IMARK

Module
Investing in Information for Development

Information Strategy

Lesson 2: Developing an Information Strategy

Learner Notes

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This lesson is part of the IMARK Module on “Investing in Information for Development”. The Module contains six units. The unit on “Information Strategy” comprises three lessons:

Lesson 1: The Features of an Information Strategy

Lesson 2: Developing an Information Strategy

Lesson 3: Implementing an Information Strategy

This course is available in self-paced e-learning format on CD-ROM and the Internet (www.imarkgroup.org).

Learning objectives

At the end of this lesson, you will be able to:

- identify several options for working with stakeholders when developing an Information Strategy;
- be aware of the different stages in the process of developing an Information Strategy.

Introduction

A range of methods and tools exist that can help the process of developing and implementing an Information Strategy. However, it is important to realize that there is **no** right or wrong way to proceed. Every organization has its own context, and the key factor in success is **sensitivity to local conditions**.

Let's examine some of the key issues and look at some well-established tools that are available to the would-be strategist.

Stakeholders in your Information Strategy

It is important that an organization's Information Strategy is developed with **all** the stakeholders in mind. Stakeholders in the strategy are those who have direct involvement in, or are affected by, its information-related activities.

Stakeholders include:

- **Management**;
- **Staff -** especially those involved directly in information management, systems and technology;
- **Suppliers/Agents** – of information content, software and hardware;
- **Government –** Ministries, Agencies, Institutes, etc.;
- **Financial institutions/Investors** – including internal Finance Departments;
- **Audiences/Customers-** for information products and services.

There are different approaches to involving the various stakeholders in the strategic thinking process. As a manager, you could work:

1. by yourself;
2. with a pool of management colleagues (top-down);

In the **top-down approach**, senior management defines in some detail what it expects and how it should be done. The advantage is that senior management has a good grasp of overall strategic issues for the whole organization.
The disadvantages are that senior management is seldom aware of the details of information operations and technologies, and is not in direct touch with the users/audience(s).

3. or through participatory approaches with staff and other stakeholders (bottom-up).

In the **bottom-up approach**, information staff develop the objectives and priorities based on their own work experience. The advantage is that staff are familiar with the operations and the technologies, and have direct contact with the users/audience(s). The disadvantage is that staff will seldom grasp the “big picture” of the organizational needs.

The first approach – by yourself – is not practical in medium to large organizations, and not ideal in small organizations. Therefore, your approach could be “top-down” or “bottom- up”. However, neither extreme is likely to achieve success. Instead, you should aim to use an element of both approaches.

The methods that can be used for consulting stakeholders during the process of developing the strategy are:

- **interviews**;
- **questionnaires**;
- **focus or peer group discussion;**
- **observation**.

Combinations of these methods can be developed to suit any organization.

The stages in the process for developing your Information Strategy

The first stage in the development of an Information Strategy is the **definition of objectives.** They should be **specific**, **measurable**, and **realistic**. Also, it is critical that these objectives for information-related activities **relate to the overall corporate strategy**.

For instance, an objective could be:
"To improve the capacity of staff to identify and access the information that they need".

A more commercial objective could be:
"To plan, manage and use effectively the whole spectrum of Information Technology to gain cooperative advantage for the organization".

Once you have defined the objectives, then it is time to **prepare the main body** of the strategy.

Developing your organization's Information Strategy should follow a **series of stages**:

1. Analysis | **2. Identification of Options** | **3. Selection of Options**

Even when following the different stages, variations in approach may prove necessary to accommodate specific aspects of your particular organization.

Stage 1: Analysis

The first stage in the process of developing an Information Strategy is the Analysis of the information environment. It is important to keep in mind that it refers both to the internal and the external context.

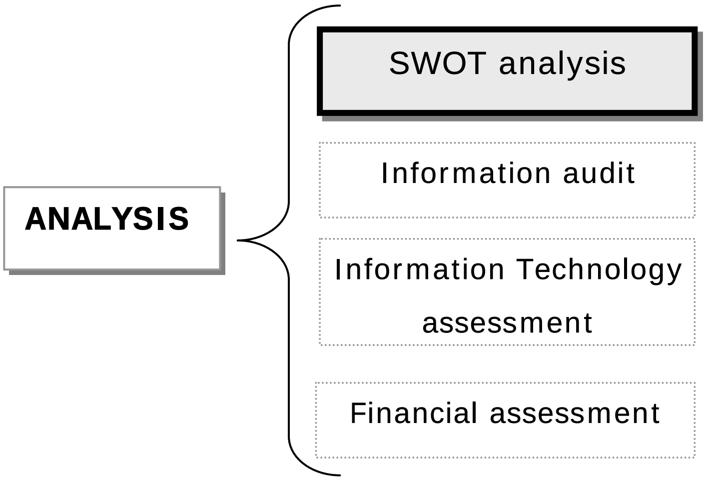
1. Analysis | **2. Identification of Options** | **3. Selection of Options**

The analysis should comprise the following series of steps:

ANALYSIS

- SWOT analysis
- Information audit
- Information Technology assessment
- Financial assessment

The first step is a **SWOT** analysis (**S**trengths, **W**eaknesses, **O**pportunities, and **Threats**).



It is a commonly-used management tool at an early stage in strategy development, which should be applied to all stakeholders, processes and resources involved in or related to information activities.

- **Internal** issues should be considered together as the

A SWOT analysis is best completed by pooling inputs through meetings of groups of stakeholders. It is also most effective in a "brainstorming" mode, where a group of colleagues contribute perceptions and ideas.

The following table shows a SWOT Checklist for an Information Strategy:

Stage of SWOT	Checklist
Strengths & Weaknesses:	• Existing portfolio of information products and services in terms of quality and effectiveness; • The organization's structure and composition in relation to information management; • The organization's IT infrastructure and resources; • Staff awareness and skills in information management; • Financial aspects of information systems, products and services.

Opportunities & Threats : (P - E - S - T)	• **P**olitical changes – new information policies and legal frameworks; • **E**conomic changes – locally, nationally and internationally; • **S**ocial changes – in competitors, audience populations, demand for information products and services, market penetration; • **T**echnology changes – new developments in commercial or open-source software, or in hardware.

The next step is the **Information audit.**

ANALYSIS

- SWOT analysis
- **Information audit**
- Information Technology assessment
- Financial assessment

This step analyses and evaluates the existing Information Management processes in your organization, as they were identified in your SWOT analysis.

This analysis involves several issues common to many organizations:

1. Where your organization gets its information from.

- **Sources** of information
- **Duplication** of acquisitions
- **Contacts** with suppliers

Linked to:

- Opportunities
- Threats

2. What happens to information within your organization.

- **Awareness** of existing information
- **Sharing** of important information
- **Efficiency** of operations

Linked to:

- Strengths
- Weaknesses

3. How and **to whom** the organization disseminates information.

- **Needs** of audience(s)
- **Relevance** of content
- **Usability** of information provided

Linked to:

- Opportunities
- Threats

The next phase of the analysis is the **Information Technology assessment**.

ANALYSIS

- SWOT analysis
- Information audit
- **Information Technology assessment**
- Financial assessment

The use of Information Technology (IT) is closely related to the information audit. How do you know if your organization uses IT effectively?

For this step of the analysis, it may be helpful to consider the issues from four perspectives:

1. **Make IT development efficient.**

You will need to consider:

- financial issues – balancing costs and benefits of investment in IT;
- technical issues – choosing hardware and software that meet current needs and can be developed to meet future needs.

2. **Learn from experience.**

Find out what staff and managers think of the tools that they are currently using. Which tools are helpful to them? Which tools are not effective or are hard –to use? What ideas do they have about further use of IT in their work?

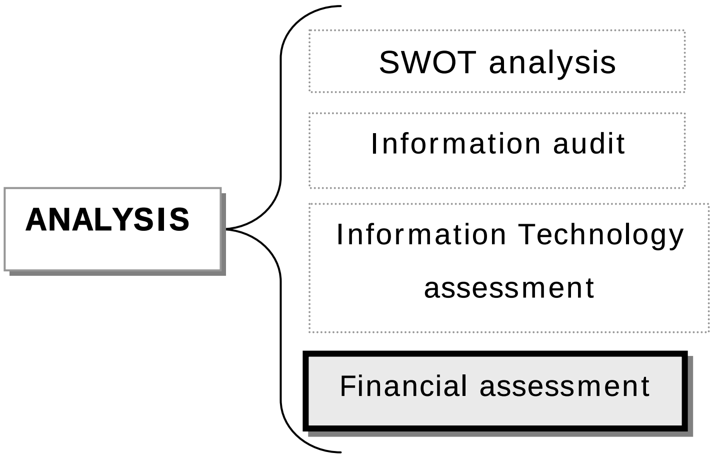
3. **Concentrate on “who” and “why”.**

IT should meet its users’ needs – bearing in mind that users can be both those who contribute content as well as those who retrieve it – a and support identified objective(s) of your organization.

4. **Find new ways of using IT.**

IT develops all the time, and it can be hard to keep up. You could regularly consult specialized journals, websites or electronic mailing lists describing advances in IT. Alternatively, you could find a specialist who could provide up-to-date and impartial advice.

The next stage in our analysis is the **Financial assessment**.



The financial analysis for the Information Strategy has to examine expenditure (or costs) and income (or revenues).

Income may be less important for investments in information activities in the public sector, which may be funded from public sources of finance and/or may relate to free or subsidized products or services.

You will have to consider carefully the different costs related to investments in information. There are several types of costs which may apply. These are described in the following table.

Type of cost	Description
Staff costs	Salaries, benefits and training
Acquisition costs	Purchase of information, IT and software
Establishment costs	Systems configuration and customization
Production costs	Preparation of information products and services
Training costs	Orientation of staff on use of the new systems
Maintenance costs	Repairs and updates of installations, IT, and software; facilities, electricity and depreciation

Stage 2: identification of options

The second stage in the process of developing an Information Strategy is the identification of options.

1. Analysis	2. Identification of Options	3. Selection of Options

During the analysis stage, you will have reviewed the information-related activities being carried out by your organization. The analyses can now be used to define the **strategic alternatives**.

Definition of the options for an Information Strategy involves identification of the following:

- The information products and/or services that could theoretically be acquired for internal use.

- The information products and/or services that could theoretically be offered to external audience(s).

Each of the products or services to be acquired or offered should have a full profile based on the analysis conducted during the preparation of the strategy, through the **Information audit**, **Information Technology assessment**, and the **Financial assessment**.

The alternatives defined need to be first measured against the findings of the SWOT analysis.

To prepare the profile for each product or service, here are some of the questions you may ask:

- Does it address the output of the SWOT analysis, by:
  drawing on the organization's Strengths; correcting or neutralizing major Weaknesses; exploiting major Opportunities; eliminating or reducing major Threats?
- Does it fit with the output of the Information Audit?
- Is it compatible with the findings of the Information Technology assessment?
- What are the costs?
- And what are the potential revenues?

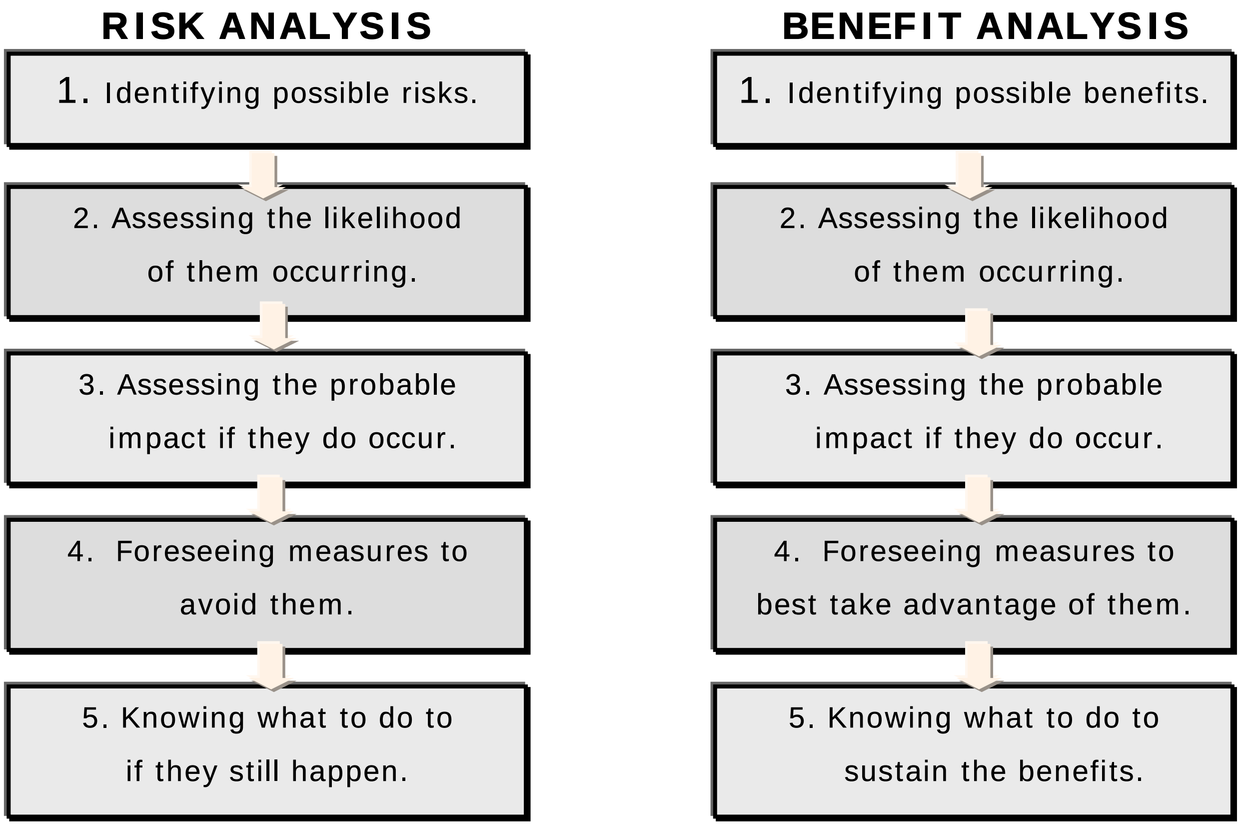
Stage 3: selection of options

Now that you have defined the range of strategic options available, the third stage in the process of developing an Information Strategy is the selection of options.

1. Analysis	**2. Identification of Options**	**3. Selection of Options**

In order to be able to choose among different options, it is useful to consider potential problems as well as benefits, especially because the dynamics of information management inevitably contain elements of unpredictability. During this selection process, you should take into account possible risks and benefits, and consider how to deal with them.

Here is a process you can follow for identifying and considering how you would respond to the risks and benefits of all the options.



There are various types of risks and benefits. We can group them under four different categories:

1. Organizational

- Will the option require new managerial structures or styles, and is senior management likely to support it/them?
- Will the option affect the type of staff required or the terms and conditions of existing staff?
- Is the option in tune with the current organizational culture?

2. Political

- Will the option challenge existing government policies in any way?
- Will the option make demands on or overlap with the responsibilities of other organizations? Are they aware of this and/or how will they react?

3. Financial

- What is the potential financial impact on your organization of the option?
- Will the option require additional financial support, and if so, has a potential source of funds been identified?
- Is the option(s) based on certain assumptions about income and cost? What will happen if they turn out to be wrong?

4. Technical

- Will the option rely on introducing new technology or skills into the organization?
- Do reliable sources exist to supply and support the new technologies for the option?
- Does the infrastructure exist to support the option?
- Will the new technologies deliver the expected outputs for the option?

The value of a strategic option has to be fully described with a range of indicators, which can be based on quite subjective judgments by management.

Therefore, you need to have some **consistent criteria** as a basis for making these choices. You should always make clear – to yourself and to colleagues – the **standard principles** underlying your decision-making. Here is how you could proceed:

Step 1. Find **alternative indicators** to express “value”.
When the actual cash return is not the only important figure, the intended value can be fully described with **other indicators** (e.g. “*40% more people will be able to use our publication”*).

Step 2. Create a **basis** for more consistent decision making.
The following box presents an example of a method for comparing information investment proposals, which offers a transparent but somewhat subjective **basis** for **decision-making.**

Using Scoring Systems to Aid Decision-Making

Managers often have to select between options which are difficult to distinguish. Scoring systems are tools which offer a solution to this by providing a basis for comparison of options. Such systems have the advantage of being transparent and consistent, but they should be restricted in complexity (i.e. avoiding too many factors) and should be used in combination with other tools.

Method

1. Identify relevant **factors** against which the options can be scored, and define how the **scores** (e.g. 0-4) are defined for each factor.
   Note: Each organization will have to determine its own factors for any given topic, and those factors will have to be given a specific score relevant to that organization

2. Allocate the chosen factors with a priority or **"weight"** according to the priorities of your organization.
   Note: Weights should be attributed to factors with care, preferably in consultation with management, staff and other stakeholders .

3. Determine the **weighted score** for each option, by determining the score against each factor and multiplying that score by the weight given to the factor.

4. The options can be compared and ranked by the total of their **weighted scores** for all **factors**.

Case: Strategic Planning in Information Management

Parker and Benson (*Information Management – linking business performance to information technology*, 1992, Prentice Hall) developed the following scoring system for use in evaluating options related to information management.

I Factors:

A range of factors to be assessed is provided below, although others could be used. Scores for the first two factors are provided as examples.

i) <u>Organizational issues</u>

- Strategy – Does the option have any links to the organization's strategic goals?

Example: The scoring attributed to the options' <u>strategic value</u> could be :

0 : The option will be of no strategic value.

1 : The option will have some operational value, but no wider strategic, significance.

2 : The option will contribute to the understanding and development of strategic goal(s).

3 : The option will make a limited but specific contribution to strategic goal(s).

4 : The option will directly achieve a strategic goal(s).

- Economic – Does the option have any financial implications?

Example: The scoring attributed to the options' <u>economic aspects</u> could be :

0 : The option will be a cost, with no financial benefit.

1 : The option will be a cost overall, but will produce some financial benefit(s).

2 : The option will be a cost overall, but will produce significant financial benefit(s).

3 : The option will fully pay for itself, thus be cost-neutral.

4 : The option will more than pay for itself, bringing significant net financial benefit(s).

- External relations – Does the option have any effect on the development of the organization's relationships with its stakeholders?

- Public image – How will the option affect the organization's public image?

- Organization – What is the risk of disruption to core procedures and structures associated with the option

ii) <u>Technical Issues</u>

- Infrastructure – Does the option contribute to the development of the organization's planned technical infrastructure?
- Systems – What is the risk of disruption to existing information systems associated with the option?

II Weighting:

The chosen factors must be ranked relative to each other. This does not just mean placing them in order of importance, as factors may be given the same weight.

Example: The weights for the above factors could be established as:

Strategy	+3
External Relations	+2
Infrastructure	+2
Economic	+1
Public Image	+1
Systems	–1
Organization	–1

Conclusions

After completing these stages for the development of an Information Strategy, you should not only have a better understanding of your present information management processes and systems, but also the possibility of choosing between possible tangible alternatives.

Following your analysis, the strategic alternatives will be prioritized according to institutional objectives and requirements (rather than based on personal perceptions).

The next phase will be to put your Information Strategy **into action**, and to package it in the most appropriate form to communicate it successfully to stakeholders.

Summary

It is important that an organization's Information Strategy is developed with all the stakeholders in mind. Stakeholders in the strategy are those who have direct involvement in, or are affected by, its information-related activities.

There are different approaches and a number of methods to involve stakeholders in the development of your Information Strategy. The main approaches are: top-down and bottom-up.

A combination of elements of both approaches is advisable.

Methods include: interviews; questionnaires; focus or peer group discussion; and observation.

Developing your organization's Information Strategy should follow a series of stages:
1) Analysis; 2) Identification of Options; 3) Selection of Options.

The analysis comprises several steps:
1) SWOT analysis; 2) Information audit; 3) Information Technology assessment; and 4) Financial assessment.

Both the Identification of Options and the Selection of Options phases should be measured against the findings of the SWOT analysis.