

# Unit 14: Information Systems

**Unit reference number:** Y/506/4211

**QCF Level:** 4

**Credit value:** 5

**Guided learning hours:** 31

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## Unit aim

The aim of this unit is to give learners an understanding of the role of information systems in a business and the management of information systems.

## Unit introduction

Information is the most valuable resource that an organisation possesses. The effective gathering, protection, analysis, processing and dissemination of information is vital to the success of any organisation. As globalisation and the 24-hour economy develop and increase, organisations must ensure that their information systems are reliable, efficient and able to cope with rapid change.

Organisations whose information systems previously dealt purely with data processing have now introduced those supporting strategic management and decision support. Managers at all levels need appropriate and timely information to plan successfully in the short, medium and long term, and that information can have many sources and destinations. As organisations diversify and centralise, information also needs to be available to non-managerial staff in a variety of locations.

In this unit you will gain the knowledge on the role of information systems in a business including how information systems can be used to support functions in a business, the importance of continuously improving, maintaining and updating information systems and the role of information systems in developing business strategy.

You will also learn about the management of information systems including the implication of system updates and system development to an organisation, the use of stakeholder feedback on the effectiveness of an information system and the consequences of publishing reports containing inaccurate or unsubstantiated information.

## Learning outcomes and assessment criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

### On completion of this unit a learner should:

Learning outcomes	Assessment criteria
1 Understand the role of information systems in a business environment	1.1 Evaluate how information systems can be used to support functions in a business environment 1.2 Explain why it is important to continuously improve information systems 1.3 Explain why it is important to maintain and update information systems 1.4 Examine the role of information systems in developing business strategy 1.5 Evaluate how information systems can improve business performance
2 Understand the management of information systems	2.1 Describe information system interfaces 2.2 Analyse the implication of system updates and system developments to an organisation 2.3 Analyse the use of stakeholders' feedback on the effectiveness of an information system 2.4 Evaluate the implications of data protection requirements for the management and use of an information system 2.5 Evaluate the consequences of publishing reports containing inaccurate or unsubstantiated information

## Unit content

### 1 Understand the role of information systems in a business environment

*How information systems support functions:* allow other functions to interact with each other; collect, process and store data and information

*Continuously improve information systems:* ensure technology is updated; incorporate new functions; improve efficiency; fix problems with system

*Maintain and update information systems:* ensure technology is using latest software; fix problems

*Information systems in developing business strategy:* data and information collected; competitive advantage; ways to improve efficiency; reduce cost

### 2 Understand the management of information systems

*Typical information system interfaces:* definition; function; interface types, e.g. hardware, software, people, telecommunications

*Reasons for systems updates and developments:* external pressures, e.g. changing regulatory and legal frameworks, keeping up with competitors; enhanced business opportunities, e.g. increasing globalisation, potential for outsourcing, improving customer service; internal factors, e.g. revised policies, procedures and processes, additional information requirements; organisation growth; improving staff productivity and performance

*Impact of systems updates and developments:* cost; procedures; staff, e.g. upskilling/training, dealing with redundancies; integration of legacy systems; security; legal requirements, e.g. data protection, copyright; system 'downtime'; continuity of service

*Measuring system effectiveness:* system objectives, e.g. desired system outcomes, actual system outcomes; efficiencies, e.g. cost, time, resources; handling information, e.g. input, processing, output, reporting, analysis, storage; system operations, e.g. interfaces, logical processes, usability, technical support; issues, e.g. hardware, software, people, processes, data; recommendations for improvement

*Use of stakeholder feedback:* value stakeholder opinions; timely resolution of issues; inform change; communication of feedback outcomes, e.g. meetings, reporting, presentation, publishing; staff development

*Legal issues:* relevant and current data protection legislation, e.g. Data Protection Act 1998, Freedom of Information Act 2000; other relevant legislation, e.g. Computer Misuse Act 1990

*Ethical issues:* codes of practice, e.g. use of email, internet; 'whistle blowing'; organisational policies; information ownership

*Operational issues:* security of information; backups, e.g. hardware, peripherals, software, storage media, local storage, remote storage, cloud storage; organisational policies, procedures and processes; staff training

*Implications of data protection:* access; information security, e.g. internal threats, external threats, data corruption; cost; reputation; effects on business sustainability

*Inaccurate or unsubstantiated information:* errors; omissions; information integrity

*Potential consequences:* mistrust; stakeholder satisfaction; bad or delayed decisions; reduced revenue; reduced throughput; tarnished reputation

## Essential guidance for tutors

### Delivery

Learners are expected to enquire into the topics under discussion, to question theory and to compare and contrast theory with their professional knowledge and practice. For some learners this will mean building on existing knowledge and earlier studies, while for others it will mean drawing on experience gained in a work environment.

Delivery will be through blended learning, using business resources and class-based teaching. Standard tuition materials, texts, business simulations, exercises and formative assessments can be used. Other delivery techniques can also be used, for example, practical work, role play, guest speakers, tutorials, seminars and discussion groups where personal and professional practice can be shared and discussed can also be used. Learners are encouraged to engage in social learning to carry out practical work, discuss problems, consider experiences, work on case studies, prepare reports for presentation and carry out research on information systems. Learners in work are expected to use their working context and roles to learn about the practical techniques associated information systems.

### Assessment

This guidance supports assessors in making decisions about how best to assess each unit and the evidence needed to meet the assessment requirements. Centres can adapt the guidance for learners and the particular assessment context, as appropriate.

It is important that suitable organisations are chosen for investigation so that learners can acquire the information they need to meet the assessment criteria.

Evidence can be presented as written reports or presentations. If presentations are used, then copies of slides, handouts and presenter notes must be included, as well as learner observation records completed by the tutor.

For learning outcome 1, learners need to evaluate how information systems can be used to support functions in a business environment (AC1.1), explain the importance of continuously improve information systems (AC1.2), explain the importance of maintaining and updating information systems (AC1.3), examine the role of information systems in developing business strategy (AC1.4) and evaluate how information systems can improve business performance (AC1.5).

For learning outcome 2, learners need to describe information system interfaces (AC2.1), analyse the implication of system updates and system developments to an organisation (AC2.2), analyse the use of stakeholders' feedback on the effectiveness of an information system (AC2.3), evaluate the implications of data protection requirements for the management and use of an information system (AC2.4) and evaluate the consequences of publishing reports containing inaccurate or unsubstantiated information (AC2.5).

Discussion groups will be beneficial to the learner throughout this unit as it will give learners the opportunity to gain examples using both their own and others personal experiences.

Evidence of Recognition of Prior Learning (RPL) can also be used within the unit to confirm competence. Wherever possible, the learning outcomes in this unit should be assessed holistically across the qualification.

## **Indicative resource materials**

### **Books**

Chaffey D and White G – *Business Information Management: Improve Performance Using Information Systems* (FT/Prentice Hall, 2010) ISBN: 9780273711797

Lucey Y – *Management Information Systems* (9th edition) (Cengage Learning, 2004) ISBN: 9781844801268