

# **Module 5**

## **Overview of E-Business**

# What is e-commerce and e-business?

You are attending a role in the e-business team of a global bank  
You anticipate you may be asked the **distinction between e-commerce and e-business.**

## **E-commerce: Electronic commerce (e-commerce)**

All electronically mediated information exchanges between an organization and its external stakeholders 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 work-flows.
- 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.

# **E-business:**

## **Electronic business (e-business)**

All electronically mediated information exchanges, both within an organization and with external stakeholders supporting the range of business processes.

# **Buy-side e-commerce and Sell-side e-commerce**

- **Buy-side e-commerce**

E-commerce transactions between a purchasing organization and its suppliers.

- **Sell-side e-commerce**

E-commerce transactions between a supplier organization and its customers.

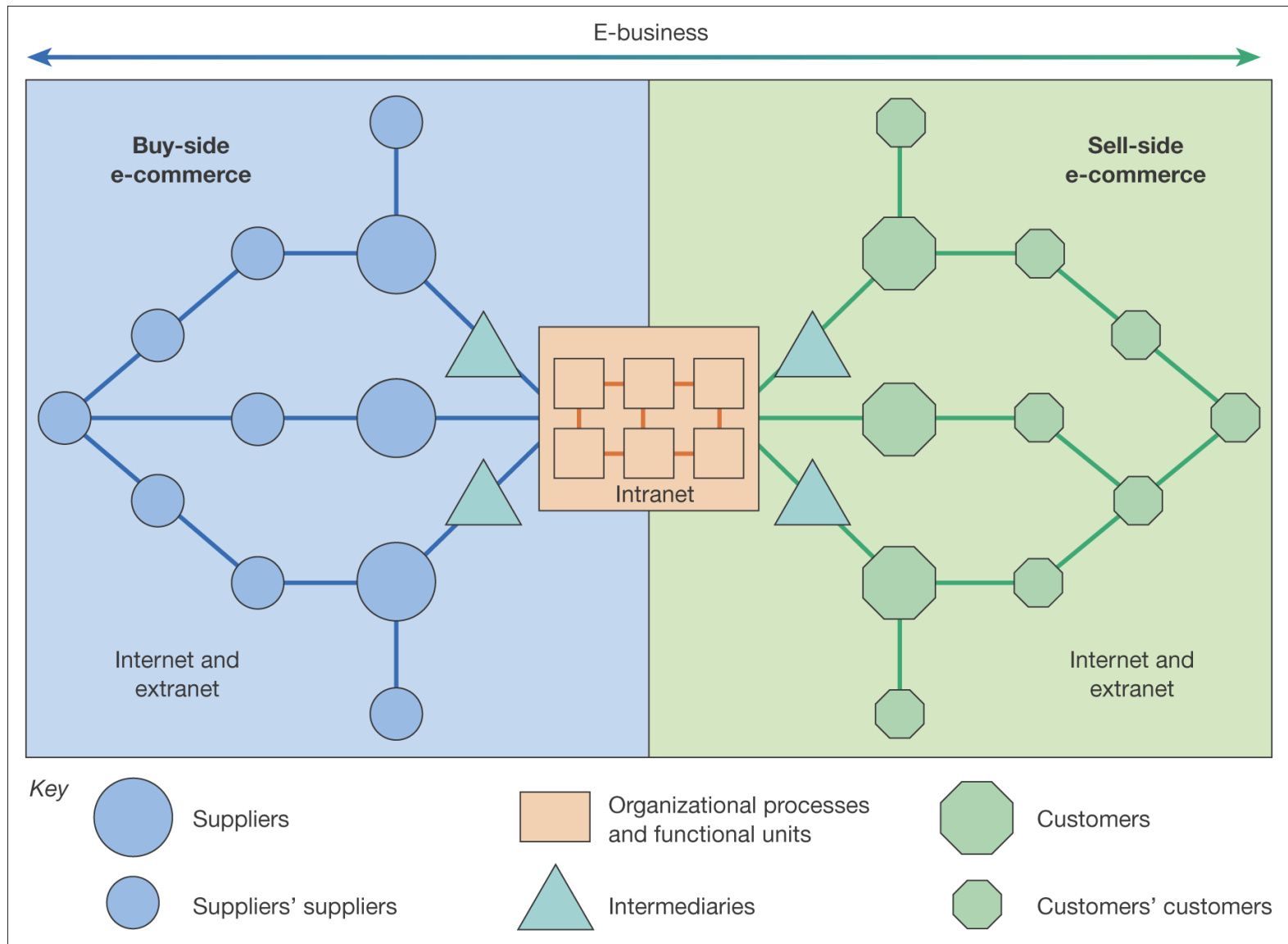


Figure 1.2 The distinction between buy-side and sell-side e-commerce

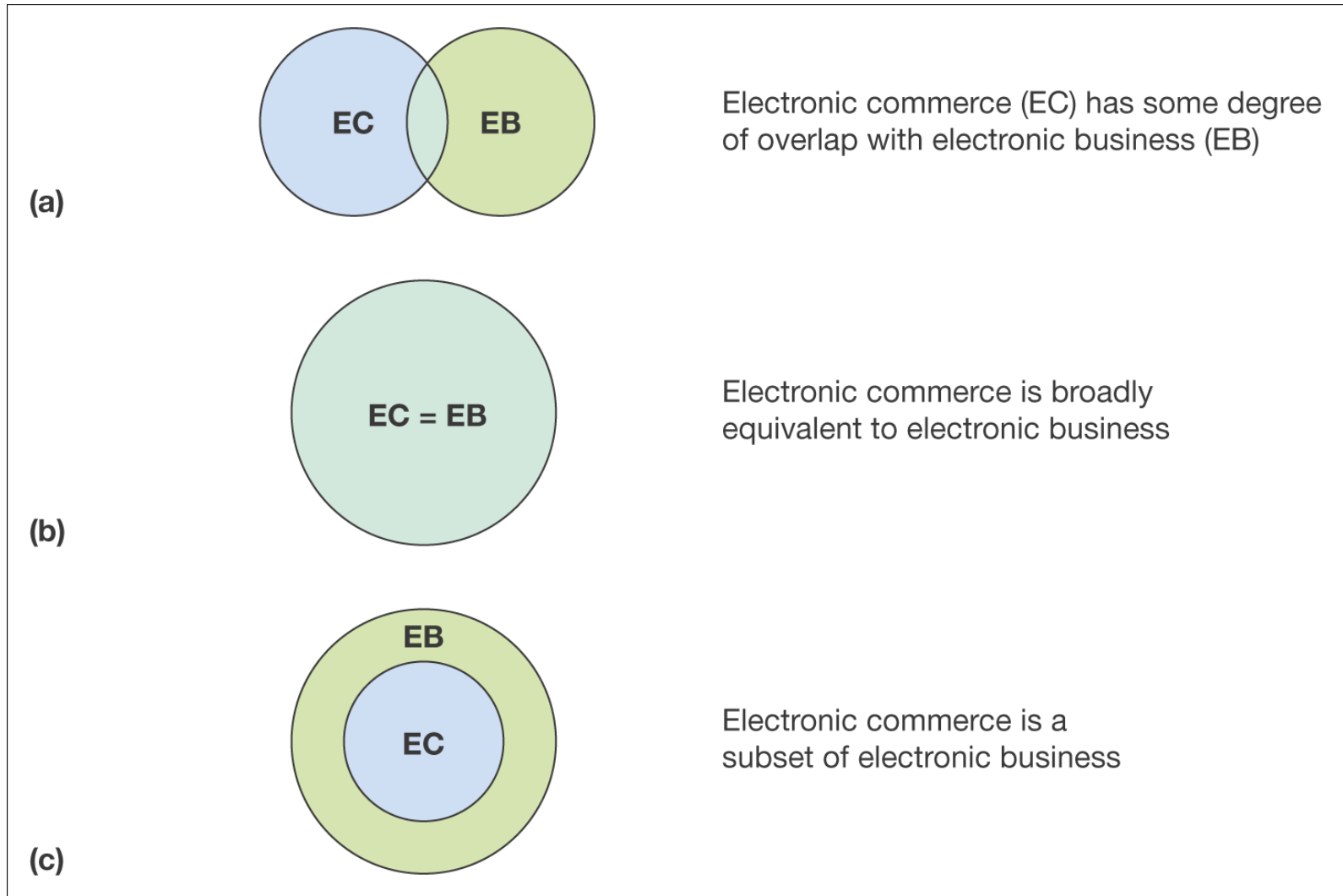


Figure 1.3 Three definitions of the relationship between e-commerce and e-business

- 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!.

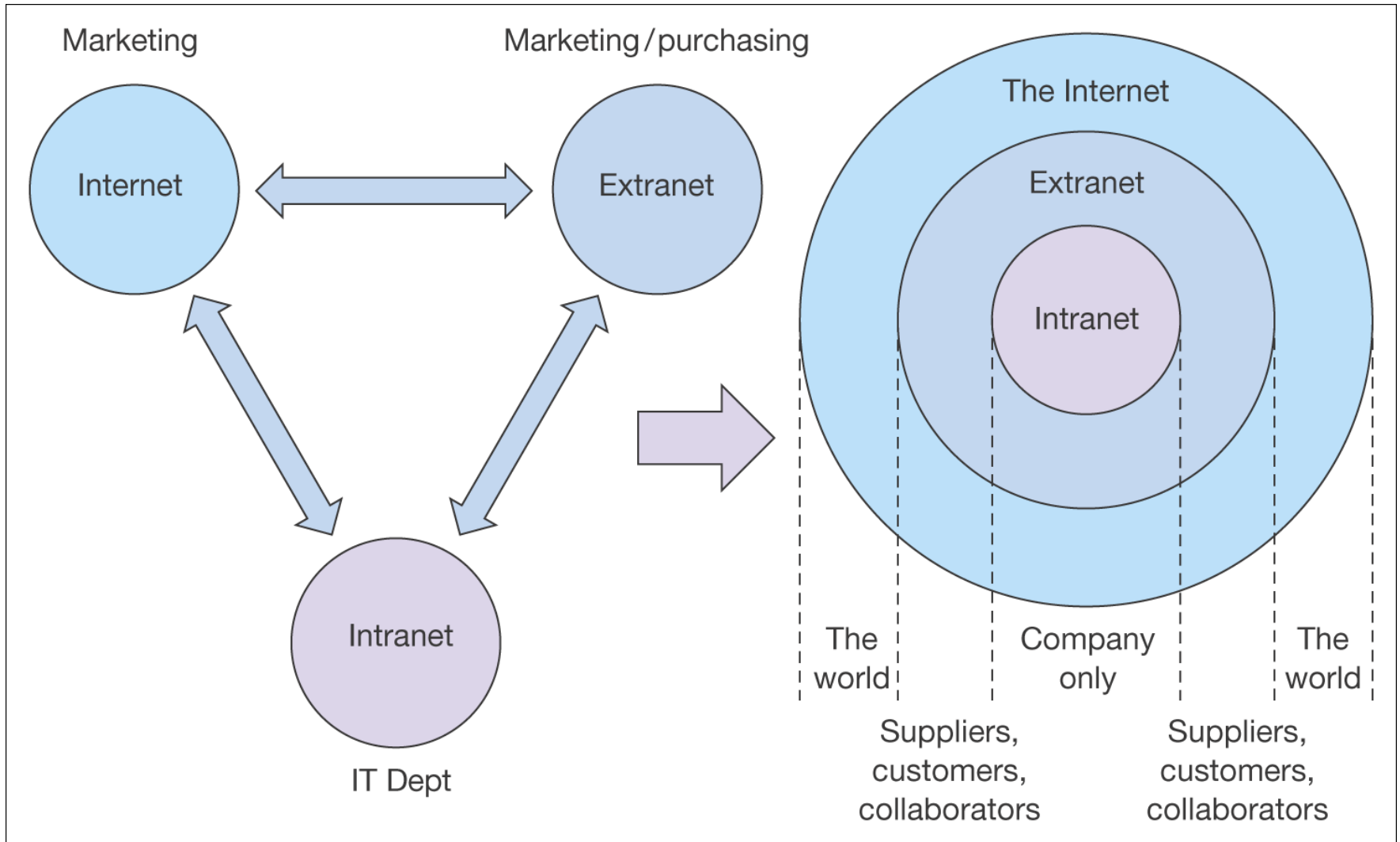


Figure 1.4 The relationship between intranets, extranets and the Internet



# Intranet and Extranet

- **Intranet :**

A private network within a single company using Internet standards to enable employees to access and share information using web publishing technology.

- **Extranet :**

A service provided through Internet and web technology delivered by extending an intranet beyond a company to customers, suppliers and collaborators.

- **As an example**, an **online bank** can potentially use many of these technologies to communicate with its customers according to the customers' preferences – some prefer to use the **web**, others **mobile banking** or **SMS** alerts, others **wireless** or **interactive TV** and others **traditional channels**.
- **Bank First Direct** ([www.firstdirect.com](http://www.firstdirect.com)) which is part of the HSBC banking group has a strategy of innovation and showcases its latest approaches in First Direct Interactive (*Figure 1.5*).
- **It uses SMS short codes as direct response** from TV or print advertising to integrate traditional and digital media channels and also uses SMS periodically to deliver relevant related product offers to customers.

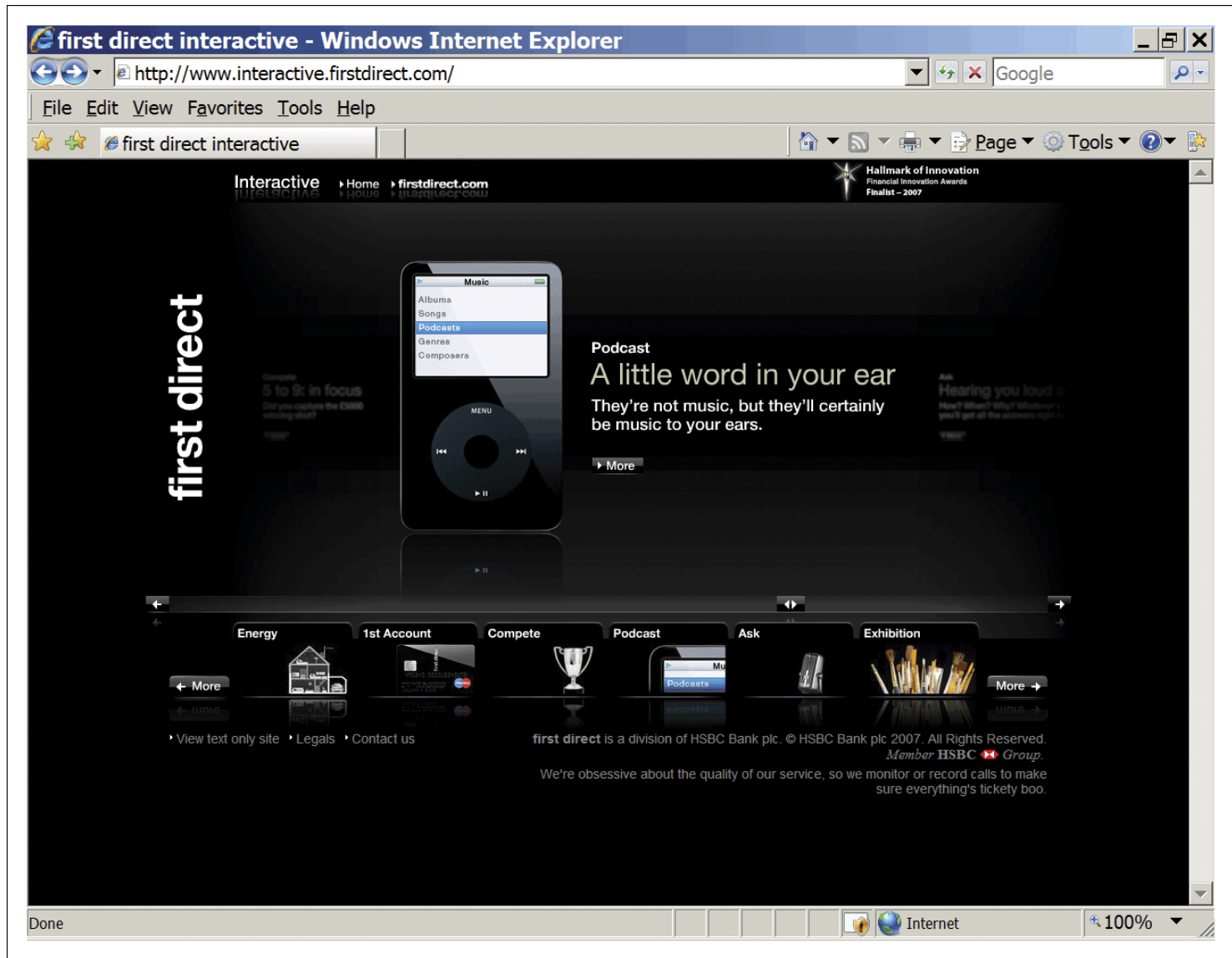


Figure 1.5 First Direct Interactive (www.firstdirect.com)

# Figure 1.7 summarizes the evolution of digital and web-related technologies

- Since the Web 2.0 concept has been widely applied, it is natural that commentators would try to evolve the concept to **Web 3.0**, although the term hasn't been widely applied to date. We can suggest that as web functionality evolves, these approaches which could be deemed 'Web 3.0' will become more important:
  - 1. Web applications.** Usage of web-based applications and services (like Google word processor and spreadsheets) using the web in this way is sometimes termed '*cloud computing*' where all that is really needed for many activities is a computer with a web browser, with local software applications used less widely.
  - 2. Syndication.** Increased incorporation of syndicated content and services from other sites or a network into a site (using tools such as Yahoo! Pipes and XML exchange between **widgets**).

## continue

3. ***Streamed video or IPTV.*** Increased use of streamed video from existing TV providers and user-generated content (as suggested by use of YouTube and IPTV services such as Joost);
4. ***Virtual worlds.*** Increased use of immersive virtual environments such as Second Life;
5. ***Personal data integration.*** Increased exchange of data between social networks fulfilling different needs (as indicated by the recent Google development of OpenSocial);
6. ***The semantic web.*** Increased use of semantic markup leading to the semantic web envisioned by Tim Berners-Lee over 10 years ago.

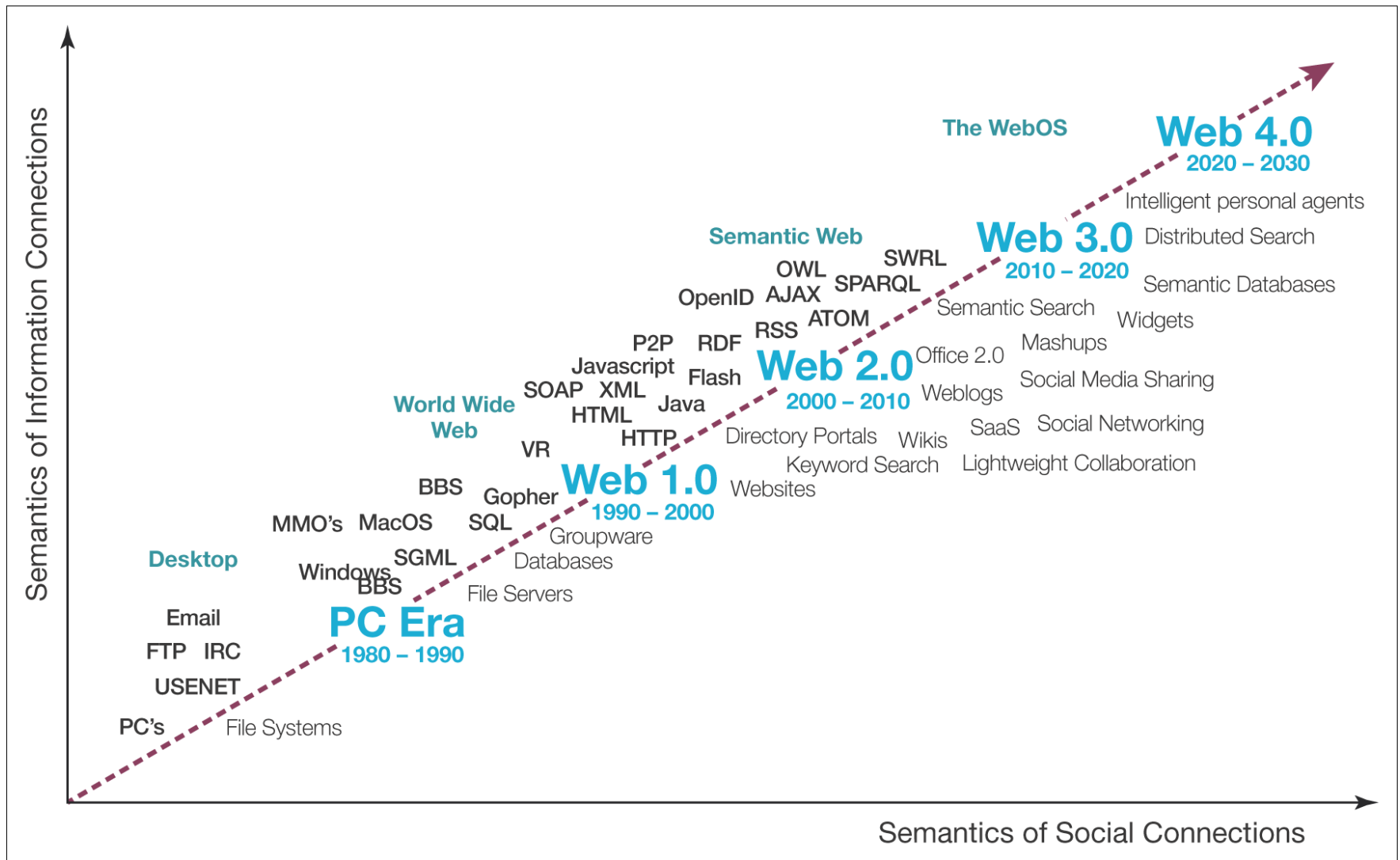


Figure 1.7 Evolution of web technologies

Source: Adapted from Spivack (2007)

## Figure 1.8 Summary and examples of transaction alternatives between businesses, consumers and governmental organizations

- It is now commonplace to describe e-commerce transactions between an organization and its stakeholders according to whether they are primarily with consumers (**business-to consumer– B2C**) or other businesses (**business-to-business – B2B**).
- **Figure 1.8** gives examples of different companies operating in the business-to-consumer (**B2C**) and business-to-business (**B2B**) spheres.
- Often companies such as **BP or Dell Computer** will have products that appeal to both consumers and businesses, so will have different parts of their site to appeal to these audiences.
- **Figure 1.8** also presents two additional types of transaction, those where consumers transact directly with other consumers (**C2C**) and where they initiate trading with companies(**C2B**).
- Finally, the diagram also includes government and public services organizations which deliver online or e-government services.
- As well as the models shown in **Figure 1.8**, it has also been suggested that employees should be considered as a separate type of consumer through the use of intranets which are referred to as **employee-to-employee or (E2E)**.

|                                 |                         | From: Supplier of content/service  |   |   |
|---------------------------------|-------------------------|--|---|---|
|                                 |                         | <i>Consumer or citizen</i>   | <i>Business (organization)</i>  | <i>Government</i>   |
| To: Consumer of content/service | Consumer or citizen     | <b>Consumer-to-Consumer (C2C)</b> <ul style="list-style-type: none"> <li>• eBay</li> <li>• Peer-to-Peer (Skype)</li> <li>• Blogs and communities</li> <li>• Product recommendations</li> <li>• Social networks: MySpace, Bebo</li> </ul> | <b>Business-to-Consumer (B2C)</b> <ul style="list-style-type: none"> <li>• Transactional: Amazon</li> <li>• Relationship-building: BP</li> <li>• Brand-building: Unilever</li> <li>• Media owner – News Corp</li> <li>• Comparison intermediary: Kelkoo, Pricerunner</li> </ul> | <b>Government-to-Consumer (G2C)</b> <ul style="list-style-type: none"> <li>• National government transactional: Tax – inland revenue</li> <li>• National government information</li> <li>• Local government services</li> </ul> |
|                                 | Business (organization) | <b>Consumer-to-Business (C2B)</b> <ul style="list-style-type: none"> <li>• Priceline</li> <li>• Consumer-feedback, communities or campaigns</li> </ul>   | <b>Business-to-Business (B2B)</b> <ul style="list-style-type: none"> <li>• Transactional: Eurooffice</li> <li>• Relationship-building: BP</li> <li>• Media Owned: Emap business publications</li> <li>• B2B marketplaces: EC21</li> </ul>                                       | <b>Government-to-Business (G2B)</b> <ul style="list-style-type: none"> <li>• Government services and transactions: tax</li> <li>• Legal regulations</li> </ul>  |
|                                 | Government              | <b>Consumer-to-Government (C2G)</b> <ul style="list-style-type: none"> <li>• Feedback to government through pressure group or individual sites</li> </ul>  | <b>Business-to-Government (B2G)</b> <ul style="list-style-type: none"> <li>• Feedback to government businesses and non-governmental organizations</li> </ul>  | <b>Government-to-Government (G2G)</b> <ul style="list-style-type: none"> <li>• Inter-government services</li> <li>• Exchange of information</li> </ul>  |

**Figure 1.8** Summary and examples of transaction alternatives between businesses, consumers and governmental organizations



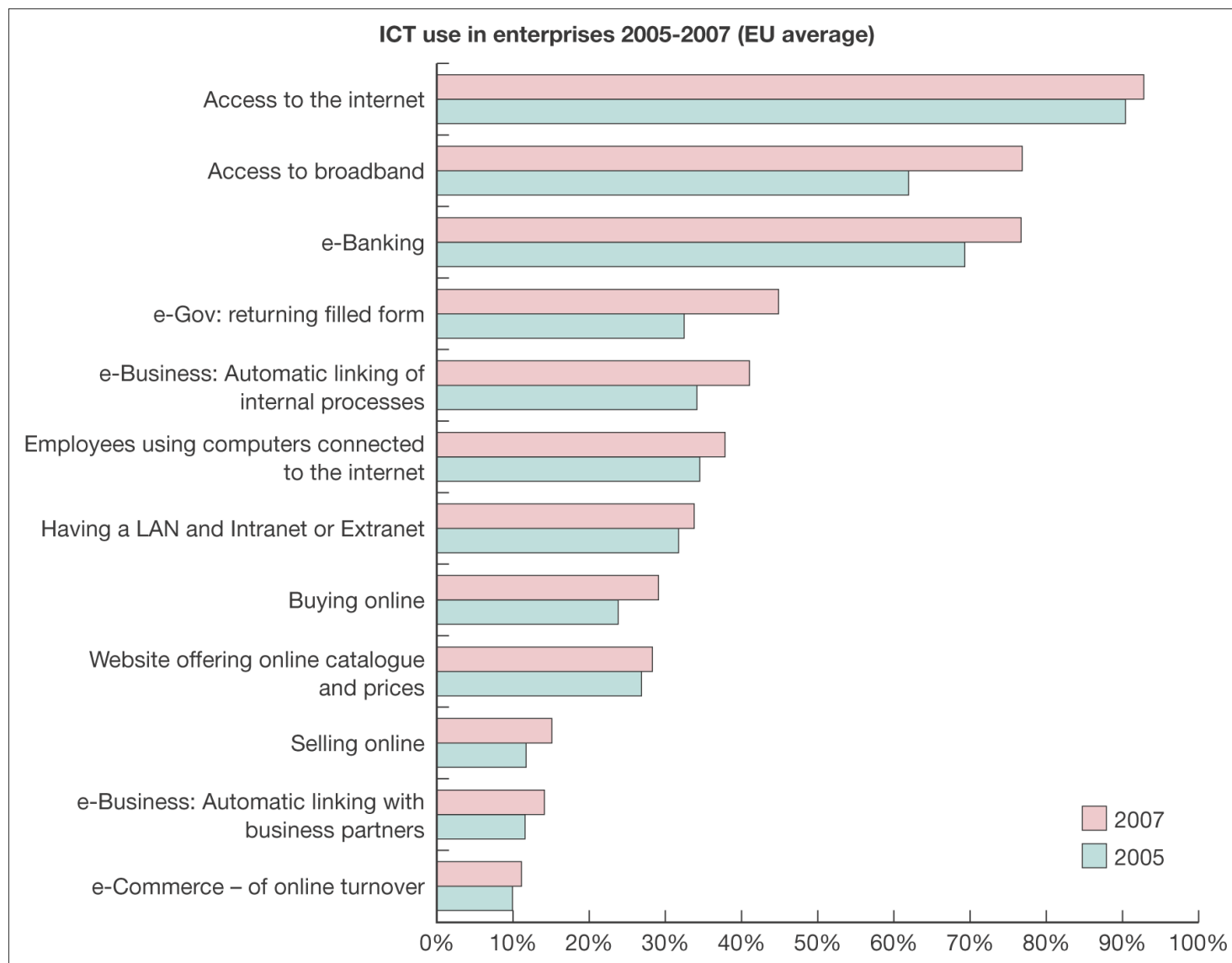
# **Cost/efficiency and competitiveness drivers**

- **Cost/efficiency drivers**
  - Increasing speed with which supplies can be obtained
  - Increasing speed with which goods can be dispatched
  - Reduced sales and purchasing costs
  - Reduced operating costs
- **Competitiveness drivers**
  - Customer demand
  - Improving the range and quality of services offered
  - Avoid losing market share to businesses already using e-commerce

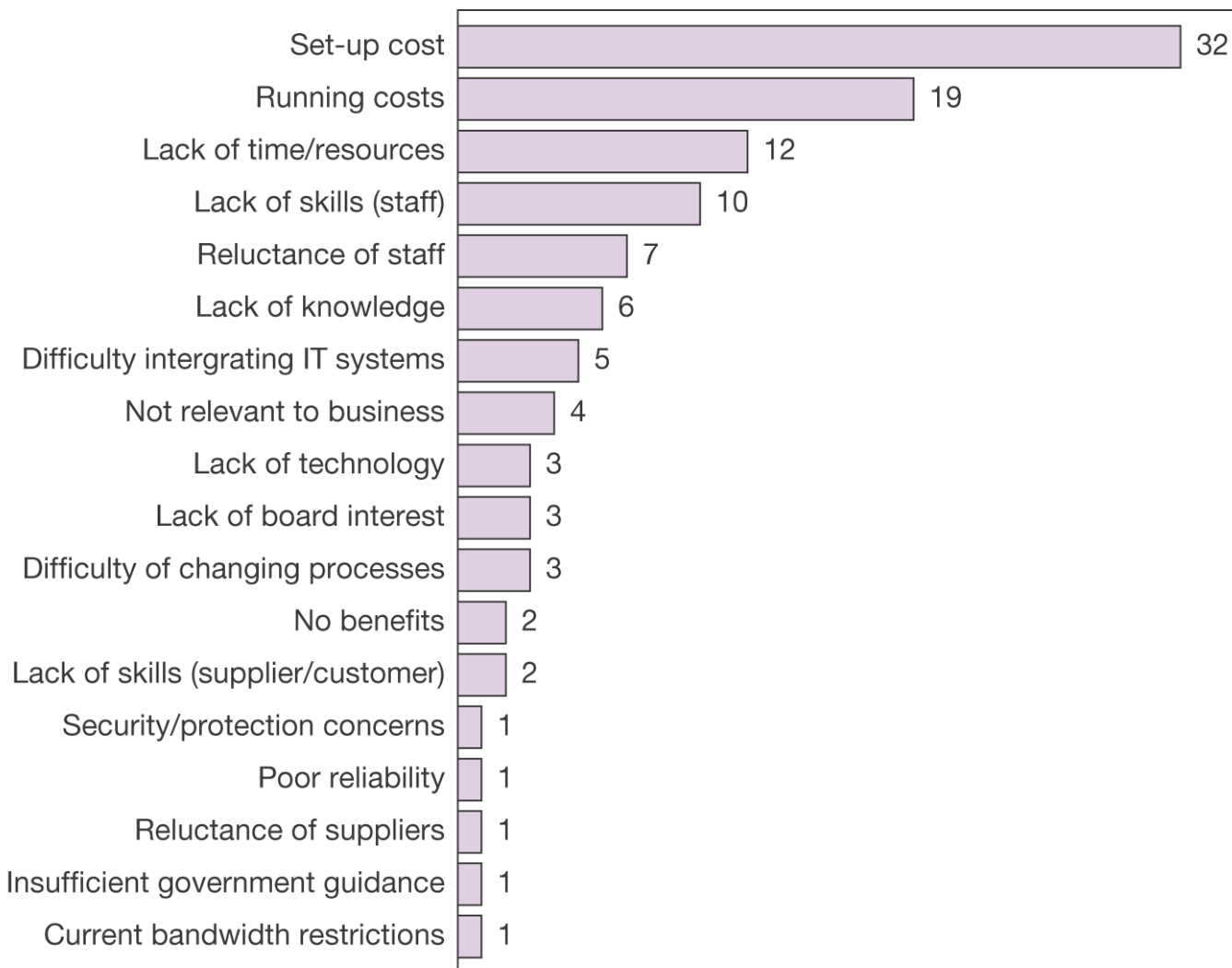
# Usage of different e-business services in European countries.

**Examples of poor online customer experience which you will certainly be familiar with include:**

- **Web sites** that fail because of a spike in visitor traffic after a peak-hour TV advertising campaign.
- **Hackers** penetrating the security of the system and stealing credit card details.
- **A company e-mails customers** without receiving their permission, so annoying customers and potentially breaking privacy and data protection laws.
- **Problems with fulfilment** of goods ordered online, meaning customer orders go missing or are delayed and the customer never returns.
- **E-mail customer-service** enquiries from the web site don't reach the right person and are ignored.
- **The perception of these risks** may have limited adoption of e-business in many organizations which is suggested by the data in **(Figure 1.10)**.



**Figure 1.10 Usage of different e-business services in European countries**  
**Source: European Commission, 2008**

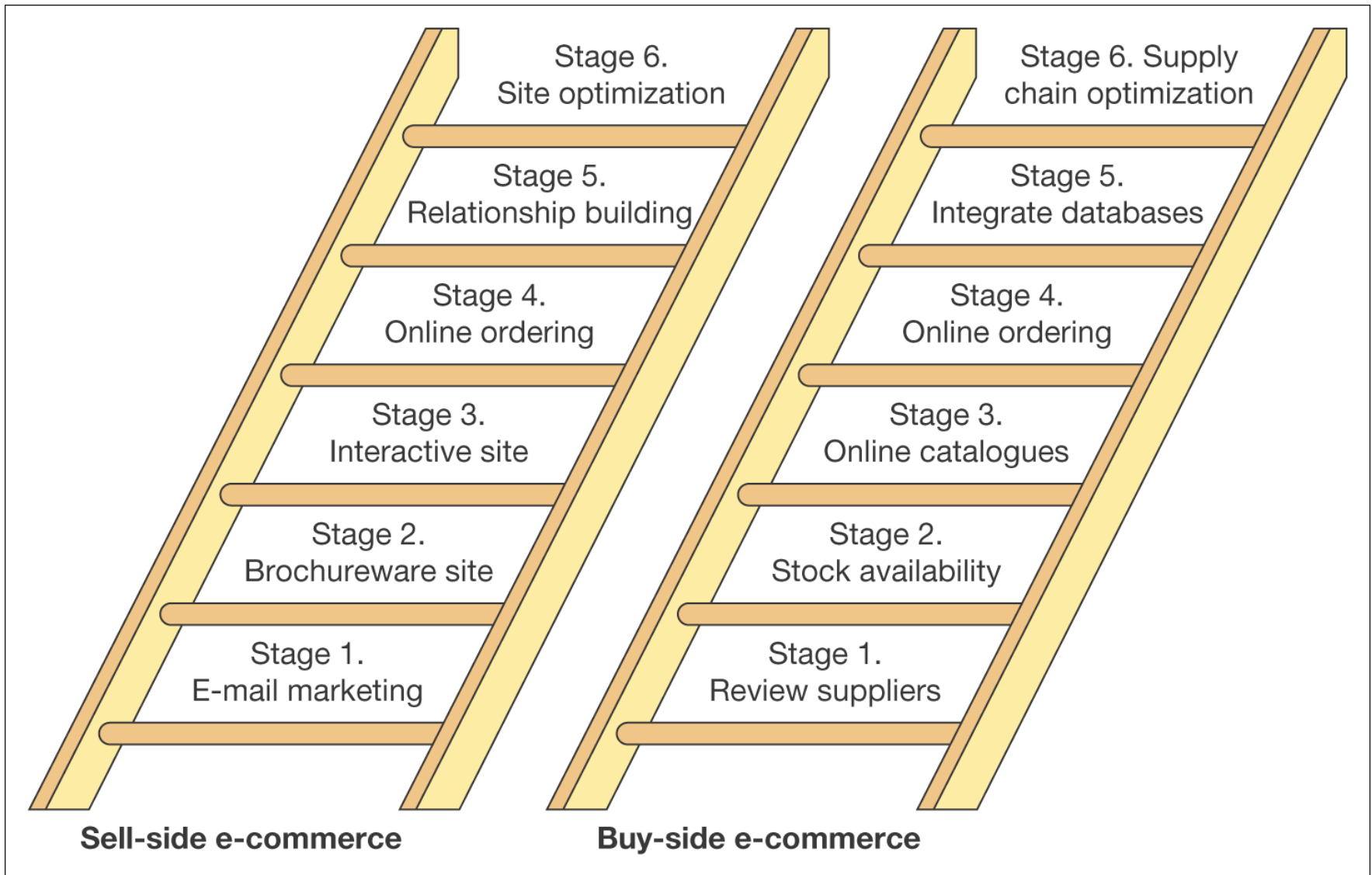


*Base: All businesses with access to the Internet, weighted by number of employees*

**Figure 1.12 Barriers to development of online technologies**  
**Source: DTI (2002)**

# A simple stage model for buy-side and sell-side e-commerce

- **An example** of a basic stage model reviewing capabilities for **sell-side and buy-side e-commerce is shown in (Figure 1.13)** .This shows how companies will introduce more complex technologies and extend the range of processes which are e-business-enabled.



**Figure 1.13 A simple stage model for buy-side and sell-side e-commerce**

# Variation in different online activities by gender

One **example** of demand analysis is popularity or adoption rates for different online services. The range of different ways in which consumers use the Internet to research or transact is shown in **(Figure 1.14)** .

You can see that **male and female** usage of the Internet for different activities is now very similar, but with downloading of different types of digital content generally more popular amongst males.

# **Barriers to consumer Internet adoption**

An indication of some of the barriers to using the Internet, in particular for consumer purchases, is clear from a survey (Booz Allen Hamilton, 2002) of perceptions in different countries.

- **It noted that consumer barriers to adoption of the Internet included:**
  - No perceived benefit
  - Lack of trust
  - Security problems
  - Lack of skills
  - Cost.

This lack of demand for Internet services from this group needs to be taken into account when forecasting future demand



## E-Marketplace Platforms

On the other hand, an e-marketplace is an online platform that connects buyers and sellers, allowing third-party sellers to market and sell their products on the platform and invoice the customer for a purchase directly. It is a segment of e-commerce in which the marketplace owner does not own the inventory or invoice the customer for a purchase. Rather, the e-marketplace serves to present other sellers' inventory to a consumer and facilitate a transaction.

Amazon and eBay were among the first e-marketplaces, birthed in the mid-1990s when the internet was gaining mainstream traction. In today's digital-first world, e-marketplaces are disrupting the e-commerce landscape, with Amazon at the forefront. **Amazon and Walmart**, specifically, are examples of hybrid e-marketplaces, as they offer their own products and products of other brands and third-party sellers.

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# What is mobile commerce?

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Mobile commerce is defined as the use of wireless devices like mobile phones or tablets to perform commercial activities, including:

- Product sales and purchases
- Online transactions
- Bill payment
- Online banking

## Mobile commerce advantages and disadvantages

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Understanding the advantages and disadvantages of mobile commerce is an integral part of critical thinking to see the aspects that can turn challenges into opportunities.

### **M-commerce pros**

#### **Wide coverage**

With an increasingly large and dominant user base, m-commerce expands potential sales opportunities by connecting with them online via mobile devices.

## **Insightful customer data**

Mobile commerce can collect consumer data and gain better insights into the customer journey. With brick-and-mortar retail, the customers come to the store, make a purchase, and leave. Very few details are noted and saved for statistics and analysis, like why they buy.

With mobile commerce, businesses connect with your customers from the moment they visit your stores, consider the products, and make a purchase. These are all valuable signals, from purchase intent to an order.

## **Right timing**

Mobile commerce allows businesses to reach customers at the right time, rather than every time. Ad technology based on demographics or geographies can help you connect with customers in the moment before they decide to make a purchase, increasing the likelihood of completing a purchase.

## **Fast browsing and transactions**

Time is money, so businesses look for ways to help customers get a faster and more convenient buying experience. Offering faster transactions to your customers is the biggest benefit and one of the driving forces behind the growth of mobile commerce.

With mobile commerce, shopping applications have faster processing speed than traditional websites. Or if you can't invest to build apps yet, you can also consider an advanced technology called PWA storefront that turns your website into an app-like interface with outstanding features, including:

- Easy installation
- Add to home screen
- Push notifications
- Full responsiveness
- Offline work mode
- Self-updates
- Security



## **M-commerce cons**

### **Highly competitive marketplace**

In recent years, many companies have shifted their focus to investment and success in mobile commerce. If you start today, you'll meet thousands of existing competitors along the way. As a store owner, you need to find a clearly targeted market or a niche market to have a competitive advantage.

### **Ad fraud risk**

Ad fraud is always the biggest prejudice in mobile commerce. Meanwhile, the majority of businesses are not well prepared to deal with this risk. According to [HuffPost](#), more than 60% of marketers confess that they don't have any preparation to block out fraud on mobile marketing.

Businesses should ensure their compliance with [MRC](#) (Media Rating Council) and [TAG](#) (Trustworthy Accountability Group) standards. This is the first step to showing your customers that you are aware of mobile ad fraud and are working to take steps to head off it.

# 10 Biggest Ecommerce Challenges in 2021 & Solutions to solve them

## 1. Cyber & Data Security

When it comes to eCommerce, one of the biggest challenges faced is security breaches. There is a lot of information/data that is involved while dealing with eCommerce and a technical issue with data can cause severe damage to the retailer's daily operations as well as brand image.

**Solution:** Be vigilant and always back up your data. Post that, you can install security plugins onto your website to prevent it from getting hacked. There are several plugins out there, pick one that works best for your eCommerce website.

## 2. Online Identity Verification

When a shopper visits an eCommerce site, how would the retailer know if the person is who they say they are? Is the shopper entering accurate information? Is the shopper genuinely interested in the eCommerce products?

If you do not have the accurate details or information, how do you proceed? Well, it does become tricky. The solution would be to invest in *online identity verification*.

**Solution:** There are different ways to incorporate online identity verification. Some examples include biometrics, AI, single sign on, one time password, two-factor authentication and so on.

### 3. Attracting the Perfect Customer

Shoppers have a myriad of options to choose from these days. If they are looking to buy a handbag, they do some thorough research before finalizing on one. If shoppers have several options, how do you make sure they pick you? How do you go about finding that perfect customer that wants your product, at your rate and to the places you can ship?

**Solution:** Partner with companies that help you target your customers. Digital marketing is preferred over traditional marketing because they can target your ideal customer. While this might not happen overnight, with A/B testing, finetuning and analysis – your products could be showing up to potential customers on different social media platforms.

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## 4. Customer Experience

Customer experience or user experience is key to a successful eCommerce website. Shoppers expect a similar if not same experience as one they would get in a brick and mortar store. The flow of the website, the segmentation of the website and the retail personalization of products based on the shopper's preferences are imperative.

**Solution:** There are several ways to improve the user experience. The most important would be to have a clean and simple website so that shoppers can navigate through easily. The next point would be to have clear CTAs (call to action) so that the shopper knows exactly what to do. Here is a post that shows you 10 ways to improve user experience.

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## 5. Customer Loyalty

Here are two facts that show the importance of customer loyalty: (a) It can cost up to 5 times more to acquire a new customer than retaining an existing one and (b) the success rate of selling to a current customer is 60-70% compared to only 5-20% success rate of selling to a new customer.

The above two facts are testament to how important customer retention or loyalty is. Once a customer makes a purchase or utilizes a service from a retailer, they have to make sure that they keep this customer for life. But how is this possible?

**Solution:** These are a few different methods that can be used to retain customers. The first would be to have excellent customer service – a customer is happy to have purchased a great product, but they are ecstatic when the customer service is

## 6. Converting Shoppers into Paying Customers

One of the biggest ecommerce challenges is to convert visitors into paying customers. An eCommerce website might have a lot of traffic, a lot of clicks and impressions but they aren't making the sales they anticipated. What can they do to get more sales?

**Solution:** The first and foremost would be to understand why your shoppers aren't converting – are you targeting the right audience? Is your mobile website working seamlessly? Do your online platforms face technical challenges all the time? Does your customer base trust you? Do you personalize your website for your customers? Always think from a shopper's perspective and see if you are doing everything possible to make them paying customers.

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## **7. Competition & Competitor Analysis**

Have you heard of a Jam Experiment? Well it has quite a controversial conclusion, which is – the less you offer customers the more likely they are to actually purchase something. A lot of people these days are fatigued by all the options that are out there. A simple search for something like headphones will give you thousands of options – how does one make a choice?

From a retailer's standpoint, how do they stand out from the crowd? How do they bring shoppers to their website, instead of buying a similar product from their competitors?



## 8. Price & Shipping

We have all heard of customers that prefer to purchase products from places that have free shipping. eCommerce giants like Amazon provide such attractive shipping deals that customers seldom want to look at other places. How does one bring down costs for shipping?

**Solution:** While all eCommerce sites cannot completely get rid of shipping costs, always look to find options that work for your customer base. Would a subscription reduce the cost of shipping? Would a certain time of the month give them lower shipping costs? Or is there a carrier that is reliable but offers a cheaper rate? Be sure to do your research and find the best possible solution for your shoppers.

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## 9. Product Return & Refund Policies

According to ComScore, more than 60% of online shoppers say that they look at a retailer's return policy before making a purchase. When an eCommerce site says "no returns or refunds" it makes a shopper nervous and less likely to trust the retailer. When shopping online, customers want the flexibility of making a mistake that doesn't cost them.

**Solution:** Customer satisfaction is the most important factor for any retailer. Therefore having a flexible return and refund policy not only helps with customer satisfaction with it also helps with customers making purchases without being nervous.

## eCommerce Challenges

Choosing the right technology or partner will make or break your business. A retailer's growth might be stunted because their technology is limiting them or because they have hired the wrong agency to help them manage their projects.

There are a lot of aspects that need to be in place for a successful retail business, but a good technology foundation is crucial.

**Solution:** Partner with Vue.ai, a unified Visual A.I. platform that is redesigning the future of retail commerce **to fix all your eCommerce challenges**. Using image recognition and data science, Vue helps retailers generate product, and customer intelligence, and combine these with market insights, to power growth.

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Globalization and e-commerce are two concepts that almost go hand in hand. E-Commerce has been one of the primary technological drivers of globalization. In this lesson, we'll discuss a variety of issues relating to global e-commerce.

## Spanning the Globe

Walk around your house and pick up a few random items. Where were they made? China? Mexico? How did you end up with something from halfway around the world? Are they things you ordered over the Internet?

**Globalization** is not a new concept; for many centuries, man has sought to expand his influence and trade across the oceans and continents. What has changed in the last twenty or so years is the role of information technology and the integration of world economies. Improved connectivity and the rise of the Internet as a global network has led to a boom in **e-commerce**, financial transactions taking place over the Internet.

## Issues of E-Commerce

The noted author, Thomas Friedman, has said that today globalization is "farther, faster, cheaper, and deeper" than before. As with any complex issue, there are a lot moving parts within the realm of global e-commerce. Let's address a few of them here.