Unit 55: e-Commerce

Unit code:	**A/601/7313**
QCF Level 3:	**BTEC Specialist**
Credit value:	**10**
Guided learning hours: 60	

Aim and purpose

The aim of this unit is to ensure learners know the technologies involved in e-commerce, understand the impact of e-commerce on organisations and on society and are able to plan e-commerce strategies.

Unit introduction

One of the most important developments in business in recent times has been the increasing use of ecommerce. It has revolutionised many marketplaces and opened up opportunities never before imagined. Businesses that are not exploring the use of e commerce are in danger of finding themselves being overtaken by those who are utilising this technology. E-commerce uses the internet to build and enhance relationships with customers, partners and other businesses. This can involve processing orders electronically, handling customer service and cooperating with business partners.

E-commerce can be conducted using the internet, intranets, extranets, or a combination of these.

The unit starts by looking at the technologies needed to operate e-commerce ie the hardware, software and networking required for an e-commerce system to be implemented. Different categories of e-commerce such as e-tailers (those only operating online) and financial services, and the benefits and drawbacks for organisations of using e-commerce are considered. Attention is given to issues such as legislation and promotion. How do you get your company to the top of search lists? Security is a big issue as it affects customer trust. The unit considers the payment systems available and how they compare.

The social implications are considered. For example, the introduction of on-line shopping has changed our shopping habits and has benefited the housebound and those living a long way from shopping centres.

Finally, after assessing commercial sites, learners will bring all their learning together to develop an e-commerce strategy for a new business.

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 Know the technologies required for an e-commerce system	1.1 explain how organisations use information
2 Understand the impact of e-commerce on organisations	2.1 explain the impact of introducing an e-commerce system to an organisation 2.2 explain the potential risks to an organisation of committing to an e-commerce system
3 Understand the effects of e-commerce on society	3.1 review the regulations governing e-commerce 3.2 examine the social implications of e-commerce
4 Be able to plan e-commerce strategies	4.1 plan an e-commerce strategy

Unit content

1 Know the technologies required for an e-commerce system

Technologies: hardware and software eg web servers, browsers, server software, web authoring tools, database system; networking eg TCP/IP addresses, ports and protocols; considerations eg domain names, multiple registration of domains (.com as well as.co.uk), programming requirements, download speeds, browser and platform compatibility

2 Understand the impact of e-commerce on organisations

Benefits: eg global marketplace, 24/7 trading, relatively low start-up and running costs, competitive edge, search facilities, gathering customer information, alternative income sources, pricing opportunities eg differences, fluid pricing

Drawbacks: eg consumer trust, lack of human contact, delivery issues, international legislation, product description problems, security issues

Promotion: effective use of search engines eg use meta tags, 'spiders', paying for prominence in search result listing; newsgroups and forums; banners and pop-ups; spam; site name; direct marketing; ensuring an effective user interface; establishing customer loyalty in a virtual environment

Security: issues eg prevention of hacking, viruses, identity theft, firewall impact on site performance, SSL, HTTPS, RSA certificates, strong passwords, alternative authentication methods

Legislation: associated legislation eg Data Protection Act 1998, Computer Misuse Act 1990, Consumer Credit Act 1974, Trading Standards, Freedom of Information Act 2000, copyright legislation, E-commerce Regulations

3 Understand the effects of e-commerce on society

e-commerce entities: e-tailers eg Amazon.com, ebuyer.co.uk; manufacturers eg dell.com; existing retailers eg tesco.com, argos.co.uk; consumer led eg eBay; service providers eg easyjet.co.uk, lastminute.com; financial eg esure.com, banks

Social implications: changing customer perspective eg providing added value, providing service, ease and security; economic and social impact due to speed of changes; bricks and clicks (integrating high street and online presence); benefits for customers eg remote shopping, access to goods and services for the housebound, anytime access, internet discounts; drawbacks eg payment security, assessing quality/fit without actual product, reliance on delivery services; impact on employment; social divide

Payment systems: services available eg electronic cheque, PayPal, NoChex, credit or debit cards

4   e able to plan e-commerce strategies

E-commerce strategy: structure of site; hosting; promotion; issues eg cost, security

Structure: customer interface eg ease of use, display of products, personal details entry, credit card entry, other types of payment, delivery details; image; style

Hosting: choice of ISP; in house or sub-contracted

Promotion: marketing eg advertising the site, placing in search engines; message board; chat rooms

Costs: setup; maintenance; security; leasing; advertising; delivery strategy; staff training

Security: fraud protection; hackers; viruses

Essential guidance for tutors

Delivery

The outline learning plan (OLP) following this narrative is designed only as a guide and tutors will use knowledge of their learners to adjust the allocation of time accordingly.

The suggested delivery pattern discussed here is not the only order which may be employed and it is perfectly acceptable for tutors to follow their own preference.

It would be of benefit for some of the elements of delivery to use a visiting speaker from a relevant organisation, or visit an appropriate organisation, but where this is not possible the use of real world case studies can be used. There are a number of video clips available through internet links of business ecommerce experiences.

It is suggested that as much of the theory as possible is embedded within practical activities to put it into context. Learners first need to understand what e-commerce is and why businesses may choose to be 'click' or 'brick' or a combination of the two. Learners will be familiar with many e-commerce 'entities' and an exercise to research, categorise and discuss the differences may be a useful start point. Issues such as initial start up costs, security etc may be researched (there is a wealth of material on the web) and visiting speakers would benefit learners with actual local experiences. As part of this strand, learners can research the legislation and regulations governing e-commerce.

Promotion of websites is something with which learners are familiar, even though they have probably not thought of it in those terms. Practical exercises can be used to demonstrate the various elements and case studies used to relate them to business.

Much of the technology required for e-commerce may already have been covered in other units and may only require revision. Otherwise much can be delivered with directed study using the internet or other information sources. If learners produce lists of descriptions of the hardware and software utilised, the tutor can fill in any gaps in knowledge in ensuing discussions.

Security issues can be delivered using a mixture of directed study, whole class teaching and group discussions. Case studies can be used to illustrate the detail. It may be that some of this has been covered in other units already studied by the learners.

Everyone has some ideas about the social implications of e-commerce and it is a good idea to start with those preconceptions. One idea is to give each small group of learners a heading taken from the prescriptive elements of learning outcome learning outcome 3 and allow the groups to discuss the element making notes of what the group think overall. Each group presents their ideas to the whole class for comments and criticism, and the tutor can arbitrate and where necessary steer ideas. A composite profile of social implications can be drawn up.

Payment systems could prove to be a difficult subject for learners to grasp and is perhaps best delivered by tutor led discussions using case study examples. An exercise to compare and contrast different e-commerce interfaces and decide what makes them good or not so good will assist the learners with tackling P6. Although this is slightly subjective, learners could discuss their findings and come up with a checklist of what to include or avoid in developing customer interfaces.

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments. The outline learning plan demonstrates one way in planning the delivery and assessment of this unit.

Topic and suggested assignments/activities and/assessment
Introduction to the unit
E-commerce technologies: • whole-class exercise – tutor presentation on technologies, followed by individual exercise • a mixture of practical exploration of the technologies, learner exercises, discussion and detailed investigation.
The impact of e-commerce: • whole-class exercise – tutor presentation on benefits of e-commerce, followed by tutor-led research • whole-class exercise – visiting speaker if available or real world case study • whole-class exercise – tutor presentation on drawbacks of e-commerce, followed by group discussion of drawbacks and potential risks posed • whole-class exercise – visiting speaker if available or real world case study • individual or small group exercise – prepare questionnaire to interview public (consumer trust) • individual exercise – use of the questionnaire, analysis of results • whole-class exercise – tutor presentation on promotional activities, followed by exercises in using search engines, newsgroups and forums. Tutor supplies checklist of promotional categories, learners search for sites which fall into each category • individual or small group exercise – case studies of examples of promotional aspects • whole-class exercise – tutor presentation on legislation, followed by directed study and case studies. • group exercise – discussion groups consider the effect of the legislation • whole-class exercise – tutor presentation on hardware and software • individual exercise – directed study, learners produce a checklist of relevant hardware and software • whole-class exercise – tutor presentation on networking, followed by directed study and practical exercises where applicable • whole-class exercise – tutor presentation on security, followed by directed study with case studies and group • discussion of security issues.

Topic and suggested assignments/activities and/assessment
Assignment 1 – Why e-Commerce?
Effects on society: • group exercise – groups discuss what they feel are the social implications   • whole-class exercise – feedback from groups to whole class for tutor lead discussion   • individual exercise – learners create a composite checklist of social implications, tutors provide a case study against which the checklist can be applied.   • Payment systems: • whole-class exercise – tutor-led discussions of payment systems   • individual exercise – learners criticise various case study examples.
Assignment 2 – Consumer Guide
Customer interface: • individual exercise – directed research of e-commerce sites   • group exercise – groups discuss research findings and report back to whole class   • whole-class exercise – tutor presentation on designing an interface   • individual exercise – learners practice interface design   • whole-class exercise – tutor presentation on hosting, costs and security.
Assignment 3 – An e-Commerce Strategy

Assessment

The suggested assessment of this unit is by three assignments as summarised in the programme of suggested assignments (PSA) table.

The numbering of the assignments does not mean that they have to be undertaken in that order, rather they are based on the order of delivering the unit.

Suggested Assignment 1 – Why e-Commerce?

A suggested scenario is a presentation to a new business considering whether or not to trade using ecommerce. Although there is a large amount to cover in this assignment a presentation could be the vehicle of assessment for these criteria. The learners need not actually deliver the presentation unless this is required for other skills. Evidence will come from their presentation slides and accompanying notes. Alternatively, a 'Guide to e-commerce' leaflet could be developed.

The criteria 1.1-2.2 are straightforward and the unit content indicates the required coverage.

Suggested Assignment 2 – Consumer Guide

The second assignment looks at e-commerce from the customer's point of view. A suggestion is that 3.1 and 3.2 are presented as a consumer guide eg a leaflet to be available in public places, but other formats may be used. The legislation could be an appendix.

Suggested Assignment 3 – An e-Commerce Strategy

Before developing their own strategies learners should review current commercial interfaces. The learners will then be producing their own e-commerce strategy. Learners may be given a free hand to decide on the nature of their 'business' or the tutor may wish to provide a list of alternatives. This should include ideas for promoting the site, what costs will be involved (actual figures are not required), the security measures to be put in place and how the site will be hosted. 4.1 can be evidenced by a report in a suitable format.

Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the pass criteria in the outcomes and assessment grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Edexcel assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment methods
1.1 2.1, 2.2	Why e-Commerce?	You work for a firm of e commerce consultants. You have been asked to give a presentation to a start-up business considering ecommerce.	Presentation. Notes. Supporting handouts.
3.1, 3.2	Consumer Guide	You have been asked to produce a guide covering the regulations related to e commerce and the implications of e-commerce on society.	Leaflet/brochure.
4.1	An e-Commerce Strategy	You have been asked to produce an e-commerce strategy for a specific business.	Report.

Links to National Occupational Standards, other BTEC units, other BTEC qualifications and other relevant units and qualifications

This unit forms part of the BTEC in IT sector suite. This unit has particular links with:

Level 1	Level 2	Level 3
	Doing Business Online	Information Systems
		Impact of the use of IT on Business Systems

This unit maps to some of the underpinning knowledge from the following areas of competence in the Level 3 National Occupational Standards for IT (ProCom):

4.6   Human Computer Interaction/Interface (HCI) Design

6.2   IT Security Management.

Essential resources

Access to an internet connection is essential for this unit. It will enable learners to view existing e-businesses in order to analyse them. Learners are not required to purchase anything through an e-business site for this unit, but it may be useful to simulate it, perhaps in a demonstration by the tutor.

All learners should have access to a computer with word-processing software and a web browser.

Indicative reading for learners

Textbooks

Chaffey D – *E-business and E-Commerce Management, Second Edition* (FT Prentice Hall, 2003) ISBN-10 0273683780, ISBN-13 978-0273683780

Malmsten E, Leander K, Portanger E and Drazin C – *Boo Hoo: A Dot.com Story* (Random House Business Books, 2002) ISBN-10 0099418371, ISBN-13 978 0099418375

Vise D – *The Google Story* (Pan, 2008) ISBN-10 0330508121, ISBN-13 978 0330508124

Websites

www.ico.gov.uk International Commissioner's Office
www.w3.org World Wide Web Consortium

Functional Skills — Level 2

Skill	When learners are …
ICT - Finding and selecting information	
Use appropriate search techniques to locate and select relevant information	researching e-commerce sites
Select information from a variety of sources to meet requirements of a complex task	designing an interface for an e-commerce business
ICT - Developing, presenting and communicating information	
Combine and present information in ways that are fit for purpose and audience	producing a consumer guide to e-commerce.