Pathways to Management and Leadership

Level 3: Principles of Management and Leadership

SAMPLE

Unit 318

Managing Data and Information

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Contents

About this workbook

The unit

The main purpose of this workbook is to support you as you study for the Chartered Management Institute Level 3 qualification — Principles of Management and Leadership, so it specifically focuses on the content of the syllabus for Unit 318 Managing Data and Information. This is about the way in which you lead and motivate your team to achieve organisational goals.

This workbook provides underpinning knowledge and develops understanding to improve your skills as well as to prepare for future assessment. If you are studying towards the Level 3, then you will be assessed by your approved centre on 'your knowledge and understanding of' the following learning outcomes:

1. Understand the reasons for collecting data and information

2. Know the types and use of data and information used by organisations

3. Know how to manage data and information

4. Know how to interpret data and information and communicate findings.

The aims of this workbook

This workbook aims to help you learn how to:

- Identify the main sources of data and information that you need to be effective in your role

- Make sure that the data and information that you receive (and send out) is quality information

- Manage and organise data so that it is easy to find and use, considering both legal and organisational requirements

- Collate, analyse and communicate data and information to suit audience needs.

This workbook then is about how you can gather, store, assess, analyse and communicate different types of data and information within legal and organisational guidelines.

Syllabus coverage

The table below shows which sections of the workbook address the assessment criteria of the qualification syllabus.

Unit 318 Managing Data and Information Syllabus coverage		Addressed within section
1.1	Explain reasons why organisations collect data and information	1
2.1	Explain the differences between data and information	2
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Getting started

The ability to solve problems, make timely business decisions and respond to customers' needs is all dependent on the ability to access good quality data and information. With growing volumes of data, this challenge has become increasingly difficult to manage. The aim of this unit is to equip managers with the knowledge of how to gather, assess and analyse different types of data and information, and how to report findings for different business purposes within legal and organisational guidelines.

How to use the workbook

The workbooks provide ideas from 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 workbook is divided into sections that together cover the knowledge and understanding required for that unit of the Level 3 Principles of Management and Leadership. Each section starts with a clear set of objectives that identify the background knowledge to be covered and the management skills in the workplace that enable you to demonstrate this knowledge. You do not have to complete the sections in the order they appear in the workbook, but you should try to cover them all to make sure that your work on the unit is complete. There are self-assessment questions at the end of each section that allow you to check your progress. You may want to discuss your answers to the self-assessment questions with your line manager or a colleague.

Activities

Throughout the workbooks there are activities for you to complete. These activities are designed to help you to develop yourself as a manager. Space is provided within the activities for you to enter your own thoughts or findings. Feedback is then provided to confirm your input or to offer more ideas for you to consider.

To get the best from the workbooks, you should try to complete each activity fully before moving on. However, if the answer is obvious to you because the issue is one you have encountered previously, then you might just note some bullet points that you can then compare quickly against the feedback. You may sometimes find it difficult to write your complete response to an activity in the space provided. Don't worry about this — just keep a separate notebook handy, which you can use and refer to as needed.

Try not to look at the feedback section before completing an activity. You might like to try covering up the feedback with a postcard or piece of paper while you are working through an activity.

Timings

Timings are suggested for each section and activity, although it is important that **you** decide how much time to spend on an activity. Some activities may occupy only a few moments' thought, while others may be of particular interest and so you might decide to spend half an hour or more exploring the issues. This is fine — the purpose of the activities is to help you reflect on what you are doing, and to help you identify ways of enhancing your effectiveness. It is always worth writing something though, even if it's brief — the act of writing will reinforce your learning much more effectively than just referring to the feedback.

Scenarios

There are scenarios and examples throughout each workbook to illustrate key points in real workplace settings. The scenarios cover a wide range of employment sectors. As you work through, you might like to think of similar examples from your own experience.

Planning your work

The reading and reflection, scenarios and activities in each section of the workbooks are designed to take around two hours to complete (although some may take longer). This is a useful indicator of the minimum length of time that you should aim to set aside for a study session. Try to find a quiet place where you will not be interrupted and where you can keep your workbooks, notes and papers reasonably tidy. You may also like to think about the time of day when you work best — are you a 'morning person' who likes to get things done at the start of the day, or do you work better in the evening when there may be fewer disturbances?

Preparing for assessment

Further information on assessment is available in the Qualification Support section of ManagementDirect, CMI's online resource portal. If you have any further questions about assessment procedures, it is important that you resolve these with your tutor or centre co-ordinator as soon as possible.

Further reading

Suggestions for further reading and links to management information are available via ManagementDirect. You will also find titles for Supporting Resources at the end of each section and Further Reading at the end of the workbook.

Section 1 Reasons for collecting data and information

Learning outcomes and assessment criteria (about 1 hour)

By the end of this section you will understand the reasons for collecting data and information. In this section you will be able to:

1.1	Explain reasons why organisations collect data and information

Data and information

The words 'data' and 'information' are often used as though they mean exactly the same thing, however there is a difference. How would you explain the difference?

Data are the 'undigested' facts and figures that are collected on innumerable subjects. Due to this, data is sometimes called 'raw' data, because it is untreated and is simply a series of facts, figures or characters e.g. a list of numbers with no context. Without context, it would be difficult to interpret or understand the relevance of these numbers, they could relate to anything!

When data is processed in some way, for example by analysing or presenting in categories, it becomes 'information' which has meaning and can be used for a purpose i.e. to inform decisions.

You will learn more about the difference between data and information in Section 2. The rest of this section is focused on introducing you to the main reasons why data and information is collected within an organisation.

Why collect data and information?

Data and information is everywhere and provides you with the raw materials you need to do many things, for example make decisions, monitor progress and keep people up to date. It is used constantly in our day to day lives and collecting data and information is an essential activity to support the operation of a business.

Activity

Activity 1.1 Data and Information

(about 15 minutes)

Identify data and information that you collect on a regular basis. What is the purpose of collecting this? Summarise your thoughts in the table below.

What I collect?	Why?

Feedback

It is likely that you identified some of the following reasons why you collect data and information:

- *Answering questions e.g. Gathering feedback from your customers to identify how satisfied that they are with the service that you provide to enable you to make service level improvements*

- *Auditing e.g. Interviewing employees and observing them whilst working to identify if they are following the correct procedures as part of your quality system*

- *For legal reasons e.g. Keeping employment records such as evidence of right to work in the country, payroll information and hours of work that may be required by Government departments such as the Inland Revenue*

- *Communicating e.g. Collating information on team performance to enable you to update the team on progress against team objectives and give direction on future focus*

- *Investigating e.g. Gathering data and information relating to the reasons for a machine breakdown to enable you to resolve the problem and avoid the problem re-occurring*

- *Developing business insight e.g. Analysing the business environment you operate in to identify possible opportunities and threats that may impact on your organisation*

- *Testing solutions and hypotheses e.g. Scenario planning to identify best case and worse case scenarios when planning a course of action*

- *Validating research e.g. Seeking other sources of information to ensure that the research is authentic and current.*

The previous activity will have raised your awareness of the numerous reasons that data and information is collected. What draws all of these examples together is that data and information is collected to help you develop the knowledge, understanding and wisdom to make effective decisions. This concept is summarised in Ackoff's (1989) DIKW model:
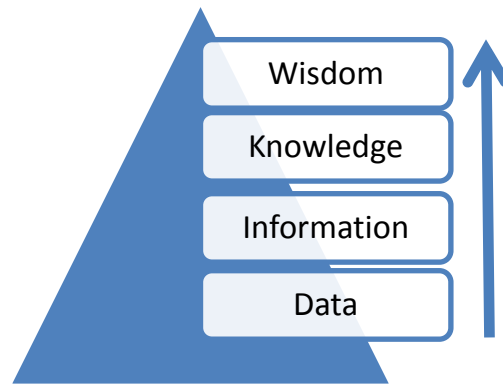
Source: Ackoff's (1989) DIKW model

This model illustrates the process of how data is ultimately converted into wisdom. "Raw" data is collected in its discrete form and undergoes a process to turn it into information, which can be used in some way; information often answers questions such as who, what, where and when. Information that is applied to a situation becomes knowledge and through this process you develop understanding, answering the questions of how and why. Reflecting back on the process by evaluating the outcome provides insight (wisdom) that can be used in the future when faced with similar situations.

For example, you might be in a sudden situation that you get home from work and you have a leak in the bathroom and need to find a plumber urgently. Using the DIKW model you might:

- Gather **data** by searching on the internet for local plumbers

- Turn this into **information** by analysing the call out charges and speed of response to shortlist one or two to contact

- This process has generated a number of possible plumbers who may be able to help you and you will make a decision on who to call. You have therefore gained **knowledge** that you can refer to if this situation happens again

- After the plumber has completed the job, you will reflect on the outcome, for example in relation to professionalism, value for money etc. and make a decision whether you will use this plumber again i.e. you now have **wisdom.**

Activity

Activity 1.2 DIKW Data Identification

(about 10 minutes)

Choose an example of data that you identified in Activity 1.1 and use the DIKW model to identify how the original piece of data helped you make an informed decision.

What data did you use?

How did you do convert this data into information?

How did you apply this information and as a result, what knowledge did you gain?

What was the outcome of this data conversion i.e. what wisdom did you gain and how will this benefit you in the future?

Feedback

It is interesting to consider the end-to-end process of data conversion. It clearly illustrates the reason for collecting data and information and without it; we would not have the knowledge or the wisdom to make informed decisions.

You will now have developed an understanding of the many reasons why organisations collect data and information. These are varied and numerous, however the ultimate reason is to objectively inform the decision making process.

Activity

Activity 1.3 Preparation for Performance Reviews

(about 15 minutes)

Consider that you are preparing to carry out end of year performance reviews with your team members. What data and/or information would you need to collect and why?

What would I collect?	Why?

Feedback

It is likely that you thought of some of the following:

- *Last year's paperwork to be able to review objectives (work and personal) for the period of review*

- *Minutes from monthly 1-1s to have examples of work completed during the year to use during the review meeting*

- *Productivity statistics to be able give factual information on achievement/non-achievement*

- *Customer feedback to be to provide an external perspective of the team member's performance.*

Understanding the reasons for collecting data and information will ensure that your time is spent effectively in gathering the right data and information required to add value and inform decisions made within the organisation.

Supporting resources

http://www.systems-thinking.org/dikw/dikw.htm - Summarises Ackoff's (1989) DIKW model

Summary

Now that you have reached the end of this section, you should be able to:

1.1	Explain reasons why organisations collect data and information

If you can do this, and if you can answer the self-assessment questions, then you are ready to move on.

Self-assessment

Use these questions to check whether you have understood the key aspects in this section. If you are not sure, or really don't know the answers, work through the appropriate parts of this section for a second time, and then revisit the self-assessment questions.

1. What's the difference between data and information?

2. What are the two main reasons that you collect data and information?

3. What are some of the legal reasons for an organisation to collect data and information?

4. What does Ackoff's DIKW model summarise?

5. Why is it important to reflect on the DIKW process?

The next section will enhance your understanding of the difference between data and information by exploring different types that are collected and used in organisations.