in this example where the single outlier value of 36 stands apart from the rest of the values. The Standard Deviation shows the relation that set of scores has to the mean of the sample.

3.2.4 PROCESS MINING

Process Mining is a process analysis method that aims to discover, monitor and improve real processes (processes not assumed) by extracting knowledge easily from available event logs in the systems of current information of an organization. It goes beyond the pure presentation of the key data of the process, recognizing the contextual relationships of the processes, presenting them in the form of graphic analysis in order to diagnose problems and suggest improvements in the quality of the process models. With Process Mining it will be possible to detect or diagnose problems based on facts and not on conjectures or intuitions. Process mining seeks the confrontation between event data (observed behaviour) and process models (hand-made or automatically discovered). Through the pairing of event data and process models, it will be possible to check compliance, detect deviations, predict delays, support decision making and recommend process redesigns.

The application of Process Mining in an organization offers the following capabilities:

- Automated discovery of process models, exceptions and instances of processes (cases) together with basic frequencies and statistics.
- Automated discovery and analysis of customer interactions, as well as alignment with internal processes.
- Understanding of different perspectives on operations, not just a process perspective.
- Monitoring of key performance indicators using dashboards in real time.
- Compliance verification capabilities and gap analysis
- Predictive analysis, prescriptive analysis, scenario testing and simulation with contextual data.
- Improvement of existing or previous process models using additional data from saved records.
- Data preparation and data cleansing support.
- Combination of different process models that interact with each other in a single process mining panel.
- Support for the visualization of how processes contribute to business value (such as business operating models) — contextualization of processes.
- Effective cooperation between Business and IT.
- Standardization of business processes.
- Improvement of operational excellence by optimizing processes.

Process mining exploits the information recorded in event logs to perform an analysis of the real process afterwards. There are three main types of process mining:

1. Discovery, which takes an event log and produces a process model without using any prior information, only with the help of Process Mining algorithms.
2. Conformance, where the event records (real processes) and the corresponding process models (ideal and predefined processes in BPMN) are compared, and the resulting coincidences or differences are identified, in order to diagnose the deviations or inefficiencies between the process model derivative business and ideal processes.

3. Enhancement (extension), where the process models are adapted and improved according to the data of the real process.

Process mining consists of two main steps:

Step 1: Process selection and prioritization, which clearly establishes the improvement objectives and identifies where the business value is created in different parts of the organization and how high-level processes affect the creation of value.

Step 2: capture of the process information to be improved to represent it as a process model.

3.2.5 BENCHMARKING

Benchmarking means identifying and measuring the relevant success criteria, comparing oneself with others, learning from the results, and implementing measures to improve oneself. Benchmarking helps you in the process of transitioning your organization into a "learning organization" with the following benefits:

- Compared with other, if necessary, more powerful organizations, creative dissatisfaction is created.
- The need for performance enhancement is not dictated by management, but derives from the outcome of benchmarking.
- The benchmarking does not show the employees the theoretically possible, but the tried and tested solutions.

Benchmarking can be designed as an internal comparison, for example between similar processes, or as external benchmarking. The comparison with organizations that perform similar tasks in the same technological environment is profitable.

The stages of a benchmarking analysis

The procedure of a benchmarking project is described differently in the literature. Although the process models differ in terms of designation and number of phases, they largely correspond in content to the procedure described here.

The first phase of the benchmarking process begins with a description of the benchmarking aspects and the level of performance

With the start of each benchmarking process, it has to be determined what is to be compared at all. The selection of benchmarking aspects has to be done from the perspective of the overall strategic organizational goals. The following questions provide clarity:

- What are the strategic goals of the organization?
- What are the relevant success factors?

- What weaknesses need to be addressed in the interests of strategic objectives?

The selected benchmarking object in your own organization is then examined and documented in detail. From this, suitable measures can be derived to determine the current level of performance.

In the second phase you select your benchmarking partner and the benchmark

This phase is about finding one or more appropriate benchmarking partners. In order not to compare apples with pears, any differences that may arise due to location factors, number of employees, etc. are to be uncovered and "normalized" with reference to a common basis.

During the third phase of a benchmarking analysis, performance data is collected and compared

Important before starting the action is the selection of suitable methods and tools for data collection:

- Questionnaire,
- Interview,
- Direct observation, etc.

With the normalized data now existing performance differences can be identified. Where there are significant differences, it is important to find out what makes the benchmarking partner different from what you do and thereby achieve higher performance.

The 4th phase in the benchmarking process is to review the data base and identify causes

In the next step, the causes for the different procedures are to be determined with suitable methods or procedures, such as:

- flowcharts of processes,
- cause-effect diagrams, etc.

The aim of this analysis phase is to present the factors that make the benchmarking partner perform better.

3.2.6 VARIANCE ANALYSIS (TARGET-PERFORMANCE COMPARISON)

In variance analysis, the causes of deviations between planned targets and actual results are analysed. The findings from such analyses should be taken into account in the future planning processes in order to reduce further deviations from the plan. In addition, parts of the operation (cost centers or process flows) are checked for their performance. In the case of a negative variance, i.e. if the target is not reached, it forms the basis for the initiation of countermeasures. A meaningful analysis can usually only be carried out with clearly defined and quantifiable reference quantities (quantities, costs, number of activities such as customer visits, complaints, etc.).

The following questions should be answered in the variance analysis:

1. Where have deviations occurred?
2. Why did these deviations arise?
3. What measures must be carried out?
4. Who is responsible?

There are several causes of variation, which may occur singly or often in combined form, e.g.

- Price deviations
- Consumption deviation
- capacity deviation

Possible causes of cost deviations:

A distinction is made between internal causes and external causes. It also differentiates between random and systemic repetitive errors.

External causes:

- Market: cyclical or seasonal price fluctuations
- Suppliers: Failure, quality or delivery defects
- Customers: Special requests after start of production etc.

Internal causes:

- unrealistic goals, incorrect planning
- bad organization and communication
- own employees (expertise, qualification, motivation)
- defects in the technical equipment etc.

3.2.7 COST-BENEFIT ANALYSIS

The cost-benefit analysis is part of the macroeconomic process of project and measure evaluation. It is carried out to check the profitability of projects or measures and to obtain an objective view. Here you compare objects, on the basis of their financial benefits and the expenses that must be incurred for it.

First, the main task is to compare the costs with the benefits. This happens in organizations mostly on a monetary basis.

In order to be able to carry out such an analysis, first all costs of the possible product / project / service have to be calculated and added. For this it is important to consider the costs to subdivided and also not directly visible costs. The following costs are considered:

- direct costs
- indirect costs
- intangible costs
- Opportunity costs
- Cost of potential risks

In parallel, the benefit should be calculated.

Based on this analysis of costs and benefits, organizations should then be able to make decisions about the profitability of a product / project / service and decide if they want to realize it. You can also compare different projects (alternatives) using this method.

Very important to the success of such an analysis is that the costs are not underestimated and revenues are not overestimated. If effects and costs are spread over several periods, they must be discounted in order to be able to compare the determined values with each other.

The cost-benefit analysis is a good method for assessing the profitability of products, services or projects within the scope of performance audits. When carrying out cost-benefit analyses in audits, a structured approach should be chosen.

1. Define cost unit

The purpose of a cost-benefit analysis is to determine whether a product / project / service justifies the necessary costs. Therefore, it is important to define what costs are considered in the analysis. Normally, a cost-benefit analysis measures monetary values. If such values are not available, other approaches must be found (for example, in human life).

2. Costs structure

The first step in a cost-benefit analysis is to make an accurate, complete breakdown of these costs. Costs may be incurred once or continuously. Costs should, where possible, be based on current market prices and / or researched if that is not possible, but they should be smart, researched estimates.

The following types of costs can be included in the cost-benefit analysis:

- The costs of goods or facility
- Development costs (software)
- Shipping, handling and transport costs
- Operating costs
- HR costs (wages, salaries, training etc.)
- Real estate (rented offices etc.)
- Insurance and taxes
- Supply costs (electricity, water etc.)

3. Consideration of "intangible" costs.

It is rare that the cost of a project consists only of material, tangible costs and expenses. Normally, cost-benefit analyzes also take into account all intangible needs - things like the time and energy needed to complete a project.

Below are the types of intangible costs that are included in a cost-benefit analysis:

- The cost of the time spent on a project, i. E. the money that could be earned if that time were used elsewhere
- The cost of energy used for a project
- The cost of customizing an established routine
- The cost of potentially lost business during the implementation of the proposed project
- The value of risk factors of intangible things such as security

4. Order the benefits

The purpose of any cost-benefit analysis is to compare the utility of a project with the cost. The break-down of benefits is carried out in the same way as for the costs.

Below are types of benefits that are considered in a cost-benefit analysis:

- Realized income
- Saved money
- Received interest
- Built-up equity
- Saved time and saved effort
- Follow-up business with customers
- Intangibles like referrals, customer satisfaction, happier employees, a safer job etc.

5. Discounting, adding and comparing costs and benefits

Before costs and benefits are added together, they must be discounted at the valuation date. After that, costs and benefits can be compared and a statement made about the profitability of a product / project / service. Based on this, recommendations of the audit are derived.

4 APPENDIX

In this section, the differences between Compliance Audit and Performance Audit will be explained by means of a theoretical audit assignment.

This should be illustrated by the audit process. Starting with the audit engagement, the audit preparation and audit planning to the application of audit methods, the differences are explained using an example. The theoretical example is an audit about HR recruiting.

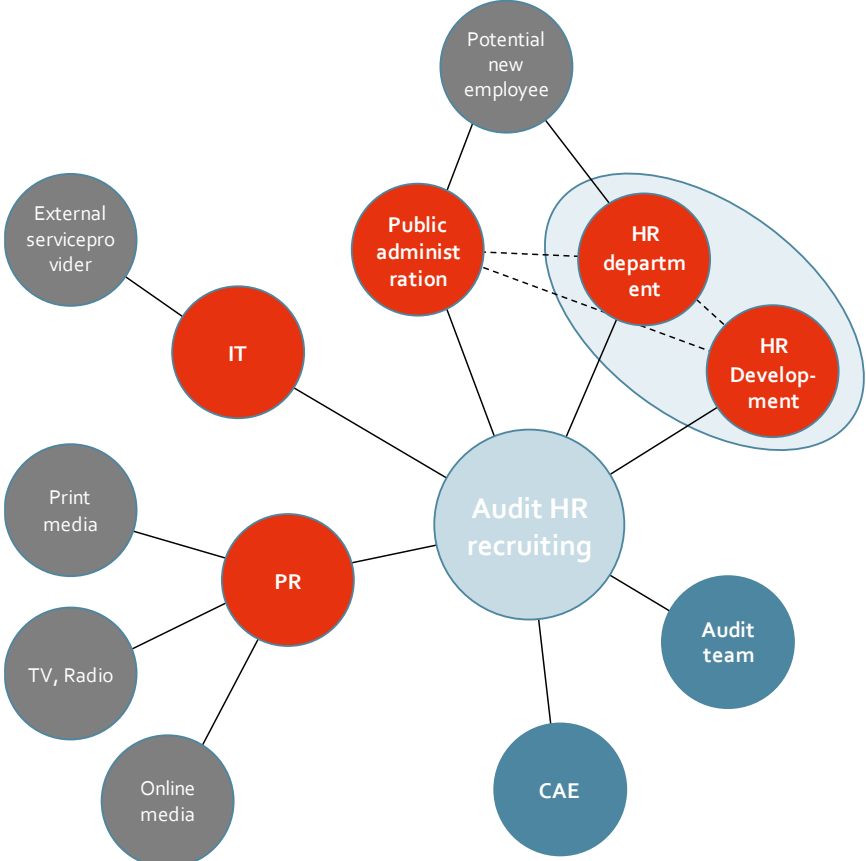
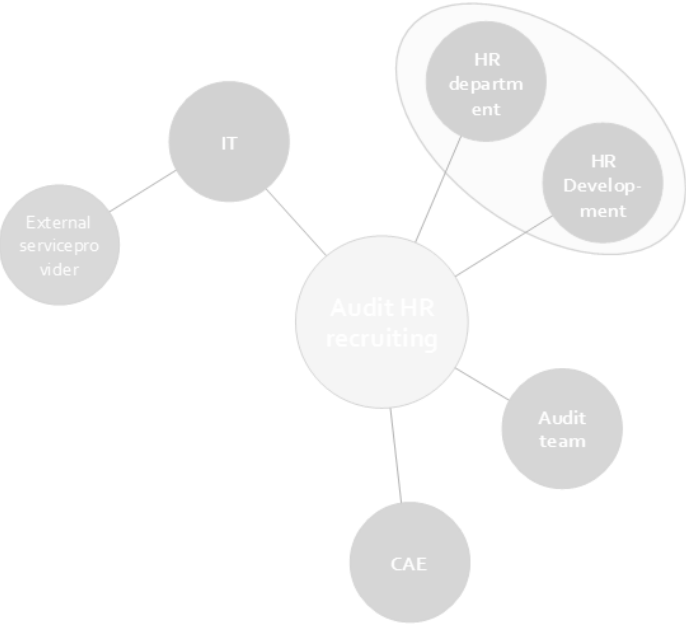
4.1 AUDIT ENGAGEMENT

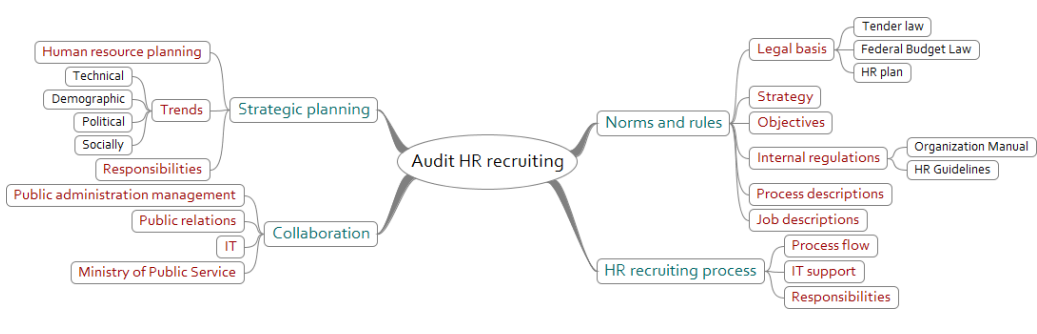

	Performance Audit	Compliance Audit
Engagement letter	<p>The public administration is characterized by a high average age in its demographic structure. The coming years will be marked by strong waves of retirement. In addition to the increasing digitization and automation of processes, HR Recruiting in the public sector ensures the future-proof of administrative action.</p> <p>The Internal Audit Service has to check the effectiveness and efficiency of the HR processes in connection with HR recruiting. In addition, Internal Audit Service has to review the strategic coordination between organization and HR.</p>	<p>The public administration is characterized by a high average age in its demographic structure. The coming years will be marked by strong waves of retirement. In addition to the increasing digitization and automation of processes, the HR departments will have to handle a high number of HR recruiting procedures.</p> <p>The Internal Audit Service has to check the internal control system of the HR recruiting process. In addition, the Internal Audit Service has to check the HR recruitments of the past years for regularity and weaknesses.</p>

4.2 AUDIT PREPARATION & AUDIT PLANNING

The following table describes individual stages of audit preparation that show differences between Performance Audit and Compliance Audit. The subsequent audit planning should not be understood as a checklist. Here, the reader should be made aware of differences between the audit approaches. The planning of each audit is an individual process of thinking and cannot be done on the basis of a checklist.

	Performance Audit	Compliance Audit
Contact data	<ul style="list-style-type: none"> ▪ Head of HR development department ▪ Experts of HR development department ▪ Head of HR department ▪ Experts of HR department ▪ Head of public administration management ▪ Experts of public administration management ▪ Head of IT department HR applications ▪ Experts of IT department HR applications ▪ Head of public relations department ▪ Experts of public relations department 	<ul style="list-style-type: none"> ▪ Head of HR development department ▪ Experts of HR development department ▪ Head of HR department ▪ Experts of HR department ▪ Head of IT department HR applications ▪ Experts of IT department HR applications
Audit targets	<p>The target of the audit is to use a systematic, objective-oriented approach to audit the processes related to HR recruiting according to the following criteria:</p> <ul style="list-style-type: none"> ▪ Effectiveness of planning of personnel requirements (strategic planning) ▪ Efficiency of the process steps from the recruitment decision to the hiring of the employee ▪ Evaluation of cooperation between organization and HR department 	<p>The target of the audit is to use a systematic, objective-oriented approach to audit the processes related to HR recruiting according to the following criteria:</p> <ul style="list-style-type: none"> ▪ Regularity and weakness of the recruitment of new employees in the last 3 years ▪ Assessment of the internal control system from the appointment of the HR department to the hiring of a new employee ▪ Checking the correct implementation of control steps in the IT system

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Non-targets</p>	<ul style="list-style-type: none"> ▪ Audit of the IT system in connection with HR recruiting in detail ▪ Audit of the public procurement of IT applications in connection with HR recruiting ▪ Audit of process steps after hiring an employee ▪ Detailed audit of the internal control system in connection with HR recruiting ▪ Conducting a fraud audit 	<ul style="list-style-type: none"> ▪ Conducting a fraud audit ▪ Analysis of the recruitment process for efficiency and effectiveness ▪ Audit of cooperation between organization and HR department
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Audit environment</p>		

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Audit issues</p>		
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Main questions</p>	<ul style="list-style-type: none"> ▪ How is the strategic planning of HR recruiting done, which trends are taken into account and who is responsible for this? ▪ Which standards and guidelines are relevant for HR recruiting and how well do they support the effectiveness and efficiency of the recruiting process? ▪ How efficiently is the recruiting processes designed, what is the influence of IT support and are responsibilities clearly regulated? ▪ How efficient is the collaboration with other organizational units and what impact does this have on the complexity of HR recruitment? 	<ul style="list-style-type: none"> ▪ How the HR recruitment process is designed and what responsibilities are taken by whom? ▪ How is the internal control system configured in the HR recruitment process, which control activities are set and which reporting lines are available? ▪ Are sufficient security measures ensured by the IT implementation? ▪ Are the relevant standards and rules adhered to and which weak points are identifiable?
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Strategic focus</p>	<p>This audit aims to show how well the strategic HR planning considers the need for new employees and what impact this has on the HR recruitment process. Trends and standards also play an important role here. This audit is intended to provide an answer as to whether the activities are adapted to make the public administration fit for the future.</p>	<p>This audit aims to show how well the internal control system is structured in the HR recruitment process. In addition, a statement should be made as to whether the system is suitable for coping with the high number of expected new hires of employees.</p>

4.3 AUDIT METHODS

The most of the following audit methods are suitable for a performance audit and a compliance audit. However, the content of the method differs depending on the audit focus. In addition to the audit methods listed here, there are no limits to the creativity of the auditors. If, from the point of view of the auditors, other methods are suitable for auditing the performance, then do not hesitate to apply them.

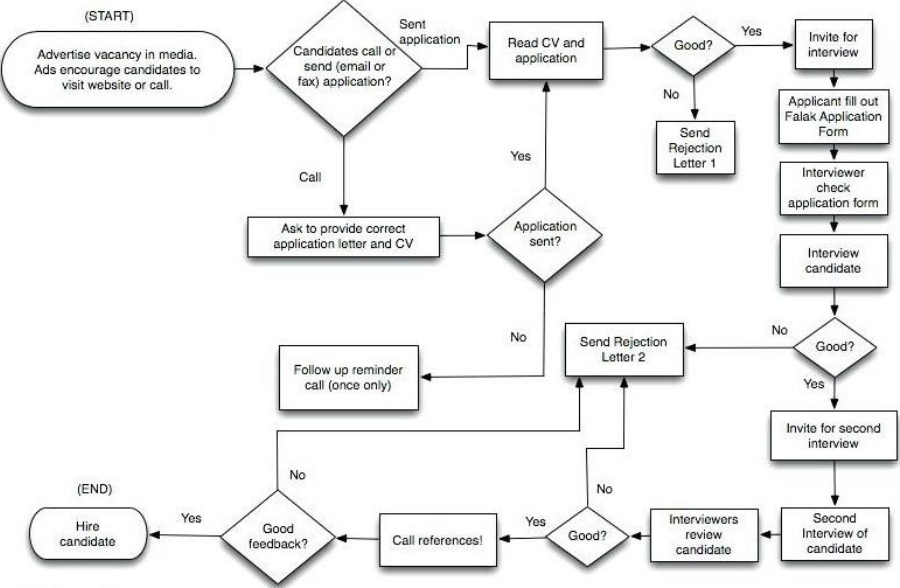
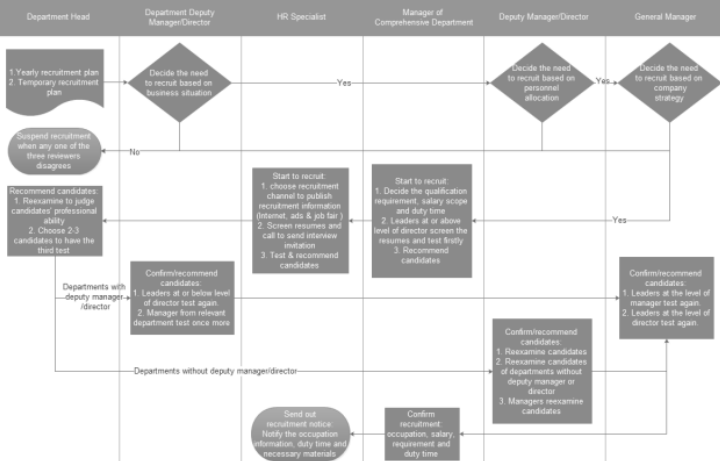
	Performance Audit	Compliance Audit																														
Narrative Interview	<p>To approach the topic, the narrative interview method is suitable for the Performance Audit and the Compliance Audit. Especially in the start-up phase of the audit, if the audit team has no concrete information on the topic, it makes sense to use this method.</p> <p>As interview partners in connection with HR recruitment, experts or department heads from the HR or HR development departments are considered here.</p> <p>Since the Focus is different in the Performance Audit than in the Compliance Audit, the story-telling questions differ from each other. The following are two examples of story-telling questions.</p>																															
	<table border="1"> <thead> <tr> <th colspan="3">Audit „HR-Recruiting“</th> </tr> </thead> <tbody> <tr> <td>Date & duration</td> <td></td> <td></td> </tr> <tr> <td>Location</td> <td></td> <td></td> </tr> <tr> <td>Type of interview:</td> <td colspan="2">Narrative interview</td> </tr> <tr> <td>Interviewer</td> <td></td> <td></td> </tr> <tr> <td>Note taker</td> <td></td> <td></td> </tr> <tr> <td>Interviewee</td> <td colspan="2">function, name,</td> </tr> <tr> <td colspan="3">As head of the HR department, we want to know from you which strategic considerations are employed for the hiring of employees, how the HR recruitment process basically works and which organizational units play a relevant role in which mode?</td> </tr> <tr> <td>tasks and requirements</td> <td>person responsible</td> <td>deadline</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Audit „HR-Recruiting“			Date & duration			Location			Type of interview:	Narrative interview		Interviewer			Note taker			Interviewee	function, name,		As head of the HR department, we want to know from you which strategic considerations are employed for the hiring of employees, how the HR recruitment process basically works and which organizational units play a relevant role in which mode?			tasks and requirements	person responsible	deadline			
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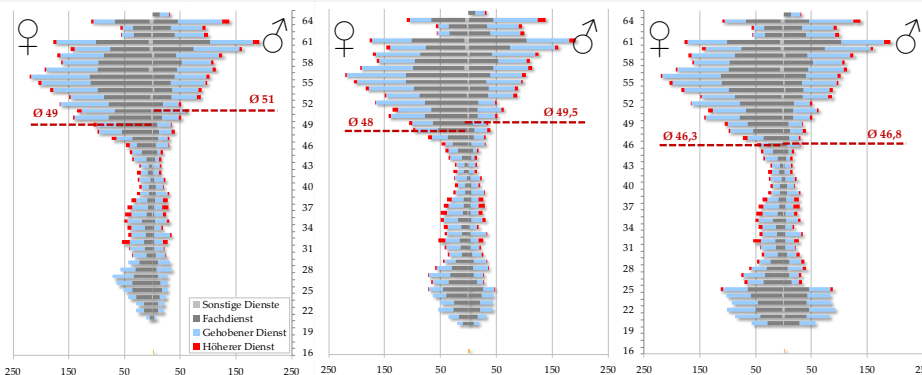
The following interview guides and interview questions are not complete. It should show the differences between performance and compliance audit in the questions.

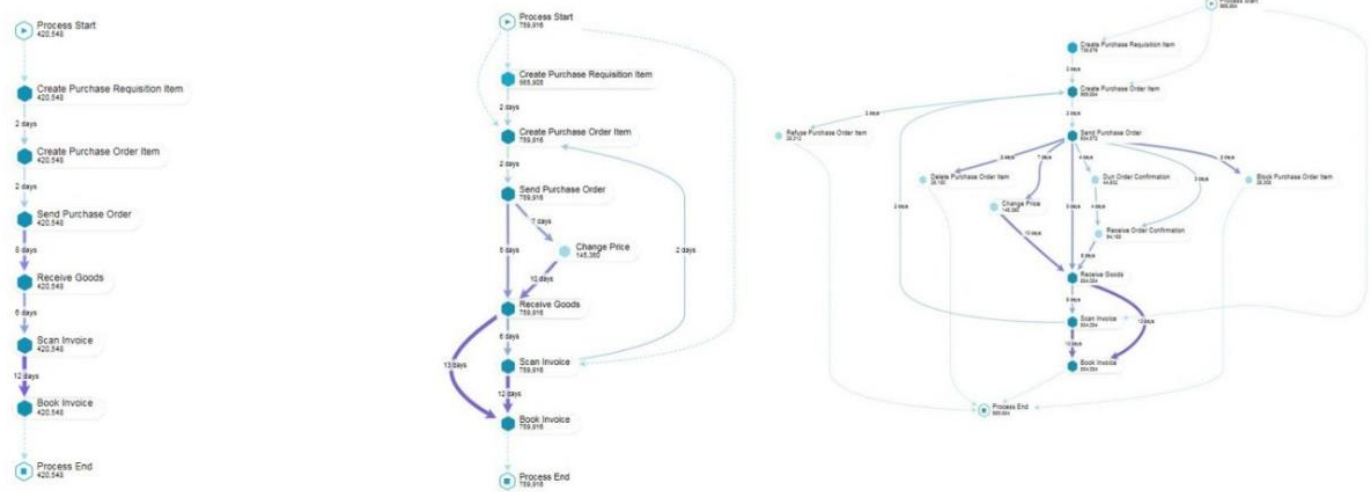
Guided Interview

Audit „HR-Recruiting“		
Date & duration		
Location		
Type of interview:	Inteview guide	
Interviewer		
Note taker		
Interviewee	function, name,	
1. Please describe the HR recruiting process.		
2. Which responsibilities are defined in the process?		
3. Which interfaces exist in the process to which organizational units?		
4. How do you work with other organizational units?		
5. In which process steps is there an IT support?		
6. How and by whom are target groups for job tenders defined?		
7. According to which criteria are target groups defined?		
8. How to ensure that job tenders are placed in the right media?		
9. What results have been achieved in the last 3 years from job tenders in different media?		
10. What budgetary resources are used to advertise jobs in which media?		
11. ...		
tasks and requirements	person responsible	deadline

Audit „HR-Recruiting“		
Date & duration		
Location		
Type of inter-	Inteview guide	
Interviewer		
Note taker		
Interviewee	function, name,	
1. Please describe the HR recruiting process		
2. At what points are control activities planned in the process?		
3. What kinds of control activities are planned? (4-eyes principle, separation of functions, etc.)		
4. Which controls are implemented in the IT system?		
5. Which approval limits are implemented in the recruiting process?		
6. How is reporting done in the internal control system?		
7. Which responsibilities are intended for whom in the process? Which deputy rules are there?		
8. How is the compliance with the deputy rules observed?		
9. What are the requirements for job tenders regarding reach, budget, etc.?		
10. How is compliance with these requirements monitored?		
11. ...		
tasks and requirements	person responsible	deadline

<p>Observation</p>	<p>The observation is equally suitable for a better understanding of the process flow during the performance audit and the compliance audit. In the specific case of HR recruitment auditors can observe the technical experts when entering data into the IT system, commissioning job tenders, conducting interviews, etc. The angle of observation is differentiated.</p> <ul style="list-style-type: none"> ▪ Understanding the process flow HR recruiting ▪ Assessment of compliance with specifications. Questioning the design of specifications with regard to efficiency. ▪ Assessment of the right selection of media in which the job tenders are advertised 	<ul style="list-style-type: none"> ▪ Understanding the process flow HR recruiting ▪ Observing compliance with specifications ▪ Observation of non-observance of control activities, approval steps, deputy regulations, etc.
<p>Process analysis</p>	<p>The process analysis during the performance audit focuses on the analysis of the efficiency of the recruitment process. The recruiting process is modelled according to the specifications and the observations. The analysis shows which process teams are absolutely necessary and where inefficiencies can be found.</p> 	<p>The process analysis in the compliance audit focuses on the presentation of control activities in the internal control system. The analysis assists in the assessment of the internal control system.</p> 

Scenario analysis	<p>The scenario analysis is also suitable for performance and compliance audit. Again, the viewing angle is different.</p> <p>In the performance audit scenario analysis can be used to review strategic assumptions. For example, different trends (increasing digitization, increased automation) can be incorporated into different scenarios. The conclusions can be used to estimate the effectiveness of HR recruiting.</p> 	<p>In the compliance audit, different scenarios can also be worked out taking into account various assumptions. From these scenarios different conclusions can be deduced for the HR Department (additional human resources, longer duration of procedure, decreasing quality, etc.).</p> 
	Descriptive statistics	<p>The descriptive statistics can be used in multiple ways during the performance audit. For example, the following aspects of HR recruitment audit can be presented:</p> <ul style="list-style-type: none"> ▪ Number of recruits ▪ Performed recruitment / employee HR department ▪ Average duration / recruitment ▪ Costs / recruitment ▪ Cost / job advertisement ▪ Costs / medium (e.g. newspaper, social media, internet platforms) ▪ Success rate / medium ▪ etc.
<p>The data can be displayed in the form of tables or graphics. What analyses are performed in the audit and how the data is presented is up to the audit team. This depends on the audit focus and the intended recommendations.</p>		

<p>Process mining</p>	<p>If all process steps in the HR recruitment process are electronic and timestamped (log files), process mining can be used in the Performance Audit and Compliance Audit. The results from process mining can be used in both types of audits. However, the conclusions from the results are different.</p> 	
	<p>Process mining offers the opportunity in the performance audit to show where inefficiencies can be found in the process. Using the data from the time stamps, the process can be mapped and analysed as it actually happens. From this, recommendations for improving efficiency can be derived.</p>	<p>Process mining offers the possibility of detecting deviations from the standard process in the compliance audit. This can lead to conclusions about compliance with regulations. Furthermore, the control activities are very clearly recognizable from the process mining.</p>

Cost-benefit analysis	<p>The cost benefit analysis is useful as an audit method for verifying the cost-effectiveness of HR recruiting measures. For example, the cost-benefit analysis can analyse job postings via various media (newspapers, internet platforms, social media, job agencies, universities / schools, etc.). All costs of job postings are included in the analysis. In addition to external costs, this also includes internal costs such as Personnel costs in the HR department.</p> <p>The benefits include, for example, the faster filling of vacancies or the lower number of unqualified applicants. The resources that are freed up within the HR department by outsourcing or reducing hearings must also be taken into account as benefits.</p> <p>From the analysis, recommendations can be derived from an economic point of view.</p>	
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