



Unit title:	Information systems in organisations
Unit number:	2
Level:	5
Credit value:	15
Guided learning hours:	60
Unit reference number:	M/601/1444

UNIT AIM AND PURPOSE

The purpose of this unit is to demonstrate to the learners the importance of effective information systems to an organisation to allow it to make accurate and timely decisions. This will enable the learner to understand that different functional areas in an organisation will require support from various types of information systems.

LEARNING OUTCOMES AND ASSESSMENT CRITERIA

A pass grade is achieved by meeting **all** the requirements in the assessment criteria.

Learning Outcome (LO)	Pass
The Learner will:	The Learner can:
LO1 Understand information needs within different functional areas of organisations	1.1 evaluate the information needs of the different functional areas of an organisation
LO2 Be able to compare information systems	2.1 describe different types of information systems 2.2 investigate the current trends in using information systems applications to solve business problems 2.3 evaluate the suitability of information systems for different functional areas of an organisation
LO3 Be able to use information systems to produce management information	3.1 use an information system to generate valid, accurate and useful information for a given problem 3.2 evaluate alternative methods of solving the problem

GRADING CRITERIA

A merit grade is achieved by meeting **all** the requirements in the pass criteria **and** the merit descriptors.

A distinction grade is achieved by meeting **all** the requirements in the pass criteria **and** the merit descriptors **and** the distinction descriptors.

Merit Criteria (M1, M2, M3)	Distinction Criteria (D1, D2, D3)
(M1, M2, and M3 are mandatory to achieve a merit grade. Each must be achieved at least once per unit to achieve a merit grade.)	(D1, D2, and D3 are mandatory to achieve a distinction grade. Each must be achieved at least once per unit to achieve a distinction grade.) (In order to achieve a distinction grade, all merit criteria must also have been achieved.)
MANDATORY TO ACHIEVE A MERIT GRADE	MANDATORY TO ACHIEVE A DISTINCTION GRADE
M1 Analyse concepts, theories or principles to formulate own responses to situations.	D1 Evaluate approaches to develop strategies in response to actual or anticipated situations.
M2 Analyse own knowledge, understanding and skills to define areas for development.	D2 Evaluate and apply strategies to develop own knowledge, understanding and skills.
M3 Exercise autonomy and judgement when implementing established courses of action.	D3 Determine, direct and communicate new courses of action.

TEACHING CONTENT

The Teaching Content describes what has to be taught to cover **all** Learning Outcomes.

Learners must be able to apply relevant examples to their work although these do not have to be the same as the examples specified.

LO1 Understand information needs within different functional areas of organisations

Functional areas of an organisation	Main functional areas within an organisation, and the relationships between these, including: <ul style="list-style-type: none">• finance• accounts• human resources• sales• marketing• logistics• production• administration• research and development
Levels of information within an organisation including	<ul style="list-style-type: none">• Strategic• Tactical• Operational
Different levels of management including	<ul style="list-style-type: none">• Top level (e.g. chief executive officer (CEO), chief financial officer (CFO), chief operational officer (COO), chief information officer (CIO), Chairperson of the Board)• Middle level (e.g. general manager, plant manager, regional manager, and divisional manager)• Low level (e.g. first-line managers, supervisors, office manager, shift supervisor, department manager, foreperson, crew leader, store manager)
Requirements of information at differing levels of management including	<ul style="list-style-type: none">• Variations in information, e.g. level of detail, timeliness, breadth• Sources of information, e.g. internal, external, primary, secondary• Nature of information, e.g. qualitative, quantitative, formal, informal• Frequency of information, e.g. real time, scheduled, ad hoc• Time frame of use, e.g. historical, current, future• Distribution of information, e.g. location, timing, target audience• Type of information, e.g. disaggregated, aggregated, sampled

- Storage and security (i.e. access levels) of the information
- Status of the information system i.e. open or closed
- Characteristics/quality of information required, e.g. relevance, accuracy, completeness, confidence, related to the requirements of the management level
- Flow upwards of the information between the differing levels of management.

How each level of information can be used by different functional areas within an organisation, including the differing management levels within each functional area, and how the information can be used to assist in decision making.

The characteristics of decisions made based on the information, for example

- risk level
- time scale
- type of decisions, i.e. structured, semi-structured, unstructured
- information constraints
- quality of the information
- format of the information.

LO2 Be able to compare information systems

The different types of information systems, for example

- management information systems (MIS)
- decision support systems (DSS)
- executive information systems (EIS)
- knowledge-based systems (KBS)
- group decision-making systems
- transaction processing systems
- expert systems
- logistics systems
- data warehousing
- data mining

Investigate the current trends in using information systems applications to solve business problems

This investigation should include for example

- purpose of the information
- source of the information
- format of the information – input and output
- storage and security of the information
- decisions which will be made based on the output
- level of management using the information
- accuracy and relevance of the output information

<p>The suitability of information related to the</p>	<ul style="list-style-type: none"> • functional area of the organisation and the management level • relationship(s) between functional areas and the sharing of information • type of information system • use of differing types of information related to the management level • information to be input into the information system • processing to be carried out by the information system related to the information required • purpose of the information to be output • format/detail of the output from the information system.
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LO3 Be able to use information systems to produce management information

<p>Use an information system to generate valid, accurate and useful information for a given problem</p>	<p>Solution to include:</p> <ul style="list-style-type: none"> • Analysis of given problem • Definition of scope, e.g. content, timescales, constraints, information sources • Identification of requirements, e.g. the information, the end user, the format of the output • Selection of information system • Selection and use of appropriate input data • Use of appropriate processing of information including validation • Generation of valid, accurate and useful information • Selection and use of appropriate output format
<p>Evaluate alternative methods of solving the problem</p>	<p>To include:</p> <ul style="list-style-type: none"> • Information systems • Sources of input data • Processing used • Output format.

GUIDANCE

Delivery guidance

It will be beneficial to deliver this unit in a way that uses actual events, industry forecasts or sector specific contexts which offer the learner the opportunity to explore, develop and apply the fundamental principles of the sector or subject area. A real information system should be explored (e.g. multinational organisation, college, office-based organisation). Typical delivery contexts could include reviewing a range of case studies. It would also be beneficial to study a large multinational organisation. Due to its size, functional areas will be dispersed throughout the world and differences in functional areas will be apparent.

Learners will benefit from being encouraged to exercise autonomy and judgement when considering the information requirements of an organisation (for example the college where they are taking this program). Learners should be given the opportunity to identify strengths of the existing system and potential developments, being aware of any actual constraints to this process.

Learners would benefit from being presented with subject/sector-relevant problems from a variety of perspectives, and from being given the opportunity to explore them using a variety of approaches and schools of thought. For example, students could research the company accounts for an organisation over a period of time and compare the financial information to any comments in the chairman's report relating to changes, for example, in the company's structure. Guest speakers from local organisations could be invited to discuss their particular information system requirements.

Assessment evidence guidance

Evidence must be produced to show how a learner has met each of the Learning Outcomes. This evidence could be assignments, project portfolios, presentations or, where appropriate, reflective accounts.

Where group work/activities contribute to assessment evidence, the individual contribution of each learner must be clearly identified.

All evidence must be available for the visiting moderator to review. Where learners are able to use real situations or observations from work placement, care should be taken to ensure that the record of observation accurately reflects the learner's performance. This should be signed, dated, and included in the evidence. It is best practice to record another individual's perspective of how a practical activity was carried out. Centres may wish to use a witness statement as a record of observation. This should be signed and dated and included in the evidence.

RESOURCES

Books

Checkland P, Holwell S. *Information, Systems and Information Systems*, John Wiley, 2005. ISBN 0-471-95820-4

Bocij P, Greasley A, Hickie S. *Business Information Systems: Technology, Development and Management for E-Business*, Prentice Hall, 2008. ISBN 978-0-273-71662-4

Dawson C, *Projects in Computing and Information Systems*, Addison Wesley, 2009. ISBN 978-0-273-72131-4

Boddy D, Booristrw A, Kennedy G. *Management Information Systems: Strategy and Organisation*, Prentice Hall, 2008. ISBN 978-0-273-71681-5

Jane Laudon, Kenneth Laudon, *Management Information Systems: Managing the Digital Firm* [Hardcover], 2007. ISBN-10: 1405872764, ISBN-13: 978-1405872768

Journals

MIS Quarterly – Management Information Systems Research Center, Carlson School of Management, University of Minnesota

Information and Organizations – Elsevier

European Journal of Information Systems – Palgrave Macmillan

Websites

Association for Information Systems – www.aisnet.org

BizED <http://www.bized.co.uk/> useful material for students

http://www3.dsi.uminho.pt/iramos/files/Papers/OrganizationalMind2_IsabelRamos.pdf

<http://www.prenhall.com/behindthebook/0132304619/pdf/Laudon%20Feature%203.pdf>

<http://www.isos.salford.ac.uk/>