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Topic 1
Access and use knowledge management systems

Organisations need information to operate effectively and information required has become more complex over the years. A major challenge for businesses is to organise this information so it is comprehensive, easily accessible and secure. Organisations in all industries and of all sizes need to constantly organise and manage the huge amount of data that passes in and out of the workplace.

A well-established system that turns organisational information into knowledge is known as a knowledge management system. Managing knowledge well can give an organisation an advantage over its competitors. Today's technology manipulates data at great speeds. Organisations that fail to adapt to the new information systems will probably fail to survive. Managing information so it can be translated into useful knowledge is one of the most important skills an organisation can develop. To stay competitive in a global economy, good knowledge management is essential.

In this topic you will learn how to:

1A   Access a knowledge management system to help with tasks

1B   Administer the system in line with procedures

Think about an organisation you are familiar with. The knowledge that an organisation has about its customers, its suppliers, its financial state and its operational strategies for the following months and years is all stored in its information systems.

Ask yourself these questions:

- How organised are those systems?
- Is everything on pieces of paper in different filing systems?
- Is it in the boss's head, or is there a computer system that can generate reports any time they are needed?
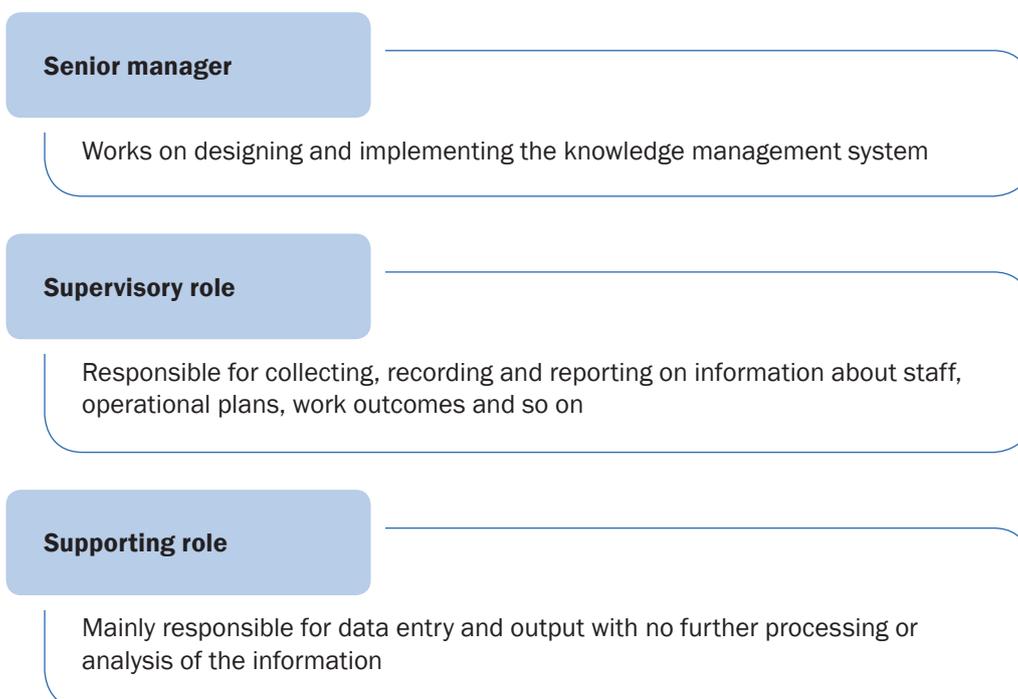
How the system works

Throughout the day staff are constantly identifying, collecting, organising, storing, retrieving, analysing, sharing and applying knowledge to the tasks they carry out. They use a variety of strategies, methods, activities and techniques. For example, as an employee you are working with a knowledge management system when you record customer details, print out a graph of sales statistics, and look over the balance sheet provided by the accountant or meet with colleagues to discuss a marketing strategy.

To manage this knowledge, an organisation needs to plan and implement a comprehensive system that everyone in the organisation follows. What would be your role and responsibility in all this? This will vary depending on your position in the organisation and the needs of the knowledge management system.

Here is an outline of the key roles and responsibilities within an information management system.

Senior manager

Works on designing and implementing the knowledge management system

Supervisory role

Responsible for collecting, recording and reporting on information about staff, operational plans, work outcomes and so on

Supporting role

Mainly responsible for data entry and output with no further processing or analysis of the information

Responsive

> The system must be able to report knowledge as fast as possible. It is no good finding out important strategic information when it is too late to make use of it.

Customisable

> If you can tailor reports from the system so they give you just what you need at any given moment and don't supply unnecessary details, you will be less likely to suffer from information overload. Customising output of the system can give you the right information at the right time rather than too much all at once.

Knowledge is valuable

Knowledge has a broad definition and isn't just about statistics and data. Knowledge can include resources, such as the skills and knowledge of your employees and the relationship you have with your suppliers and customers. Like a building owned by the organisation, or income saved by the organisation, it is valuable. It is an asset.

Have you ever been on a committee, undertaken volunteer work or been employed full time or part time? Think about a time when someone who seemed to know everything about that organisation left. Did you wonder how the organisation would continue to function when a person with such knowledge, experience and networks walked out the door?

The knowledge, experience and networks of that person are referred to as intellectual capital. This is an important component of any knowledge management system.

Here are the three parts to intellectual capital.

Intellectual capital
Customer capital: the value of the relationship between an organisation and its customers: customer loyalty, understanding the changing needs of customers and meeting their expectations
Structural capital: tangible information or processes, such as manuals, procedures, databases, trademarks and information systems.
Human capital: knowledge, skills, experience and attitude of employees.

Office administration worker

The office administration worker needs to:

- gather and input data into databases, word processors and other applications
- process and organise information according to office procedures
- provide information reports in relevant formats, such as database forms, word-processed documents, web pages and so on.

Access knowledge to perform your job role

The knowledge management system includes information about how various tasks are to be completed. Your job defines the tasks you do. If you are a supervisor, you have to organise people and resources, gather certain kinds of information, think in particular ways and report relevant knowledge to your staff and the senior management. If you are not in a supervisory role the tasks that comprise your job will still require you to access and use particular parts of the organisation's knowledge management system.

Example: knowledge to perform your own role

A bicycle courier is required to complete three main tasks in their role.

Here is the related knowledge that should be accessed in order to complete these tasks.

Deliver items safely

Knowledge required

In order to deliver packages safely and efficiently, the courier needs to know:

- how to drive
- parts of WHS legislation that relate to their work
- the WHS policies and procedures of their employer
- road rules.

Correct destination

Knowledge required

In order to deliver packages to the correct destination, a courier needs:

- GPS, road directory and paper or online maps.

Quality assured organisations, such as those accredited under the International Standards Organization (ISO) or some other system, also follow procedures closely. These may be in the form of work instructions, procedures manuals, work flow charts and other work design tools to help improve consistency, quality and safety.

Find and access information

Your daily work requires you to access all the relevant knowledge to complete your tasks effectively and efficiently. Of course, the best information is not always at your fingertips. Organisational knowledge truly comes from the interaction of a whole system of data connections between people, machines, books, charts, and computers. You sometimes need to dig a little to get the knowledge you need for a specific task.

You also need to be aware that some types of knowledge are more difficult to obtain than others. Tacit knowledge is not written down but can be sought and expressed through such measures as a mentoring program and providing encouragement for staff to document ideas about best practice.

Here are explanations for the two types of knowledge.

Explicit knowledge

Explicit knowledge is knowledge that is easily captured and exchanged. For example, a painter and decorator can easily teach their apprentice how to hang wallpaper. Explicit knowledge is often documented and can be found in a procedures manual or book.

Tacit knowledge

Tacit knowledge is knowledge that is often referred to as instinctive and can be difficult to explain to others. The ability to perform a task is almost a subconscious action. For example, if you and a chef bake a cake and your cake is not as light, fluffy and evenly cooked as the chef's it is likely because the chef has an instinct about cooking that you don't have.

Parts of a knowledge management system

It helps to think about the parts of a knowledge management system and the way they work together. An important element is the people who actively participate in a workplace: owners, managers, leaders, supervisors, coordinators, staff, team members and colleagues, who take part in committee meetings, discussion, leadership, teamwork and more. All these parts have to be appropriate to the goals and objectives of the organisation and the type of knowledge being generated, analysed and reported.

Other main elements of a KMS and examples of each:

- Templates for collecting input to the system; for example, forms, proformas, online forms, structured questions, database fields
- Data storage mechanisms; for example, disk drives, cloud computing, DVDs, books, ledgers, file cards

1B Administer the system in line with procedures

An organisation needs to ensure that its knowledge management system continues to find, select, organise, refine and present information in a way that improves the employee's comprehension in specific areas.

As part of the knowledge management system there will be policies and procedures relating to its currency and upkeep. These documents will provide specific guidance to employees on how to suggest improvements and update and alter information.

In some work environments your work role may include administering the knowledge management system.

Organise to share information

An organisation must decide how it will organise itself to make sure that knowledge is shared well. Organisations are still experimenting with the right way to organise; some put the function in the computing group, some put it in strategy or finance and some put it in operations.

Often a very small, central coordinating unit is established with overall coordination responsibility. The unit spearheads and makes the case for change in the organisation, solves problems as they emerge, measures progress, provides support to others and, in general, does whatever needs to be done in order for knowledge management to succeed.

Some organisations have 'knowledge officers' who are responsible for:

- developing an overall framework for managing knowledge
- actively explaining the value of properly managing knowledge
- overseeing the development of the knowledge infrastructure
- facilitating connections, coordination and communications.

Administrative role

An administrator is a person having administrative or managerial authority in an organisation; you may be given authority to assist with the administration of the knowledge management system of the organisation. To ensure that employees are efficient and effective, the main goal of a knowledge management system administrator must be to effectively disseminate up-to-date knowledge to all employees.

The role of knowledge management administrator

- Ensuring procedures are understood within the organisation and used when suggesting changes and providing feedback to the knowledge management system
- Supporting the organisation's strategy by facilitating effective communication to all
- Managing (and facilitating) things such as the website, intranet, threaded discussions, communities of practice, and chat rooms
- Establishing knowledge requirements within the organisation and capturing lessons learned
- Developing new intellectual capital
- Generating new products or services

Example: knowledge management administration

In call centres there is a wide variety of customer inquiries, and legal accountability for information provided to customers is of prime importance. Customers expect instant answers to questions and this can result in a high stress work environment for call centre operators resulting in high staff turnover.

New staff are required to learn a large and complex body of knowledge, there is constant pressure to reduce call handling times and continuous tracking and assessment of efficiency measures is undertaken.

Here are examples of the general adminstraive duties that may occur in a call centre environment.

KMS administrator duties in a call centre
• Maintain efficient processes to ensure that the right knowledge is captured, managed and kept up to date.
• Set up knowledge management systems to support these processes.
• Identify information that the staff and customers need.
• Shape raw information into a structured and useable knowledge repository.
• Make sure operator needs are identified and sales support information is provided.
• Develop prototypes for new knowledge management systems, and test these with real users.
• Develop a knowledge repository to include policies and procedures and help desk resources.
• In collaboration with IT staff, contribute to online solutions, including effective searching and browsing facilities.

Practice task 2

1. What is the primary goal of a knowledge management system administrator?

2. List at least four key laws that a knowledge management system needs to know about.

2A | Gather, analyse and prepare inputs

You manage knowledge when you take information and store it in an accessible form for other people in the organisation who need to use it. This information needs to be accurate and up to date.

Organisations need to manage or handle a lot of information. This information is often described as inputs. Inputs are the various types of information an organisation generates, requires or receives. Inputs may be in electronic, verbal or paper form. Typical inputs include sales figures, running costs and income.

Inputs may come from a variety of sources and include numbers, words, bar codes, scanned documents, minutes taken at meetings, interviews with managers or customers and web-based and paper documents. You may have to scan documents and gather voice recordings for input.

Your manager or supervisor will let you know the information that you need to gather to assist them with their decision making.

In gathering information, you may need to:

- identify the information needs of the organisation so the right information is provided to the right person at the right time
- filter information to prevent information overload
- find relevant and credible sources of knowledge to share with others in the organisation
- assist others to collect information.

Gather inputs

When gathering inputs for a knowledge management system, you should answer certain question for yourself. The answers will provide guidance on how much and what type of information is needed and more.

Here are examples of the questions that may need to be posed when gathering data inputs.

Who needs the information

Your manager or supervisor will identify what information employees need in order to fulfil their tasks. An example of how this affects the job is when your manager works with other areas to get sales figures for you to input.

Type and kind of information

You should be guided by your manager with regard to the type and amount of information required; for example, your supervisor may ask you to gather information on suppliers of a particular product that can deliver immediately.

Here are several examples of electronic data and how it can be stored.

Electronic input

Examples of electronic input/data:

- Documents may be scanned and converted into electronic files.
- Words or numbers may be keyed straight into a spreadsheet.
- Barcode readers may translate information into a database.
- An automatic re-ordering system could send a request to a supplier for more products.
- Emails may deliver critical information.
- Voice-recognition software could be used to translate voice into a written document, which must then be edited.

Storing electronic data

Things to consider when storing electronic data:

- What the document is about
- Your supervisor's intended purpose for the document
- What filing systems are being used
- What the storage capacity is
- What the future use of the document might be

Verbal inputs

Discussions are also information but it is important to be able to distinguish which discussions are accurate, reliable and worth recording. Also verbal information is difficult to recall unless it is recorded verbatim.

Finding ways to record or capture the main ideas coming from discussion and conversations is an important aspect of knowledge management. For example, skilful minute-taking in a meeting ensures that all important points are faithfully recorded and the speaker's ideas are conveyed accurately.

You may need to follow up on points that need clarifying. When this is the case, if you communicate effectively, the quality of information you get will be better. Some effective communication techniques include active listening and asking questions for clarification. Speak clearly and use appropriate vocabulary and an effective pitch and intonation.

Organisations need to work out the best way to record verbal customer feedback.

Questions to think about when dealing with customer feedback:

- How should the feedback be recorded?
- What are the privacy implications?
- What are the implications of not recording customer feedback accurately?
- How should verbal information be presented or formatted for the appropriate knowledge management system?

2B Check inputs for clarity, accuracy, currency and relevance

Information changes rapidly and, as a result, many organisations have out-of-date information in their knowledge management systems. If the knowledge management system houses out-of-date information, then it means that those accessing this information are using or distributing inaccurate or out-of-date information.

Sometimes the information entered into the knowledge management system is entered incorrectly. Your organisation should have a procedure in place for entering information into a database or knowledge management system. You must follow your workplace policies and procedures for entering inputs to ensure they are clear, accurate, current and relevant.

Check your entries

Regardless of the type of inputs you are working with, you should always check your entries for accuracy. For example, if you are completing an accounting task such as filling in columns with long numbers, there is an increased chance some digits will be missed or transposed. Take the time to check the figures twice or arrange for another person to check over your inputs. Having someone check your work ensures accuracy.

Here are examples of what needs to be checked when making data entries.

Accurate and clear numbers

If you are dealing with figures, it is very important to input the numbers correctly. For example, workers may be under or overpaid if their pay officer accidentally puts too many or too few zeros. A checking system is important to ensure accuracy.

Relevant details

Check that everything you are entering is relevant to the task. Don't input more than is needed. This makes the information more usable and useful.

Current information

Check whether the information you are entering is current. Are the figures up to date? Do you know who you should check this with? Some organisations; for example, schools, rely on information which comes out annually and must set aside time to update all affected documents.

Racial Discrimination Act 1975

This legislation makes it unlawful for a person to be discriminated against based on their race, colour, descent or ethnic origin.

Sex Discrimination Act 1984

This legislation's aim is to prevent discrimination and sexual harassment and to ensure equality across the genders.

Copyright Act 1968

This law sets out what is protected by copyright and how the law applies to different materials.

Privacy Act

The *Privacy Act 1988* (Cth) legislation protects personal information handled by government and businesses. The Privacy Act has been amended over the years, with the *Privacy Amendment (Enhancing Privacy Protection) Act 2012* making many significant changes. The Privacy Act now includes a set of 13 new harmonised privacy principles that regulate the way Australian agencies and some private sector organisations handle personal information.

These are known as APPs or Australian Privacy Principles.

The Australian Privacy Principles

1. Open and transparent management of personal information
2. Anonymity and pseudonymity
3. Collection of solicited information
4. Dealing with unsolicited personal information
5. Notification of the collection of personal information
6. Use or disclosure of personal information
7. Direct marketing
8. Cross-border disclosure of personal information
9. Adoption, use or disclosure of government related identifiers
10. Quality of personal information
11. Security of personal information
12. Access to personal information
13. Correction of personal information

Here are examples of steps that can be taken in this context.

Consultation

Ask medical receptionist about appointment system capacity in light of work requirements and then act on feedback to upgrade or replace poorly functioning system components.

Participation

Get first-hand experience of the appointment system to see how it operates and then act to remedy any problems identified during first-hand experience.

Communication

Check that appointments are recorded accurately and any problems with the system are documented. Check if there is a standard way for users to highlight important issues. Implement feedback forms as a means to standardise and cross-check. Make sure standard wording is used when making appointments.

Examination

Check that practitioners receive accurate and timely copies of appointment schedules. Implement more timely, accurate reporting methods as required by practitioners.

Quality assurance

Review the effectiveness and efficiency of the current system at each stage. Act on feedback to upgrade or replace poorly functioning system components.

People and knowledge management systems

You need to recognise the powerful role of people in knowledge management systems. People play an important part in analysing and improving the systems. People interpret, analyse and implement knowledge. The process of continual improvement involves many people, some of whom are listed here.

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Point of sale presents a good opportunity for customer information to be gathered via a questionnaire or competition form. Other customer information can be obtained through casual conversation with the cashier; for example, have you ever been asked for your postcode by a cashier? This helps the business identify geographical location of its customers. All this is valuable information for the business and can be stored in the knowledge management system and used later when the business is looking at enhancing or developing products or services.

Information provided at the point of sale:

- The way customers prefer to pay for things
- Customers' preferences in relation to the products they buy
- The time of day or day of the week they like to shop
- How much they like to spend on certain items

Practice task 6

Read the case study, then answer the questions that follow.

Case study

The sales manager at Peak Supermarket calls a team meeting to show cashiers how to get extra information from customers at the point of sale. The cashiers are asked to think about these and any other ideas to obtain and record extra customer details in the knowledge management system. The company's goal is to increase sales to existing customers and, to do this, new information is needed.

The manager pays the cashiers overtime to attend the meeting, which is held as a cocktail party in the company boardroom. The guest speaker, a prominent marketing expert, is part of the meeting. She discusses with the cashiers the importance of knowing as much detail as possible about customers.

While some cashiers feel a little pressured, most come away from the meeting happy that they have been consulted and feel part of a team. Now they know why they need to obtain information from customers and understand their role in the organisation's knowledge management system.

1. What methods does the sales manager use to make the cashiers feel important to the organisation?

3A | Provide feedback on the system's output to relevant personnel

Every day at work you will need to respond to output from your organisation's knowledge management systems.

Examples of outputs include:

- memos from a manager
- procedures and guidelines
- the outcomes of a staff meeting
- your job description

- requests from your supervisor
- emails
- postings on a staff bulletin board
- postings on the intranet.

Improve the clarity, accuracy, currency and relevance of a system

Some outputs may contain inaccurate information that needs to be rectified or rewritten so that it is clearer. When you identify and take action to correct these inaccuracies, you are monitoring and improving the output of a knowledge management system. You need to identify the most appropriate way to communicate about inaccuracies or other issues with output. Communication protocols have been designed so that workflows are not disturbed by interruptions that are not necessary.

In some instances there will be an organisational form that you can use; for example, a continuous improvement request form. When completing one of these forms, write as clearly as possible about the issue you have identified. If there is a register for feedback, learn where it is located and the format that you are required to use.

Sometimes, especially if an issue is urgent or there are no protocols about how to communicate, it is more appropriate to speak to your manager or other relevant personnel. It may be appropriate to provide a written record of your feedback before or after you have provided verbal feedback.

Here are examples of inaccuracies and how you might take action.

Action on inaccuracies
A set of guidelines contain an error and you notify your supervisor or the publisher of the guide ext
An email about a staff meeting contains the wrong venue information so you notify the organiser of the meeting
Your job description does not include the full extent of the tasks you perform at work so you alert your manager
A customer complains to you and you discuss the problem with them and lodge details of their complaint in a register or contact your supervisor

3B Document learning that results from using the system

Learning and ideas for improvement often come out of discussions, meetings, internal and external communications and informal interactions between people but this information may not be documented. Later on, no-one remembers the information and it cannot be retrieved from a knowledge management system.

Ways to record learning activities:

- Record learning in a workbook (perhaps provided by the teacher/trainer).
- Keep a diary.
- Provide a written report to supervisors.
- Present a summary of learning to colleagues.
- Use a voice recorder to record key ideas and revelations as you have them.

Learn in the workplace

Many organisations have a policy on professional development which requires workers to participate in professional development opportunities to stay current in their skills and knowledge. There are benefits to organisations that facilitate staff participation in external events if the staff member learns about current best practice strategies and standards.

A key to staff obtaining the most from training that they have attended is applying appropriate new strategies to their workplace soon after receiving training.

In many organisations, if staff have attended a conference, seminar, trade show, training session or meeting they must prepare a report and present it to the relevant people. The presentation should provide a summary of the events, key points discussed, the benefits to the organisation and a collection of any material gathered from other speakers or participants. The knowledge gained from external learning activities should be brought back into the organisation and documented for future reference.

Example: document learning

After attending a training session on developing an effective Complaints Management System with her manager, Sue is required to fill out a feedback form on what she has learnt and submit it to human resources for their records. However, she finds it a useful process for getting clear in her own mind how she will apply what she has learnt when she returns to work. She and her manager find one part of the presentation particularly interesting. They notice that most staff in their own organisation view complaints in a negative way, but learnt from the session that it is beneficial to organisations if complaints are viewed as opportunities to make positive changes. They realise that it is necessary to recruit the support of senior management if they are going to change the culture and bring in measures to strengthen the way their organisation handles complaints.

They both make notes and keep handouts from the day. They will use these to put together a presentation for senior management.

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3C Learn to improve work practices

As an employee of an organisation, you will be involved in one or more learning processes at different times. Some learning is accidental while some is guided. Some is formal, some informal.

Here is an outline of the three broad types of learning processes in organisations: intelligence, experience and experimentation.

Intelligence

Intelligence means collecting and interpreting information from outside the organisation. Important information may include intelligence on customers, competitors, regulations, socio-political trends, etc. This information is used by the business to review and improve its knowledge management system.

Experience

Experience involves the learning that comes from participating or engaging with tasks or projects and then seeking feedback.

Experimentation

Experimentation is testing an idea to see if it works. This is a systematic test designed to generate knowledge about a process.

Continual improvement

Knowledge management systems should be continuously improved. There are a range of activities that can help improve knowledge management systems.

Activities to improve KMSs:
- Learning and sharing information
- Exploring the possibilities
- Providing a supportive environment
- Creating the right culture

Learn and share information

Education, training and professional development are central to improving knowledge management systems in the workplace. Productive workplaces ensure that all improvement measures are communicated effectively to the appropriate people. Sometimes this is achieved through learning forums, which bring together relevant people to generate discussion about a key issue or problem. Learning forums can stimulate thinking, creativity and strategic solutions to improve the knowledge management system.

Here are several examples of ways an organisation may approach the need for continual improvement.

Structured discussions

Discussions in learning forums, meetings or through one-on-one conversations can support learning. In formal discussions, a facilitator may guide the discussion to ensure everyone focuses on the issues and helps to achieve a positive outcome. Participants must feel included and listened to. They must also clearly understand the process. For people to embrace change, they must feel included in the decision-making process. If a decision is made in the course of a discussion, all participants must understand why the decision was reached.

Communicate initiatives

Improvement initiatives often result from discussions, formal learning forums, questioning and feedback; however, an important part of the improvement process is to ensure the improvement is incorporated back into the knowledge management system. To do this, all initiatives must be communicated clearly and concisely to the appropriate people.

Team spirit

An organisation with a team spirit or culture that encourages people to talk openly about their working experiences fosters positive learning opportunities. When experiences are shared, there is a higher chance that solutions to problems will be found more quickly.

Explore the possibilities

Exploring new ideas and developing and testing work practices is important when initiating change without interrupting the daily functioning of the organisation. For example, you might be asked to work on a new customer database that is kept separate from the main system until it is fully tested or a new performance appraisal system may be trialled on a few key people before full implementation.

Provide a supportive environment

Organisations are made up of diverse groups of people with their own ideas about what works and what doesn't. It is important to strike the right balance in terms of listening to each other, motivating each other and counteracting any negativity within the group. Negativity

can arise if an improvement initiative is interpreted as a personal attack. A workplace culture that encourages feedback and suggestions from people is more likely to accept change as part of the improvement process. Training and supporting staff to change is also a key factor.

Listening to ways you can improve your performance can lead to improved job satisfaction. Special forums where constructive criticism is encouraged can be very useful learning opportunities. Managers and supervisors with an open-door policy who are accessible to their staff can encourage workers to find the best way to achieve organisational objectives.

The right culture

If a workplace is a supportive environment in which employees receive feedback, the organisation has gone a long way towards creating the right culture for managing change. In a supportive environment, further positive organisational characteristics can grow.

Every employee, from the person in the mailroom to the executive director, has the power to influence the environment of an organisation. Improving the performance of a whole organisation really needs to involve everyone – from managers through to administrative staff. The best culture is one where everyone understands they can contribute to workplace improvement and have the opportunity to have their say. Workplaces where people feel threatened when they speak up are not good for encouraging improvement.

Example: experiment to learn

The information systems manager of a large construction company invited two staff members to participate in the trial of new project management software. It was to be used only on a hypothetical project and only a few people would have access to it. The results of the experiment were to be recorded and, if positive, compared later with a small exploratory test on a real project. The results were positive and testing commenced on a real project.

Practice task 9

1. Give examples of the ways in which the following people could influence an organisation's knowledge management system:

   a) The person who handles the mail

   b) The receptionist who answers the phone

   c) The person who handles customer complaints

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2. If all three people work in a supportive environment, how does this provide them with greater opportunity to influence an organisation's knowledge management system?

Summary

1. Responding to various kinds of output from the organisation's knowledge management system is a daily task for workers.

2. It is every worker's responsibility to be aware of the need to monitor and improve the organisation's knowledge management system.

3. When you recognise a problem in the knowledge management system, you need to know who the right person is to approach about it.

4. Technology is only a tool. People are the most important resource.

5. Computer virus detection software is an example of technical monitoring of a knowledge management system.

6. The learning processes in an organisation include:
   – intelligence: gathering external information
   – experience: workers taking part in learning activities
   – experiment: testing new ideas.

7. Organisations have many ways of increasing the learning of their staff. All of them include open communication between colleagues and managers.

8. The results of learning activities should be documented for future discussion and/or use.