

Pathways Plus

Strategic Management and Leadership

Level 7

Unit 7004

Strategic information management

Pathways Plus

Unit 7004: Strategic information management

Copyright © Chartered Management Institute, Management House, Cottingham Road, Corby, Northants NN17 1TT.

First edition 2009

Author: Ray Rowlings
Consultant: Bob Croson
Series consultant: Roger Merritt Associates
Project manager: Trevor Weston
Editor: Suzanne Pattinson
Page layout by: Decent Typesetting

British Library Cataloguing-in-Publication Data. A CIP catalogue record for this publication is available from the British Library.

ISBN 0-85946-341-9

All rights reserved, save as set out below. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the written permission of the copyright holder except in accordance with the provisions of the Copyright, Designs and Patents Act 1988 or under the terms of a licence issued by the Copyright Licensing Agency Ltd, 90 Tottenham Court Road, London, England W1T 4LP.

Applications for the copyright holder's written permission to reproduce any part of this publication should be addressed to the publisher. Permissions may be sought directly from the Chartered Management Institute in Corby, UK. Phone Publications on (+44) (0) 1536 207344, or email publications@managers.org.uk.

This publication is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form of binding or cover other than that in which it is published and without a similar condition being imposed on the subsequent purchaser.

Approved centres may purchase a licence from the publisher, enabling PDF files of the publication to be printed or otherwise distributed solely within the centre for teacher and student use only according to the terms and conditions of the licence.

Further information is available on the licence from the Chartered Management Institute. Phone (+44) (0) 1536 207344, or email publications@managers.org.uk.

Every effort has been made to trace holders of copyright material reproduced here. In cases where this has been unsuccessful or if any have inadvertently been overlooked, the publishers will be pleased to address this at the first opportunity.

The publisher would like to thank the following for permission to reproduce copyright material:

- JISC infoNet at www.jiscinfonet.ac.uk, an advisory service of the Joint Information Systems Committee (JISC), for the 'five-stage process' extract from an information audit on pp. 88–9.
- Pearson Education for the figure, The role of information in controlling organisational performance, p.9, table, pp.12-13; Fig 2.3a, The information life cycle, p.33; Fig 1.2a, Information flows for compliance with data protection, p.54; Fig 2.1a, A process for improving information quality, p.85; Fig 2.1b, The DIKAR model, p.85; Fig 2.1c, The role of information in controlling organisational performance, p.87 (all from Chaffey, D., and Wood, S., *Business Information Management*, 2005) and Fig 2.4a, General model of MIS, p.37; table of information attributes, p.92 (from Robson, W., *Strategic Management and Information Systems*, 1997) and table, pp.20-1; Fig 2.1b, Information system showing links and flows, p.30; Fig 1.1a, Elements of information strategic management, p.74 (from Cashmore, C., and Lyall, R., *Business Information Systems and Strategies*, Prentice Hall, 1991) and Fig 2.3b, An evaluation tool relating information to business value, p.34 (from Marchand, D. and Davenport, T., *Mastering Information Management*, FT-Prentice Hall, 2000).

Contents

About Pathways Plus	5
Introduction	9
Section 1 The impact of management information	11
Topic 1: Understanding management information.....	12
1.1 What is management information?	12
1.2 Five attributes of management information	13
1.3 Environmental scanning	17
1.4 Management information and decision-making	22
1.5 Senge's ladder of inference.....	25
1.6 Make or break decisions	26
Topic 2: Managing information systems	28
2.1 What are information systems?.....	28
2.2 Business information management	31
2.3 The information life cycle.....	33
2.4 What are management information systems?	35
2.5 Evaluating management information systems	39
Section summary	44
Section 2 Information sharing.....	46
Topic 1: Sourcing, sharing and storing management information.....	47
1.1 Determining organisational information needs	47
1.2 Providing information	50
1.3 Threats to an information system.....	55
Topic 2: Managing knowledge.....	60
2.1 What is knowledge management?.....	60
2.2 Knowledge management and information management	63
2.3 Organisational knowledge	66
Section summary	71

Section 3 Using information for strategic decision-making	72
Topic 1: Strategic information management	73
1.1 Strategic information planning	73
1.2 Making strategic decisions.....	75
1.3 Spotting patterns and trends	79
Topic 2: Monitoring and reviewing management information	84
2.1 Improving information quality	84
2.2 Managing information quality.....	88
2.3 Evaluating management information	91
Section summary	95
Further reading.....	96
Before you move on	97
Preparing for assessment	97
The Management and Leadership Standards	97

SAMPLE MATERIAL

About Pathways Plus

Development guides

There are 12 development guides in the *Pathways Plus* series to cover the 14 units of the qualifications at CMI Level 7: Strategic Management and Leadership.

- 7001 Personal development as a strategic manager
(ISBN: 0-85946-326-5)
- 7002 Strategic performance management
(ISBN: 0-85946-331-1)
- 7003 Financial management
(ISBN: 0-85946-336-2)
- 7004 Strategic information management
(ISBN: 0-85946-341-9)
- 7005 Conducting a strategic management project
(ISBN: 0-85946-346-X)
- 7006/ Organisational direction and strategic planning
7011 (ISBN: 0-85946-351-6)
- 7007 Financial planning
(ISBN: 0-85946-356-7)
- 7008 Strategic marketing
(ISBN: 0-85946-361-3)
- 7009 Strategic project management
(ISBN: 0-85946-340-0)
- 7010 Organisational change
(ISBN: 0-85946-345-1)
- 7012 Human resource planning
(ISBN: 0-85946-350-8)
- 7013/ Being a strategic leader and strategic leadership practice
7014 (ISBN: 0-85946-355-9)

For further details on the development guides:

- Phone: (+44) (0)1536 207344
- Fax: (+44) (0)1536 207384
- Email: publications@managers.org.uk

Qualification structure

There are three qualifications available:

- **CMI Level 7 Award in Strategic Management and Leadership**

Candidates need to complete any combination of units to a minimum of 6 credits to achieve the qualification.

- **CMI Level 7 Certificate in Strategic Management and Leadership**

Candidates need to complete any combination of units to a minimum of 13 credits to achieve the qualification.

- **CMI Level 7 Diploma in Strategic Management and Leadership**

Candidates need to complete all core units (Group A) and three optional units (Group B) to a total of at least 66 credits to achieve the qualification.

Units	Credit
Group A	
Unit 7001 Personal development as a strategic manager	6
Unit 7002 Strategic performance management	7
Unit 7003 Financial management	7
Unit 7004 Strategic information management	9
Unit 7005 Conducting a strategic management project	10
Unit 7006 Organisational direction	9
Group B	
Unit 7007 Financial planning	6
Unit 7008 Strategic marketing	6
Unit 7009 Strategic project management	6
Unit 7010 Organisational change	7
Unit 7011 Strategic planning	9
Unit 7012 Human resource planning	8
Unit 7013 Being a strategic leader	7
Unit 7014 Strategic leadership practice	7

SAMPLE

How to use the development guides

The development guides provide a critical commentary to the ideas of writers and thinkers in the management and leadership field. They offer opportunities for you to investigate and apply these ideas within your working environment and job role.

Structure

Each guide is divided into sections that together cover the knowledge and understanding required for the equivalent unit or units of the Chartered Management Institute Level 7 Strategic Management and Leadership qualifications.

Each section starts with a clear set of objectives linked to the learning outcomes of the qualification. You don't have to complete the sections in the order they appear in the guide (the mind map at the beginning of each guide will help you decide which sections and topics are of particular need or interest) but you should try to cover all sections if you are aiming for a full diploma qualification.

Activities

Throughout the guides there are activities for you to complete. These activities are designed to help you reflect on your own situation and apply your research to your organisation. Space and tables are provided within the activities for you to enter your own thoughts or findings, but in some cases you may choose to copy out the table or make notes in a separate notebook.

Timings

Timings are suggested for each activity to give you a rough idea of how long you should devote to them. They're not hard and fast, and you must decide whether you will benefit from spending longer on some activities than stated.



Supporting resources

The text of the guides is designed to provide you with an introduction to the subject and a commentary on some of the key issues, models and thinkers in the field. The activities are there to help provide a framework for your thinking. A key component of *Pathways Plus* (*Pathways Plus* because the development guides work together with the online supporting resources to provide an overall learning journey) is the list of references given throughout the text and at the end of each topic guiding you to the most appropriate supporting resources for you to explore yourself. These are marked with the symbol SR (as shown above).

You have the opportunity to select those resources that are of most interest or relevance to you and to use them as a source of guided research on a particular topic. Many of the supporting resources are immediately available by logging into CMI's online

P

Student Resource Centre (SRC) or the CMI online management and leadership portal, ManagementDirect(MDir), whichever you have access to. These resources are marked in the reference list at the end of each topic with P+ standing for *Pathways Plus*. A button on the first page of the site (whether SRC or MDir) will take you straight to the list of supporting resources as listed in the *Pathways Plus* topics. When there, click on the title of your development guide, the section and the topic you're interested in and then click straight to the article, video, podcast, checklist, extract or report that you want to find.

For those resources that are not available through the CMI site, you will be directed to other sources (some also online) to reach what you need.

Preparing for assessment

Further information on assessment is available in the Student Guide produced as part of the *Pathways Plus* series. If you have any further questions about assessment procedures, it's important that you resolve these with your tutor or centre coordinator as soon as possible.

Further reading

You will find suggestions for further reading at the end of this guide as well as in the Student Resource Centre section of the Institute website at www.managers.org.uk/students.

Alternatively, email mic.enquiries@managers.org.uk or telephone 01536 207400.

SAMPLE MATERIAL

Introduction

Welcome to this development guide on strategic information management. This guide is about using management information to inform and support strategic decision-making.

Section 1 looks at what management information includes exactly and identifies different management information systems.

Section 2 considers information sharing. It looks at the sourcing, sharing and storing of management information and explores the concept of managing knowledge.

Section 3 focuses on using information for strategic decision-making. It looks at strategic information management and monitoring and reviewing management information.

Chaffey and Wood provide a helpful model of how information, and in particular management information, can be used to control organisation performance at organisational and individual process level.

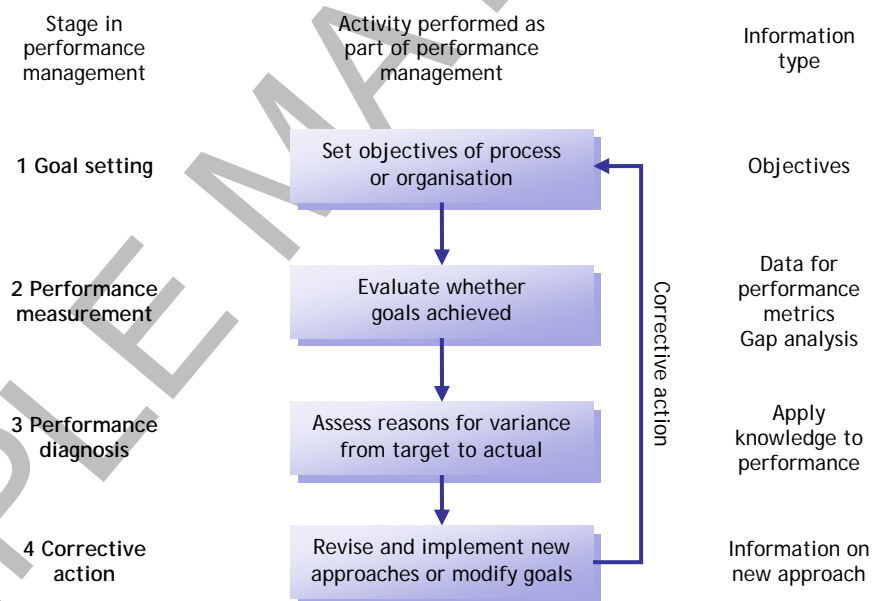


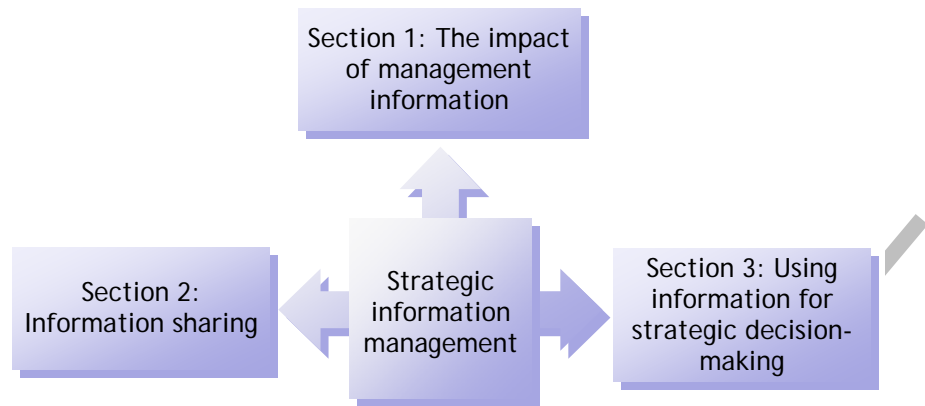
Figure: The role of information in controlling organisational performance

Source: Chaffey and Wood (2005)

You'll explore this model further in Section 3.

This development guide has links to Development Guide 7006/7011 – *Organisational direction and strategic planning*. It complements the learning in 7006/7011, as management information is an important resource for both determining the direction of an organisation and ensuring that the organisation remains on track. Strategic management information is critical for strategic planning – the better the quality of the information, the better the quality of the planning.

Development guide mind map



Assessment

If you're studying for the Level 7 in Strategic Management and Leadership qualifications you will be assessed by your approved centre on your knowledge and understanding of the following learning outcomes:

Unit 7004:

- 1 Be able to understand the impact of management information on decision making
- 2 Be able to understand the importance of information sharing within the organisation
- 3 Be able to use information to inform and support strategic decision making
- 4 Be able to monitor and review management information

Recommended textbook

For this development guide it will be helpful for you to have access to the following:

Business Information Management by D. Chaffey and S. Wood (Pearson Education, 2005)

Section 1 The impact of management information

Introduction

This section will help you understand the impact of management information. Topic 1 begins by looking closely at what management information is and defines the various types that exist. You also look at business environmental scanning and how to use it in your decision-making.

Topic 2 considers management information systems and how to use business information management to achieve value from the management information. It then looks at a specific category of information systems, the management information system (MIS), and considers how its impact on the organisation can be evaluated.

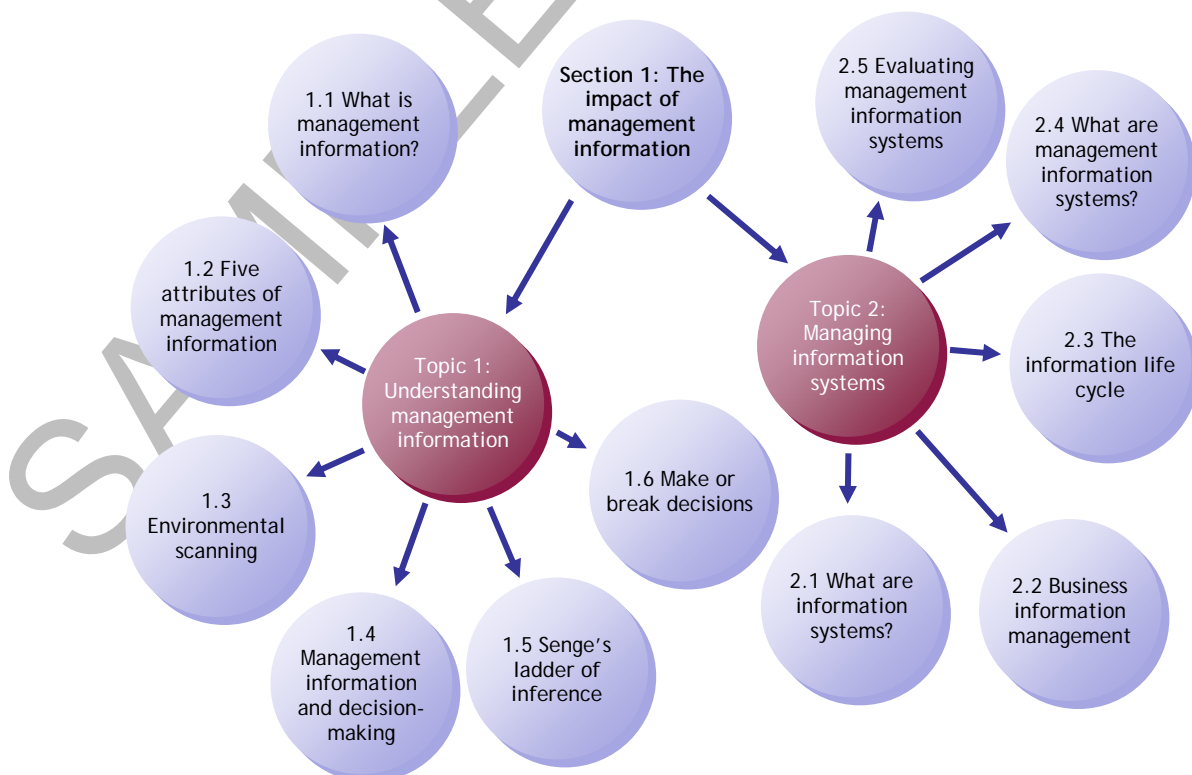
Learning outcomes

This section covers the following learning outcome:

7004.1 Be able to understand the impact of management information on decision making

Section mind map

There are two topics in this section as shown below. Check the subjects within each one and then continue with the areas you need to explore.



Topic 1: Understanding management information

Introduction

This topic will help you understand what management information is and how to use it. It starts by defining management information, looking at the differences between data, information and knowledge and considers five attributes of management information. With management information seen as a key resource and needing to be managed, you'll explore information management together with strategic information management.

The topic then looks at environmental scanning as an approach for gathering management information. You'll consider a four-mode framework as well as three types of business environment information. You'll explore how to use this information to support business processes.

Finally, the topic looks at management information and decision-making. You'll examine the strategic information challenge and how this impacts on your decision-making. You'll look at an interesting approach proposed by Senge and explore his ladder of inference which you need to be aware of when making decisions. The topic concludes with a chance to consider make or break decisions and how you can use management information in this context.

1.1 What is management information?

When discussing management information just what do we mean by that? Often there are three different elements being discussed:

- data
- information
- knowledge.

SR 1

Chaffey and Wood offer the following definitions for these.

Data	Discrete, objective facts about events. Data is transformed into information by adding value through context, categorisation, calculations, corrections and condensation
Information	Organised data, meaningful and contextually relevant. Used for decision-making
Knowledge	The combination of data and information to which is added expert opinion, skills and experience to result in a valuable asset which can be used to make decisions

Chaffey and Wood provide a helpful example of how these three elements could be applied in a business management context: running a low-cost airline.

Data	<ul style="list-style-type: none"> ■ Data is recorded each time a customer buys a ticket as part of the sales process ■ Data will be automatically recorded by data entry system, possibly web-based ■ Because of the volume of this type of data, it will have little value to managers in its current form ■ Data will need to be transformed into information using an information system
Information	<ul style="list-style-type: none"> ■ Information from ticket sales is aggregated and summarised to produce totals and averages ■ Ticket sales is compared to competitors' activities ■ Visualisation via charts is used to simplify the data ■ A manual or paper-based system would be difficult to manage so an information technology system would be used to communicate this information around the organisation ■ Information will help managers answer questions about operational processes
Knowledge	<ul style="list-style-type: none"> ■ Information about operational processes has little value if no action is taken ■ Managers will apply their skills and experience to the information accessed and received ■ Managers will then make decisions about how they use resources to manage processes ■ Knowledge is used to make judgements about unprofitable routes by acting on the information received

An information system can facilitate the flow and distribution of information but it can't make any decisions as such. The decision-making part is people-focused and requires more than just the management information. The value of people in this process should therefore not be underestimated.

1.2



Five attributes of management information

Wolstenholme *et al.* highlight the differences between management information and data.

... data itself is useless until some thought has been applied to its meaning. Adding value to raw data or unsophisticated information by human or computer effort can be considered

as one of the main tasks of management, as it is information upon which the management decision-making processes are grounded.

They go on to identify five attributes of management information.

Attribute	Definition
Accessibility	This is about availability. Managers need to know that the information exists and how to obtain it. They may need to call on specialist help to obtain the information. Information technology can often help facilitate speed of access and the amount of information which is accessible.
Relevance	To be relevant, management information needs to have been sifted and packaged into an effective format. It's helpful if the management information is succinct but it must always be complete. This can be a time-consuming process.
Comprehensibility	This relates to the understanding of the management information and the match to the needs of the decision-maker. Any deficiencies in this area could affect the quality of the decisions made with the management information.
Timeliness	From the manager's perspective this is about how long a period of time there is between the request and the receipt of management information. Any delays may be caused by the management information system (MIS) itself or because of gaps in the relevance, comprehensibility and accuracy of the management information.
Accuracy	This is linked to timeliness. Time factors can introduce errors. For management information this is often a measure of the gap between the manager's perception of the state of a variable and the true state of a variable.

SAMM

Activity

Activity 1.2a

30 minutes

Consider a piece of management information you work with on a regular basis. Evaluate it against the five attributes above. What are its strengths and what could be improved?

Accessibility:

Relevance:

Comprehensibility:

Timeliness:

Accuracy:

You might like to discuss your findings with a colleague or mentor. If you think it would be useful you could go on to present your findings and recommendations as a brief report.

Information management


 SR 13

The Chartered Management Institute defines information management as follows:

The acquisition, recording, organising, storage, dissemination and retrieval of information. Good information management has been described as getting the right