E-commerce defined

Electronic commerce (e-commerce) is often thought simply to refer to buying and selling using the Internet; people immediately think of consumer retail purchases from companies such as Amazon. But e-commerce involves much more than electronically mediated financial transactions between organizations and customers. E-commerce should be considered as all electronically mediated transactions between an organization and any third party it deals with. By this definition, non-financial transactions such as customer requests for further information would also be considered to be part of e-commerce. Kalakota and Whinston (1997) refer to a range of different perspectives for e-commerce:

1. A communications perspective – the delivery of information, products or services or payment by electronic means.
2. A business process perspective – the application of technology towards the automation of business transactions and workflows.
3. A service perspective – enabling cost cutting at the same time as increasing the speed and quality of service delivery.
4. An online perspective – the buying and selling of products and information online.

The UK government also used a broad definition when explaining the scope of e-commerce to industry:

E-commerce is the exchange of information across electronic networks, at any stage in the supply chain, whether within an organization, between businesses, between businesses and consumers, or between the public and private sector, whether paid or unpaid.

(Cabinet Office, 1999)

These definitions show that electronic commerce is not solely restricted to the actual buying and selling of products, but also includes pre-sale and post-sale activities across the supply chain. E-commerce is facilitated by a range of digital technologies that enable electronic communications.

These technologies include Internet communications through web sites and e-mail as well as other digital media such as wireless or mobile and media for delivering digital television such as cable and satellite.

When evaluating the strategic impact of e-commerce on an organization, it is useful to identify opportunities for buy-side and sell-side e-commerce transactions as depicted in Figure 1.2, since systems with different functionalities will need to be created in an organization to accommodate transactions with buyers and with suppliers. Buy-side e-commerce refers to transactions to procure resources needed by an organization from its suppliers. In Chapter 6, Case Study 6.1 reviews how Shell has developed an e-business capability that enables buy-side e-commerce for its customers. Sell-side e-commerce refers to transactions involved with selling products to an organization’s customers. So e-commerce transactions between organizations can be considered from two perspectives: sell-side from the perspective of the selling organization and buy-side from the perspective of the buying organization.
E-business defined

Given that Figure 1.2 depicts different types of e-commerce, what then is e-business? Let’s start from the definition by IBM (www.ibm.com/e-business), which was one of the first suppliers to use the term in 1997 to promote its services:

*e-business (e’biz’nis) – the transformation of key business processes through the use of Internet technologies.*

Today, IBM calls the e-business services it provides for its clients ‘on-demand’ web services, as explained in Chapter 3.

You will find that the term ‘e-business’ is used in two main ways within organizations. The first is as a concept which can be applied to strategy and operations. For example, ‘our organization needs an improved e-business strategy (or e-business technology)’. Secondly, ‘e-business’ is used as an adjective to describe businesses that mainly operate online, i.e. they have no physical presence on the high streets and seek to minimize customer service and support through enabling ‘web self-service’, i.e. customers serve themselves before, during and after sales. In the dot-com era e-businesses used to be known as ‘pureplays’. Amazon (www.amazon.com) and eBay (www.ebay.com, Case Study 1.3) are the world’s two biggest e-businesses.

In an international benchmarking study analysing the adoption of e-business in SMEs the Department of Trade and Industry emphasizes the application of technology (information and communications technologies (ICTs)) in the full range of business processes, but also emphasizes how it involves innovation. DTI (2000) describes e-business as follows:

*when a business has fully integrated information and communications technologies (ICTs) into its operations, potentially redesigning its business processes around ICT or completely reinventing its business model... e-business, is understood to be the integration of all these activities with the internal processes of a business through ICT.* (DTI, 2000)

Referring back to Figure 1.2, the key business processes referred to in the IBM and DTI definitions are the organizational processes or units in the centre of the figure. They include research and development, marketing, manufacturing and inbound and outbound logistics. The buy-side e-commerce transactions with suppliers and the sell-side e-commerce transactions with customers can also be considered to be key business processes.

*Figure 1.3 presents some alternative viewpoints of the relationship between e-business and e-commerce.* In Figure 1.3(a) there is a relatively
small overlap between e-commerce and e-business. From Figure 1.2 we can reject Figure 1.3(a) since the overlap between buy-side and sell-side e-commerce is significant. Figure 1.3(b) seems to be more realistic, and indeed many commentators seem to consider e-business and e-commerce to be synonymous. It can be argued, however, that Figure 1.3(c) is most realistic since e-commerce does not refer to many of the transactions within a business, such as processing a purchasing order, that are part of e-business.

So e-commerce can best be conceived of as a subset of e-business and this is the perspective we will use in this book. Since the interpretation in Figure 1.3(b) is equally valid, what is important within any given company is that managers involved with the implementation of e-commerce or e-business are agreed on the scope of what they are trying to achieve!

In Chapter 8 we go on to consider how e-marketing, a concept now used by many marketing professionals, relates to the concepts of e-business and e-commerce.

**Intranets and extranets**

The majority of Internet services are available to any business or consumer that has access to the Internet. However, many e-business applications that access sensitive company information require access to be limited to qualified individuals or partners. If information is restricted to employees inside an organization, this is an **intranet** as is shown in Figure 1.4.
**Different types of sell-side e-commerce**

Sell-side e-commerce doesn’t only involve selling products such as books and DVDs online, but also involves using Internet technologies to market services using a range of techniques we will explore in *Chapters 8 and 9*. Not every product is suitable for sale online, so the way in which a website is used to market products will vary. It is useful to consider the four main types of online presence for sell-side e-commerce, which each have different objectives and are appropriate for different markets. Note that these are not clear-cut categories of websites since any company may combine these types, but with a change in emphasis according to the market they serve. As you review websites, note how organizations have different parts of the site focusing on these functions of sales transactions, services, relationship-building, brand building and providing news and entertainment. The four main types of site are:

1. **Transactional e-commerce sites.** These enable purchase of products online. The main business contribution of the site is through sale of these products. The sites also support the business by providing information for consumers that prefer to purchase products offline. These include retail sites, travel sites and online banking services.

2. **Services-oriented relationship-building web sites.** Provide information to stimulate purchase and build relationships. Products are not typically available for purchase online. Information is provided through the website and e-newsletters to inform purchase decisions. The main business contribution is through encouraging offline sales and generating enquiries or leads from potential customers. Such sites also add value to existing customers by providing them with detailed information to help support them in their lives at work or at home.

3. **Brand-building sites.** Provide an experience to support the brand. Products are not typically available for online purchase. Their main focus is to support the brand by developing an online experience of the brand. They are typical for low-value, high-volume fast-moving consumer goods (FMCG brands) for consumers.

4. **Portal, publisher or media sites.** Provide information, news or entertainment about a range of topics. ‘Portal’ refers to a gateway of information. This is information both on the site and through links to other sites. Portals have a diversity of options for generating revenue, including advertising, commission-based sales, sale of customer data (lists). Social networks can also be considered to be in this category since they are often advertising-supported.

**Drivers of consumer Internet adoption**

Typical benefits of online services are summarized by the ‘Six Cs’, a simple mnemonic to show different types of customer value:

1. **Content** – In the mid-1990s it was often said that ‘content is king’. Well, relevant rich content is still king. This means more detailed, in-depth information to support the buying process for transactional or relationship-building sites or branded experiences to encourage product usage for FMCG brands.

2. **Customization** – In this case mass customization of content, whether received as web site pages such as ‘Amazon recommends’ or e-mail alerts, and commonly known as ‘personalization’.

3. **Community** – The Internet liberates consumers to discuss anything they wish through forums, chat-rooms and blog comments. We will explore these techniques more in *Chapters 2 and 3*.

4. **Convenience** – This is the ability to select, purchase and in some cases use products from your desktop at any time: the classic 24 x 7 x 365 availability of a service. Online usage of products is, of course, restricted to digital products such as music or other data services. Amazon has advertised offline using creative showing a Christmas shopper battling against a gale-swept street clutching several bags to reinforce the convenience message.
Choice – The web gives a wider choice of products and suppliers than via conventional distribution channels. The success of online intermediaries such as Kelkoo (www.kelkoo.com) and Screentrade (www.screentrade.com) is evidence of this. Similarly, Tesco.com provides Tesco with a platform to give consumers a wider choice of products (financial, travel, white goods) with more detailed information than are physically available in-store.

Cost reduction – The Internet is widely perceived as a relatively low-cost place of purchase. Often customers expect to get a good deal online as they realize that online traders have a lower cost-base as they have lower staff and distribution costs than a retailer that runs a network of high-street stores. A simple price differential is a key approach to encouraging usage of online services. In the late 1990s, low-cost airline easyJet encouraged the limited change behaviour required from phone booking to online booking by offering a £2.50 discount on online flight bookings.