Unit 6: Business Decision Making

Learning hours: 60
NQF level 4: BTEC Higher National — H2

Description of unit

In business, good decision making requires the effective use of information. This unit gives learners the opportunity to examine a variety of sources and develop techniques for four aspects of information: data gathering, data storage, and the tools available to create useful information and present it.

Computers are used in business for much of this and thus the appreciation and use of appropriate IT software is central to the completion of this unit. Specifically, learners will use spreadsheets and other software for data analysis and the preparation of information. The use of spreadsheets for the manipulation of numbers, and understanding of how to apply the results, are seen as more important than the mathematical derivation of formulae used. They will also gain an appreciation of information systems currently used at all levels in an organisation as aids to decision making.

Summary of learning outcomes

To achieve this unit a learner must:

1. Use a variety of sources for the collection of data, both primary and secondary
2. Apply a range of techniques to analyse data effectively for business purposes
3. Produce information in appropriate formats for decision making in an organisational context
4. Use software-generated information to make decisions at operational, tactical and strategic levels in an organisation.
Content

1 Sources for the collection of data

Primary sources: survey methodology, questionnaire design, sample frame, acceptance sampling methods, sample error

Secondary sources: internet research, government and other published data, by-product data

2 Techniques to analyse data

Representative values: mean, median, mode, calculation from raw data and frequency distributions and using the results to draw valid conclusions

Measures of dispersion: maximum, minimum, standard deviation for small and large samples; typical uses — statistical process eg control, buffer stock levels

Calculation: use of quartiles, percentiles, correlation coefficient

3 Information in appropriate formats

Creation and interpretation of graphs using spreadsheets: line, pie, bar charts and histograms

Scatter (XY) graphs and linear trend lines: extrapolation for forecasting — reliability

Use of appropriate presentation software and techniques and report writing

4 Software-generated information

Management information systems: computers and information processing tools for operational, tactical and strategic levels of the organisation

Inventory control: economic order quantity, continuous and periodic review, Pareto analysis, material requirements, planning for manufacturing

Project management: networking and critical path analysis, Gantt and Pert charts

Financial tools: indices — discounted cash flow, internal rates of return (IRR function)
Outcomes and assessment criteria

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<tr>
<th>Outcomes</th>
<th>Assessment criteria for pass</th>
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<td>To achieve each outcome a learner must demonstrate the ability to:</td>
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<tr>
<td></td>
<td>• prepare and implement a plan for the collection of primary and secondary data for a given business problem</td>
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<td>• describe and justify the survey methodology and frame used</td>
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<td>• develop and use a questionnaire and justify its design for a particular purpose</td>
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<tr>
<td>1  Use a variety of <strong>sources for the collection of data</strong>, both primary</td>
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<td>and secondary</td>
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<td>• create information for decision making by summarising data using representative values, and use the results to draw valid and useful conclusions in a business context</td>
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<td>• analyse data using measures of dispersion, and use to inform a given business scenario</td>
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<td>• calculate quartiles, percentiles, correlation coefficient, and use to draw useful conclusions in a business context</td>
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<td>2  Apply a range of <strong>techniques to analyse data</strong> effectively for business</td>
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<td>purposes</td>
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<td>• using data from a given business scenario, prepare a range of graphs using spreadsheets — line, pie, bar charts and histograms, and draw valid conclusions based on the information derived</td>
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<td>• use trend lines in spreadsheet graphs to assist in forecasting for specified business information and thus inform decision making</td>
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<td>• prepare a business presentation using suitable software and techniques to disseminate information effectively and persuasively</td>
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<td>• prepare a formal business report</td>
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<td>3  Produce <strong>information in appropriate formats</strong> for decision making</td>
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<td>for an organisational context</td>
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| 4 Use **software-generated information** to make decisions at operational, tactical and strategic levels in an organisation | • review management information systems and suggest appropriate information processing tools for operational, tactical and strategic levels of the organisation  
• review and evaluate inventory control systems in an organisation  
• prepare a spreadsheet to enable material requirements planning and calculate economic order quantities  
• prepare a project plan for an activity and determine the critical path  
• use financial tools — discounted cash flow and internal rates of return (IRR function) to evaluate the financial viability of proposed investments |
Guidance

Delivery

Reflecting modern business practice, much of this unit will be delivered using computer software (such as spreadsheets, presentation and project management software and the internet). Delivery is likely to include input to ensure that all learners have a working knowledge of the required IT tools, and subsequent practice tasks, case studies, research activities (individual and group) to develop the particular skills. This may be achieved by delivering the unit at an early stage in the course, ensuring the learner has skills ready to apply in other units, or delivered within units which require specific skills.

Assessment

Evidence of outcomes may be in the form of assignments specific to the unit, assignments that integrate this unit with others, class-based tests and examinations.

To expand on the outcomes activities could include:

- collection of secondary data for marketing/business planning
- questionnaires for consumer/employee attitudes and preferences
- analysis and description of data, use of graphs and forecasting from consumer surveys, operations activities to inform particular strategies
- investigate business proposals or opportunities and submit responses as formal reports or presentations to lecturers, peers or employers
- monitor and graph chosen share prices over a period and use forecasting techniques and research of current economic activities to suggest future trends.

Links

This unit is intended to provide underpinning knowledge for topics which are based on an understanding of quantitative techniques found in other units, in particular those focusing on marketing, finance, operations and strategic management, such as: Unit 1: Marketing, Unit 2: Managing Financial Resources and Decisions, Unit 7: Business Strategy, Unit 9: Management Accounting: Costing and Budgeting, Unit 10: Financial Reporting, Unit 11: Financial Systems and Auditing, Unit 12: Taxation, Unit 17: Marketing Intelligence, Unit 18: Advertising and Promotion, Unit 19: Marketing Planning, Unit 20: Sales Planning and Operations and Unit 30: Internet Marketing.

Resources

Computers with internet and appropriate application software such as spreadsheets, presentation, and word-processing packages should be available. Project management software would also be useful. Additional numeracy support should be available if required.
Support materials

Textbooks

Websites
For coverage of relevant topics:
www.4pm.com/repository.htm — Project Management, critical path analysis
www.ct-yankee.com — Levinson Productivity Systems PC — quantitative techniques outlined
www.itl.nist.gov — National Institute of Statistics — variety of quantitative techniques
www.mindtools.com — Mindtools — very useful management tools

For research or secondary data:
www.bized.ac.uk — provides case studies appropriate for educational purposes
www.dti.gov.uk/mbp — Department of Trade and Industry
www.moneyworld.co.uk — Moneyworld — manage your stocks and shares
http://sol.brunel.ac.uk/~jarvis/bola — Business Open Learning archive
www.statistics.gov.uk — UK government statistics
www.upmystreet.co.uk — Up My Street — local information anywhere in UK