

Additional Resources

Additional references, news snippets and mini articles to add to and update the material in Chapter 5: e-Business systems.

Waitrose open a *Dark Store* for e-Fulfilment in London

The standard model for supermarkets supplying produce to their online customers has been to pick the customer's order in the supermarket branch (alongside the conventional customers). As volumes rise the supermarkets are looking at creating specialists facilities designed for e-Fulfilment – such facilities have been labelled *dark stores* – they don't need well lit car parks and signage to attract the customers. Tesco has a small number of dark stores and is developing a few more. The article referenced below discusses this development and the opening of Waitrose's first dark store.

Woods, Z. (2012) 'Rise of the dark store feeds the online shoppers', *Guardian*, 30nov12, <http://www.guardian.co.uk/business/2012/nov/30/dark-stores-feed-dotcom-shoppers>

EDI application on American Freight Railroads

North America (USA and Canada) has seven large (class A) railroads and many more regional and short line railroads. The main business of the railroads is freight and often a consignment will pass across more than one railroad as it travels from its source to its destination. Some freight travels in unit trains that stay intact throughout their journey (and very possibly for a number of repeat journeys) but many consignments are one, or a small number of, freight cars and these will be switched from one train to another in freight yards, possibly several times, in the course of their journey. The freight car itself might be owned by one of the railroads but, alternatively, could be privately owned (e.g. by the shipper).

The problem for the railroads is to get the freight car from its source to its destination as quickly and efficiently as possible and then to get the freight car back to where it is next needed or to its owner, e.g. for a railroad owned car it has to go back to its home territory (a CSX car from the east of the USA, that ends up at a BNSF destination in the west needs to be sent back to CSX territory).

Each of the major railroads has computerised systems for scheduling consignments and tracking their freight cars. The old system was that there was a paper waybill attached to the freight car (not a great system and even worse when the waybill got lost). From the 1980/90s the railroads have been using EDI to transmit details of consignments and freight cars to the other railroads involved in the transport of each consignment that crosses from one railroad to another.

Ryan, S (2012) 'Freight Scheduling: How does a Car know where to go?', *Trains*, vol. 72, No. 11, Nov 2012.

Online Groceries - the market is growing but profits remain elusive

The UK supermarkets did about £5bn online business in 2012 (about 5% of the market) and it is growing at about £1bn a year – sounds like a good market to be in, but it is not that simple.

It costs about £15-20 to pick and deliver a customer's order, the delivery charge is typically £5 but the prices of the goods are the same as for in-store sales and there is no sign the online customer is willing to pay any more. It can also be argued that an online customer is one less in-store customer and the supermarkets have a lot of expensive real-estate to cater for the in-store customers.

So the supermarkets feel obliged to cater for the online customer (and Morrison's look set to join the online market) but this could be hurting their bottom line. As the article suggests (on offering an e-Groceries service), you are *damned if you do and damned if you don't*.



Pratley, Nils (2013) Online shopping, gilt yields and Goldman, Guardian, 04jan,
<http://www.guardian.co.uk/business/nils-pratley-on-finance/2013/jan/04/online-shopping-gilt-yields-goldman-sachs?INTCMP=SRCH>

Additional Resources: e-Shop Business Models

Business Models

The term Business Model is used to classify and describe the way organisations do business – and the e-Shop (or e-Catalogue) could be seen as a business model that is relevant to our field of study.

A business model sums up the business taking account of factors such as its purpose, offerings, strategies, infrastructure, organisational structures, trading practices and operational processes (Wikipedia, 2008: *Business Model*). A business model once developed can be assessed and, where seen as successful, is adopted and adapted by competitors. Arguably (and possibly simplistically) the e-Shop business model was developed by Amazon, adopted by the other dotcoms and adapted to form derivative / related business models such as the online-auction model used by e-Bay.

There are many definitions of a business model. The definition given in Osterwalder, Pigneur and Tucci (2005) is refined in Wikipedia (2008: *Business Model*) and is quoted below:

A business model is a conceptual tool that contains a big set of elements and their relationships and allows expressing of the business logic of a specific firm. It is a description of the value a company offers to one or several segments of customers and of the architecture of the firm and its network of partners for creating, marketing and delivering this value and relationship capital, to generate profitable and sustainable revenue streams.

We could identify and describe the business model by reference to Porter's Generic Value Chain model (see **Chapter 2**). The elements Porter specifies in his model are:

- ◆ Primary Activities:
 - Inbound Logistics.
 - Operations.
 - Outbound Logistics.
 - Marketing and Sales.
 - Service.
- ◆ Support Activities:
 - Firm Infrastructure.
 - Human Resources Management.
 - Technology Development.
 - Procurement.

Osterwalder (2004) suggests a reference model that can be used to describe and classify an organisation's business model. The model has nine related business model building blocks:

- ◆ Infrastructure:
 - core capabilities: The capabilities and competencies necessary to execute the company's business model.
 - partner network: The business alliances which complement other aspects of the business model.
 - value configuration: The rationale which makes a business mutually beneficial for a business and its customers.
- ◆ Offering:
 - value proposition: The products and services a business offers.
- ◆ Customers:
 - target customer: The target audience for a business' products and services.



- distribution channel: This includes the company's marketing and distribution strategy.
- customer relationship: The links a company establishes between itself and its different customer segments.
- ◆ Finances:
 - cost structure: The monetary consequences of the means employed in the business model.
 - revenue: The way a company makes money through a variety of revenue flows. A company income.

See **Figure 1**.

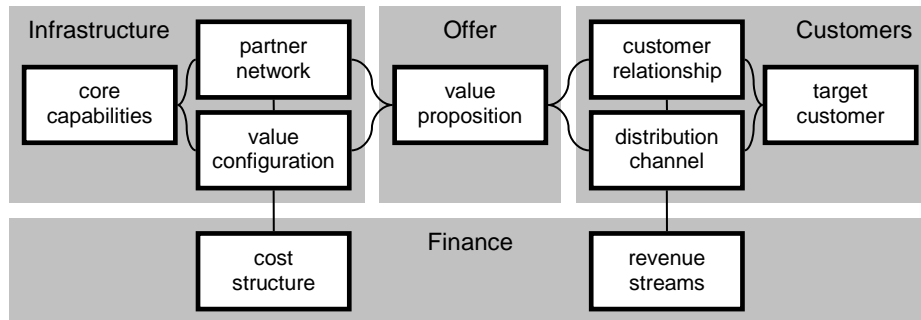


Figure 1: Business Model Components
(Wikipedia, 2008: *Business Model*)

See also Osterwalder, Pigneur and Tucci (2005), Table 3

One of the oldest and most basic business models is the *shop keeper model*. This involves:

Setting up a store in a location where potential customers are likely to be and displaying a product or service.

(Wikipedia, 2008: *Business Model*)

The shopkeeper would typically source goods from a wholesaler whereas a multiple retailer, e.g. a supermarket chain, would mainly source from the manufacturer and run their own network of regional warehouses – and gain a cost / price advantage by doing so – an alternate / variant business model.

A further business model exemplified by Wikipedia (2008: *Business Model*) is that of the *bait and hook*:

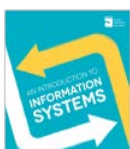
This (the bait and hook) involves offering a basic product at a very low cost, often at a loss (the "bait"), then charging compensatory recurring amounts for refills or associated products or services (the "hook"). Examples include: razor (bait) and blades (hook); cell phones (bait) and air time (hook) and computer printers (bait) and ink cartridge refills (hook). An interesting variant of this model is a software developer that gives away its word processor reader for free but charges several hundred dollars for its word processor writer.

(Wikipedia, 2008: *Business Model*)

e-Shop (e-Catalogue) Business Model

An e-Shop (e-Catalogue) business model, for an e-Shop selling tangible goods, such as Amazon, could be summed up as:

The e-Shop (e-Catalogue): A retail operation where the shop is replaced by a warehouse, the customers can make their purchases anytime / anywhere, payment is electronic at the time of purchase and fulfilment is by home delivery. The model facilitates cost savings in



comparison with a bricks and mortar retail operation and these may be passed onto the customer as discounted prices.

See **Figure 2** for further analysis using Porter's Generic Value Chain Model and **Figure 3** using Osterwalder's Model – but do **exercise 1** first.

Porter's Value Chain	e-Shop (e-Catalogue)
Primary Activities:	
♦ Inbound Logistics.	from wholesalers (small operator), manufacturer (large operator) or production (factory e-Shop).
♦ Operations.	warehouse and small quantity distribution.
♦ Outbound Logistics.	home delivery of small quantities (by post, packet or local delivery service).
♦ Marketing and Sales.	focus on site awareness (by electronic and conventional advertising).
♦ Service.	after sales requirement normally minimal – but can be problematic.
Support Activities:	
♦ Firm Infrastructure.	warehouse and IT (e-Shop).
♦ Human Resources Management.	requirement for: skilled IT staff and low-skill warehouse operatives.
♦ Technology Development.	e-Shop IT was <i>cutting edge</i> but is now <i>commodity</i> software.
♦ Procurement.	aim to get volume discounts from supplier. low capital requirement for stock (comparatively).

Figure 2: e-Shop Business Model Analysis
(using Porter's Generic Value Chain Model)

Osterwalder's Model	e-Shop (e-Catalogue)
Infrastructure:	
♦ Core Capabilities.	warehouse and IT (e-Shop).
♦ Partner Network.	wholesalers (small operator), manufacturer (large operator) or production (factory e-Shop).
♦ Value Configuration.	The customer can shop from home and the e-Shop does not need costly retail outlets.
Offering:	
♦ Value Proposition.	retail goods, competitively priced and delivered to the customer's home.
Customer:	
♦ Target Customer.	any consumer (typically more affluent than consumers targeted by traditional mail order).
♦ Distribution Channel.	home delivery of small quantities (by post, packet or local delivery service).
♦ Customer Relationship.	targeted electronic mail-shots to registered customers.
Finances:	
♦ Cost Structure.	low infrastructure and stock costs (in comparison with conventional retail).
♦ Revenue.	From retail operation (in many cases loss making).

Figure 3: e-Shop Business Model Analysis
(using Osterwalder's Model)

You can now do **exercise 2** before you read the following list or you can add to the author's list.

e-Shops (or categories of e-Shops that vary from this basic model sufficiently to be classified as separate business models) include:



- ◆ E-Shop for non-tangible products
- ◆ The b2b e-Shop
- ◆ Bricks and Clicks
- ◆ Online Auction
- ◆ e-Booking Service
- ◆ Online Service (account based services)
- ◆ Web 2.0 business models
- ◆ Service Provider Aggregation

The first three on the list are minor, but important, variations and can be dealt with by a modification to the e-Shop (e-Catalogue) business model statement given above, i.e.:

The e-Shop for Non-tangible Products: A retail operation where the product is electronic. The customers can make their purchases anytime / anywhere, payment is electronic at the time of purchase and fulfilment is by download of the electronic product. The model facilitates cost savings in comparison with a bricks and mortar retail operation where the electronic product would be available on a tangible media.

Examples of the use of this business model are electronic music downloads and the online porn industry. These models are dependent on line speed and are expanding as greater bandwidth becomes available. The model is also applicable as an m-Commerce model.

The b2b e-Shop Business Model: A business supply operation where the outlet is replaced by a warehouse and the business customers can make their purchases anytime / anywhere. Delivery is to the customer's premises and payment is on receipt of invoice (as with a conventional b2b supply operation).

This business model is used by a large number of b2b suppliers. It is most applicable to secondary supplies (products, such as computer consumables and stationery, that are used internally by the organisation). Companies that operate b2b e-Shops include Dell and PC World (which also have b2c versions of their online operations).

Bricks and Clicks Business Model: A retail operation where the bricks and mortar shop is duplicated as an online shop. The customers can make their purchases anytime / anywhere, payment is electronic at the time of purchase and fulfilment is either by home delivery or collection from the bricks and mortar outlet (*click and collect*). The model utilises the organisations existing supply / logistics infrastructure and retail expertise and can trade on the organisation's established reputation.

Most of the large high street / multiple retailers now also operate an e-Shop; examples include Tesco, M&S and John Lewis – the online operation can support the bricks and mortar and visa-versa. Not to have an online operation is seen as dated and can affect the reputation of the organisation. The online supermarkets, e.g. Tesco, are able to use their existing network of stores for local delivery of (perishable) foodstuffs. A problem for the model is that the bricks and clicks operator may not want to discount its online offering (compared with its in-shop prices) and this could disadvantage it in comparison with any pure-play online competitor. A further potential issue is that any problem with the online operation could reflect on the reputation of the (main) bricks and mortar part of the business. If the online operation gets too successful it is likely to draw custom away from the conventional retail outlets and could make them uneconomic.

The remaining business models on the list are examined in more detail in the following sections.

Online Auction Business Model

The online auction mimics its offline equivalent, the local auction house, where the main line of business is, normally, moderately priced collectables.

The online auction is best exemplified by eBay. This website was started, or so the story goes, because the girlfriend of the founder collected Pez character based sweet dispensers and an online website seemed an appropriate way for Pierre Omidyar to help her contact other enthusiasts and extend their collections. Since that early start, back in 1995, eBay has grown into a massive *institution* and, for some people, a way of earning a living (and almost a way of life).



eBay has taken over from auction houses for many types of sale (not normally for expensive items such as houses or fine art). It has also generated new business with sales being made of items that might have been advertised in the local newspaper or just have been thrown away.

eBay was the start of a trend that had a number of emulators, but most of these have fallen by the wayside; if you are going to put property up for auction then you could do with a lot of people looking at it, and only eBay achieved those numbers (in economics, this is called *the network effect*). There are specialist b2b auction sites but in the b2c (or c2c) scene, eBay is the predominant operator.

The method adopted by eBay is the English auction:

- ◆ The seller posts their item representing it by a picture and a description (no need to wrap it up and cart it off to the auction house).
- ◆ An end date and time is set for the auction (and possibly a reserve price).
- ◆ Interested buyers place their bids electronically and if the item attracts a number of buyers the price goes up.
- ◆ Come the end date, the item is *knocked down* to the highest bidder and the buyer and seller have to arrange payment and delivery / collection.

The model can be classified as customer-to-customer (c2c) as the two principle parties are the buyer and the seller. The business (eBay) is just providing the auction site infrastructure.

The online auction has many advantages (over the bricks and mortar equivalent). Advantages include:

- ◆ For the buyer: Time and Location Independence – bids can be placed anytime, anywhere (including m-Commerce interfaces) – there is no need to turn up at a specific time and location.
- ◆ For the seller: Large number of Buyers and the intensity of the bidding process on popular items.
- ◆ Costs: The charges of the online auction site are (usually) relatively low.

There are however some disadvantages:

- ◆ Description of the Goods – all that is available is a photograph and a text description. These might not adequately describe the goods (the condition of second hand goods can be particularly problematic).
- ◆ Delivery – having removed the location constraint from the bidding process there can be a problem of delivering / collecting items (that may be bulky or fragile).
- ◆ Fraud – an online auction can be open to fraudulent practices, including the sale of stolen goods.

A summary of the business model is more closely related to an e-Market (see **Chapter 5**) than the e-Shop summaries given in this paper. The e-Auction model can be summed up as:

The e-Auction Model: An internet (or intranet) information system that allows participating sellers to offer products and buyers to make purchases using an auction bidding process. The information system provider charges a commission / fee for the use of the auction site.

e-Booking Service Business Model

Internet e-Commerce is being extensively used for bookings. These include:

- ◆ Airline tickets – where delivery is an e-Ticket/m-Ticket and check-in can also be (partially) online.
- ◆ Rail tickets – where delivery can be by post, e-Ticket, m-Ticket or collection from a Fast Ticket Machine at the station.
- ◆ Concert / Sports Event tickets – where the ticket is sent by post or picked up at the box-office before the event.

In all these cases (and others not listed) the ticketing system is a computer system so it is relatively easy to provide online access.

For the service provider the online model cuts costs – once the system is set up each transaction is virtually cost free. The provision of the online service can also cut out the *middle man*; a process called disintermediation (see below). An obvious example of an intermediary is the travel agent who



might have been paid (say) 10% of the price of an airline ticket as commission, a cost of sale that is saved if the airline sells direct (or reduced if the sale is through an online travel agent).

The system is also advantageous for the consumer who can electronically *shop around* and make their bookings at a time most convenient to themselves. Arguably they lose the benefit of the expertise of the travel agent but then, not all that many travel agents were that good at their jobs.

The online booking service model can now be summed up as:

The e-Booking Model: An internet (or intranet) information system that allows customers to access the vendor's ticketing system, anytime / anywhere, and enquire on / reserve / book tickets. Payment is electronic at the time of purchase and fulfilment can be a by post or e-Ticket. The vendor may be the service provider or an intermediary.

Online Service Business Model

Internet e-Commerce can also be used to mediate a service relationship such as that the customer has (or might have) with an insurance company, bookmaker, stockbroker or bank. These relationships can be / are ongoing relationships that involve numerous exchanges after the initial setup. The nature of these online relationships can be illustrated by an examination of the online stockbroker and the online bank account:

◆ Online Share Dealing.

A person with money to invest might use the services of an online stock broker – this is more an option for an active investor than someone who might wish to buy some shares / a unit trust and then ignore them and hope that they grow. The procedure for an online stockbroker is:

- The client sets up an account with the stockbroker and deposits a (substantial) sum of money.
- The client can then buy and sell shares, essentially, in real time using the online account for the purchases and to *bank* the proceeds of any sale.
- The site can be used to track the prices of the portfolio and may provide other information / analysis. The customer can be prompted when share prices move out of a pre-set range.

The use of an online stockbroker allows the private investor the same sort of access to the market as the professional investor – if there is a move in the price of their stocks and shares they can now act immediately. The online stockbroker is also substantially cheaper than other channels for stock market investment.

Today there are many online stockbrokers to choose from – including share dealing services offered by the banks. One of the pioneers in online share dealing is e-Trade which dates back to 1991. It first offered its services on AOL Compuserve and predates e-Shop trading on the internet by the likes of Amazon.

The online share dealing and online gambling models are essentially the same. Both are account based and, arguably, both are forms of betting.

◆ Online Banking.

An online bank replaces the bricks and mortar branch with a website. A bank is, essentially, an electronic service (an account is, in effect, a series of transactions recorded on the bank's database) and so it makes sense to deal with it online. Online banking offers:

- Money transfers – many people go online to pay their utility bills.
- Online maintenance of standing orders and direct debits.
- Immediate access to balances and statement details (possibly with an alternative m-Commerce interface).

The online bank cannot deal with cash but internet bank customers have access to the automatic teller machines in the same way as users of conventional accounts – and many accounts with the high street banks are hybrid arrangements with online access and the branch facility available if it is needed.

With online banking, the customer has the advantage of anytime / anywhere access to their account (if they see that as a personal requirement) and the bank gains from much reduced transaction costs (no staff involved in the transactions and, possibly, the reduction or elimination



of physical infrastructure). The major source of concern is security as there is always the possibility of fraudulent transactions.

So the Online Service Business Model is about an account and an ongoing relationship of transactions between customer and the service provider. The model can be summed up as:

The Online Service Model: An account based service where the customer invokes transactions, anytime / anywhere, and the service provider then executes those transactions, electronically, transferring money to and from the customer's account as required. The service provider may charge a fee for transactions or can derive income from investing the customer's money that is held in the account.

Web 2.0 Business Models

Web 2.0 is a notion. It is a notion that the nature of web usage is changing from being an information source: *read-only*, to a vehicle of participation: *read-write*. The notion of the participatory web is illustrated by facilities such as:

- ◆ Wikis and Wikipedia.
- ◆ Free Software and participatory software development.

There is a limit to how much an individual, or an organisation, can do. Involving a wider (volunteer) community, or linking together resources, can create an artefact that is better, more relevant and more dynamic than the offering of any single organisation or information provider. That is a part of what Web 2.0 is about.

Some of Web 2.0 is community, it is free like Wikipedia, and as such is not a part of e-Commerce. Where e-Commerce can benefit from Web 2.0 is where user participation / user feedback is turned into a commercial asset. A prime example of this is Amazon where a part of the facility they present to their customers is user feedback in terms of book reviews (and Amazon has accumulated much more of that information richness than any of their competitors). Arguably, eBay is also Web 2.0 as its sole purpose, and all its content, is user driven.

Another part of Web 2.0 is the social web with 'community' sites such as:

- ◆ You Tube – the video upload site.
- ◆ Facebook – a social networking site.

These are privately (commercially) owned sites but the content comes from the participants. The commercial value of the sites is their ability to display and target advertisements – the value of these sites runs to many millions of dollars (or pounds, however you wish to measure it). The sites that gain this value are the ones that attract the most participants. Once one of these sites gets a clear lead then there is a snowball effect – there is no point in belonging to a social networking site where there is nobody to network with.

So from this, is it possible to derive a business model? Web 2.0 is a dynamic, evolving concept and new models can and will evolve (some authors are now suggesting a Web 3.0). Existing examples suggest that it is about gaining user participation and then leveraging user data / user supplied content for commercial gain. The business model is summarised as:

The Web 2.0 e-Commerce Model: A community site built with user provided content that can be leveraged for profit by the owner of the infrastructure.

Note that the concept of Web 2.0 is closely associated with O'Reilly and a conference hosted by the publisher of that name in 2004. The paper *What is Web 2.0* is (at the time of writing) available online (O'Reilly, 2005). The O'Reilly paper is somewhat orientated to the technical dimension of Web 2.0 rather than the participatory ethos that the concept has evolved to represent.

Service Provider Aggregation Business Models

The advent of Internet e-Commerce has presented an opportunity for a new class of virtual intermediaries. These are organisations that route the user through to the real trader, possibly assembling a package from several traders, and collect a fee (normally from the trader) for the service they provide. Examples of this type of service provider include:

- ◆ Shopbots / Price Comparison Websites.



A Price Comparison Website *does what it says on the can*. For any given product, say a book you want to buy, it will list a number of e-Shops that sell the item and the price they sell it for (hopefully including both the price and the delivery charges as high delivery charges can nullify any saving that might be made on a low purchase price). This price comparison lets the customer choose the provider they want to deal with (presumably the cheapest). The customer can then click the link on the comparison web site and make the purchase. The *real* e-Shop will then pay the comparison website a commission for the business it has put its way.

Providing up to date price comparisons requires some clever software. To cover a decent number of products and product ranges the comparison site will need to interrogate the e-Shops it lists automatically, and that is where the *shopbot* comes in. The shopbot (shopping robot) can work in two ways:

- Search the vendors' websites (using a crawler) and extract the product / price information.
 - Use special (web service) interfaces to the sites it does business with and aggregate the results (arguably not a shopbot but widely used by comparison sites).
- (There are also meta comparison sites that search other price comparison sites).

The trend has been away from the true shopbot approach to the comparison sites using the web-services interfaces in agreement with a selected list of vendors (the comparison site will only get a click-through commission if it has an agreement with the vendor). An example of a comparison website / shopbot is kelkoo.

In addition to general price comparison websites there are services that specialise in a particular area, these include:

- Insurance, e.g. confused.com.
- Utility service providers (domestic gas, electricity, etc), e.g. uswitch.com.

All this raises the question of why an e-Shop should be prepared to pay commission to a comparison website; and the answers are that: firstly they might get more trade, and secondly they could lose out to competitors if they did not take part. One issue for vendors is that freely available price comparisons are liable to depress prices in the sector and the overall profitability of all traders in that sector, an effect that has already been noted in connection with e-Markets in **Chapter 5**.

◆ Search Engines / Online Malls / Portals.

Also designed to assist consumers to find the e-Shop they are looking for are search engines, online malls, portals and the like. They are not e-Shops per se but part of the infrastructure of the commercial web – they also have some elements of Web 2.0 about them although they predate that concept by a number of years. These sites make a living out of adverts, sponsored links and click-throughs.

The business model can be summarised as:

The Service Provider Aggregation Model: An electronic intermediary that takes / extracts data from a range of retailers of goods or services and presents them in a form designed to aid consumer choice (typically to find the cheapest provider). The intermediary can help bring business to the retailer and is normally paid commission for any sales the retailer makes on *click-through*.

Disintermediation

The use of e-Commerce, both b2b and b2c changes the workings of the supply chain. Porter in his description of the Generic Supply Chain, see **Chapter 2** includes the concept of the channel as an intermediary between the firm and the buyer. The channel could, for example, be a wholesaler. The function of the wholesaler is to buy in bulk from the manufacturer (or importer) and then distribute the product in the smaller quantities required by (say) the retailer.

The wholesale function is one that is largely dispensed with by the multiple retailers. They buy in large quantities that the manufacturers are happy to deal with. They have taken the wholesaler intermediary out of their supply chain, they have disintermediated (although you could argue that they have replaced the wholesaler by their own regional warehouse structure).



One of the functions of the wholesaler is to solve the miss-match between the quantities the manufacturer deals in (a lorry / a pallet) and the quantity the (small) retailer needs (and the retailer serves a similar function in dealing with the customer wanting a single instance of a given product). Part of this requirement for intermediaries is to do with logistics and part with administration. The use of e-Commerce can tackle the administration part of the requirement and disintermediation, and the associated cost savings, are claimed to be part of the benefit of e-Commerce business models.

Examples of where the supply chain has been simplified by cutting out intermediaries include:

- ◆ Direct booking of tickets with airlines (and also directly with a GDS without the help of a travel agent).
- ◆ Direct sales from a factory e-Shop, see for example Thorntons.co.uk (my favourite chocolate).

That said, most e-Shop business models still deal with the same suppliers as their conventional competitors. The classic example of Amazon deals with the same publishers and the same sort of wholesalers (some of which do outsourced fulfilment) as their conventional bookshop competitors. The supply chain is the same; the big difference is a central warehouse replacing a chain of bookshops in the high streets / shopping centres of major towns and cities.

Conclusions

Internet e-Commerce has as its starting point the replication of bricks and mortar business models online. Running a business in a virtual environment changes the way that the business operates. There are cost savings in the provision of the retail infrastructure (a website and a warehouse) but additional costs and difficulties at the fulfilment end of the trade cycle (for many classes of online business).

The development of b2c e-Commerce has spawned many variations on the basic e-Shop business model. Some of these models also replicate businesses that existed in conventional trade and some are new models (or significant developments of existing models).

Internet e-Commerce (at the time of writing) is only some 15 years old (and has only been a widely used facility for half of that time). Developments in trade, products and consumer behaviour that can be attributed, in part at least, to Internet e-Commerce include:

- ◆ A vast, international, auction community.
- ◆ Music downloads (as opposed to records, tapes and CDs).
- ◆ Budget airlines (which only sell tickets direct to customers).
- ◆ Social networking – electronic friendship.

The scene is still developing and new things will continue to arrive 'out there'.

Key Points

The key points from this paper on *e-Shop Business Models* are:

- ◆ E-Shop / e-Commerce websites are many and varied – the range of internet b2c businesses can be examined using the concept of the business model.
- ◆ A business model describes what an organisation does and how it does it. We can use a model, such as Porter's Generic Value Chain, to examine and classify organisations.
- ◆ The basic e-Shop business model is the e-Catalogue –Amazon is an example of this. Variants of this model are e-shops for non-tangible products, the b2c e-Shop and the bricks-and-clicks e-Shop.
- ◆ Further e-Shop business models are:
 - e-Auctions – typified by eBay
 - e-Booking – online ticket booking
 - e-Services – account based services
 - Web 2.0 business models
 - Service Provider Aggregation Model – typified by price comparison sites



- ◆ One (potential) feature of e-Business business models is disintermediation: the cutting out of stages in the conventional supply chain. Simplifying the supply chain can make significant savings in some e-Business models.
- ◆ e-Business is a dynamic field and new ideas, potential new business models, are developing all the time.

Exercises

Exercises for this paper are:

1. Analyse the e-Shop Business Model using Porter's Generic Value Chain Model and / or Osterwalder's Model (before looking at **Figures 2** and **3** and then compare your answer with the author's suggestions).
2. Derive a list of examples of Internet e-Commerce that are sufficiently differentiated from the e-Shop (e-Catalogue) business model that they merit classification as a separate (distinct) business model. You can do this before you read the following list or you can add to the author's list.
3. One recent innovative development (by a student who needed some money to pay his fees) was the Million Dollar Web Site. Look it up and see what business model it fits – or specify a new business model if its way of working is not covered by any of the models in this paper.

Alexander Osterwalder, A., Pigneur, Y. and Tucci C. L. (2005) 'Clarifying Business Models: Origins, Present and Future of the Concept', *Communication for the Association for Information Systems*, vol 15

Osterwalder (2004)

O'Reilly T. (2005) *What is Web 2.0: Design Patterns and Business Models for the Next Generation of Software*, <http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html> [viewed on 05 Mar 08.

