

Information Services Management Series

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Susan Henczel

The Information Audit A Practical Guide

K · G · Saur München 2001

Chapter Nine

Bringing it all together

Chapters 2 to 8 have explained each stage of the seven-stage information audit process and all the associated tasks and activities. This chapter summarizes the process and highlights the important issues that must be addressed, not only when planning an information audit for your organization but also when working through each stage of the process. In addition, this chapter looks at how the process can be tailored to suit your objectives, organization and resources, and the ancillary benefits that can be gained by the information professionals who take part in conducting the audit, the information unit and the organization itself.

The seven-stage information audit model (Figure 9.1) was introduced in Chapter 1. It consists of a sequence of activities that must be undertaken in order to conduct an information audit. As each organization is different, and each information auditor has different levels of resources available to him or her, there is no single method of working through the process and decisions must be made at each stage along the way. Ideally the major decisions will be made in the planning stage. The objective of the audit and its scope and timeframe, the most appropriate methods of data collection, analysis and evaluation and communication strategies should all be considered before you start. This will enable an appropriate audit plan to be developed, with the support of management, within the limits of the resources that you have available.

Each stage of the process is covered in the order in which it should be considered or completed and important issues are highlighted. These important issues can be tasks, activities, decisions or things of which you need to be aware as you work through the process which should not be ignored.

Stage One: Planning

Planning is the first stage of the information audit process. Prior to the commencement of the project consideration must be given to how

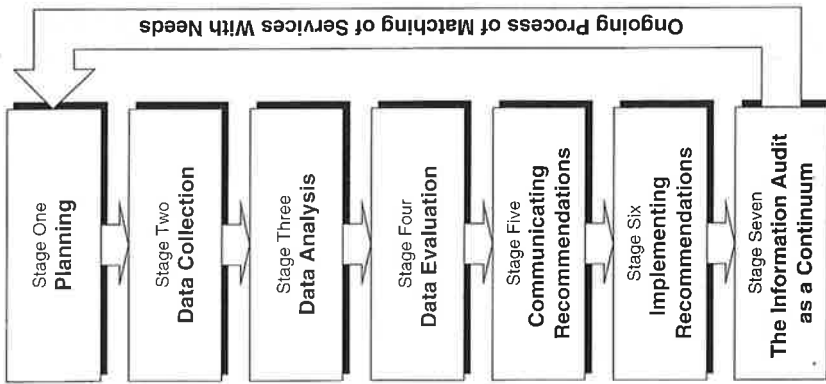


Figure 9.1 The seven stage information audit model

the process will be conducted, how it will be resourced, what will be its scope and timescale and what are the communication issues.

There are five steps in the planning stage that will take you through all of the important issues associated with the information audit process. Each step addresses one or more of the major issues to help you determine the most appropriate way to conduct an information audit in your organization using the available resources.

- Step 1: Develop clear objectives
- Step 2: Determine scope and resource allocation
- Step 3: Choose a methodology

- Step 4: Develop a communication strategy
- Step 5: Enlist management support

Figure 9.2 illustrates these steps and the activities and tasks associated with each of them.

Step 1: Develop clear objectives

The first step of the planning stage makes you examine your reasons for conducting the information audit and asks you to consider what you might hope to achieve. The reasons for conducting an information audit will be different for each organization, as will the expectations. Some of the more common reasons (both strategic and operational) for conducting an information audit are listed below:

- to evaluate existing services/resources
- to promote existing services/resources

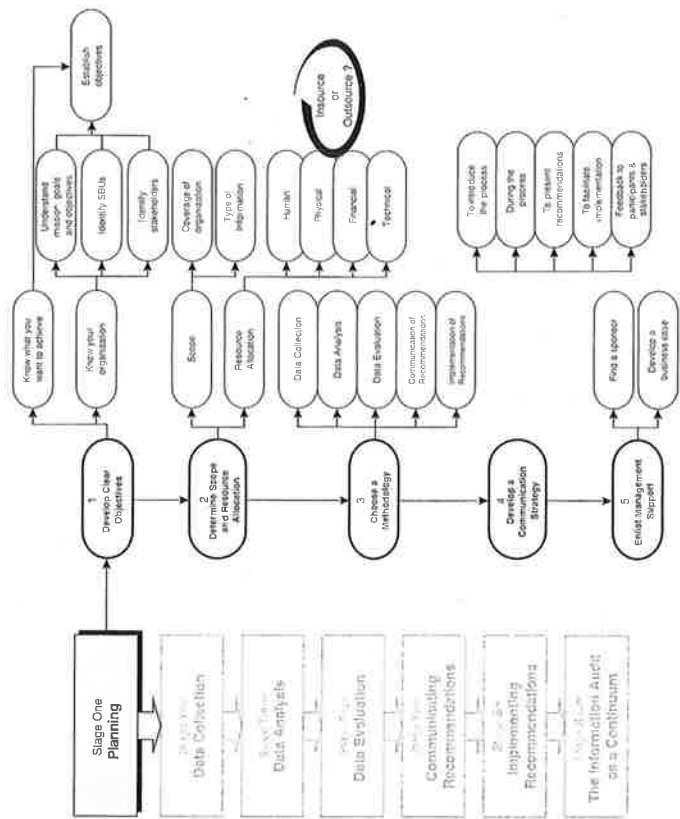


Figure 9.2 Stage One – Planning

- to maintain current staff and funding levels
- to support a request for additional staff and funding
- to identify user needs
- to identify gaps in service/resource provision
- to identify service/resource duplication and areas of over-provision
- to support the restructure of information services
- to map information flows throughout the organization
- to ensure that information services support organizational goals
- to raise the profile of information as a strategic asset
- to link information resources and services to management processes
- to improve the efficiency and effectiveness of information services.

Any one of these reasons may be the primary objective for conducting the information audit, but the outcome of the audit will address many, if not all of them, to some degree depending on the process chosen.

There are three important issues associated with this planning step:

1. Know what you want to achieve
2. Know your organization
3. Identify the stakeholders.

Know what you want to achieve The information audit process has the potential to identify many features and characteristics of information use within an organization. You may choose to concentrate on one or two specific outcomes, or you may decide that your audit should cover the complete range of possible outcomes.

Know your organization It is important that all members of the audit team have a strategic understanding of the organization's business. When establishing your objectives it is important to learn as much as you can about your organization and how it works, develop a clear understanding of its culture and recognize the 'people' issues that need to be considered. You need to know and understand your organization's mission, goals and objectives, its structure and its culture.

Identify the SBUs and understand how each contributes to the business objectives of the organization as this will form the basis for determining which information resources and services have strategic value.

Understand how the structure of your organization facilitates or impedes the sharing, and consequently the flow of information. Recognize that your

organization has both formal and informal structures and that both must be taken into account when examining the information environment.

The culture of the organization can have a direct impact on the information environment within your organization. Whether or not employees value information for their own work, and the degree to which they recognize its contribution to the success of the organization, will have an impact on your objectives and anticipated outcomes.

Identify the stakeholders Understanding who are the stakeholders, both within and outside the organization, will enable you to generate support for the information audit by making them aware of the potential benefits. Whether the stakeholders are information stakeholders, organizational stakeholders or external stakeholders they are all affected by the information environment within the organization.

Step 2: Determine scope and resources allocation

Thought will have been given to the scope of the information audit and the allocation of resources in Step 1 when developing the business case. Step 2 step covers these issues in more detail by explaining the options you have for determining the scope of the information audit and what resources will be required to conduct it. It covers human, physical, financial and technical resources as well as covering the insource/outsource options. Step 3 also introduces the insource/outsource issue and looks at financial and efficiency comparisons of the various options.

Scope There are two ways in which an information audit can be scoped:

1. By type of information
2. By its coverage of the organization.

Type of information. A comprehensive information audit covers all types of information including records management, archives and information technology departments as well as the traditional information resources. What you include in your audit will depend on how these departments are structured within your organization. A reasonable starting point for a first information audit would be to cover only those resources that are, or could be, provided by the information unit. As subsequent audits are conducted, their scope can be increased incrementally to incorporate other types of information and the technological resources required to access the information.

Coverage of the organization. An information audit can be conducted over an entire organization, or can be restricted to specific departments or sections of the organization. I suggest that a complete information audit is conducted initially, then subsequent audits can target specific sections

where measurements and assessments indicate that changes to resources or services may be required. A smaller targeted audit can also be used as a pilot project prior to conducting a major information audit.

Resource allocation. An information audit requires the commitment of human, financial, physical and technical resources. This step of the planning process asks you to estimate the level of commitment of each of these resources to complete the information audit successfully.

Human. People are needed to plan, manage, conduct and evaluate the information audit. In addition to an audit manager and an audit team, support may also be required from other people in roles such as administration and communications.

Physical. Workspace and furniture will be needed to house the audit team and administrative support people.

Financial. There will be many direct and indirect costs associated with staff, materials and communication. These costs must be estimated and included in the budget.

Technical. Access to computer hardware, software, printers, photocopyers etc. will be needed.

Once the resource requirements have been determined, decisions must be made as to whether internal or external resources will be used.

Step 3: Choose a methodology

There is no universally accepted methodology for conducting an information audit because each organization is different and requires a different approach. This means that you can choose an approach that best suits the structure and culture of your organization. Regardless of the process you choose there are 5 standard components.

1. Data collection
2. Data analysis
3. Data evaluation
4. Communication of audit findings and recommendations
5. Implementation of recommendations.

Data collection. The information audit process uses the survey method of data collection. Data can be collected using questionnaires, focus group interviews and personal interviews. Whether you choose one or all of these methods will depend on your objectives, the size and scope of your information audit and the resources available. When deciding on a method for data collection, consideration must be given both to the type and volume of data that you collect as these have implications for the data analysis stage of the process.

Data analysis. The analysis of the data will identify problems in information supply such as gaps and duplications. It will also identify bottlenecks and other inefficiencies that affect information flows. Data analysis can be manual, automated using software or a combination of manual and computerized methods. The methods chosen will depend on the types of data collected and the skills of the people available to do the analysis.

Data evaluation. Once the data have been analysed they must then be evaluated and interpreted within the context of the organization. This involves comparing the current information situation with the 'ideal' information situation and noting where changes are required. It evaluates the strategic significance of gaps, duplications and inefficiencies that have been identified and enables decisions to be made as to whether changes are necessary. The outputs of the data evaluation process are the recommendations.

Communication of audit findings and recommendations. Once the recommendations have been formulated they must be presented to management and other stakeholders in such a way that support is generated for their implementation. Common methods include written reports, oral presentations and seminars. Findings and recommendations can also be communicated using electronic means such as email, Internet or intranet documents.

Implementation of recommendations. How the recommendations will be implemented will depend on what they are, how much change is involved and the level of support needed from management and employees. The development of an implementation plan will ensure that the impacts of the recommendations have been considered (who, how, when, where) which will facilitate their implementation.

Step 4: Develop a communication strategy

Identifying the appropriate communication channels during the planning stage of the information audit will facilitate effective communication during and after the audit. The communication channels chosen will depend on your organization's structure and the methods already in place. They can include brochures, newsletter articles, posters, Internet or intranet documents, email messages or personal methods such as meetings, presentations or seminars. It is important to begin communication before the audit has started, continue it throughout the process and maintain it beyond the audit and to consider communication strategies at each stage.

Before the audit. Communication before the audit will ensure that everyone understands what it is and why it is being conducted. They will understand better their role in the data collection stage and be more prepared to provide quality data.

During the audit. This allows for questions to be asked and concerns to be addressed as they arise.

After the audit. Appropriate feedback to participants and stakeholders will help generate support for the implementation programme. Communication with management whilst formulating recommendations will give them 'ownership' of the recommendations, which will increase support during the implementation process. There must also be formal communication of the findings and recommendations by written report, oral presentations, seminars or electronic means such as email or intranet/Internet documents.

Step 5: Enlist management support

Once clear objectives have been established it is critical to the success of the information audit project that you secure the support of upper management. There are two activities associated with this step:

1. Recruit a sponsor
2. Develop a business plan.

Recruit a sponsor. By recruiting a key player in the organization as a sponsor or advocate you can raise the profile of the audit and ensure a higher level of support for the implementation of recommendations. A sponsor will:

- increase management support for the information audit
- improve the chances of obtaining the resources required
- provide support for the implementation of recommendations
- open new communication channels
- improve access to decision-makers
- understand the organizational culture and how it affects information provision and use
- add a level of validity to the audit project
- promote the merit of the audit to management and stakeholders.

A sponsor must be a person who:

- is regarded highly by management
- understands the value of information to the organization.

Develop a business case. The development of a comprehensive business case which includes details of the objectives, resources, methodology, corporate investment and the anticipated outcomes will ensure that management is aware of what the information audit potentially could

achieve. A suggested format for a business case is included in Chapter 2. It must only contain information that is relevant to the information audit proposal. It must also be:

- professionally presented
- logical in layout and numbering
- written in clear and simple language (no library jargon!)
- concise
- honest (overstating your case will result in unrealistic expectations)
- quantitative (include figures wherever possible).

The development of the business case forces you to consider all of the major issues associated with the information audit project and will form the basis for the remaining steps in the planning stage. Involve the sponsor in its development to ensure that it meets the needs of management.

Once the information audit has been carefully planned, the next stage is to collect the data.

Stage Two: Data collection

The second stage of the seven-stage information audit process covers the collection of data relating to the information resources used, how they are used, the information that is produced and the flow of information within an organization and between the organization and its external environment.

This stage also covers the development of an information resources database that will store some of the collected data and enable relationships to be established between information resources and the achievement of business unit objectives.

The information audit process uses the survey method of data collection. A survey is a systematic approach to collecting information and there are three survey methods used in the information audit process to collect data. Each has a different focus and can result in the collection of a different type of data. Any one can be used alone, or in a combination of two or three methods.

Figure 9.3 illustrates the three methods of data collection that can be used and the tasks and activities relating to each of them.

Questionnaire

A questionnaire is a survey instrument used to collect data. It can be used to collect both quantitative and qualitative data about what information is used and by whom, how it is used and how it flows through

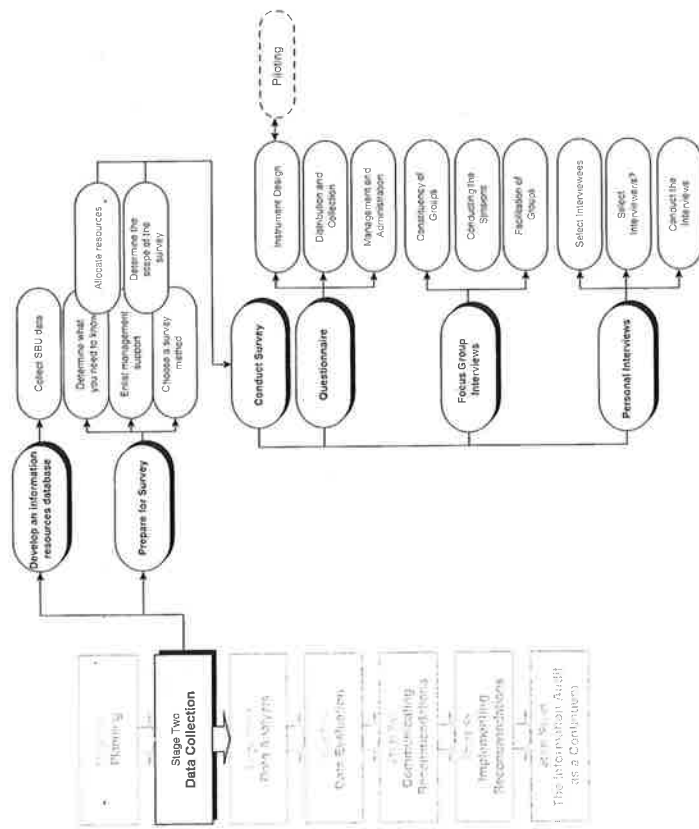


Figure 9.3 Stage Two – Data Collection

the organization. It can be used to collect attitudinal and behavioural data such as how well an information resource or service meets a person's need and how the resource is used.

There are three tasks associated with the questionnaire method of data collection:

1. Instrument design, including piloting for refinement
2. Distribution and collection
3. Management and administration.

Instrument design. This involves determining what data are to be collected, then devising a list of questions to obtain them. Important issues are:

- format (simple, logical structure)
- types of questions (open, closed, multiple choice, yes/no, rating scales)
- length (20 questions/4 pages maximum).

Piloting. Once the questionnaire is designed, test it out in a pilot situation to validate the questions and to ensure that they are resulting in the type of data that is required. If necessary, modify the questionnaire and re-test it until respondents can complete it accurately and quickly.

Distributing and collecting the questionnaire. The distribution methods for the questionnaire will depend on the size and structure of the organization as well as the resources and the timeframe available to collect the data. Distribution methods must be cost-effective and efficient and can be manual (mail, personal delivery) or electronic (email, intranet/Internet) depending on the technology available.

Management and administration. This covers the coordination aspects of distribution and collection of questionnaires, following up non-returns and ensuring that all enquiries and concerns are dealt with efficiently and effectively. It also covers the coordination of personal and focus group interviews, the distribution of interview schedules and all clerical tasks associated with the survey.

Focus group interviews

A focus group interview is a free-flowing interview (conducted by a moderator) with a small group of people (usually 6–8). Focus group interviews are used as a component of the information audit process to gather more in-depth qualitative data to clarify and add meaning to the questionnaire responses.

There are three tasks associated with conducting focus group interviews:

1. Determining the constituency of the groups
2. Selecting a moderator
3. Conducting the interview sessions.

Determining the constituency of the groups. The ideal size is 6–8 people. Group members should have common characteristics related to the issue being discussed. Homogeneous groups allow discussions to develop along lines that are of interest to all group members.

Selecting a moderator. The moderator is the facilitator of the group and must ensure that the information which is collected is useful and meets the objectives of the interview session. He or she must have

- a clear understanding of the objectives of the interview session
- objectivity and honesty
- an understanding of group dynamics and group facilitation
- high-level communication skills (including listening skills)

- the ability to interpret the responses in the context of the topic under discussion.

Conducting the interview sessions. How the sessions are conducted will affect their success, and planning and communication prior to the interview sessions and during the interview sessions is important.

Prior to the interview session:

- prepare and distribute the agenda, an outline of the topic and the list of the questions that will be asked.

During the interview session:

- ensure that the group understands the purpose of the session
- explain what will be done with the data collected at the interviews
- tape the session or use an independent note-taker who is familiar with the topic
- ensure even participation by all group members
- keep the meetings informal – people talk more when they are relaxed and comfortable
- word the questions carefully and allow people time to consider their responses
- get closure on questions.

Personal interviews

Personal interviews are one-to-one interviews, which are conducted to collect data from key information users to supplement the data collected by the questionnaire. Although personal interviews are time- and labour-intensive, they are vital to the information audit process as they provide not only rich data for analysis but also the opportunity to meet the key players face-to-face to discuss their information needs and how their use of information contributes to organizational goals and objectives. It is important that at least one key information user from each functional division or section of the organization is interviewed.

There are three activities associated with personal interviews:

1. Selecting the interviewer(s)
2. Selecting the interviewees
3. Conducting the interviews.

Selecting the interviewer(s). The person selected to conduct the personal interviews must be a skilled and experienced interviewer who is objective and familiar with the topic, and who can think quickly when interviewees raise unanticipated questions.

Selecting the interviewees. All key information users should be interviewed if possible. If time and resources do not allow this, then at least one key information user from each functional department or section of the organization must be interviewed.

Conducting the interviews. It is important to send interviewees a list of the issues to be covered well in advance of the interview. This gives them the opportunity to consider their responses and to gather any additional data that they might need in order to provide comprehensive responses. The following should be done to maximize the effectiveness of the interviews:

- tape the responses or use an independent note-taker who is familiar with the topic
- explain the objectives of the interviews and the potential benefits to the interviewees
- explain what will be done with the data collected at the interviews
- ensure that the questions are worded clearly and concisely.

Stage Three: Data analysis

Data analysis is the third stage of the seven-stage information audit process (Figure 9.4). It involves the editing and coding of the data that have been collected in preparation for analysis, and then the actual analysis where the data are used to identify problems and inefficiencies. Figure 4 illustrates the tasks and activities associated with the data analysis stage of the process.

There are four tasks that must be completed before the data can be analysed:

1. Input relevant data into the information resources database
2. Develop a data preparation plan for the rest of the data
3. Prepare the data
4. Enter the data into the analysis tool.

Input relevant data into the information resources database

Use the collected data to complete the records in the information resources database.

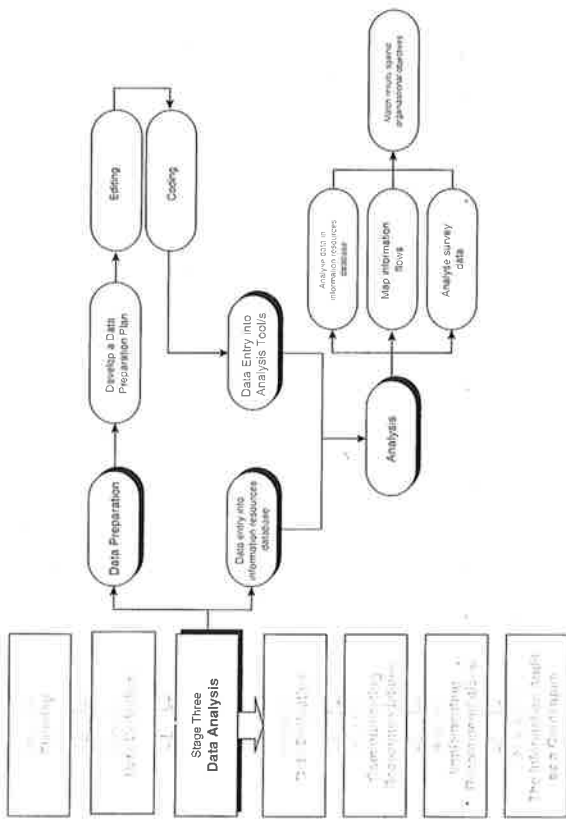


Figure 9.4 Stage Three - Data Analysis

Develop a data preparation plan

A data preparation plan is a document that sets out how the data will be prepared for analysis. It states the procedures that will be used for dealing with each set of data and how anomalies such as missing data, inconsistencies and contradictions will be handled. A comprehensive data preparation plan ensures consistency in the way the data are handled.

Data preparation

Data preparation is the process of putting the collected data into a form that can be used in the analysis process. It involves three major tasks:

1. Transcription of the focus group and personal interviews
2. Editing the responses
3. Coding the responses.

Editing the responses. Editing is the process of making data ready for coding. It involves detecting and correcting errors in accordance with the rules defined in the data preparation plan.

Coding the responses. Coding is the process of allocating numbers or codes to each possible answer to each question. This enables the data to be

slotted into defined groupings that allow them to be entered into the analysis tool. A standard list of codes is created for each question and responses are matched with the list and allocated to the appropriate codes.

Data entry

Data entry is the entering of the coded data into the tool that is to be used for analysis.

Data analysis

Analysis of the survey data Manual data analysis should only be considered if the volume of data collected is small and manageable. Common spreadsheet and database programs can be used to store and manipulate the data. This enables reports and graphical representations of the data to be produced to facilitate the analysis process.

Specialist data analysis tools are available to assist in the analysis of both quantitative and qualitative data. There is however, no fully computerized method of analysing qualitative data. Specialist programs are available but they are relatively costly and require training (or time to self-learn). They require manual intervention to identify relationships and links but can build theories by enabling the identification of themes, patterns and trends.

Analysis of the data in the information resources database The information resources database will enable you to match information resources with business unit objectives, which in turn can be matched with organizational objectives.

Mapping of information flows By visually representing the flows of information within the organization and between the organization and its external environment, bottlenecks, gaps, duplications and other inefficiencies can be identified. It also assists in the identification of information gatekeepers within the organization. Use an organizational chart as the basis for the map and record inflows and outflows from each department. Include those that are produced by the department, and also those that are acquired from, or supplied to, sources outside the organization.

As well as identifying flow inefficiencies, the data can be used to identify problems such as non-provision of critical resources (needs not being met), over-provisions (services provided but not required) and ineffective supply (resources are supplied, but they are not the best ones to meet the need).

Matching findings with organizational objectives

Using the information resources database, the strategic value of information resources can be determined as well as their suitability for the tasks

that they support. The mapped information flows enable you to see the way the resources flow through the organization and between the organization and the external environment.

Stage Four: Data evaluation

Once the data have been analysed, the results must be evaluated and interpreted in order to determine what they really mean in the context of the organization in which the information audit was conducted. Evaluation is the process of expressing the analysed data in terms of the known or familiar and determining the 'value' of what the data show. Interpretation is the process of explaining what the analysed data show, drawing conclusions concerning the meaning and implications and determining the significance in the organizational context.

Both evaluation and interpretation require a comprehensive understanding of how the organization works and its mission, goals and objectives. They also require an understanding of the cultural and political situation within the organization. There are six tasks and activities associated with data evaluation (Figure 9.5).

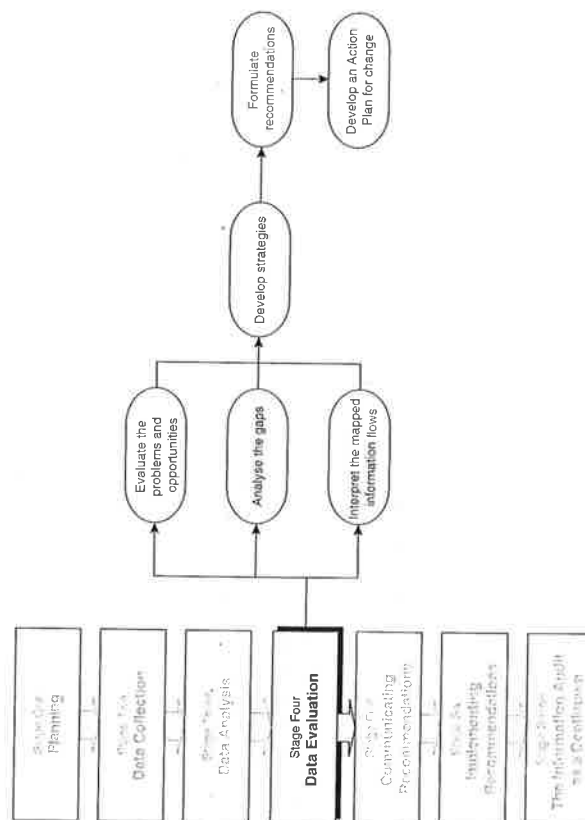


Figure 9.5 Stage Four – Data Evaluation

1. Evaluate the problems.
2. Analyse the gaps.
3. Interpret the information flows.
4. Develop strategies.
5. Formulate recommendations.
6. Develop an Action Plan for change.

Evaluate the problems and opportunities

The problems that have been identified must be evaluated within the context of the organization.

1. Does the problem have strategic significance? The level of strategic significance is the degree to which this problem affects the achievement of organizational goals.
2. Are financial and other resources being used inefficiently or ineffectively? Problem situations which identify the inefficient or ineffective use of money, people and equipment (including computers) must be addressed, provided that the benefits of the solutions outweigh the costs.
3. Will addressing this problem benefit the organization as a whole? Since each part of an organization relates to another part, it is important to understand the interrelationships and to recognize whether or not the solutions to this problem will have a negative impact elsewhere in the organization.
4. Is it possible to solve the problem within the constraints of the organization? The constraints imposed by an organization are delineated not only by the available resources but also by the cultural and political situation within an organization. Human and financial limitations are the most common resource-related constraints faced by people wanting to solve problems within an organization.

By considering these issues, you will be able to ensure that the changes which you recommend are those that will have a high degree of success and will benefit the organization as a whole.

Analyse the gaps

The data collected must be broken down to reflect the 'current information situation' and the 'ideal information situation'. Once you have a clear picture of both situations you can identify the gaps in information supply that need to be filled, and the duplications and over-provisions that need to be reduced.

Interpret the mapped information flows

Once the flows have been mapped and gaps, duplications and inefficiencies have been identified, they must be interpreted within the context of the organization. This involves considering their significance and determining whether or not they need to be addressed.

Develop strategies

Strategies must be developed to address: (i) the problems which have been identified as significant in the evaluation process; (ii) the gap analysis; and (iii) the interpretation of information flows. For each problem there will be more than one solution. The alternative solutions must be considered in relation to the resources required to implement and manage the change as well as the organization and its people. It will be easier to justify the selected solution if formal procedures have been followed in making the selection. For example:

1. List all the alternatives
2. List the selection criteria – the factors that form the key characteristics of the solution (cost, risk, performance etc.)
3. Produce a metric for each selection criterion showing how well the various solutions satisfy that criterion
4. Assign weighting values to each of the selection criteria, reflecting their relative importance in the selection process.

With these components an objective measure of the suitability of each alternative as a solution to the problem is obtained. If this process is performed correctly and objectively then the alternative with the best overall score is the best alternative.

Once the best alternative has been selected it is important to investigate it further.

- will it have adverse consequences? What are the potential risks?
- does it match the cultural and political environment within the organization?
- is it maintainable?
- is it reliable?
- will it be influenced by changing technology?
- is it expandable or scalable?

Formulate recommendations

The process of formulating recommendations applies costings, processes and goals to the selected strategies that scored the highest against the selection criteria.

Costings. Costings must include implementation, maintenance (ongoing) and replacement costs.

Processes. Processes must be developed to incorporate the recommended changes into existing workflows.

Goals. Each recommended change must have quantifiable goals to enable the change to be evaluated and measured.

Once recommendations have been developed, they must then be communicated to management and stakeholders in a way that generates support for their implementation.

Develop an Action Plan for change

List the details (problem, solution, detail, implementation, cost and timescale) of each recommendation individually. Identify links and overlaps with, and impacts on, other areas of the organization's operations.

Stage Five: Communicating the recommendations

The level of success of an information audit can depend on how the findings of the audit and the recommendations which have been formulated are communicated to management and stakeholders. The method or methods chosen must be appropriate for the organization and must take into account the culture and political environments within the organization. Figure 9.6 illustrates the tasks and activities associated with communicating the information audit recommendations.

Common methods used to communicate information audit recommendations are:

1. Written report
2. Oral presentation
3. Seminars
4. Personal feedback to participants
5. Corporate intranet/web site.

Written report

It is important that you prepare a written report, even if it is not the main method chosen for presenting the findings and recommendations. The

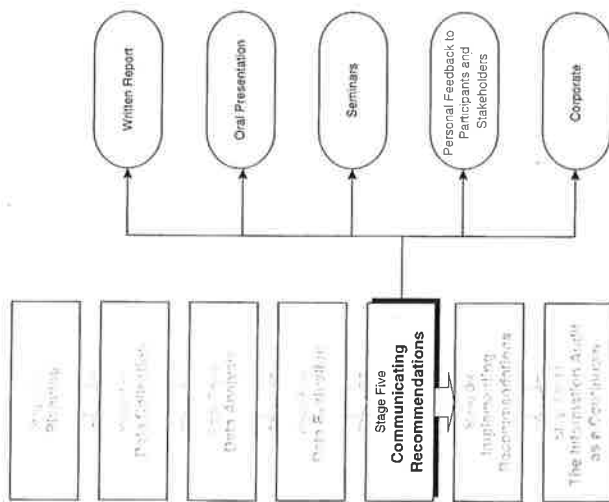


Figure 9.6 Stage Five – Communicating the Recommendations

written report is the official record of the information audit and includes details of the objectives, scope, findings and recommendations.

The structure of the report is important. Divide it into logical sections, and use a hierarchical numbering system. Ensure that it is written clearly and concisely, and that it presents a positive view by focusing on the benefits that the audit has provided. Match identified problems with proposed solutions, and acknowledge those solutions that were provided by survey participants.

Oral presentation

An oral presentation is a verbal summary of the major findings, conclusions and recommendations of the information audit. Oral presentations should be used to present the audit recommendations to stakeholders to allow them the opportunity to ask questions and discuss the issues that they see as significant. The attendance of the sponsor and members of upper management will ensure that their support for the project is visible to employees. This will increase overall support and commitment.

An oral presentation should:

- contain less detail than the written report

- focus on the outcomes
- focus on the needs and concerns of the stakeholders rather than on the technical details of the audit
- include an opportunity for discussion and interaction between attendees
- use visual aids to clarify or emphasize significant issues.

Seminars

Seminars are presentations to small groups which provide opportunities for questions and discussion. They are less formal than oral presentations and should include mixed groups of managers and lower-level employees to facilitate communication and cooperation. The involvement of upper management (preferably the CEO) to introduce the sessions will convey a level of support for the project and for the implementation of recommendations.

Personal feedback to survey participants

Provide personal feedback to individuals and groups whom you feel may not support the recommendations and who may act against their implementation. A short discussion may alleviate their concerns and reduce their opposition to the recommendations.

Corporate intranet/web site (and other electronic methods)

Use the corporate intranet or web site to communicate the findings of the information audit and the recommendations. Create online versions of the written reports and the oral presentations and use hyperlinks to incorporate additional background information and other relevant documents. Use email to publicize the availability of the information and use email distribution lists to communicate the recommendations – this method is fast and cost-effective.

Stage Six: Implementing the recommendations

The implementation of recommendation is stage six of the seven-stage information audit process. It involves the development of an implementation programme and the incorporation of recommendations into strategic, marketing and business plans. Figure 9.7 illustrates the activities and tasks associated with this stage of the process.

Regardless of whether the recommendations involve major or minor changes to procedures, workflows, resources or services, their implementation will have an impact on individuals and groups within the

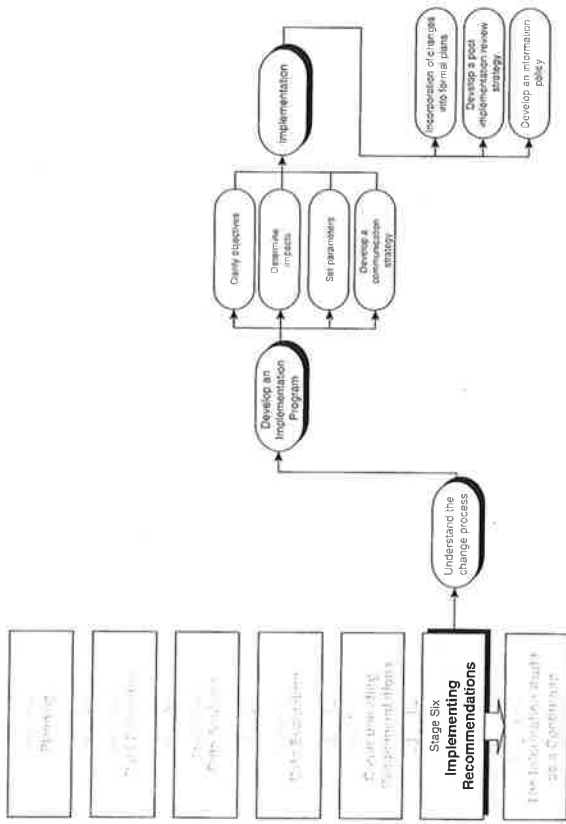


Figure 9.7 Stage Six – Implementing the Recommendations

organization. The effect of the changes and who will be affected must be understood when planning the implementation of the recommendations.

Understand the change process

Regardless of whether the recommendations involve major or minor changes to procedures, workflows, resources or services, their implementation will have an impact on individuals or groups within the organization. If your changes are relatively minor with low levels of complexity, then the points below should help.

- Clearly state the goals.
- Clearly state the process.
- Understand the different ways in which people can react to change and the stages that they often go through in the change-reaction cycle:
 - *shock* where there is very little reaction and also very little action
 - *denial* where people tend to ignore the changes and carry on almost as if the changes had not happened
 - *depression* as they realize that they must 'sink or swim'

- *optimism* as interest increases
- *acceptance* when people are reconciled to the changes and are able to develop a degree of commitment.
- Understand who will be affected and how they will be affected with regard to their workflows and procedures and the resources they use.
- Understand the culture within the organization and how it facilitates or impedes the change process.
- Be clear about the **expectations of management** and the levels of support they are **willing to provide** in order for the changes to be implemented.
- Involve the employees in the change process. Listen to their concerns and ideas and ensure that they have ownership of the solutions to the problems.
- Introduce the change formally. This makes the details of the change clear to everyone at the same time and offsets the resentment that staff may have about not being informed about vital information.
- Communicate openly before, during and after the change process.
- Consider the timing of the implementation and whether people are being asked to deal with more than one change simultaneously.
- Anticipate events that might affect the quality of the change – budget, staff shortages, major restructures etc.
- Become a 'change agent' – make the changes happen.

Develop an implementation programme

The implementation programme is a schedule for introducing the recommendations. It breaks each of them down into activities and processes and describes how they will be incorporated into existing workflows. It must incorporate feedback and address comments and concerns that have been raised by employees and management since the distribution of the audit report and the presentations.

Rate the changes as 'critical' – to be incorporated immediately, 'important' – to be incorporated as soon as possible and 'suggested' – to be incorporated as time and resources become available.

There are four tasks and activities associated with the development of the implementation programme:

1. Clarify the objectives
2. Determine the impacts
3. Set parameters
4. Develop a communication strategy.

Clarify the objectives. Understand why each change is being recommended in terms of the individual employees, the departments or sections affected and the organization as a whole and understand the consequences of non-implementation. The following information is required for each recommendation:

1. Identify the problem to be overcome.
2. Identify the solution.
3. Provide details of exactly what the recommendation involves.
4. Describe implementation – who will do what, how and what will be the results.
5. Explain the cost – include implementation, maintenance and replacement costs.
6. Give the timescale – detail the schedule for implementation and evaluation.

The following additional details should also be included:

1. Give piloting details – how the changes will be piloted or trialled to determine their impacts and other relevant issues.

2. Prioritize recommendations into 'critical', 'important' and 'suggested'.

Determine the impacts. Recognize who will be affected by the change and the potential costs and benefits to them.

Set parameters. Establish boundaries for the changes in terms of people, products and equipment.

Develop a communication strategy. Establish methods of communicating details of the change processes to employees and open communication channels to enable their concerns to be raised.

Implementation

Incorporate the changes into formal plans. The strategies to implement the recommendations must be incorporated into:

1. The strategic plan
2. The business plan
3. The marketing plan.

Develop a post-implementation review strategy. Review the success of the recommendations, and ensure their continued success by:

- measuring the results of implementing the recommendations
- introducing methods to facilitate acceptance of the changes through awareness sessions, training sessions, a help desk, online instructions, online technical support (FAQs) etc.

Develop an information policy. An information policy is the document that contains the procedures for controlling and coordinating the management of information.

Stage Seven: The information audit as a continuum

The final stage of the seven-stage information audit process looks at why the information audit must become a regular means of matching information services and resources with information needs. It describes ways of measuring and assessing the changes introduced as a result of an information audit, and introduces ways of developing an ongoing process to ensure that information services match information needs. This stage also looks at the ancillary benefits to be gained by conducting the information audit on a regular basis, and the ways in which the process can be tailored to suit the specific needs of individual organizations. Figure 9.8 illustrates the tasks and activities associated with this stage of the process.

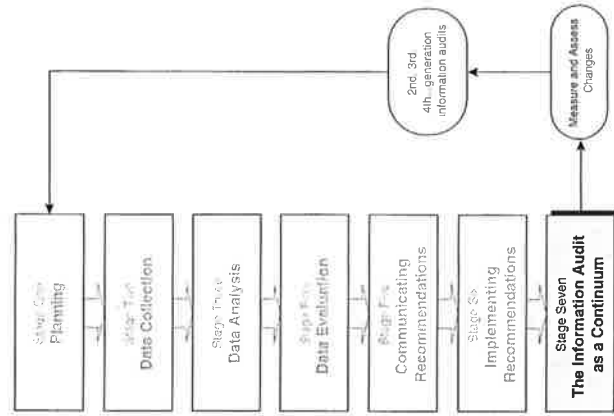


Figure 9.8 Stage Seven – The Information Audit As A Continuum

Measuring and assessing the changes

Measuring the impacts of the changes and evaluating the levels of improvements resulting from each change is important to establish whether or not the change achieved its objectives.

- both quantifiable and perceptual measures must be used.
- there is no standard appropriate time for evaluation.
- there is also no standard number of times that a change should be measured or evaluated.
- everyone affected by the change should be aware of the measurement and evaluation programme.
- the evaluator must have knowledge and understanding of the project.
- the change must only be evaluated in terms of the original objectives.

Tailoring

A comprehensive information audit comprises all seven stages of the seven-stage information audit model described in the previous chapters. The model is not a highly structured and controlled process that operates in a tightly defined manner. Rather it is a structured framework that is flexible and can 'bend' to meet the varying conditions and constraints of an organization. The components presented in the model can be adapted, or tailored, to suit

- the objectives of the auditors in conducting an information audit
- the available resources
- the structure and culture of the organization.

Tailoring the information audit process consists of examining each stage of the process (and each step within each stage) and identifying the outcomes that are appropriate considering the objectives, circumstances and constraints. The tailoring process focuses on the outcomes to be achieved and will determine not only which stages (and steps) will be conducted but also how they will be conducted. How the information audit process will be tailored will depend on:

1. The *complexity and dynamics* of the organization;
2. The *constraints* set by the organization;
3. The *maturity* of the information audit process.

Complexity and Dynamics Key factors in determining the effort required to conduct an effective and efficient information audit are:

- the size and structure of the organization
- the nature (level and type) of the interactions within the organization and between the organization and its external environment
- who are the stakeholders and their behaviour
- environmental factors influencing the organization (legal requirements, customers, competitors, technological developments etc.)
- the type of information flows within the organization.

Constraints The scope and timing of an information audit will depend on the constraints set by the organization. Information audits are often conducted in conjunction with other organizational reviews such as full organizational reviews or the re-engineering of business unit tasks. Common constraints include:

- availability of funds and resources
- availability of technology to assist the audit process (hardware and software)
- prioritization criteria (political agendas).

Maturity The initial information audit conducted across an entire organization is a 1st generation information audit. Subsequent information audits are known as 2nd followed by 3rd generation audits etc. The key factor in moving from one generation of information audit to the next is the ability to use the historical data already captured and the framework developed in previous audits. This can only be done if the data are structured and stored in such a way to facilitate the progression to an effective and efficient subsequent generation audit. This is an important consideration when outsourcing the audit process, as you must ensure that the collected data are returned to the organization in a useable format, and that the framework that was developed can be re-used and built upon by subsequent audits.

Each information audit creates a baseline of the organization's information requirements which can be re-used to ascertain their continual relevancy and effectiveness as the organization evolves and changes.

A 1st generation information audit can be conducted at:

- business unit level (to gain insight into the audit process or to focus on particular problems where significant benefits can be achieved)

- organizational level (to identify clearly how information is acquired, transformed and used to meet the objectives of an organization).

Subsequent information audits can be conducted following the same process as the 1st generation information audit, or they can be restricted to specific business units or sections of the organization. Alternatively they can be restricted to a specific functional level of the organization.

Application of tailoring A 1st generation information audit will require all seven stages of the seven-stage information audit model to be completed. There is, however, the opportunity to vary how and when each stage is conducted and the methods that can be employed. As you work through the process from stage one to seven, there are alternative methods that you can use to match the process with your objectives and the needs and constraints of the organization.

Second (and subsequent) generation information audits benefit from the lessons learned in previous audits. Much of the required data have already been collected and stored. Many problems have already been identified, and inefficiencies documented. The focus of subsequent audits is to measure the effectiveness of changes and to reassess how well the information services meet the changing needs of the organization. Subsequent audits build on existing data to create a new baseline that forms the basis of modifications to policies (including the Information Policy) and processes.

Summary of outputs

Figure 9.9 illustrates the outputs of each stage of the information audit process.

Conducting an information audit has benefits for the organization, for the information unit and for the information professionals and others who work on the audit team. Some of the additional benefits that might be gained are listed below.

Benefits for the organization include:

- a framework for standards and procedures
- identification of skills gaps and consequently of training needs
- identification of individual areas of expertise
- raised awareness throughout the organization of the value of information which if cultivated can build an 'information culture'
- increases in information accuracy due to the shared ownership of, and responsibility for, information
- a basis for building a knowledge-based culture.

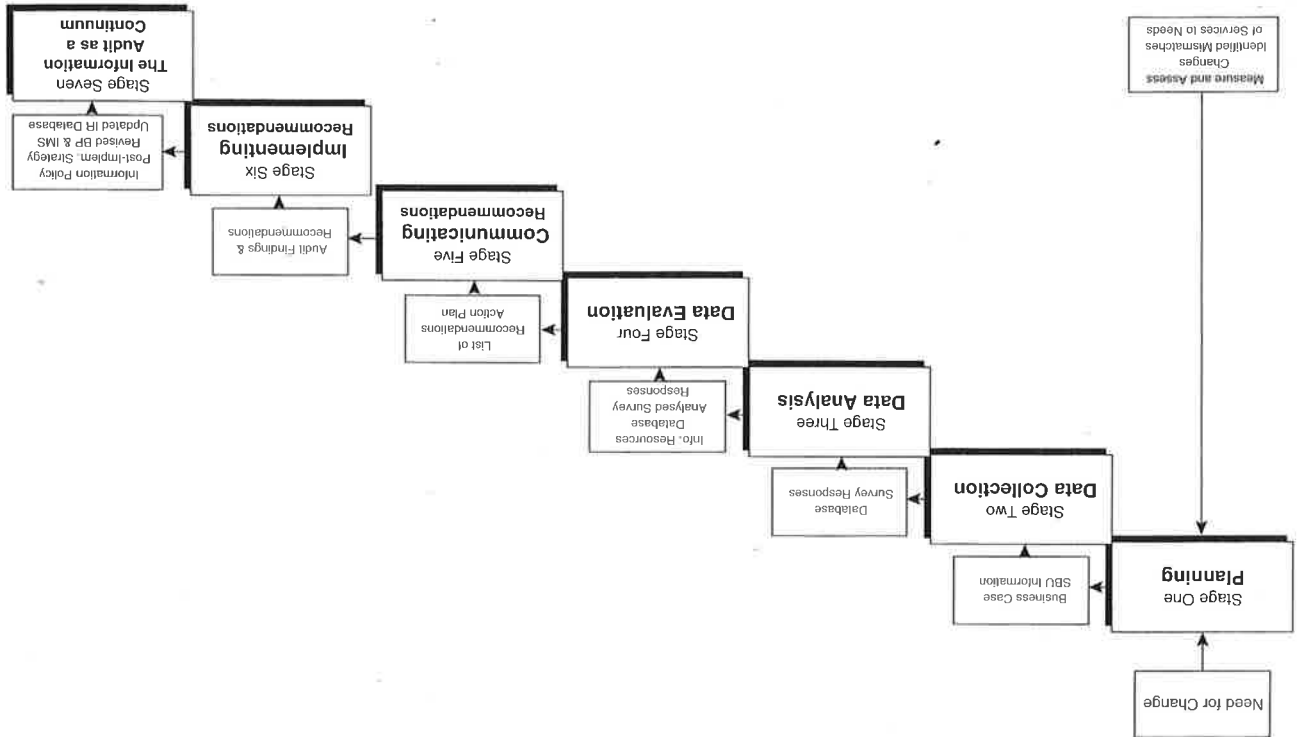


Figure 9.9 Summary of outputs Ancillary benefits

Benefits for the information unit include:

- raised awareness of the role of the information unit
- better developed communication channels
- opportunities to market the services and resources and to promote those which are under-utilized
- identification of the core customer base, information gatekeepers and stakeholders
- evidence of the value of the services and resources provided by the information unit to organizational success which can be used to calculate the return on investment for funds used to provide information services
- more streamlined planning and budgeting
- more easily formulated collection development strategies
- a basis for developing performance measures.

Benefits for the information professional include:

- a comprehensive knowledge of the organization and how it functions, both internally and in relation to its external environment
- a better understanding of his or her individual role within the organization
- the development of practical skills such as interviewing, project management, planning and communication skills.