

CHAPTER 1

Introduction to digital business

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Learning outcomes

After completing this chapter, the reader should be able to:

- Define the meaning and scope of digital business and the difference between digital business and e-commerce
- Summarise the main reasons for becoming a digital business and barriers that may restrict it
- Outline the ongoing business challenges of managing digital business in an organisation, particularly tech start-ups

Management issues

The issues for managers raised in this chapter include:

- How do we explain the scope and implications of digital business to staff?
- What is the full range of benefits of introducing digital business and what are the risks?
- How do we evaluate our current digital business capabilities?

Chapter at a glance

Main topics

- The impact of digital communications on traditional businesses
- What is the difference between digital business and an e-commerce business?
- Digital business opportunities
- Business adoption of technology by digital business stakeholders
- Barriers to consumer digital adoption

Case studies

- 1.1 The Uber business model
- 1.2 Amazon – the world's largest digital business?

Suggested teaching and learning approaches

Notes on use of Figures in slides:

Please refer to the slides prepared for each chapter when reading this section. The headings below are intended to mirror those in the text to assist cross referencing.

Slides within the deck focus on line and block diagrams to help lecturers explain and discuss issues.

We have not included the screen capture slides since it is clearer for lecturers to visit the example sites or others during lectures.

The opportunities of digital business?

Start by generating interest in the digital innovation made possible through familiar consumer facing examples of start-up brands in Table 1.1. Ask students about other innovative digital businesses that have been launched which aren't on the list.

The challenges of digital business management

These can be discussed by asking students to read the Uber Case study 1.1 and asking them to think of the challenges of a new digital business disrupting a traditional business environment.

Typical issues to discuss with students include:

- The rate of innovation – techniques like social media and search engine marketing, as well as mobile marketing, evolve each month so companies can lose market share
- Reviewing new business and revenue models

- Reaching potential customers given fragmentation of media and new marketing techniques introduced in this chapter
- Older traditional large organisations losing market share to new digital competitors who are more agile
- The need for new processes, people and tools to manage digital technology
- Reviewing the return on investment of new initiatives.

The impact of digital communications on traditional businesses

Lecturers can introduce with the Andy Grove quote to show how impact varies by business type or review changes in communications and behaviour based on the definitions about:

- ZMOT
- Inbound marketing
- Content marketing
- Social media marketing

(See the social media marketing radar for the range of options)

- Mobile communications (all of the techniques above can be delivered via smartphone or tablets)

These concepts can be introduced in the context of the start-up businesses covered in Table 1.1 and referencing Uber, Case study 1.1.

Also review operational risks using a 'blank slide' encouraging students to fill in the gaps:

- Poor site availability or performance
- Products unavailable although advertised
- Poor experience or service – negative reviews
- Managing security and data privacy of customers.

What is the difference between digital business and e-commerce?

Use Figures 1.4 and 1.5 to agree differences between e-commerce and digital business with students. This works well to highlight the misconception that digital business simply means e-commerce.

It is also useful to ask different groups to identify the different types of digital presence defined in Activity 1.3.

In an interactive lecture, we recommend visiting examples of each of the sites below and then indicate which of the five categories of online presence are their primary and secondary focus:

1. Transactional e-commerce site
2. Services-oriented relationship-building website
3. Brand building site
4. Portal or media site
5. Social network.

Of course, these aren't mutually exclusive – most sites will have elements of all of these.

Digital marketing

Introduce the different type of Paid-Owned and Earned media (Figure 1.7) and the six key types of digital communications techniques (Figure 1.8) which need prioritisation of investment and management to achieve digital visibility for a brand.

To introduce these tools, ask students to match against the definition of the terms.

Figure 1.10 is the classic categorisation of sites by audiences with examples. The Craigslist and Gumtree case studies (Mini case study 1.3) give examples of applying these digital media to build a brand.

Digital business opportunities

Box 1.1 introduces the Reach–Richness–Affiliation model for success.

Drivers of digital technology adoption

Consumer adoption (listing drivers and barriers to adoption) can be discussed using the boxes at the end of the slide deck. Ask students to suggest drivers and barriers and how businesses can persuade businesses to overcome these.

Barriers to the adoption of technology by digital business stakeholders

Consumer adoption (listing drivers and barriers to adoption) should also be discussed, perhaps through taking an example such as grocery retail e-commerce and relating this to students' adoption and Table 1.3 and Figure 1.12.

Case studies

Case Study 1.1 The Uber business model

Questions

1. **As an investor in a digital business such as Uber, which financial and customer-related metrics would you use to assess and benchmark the current business success and future growth potential of the company?**

From comments in the case study, the main revenue model a proportion of the price of a ride.

Give thought to the issue around surge pricing, different pricing in different countries and different kinds of vehicle/ride on offer.

A basic answer will provide:

- Understanding of financial metrics. Revenue, costs and growth.
- Clear framework of different metrics types – efficiency vs. effectiveness.
- Customer engagement and satisfaction metrics.

A more competent answer will reference elements of profitability e.g. cut of revenue, marketing costs, infrastructure and operating costs, operational costs of managing business.

2. Complete a situation analysis for Uber focusing on an assessment of the main business risks which could damage the future growth potential of the digital business.

Typical risks are:

- Legal factors
- Driver and competitor driver action
- Autonomous private vehicles
- Non-Uber ride-sharing, and ride-sharing apps
- Other similar businesses that are more localised

Students could be encouraged to create a SWOT analysis. The likely probability and impact of each risk should also be reviewed.

3. For the main business risks to Uber identified in Question 2, suggest approaches the company could use to minimise these risks.

- ‘An Uber for.....’ – review different forms of activity that Uber could move into (e.g. Uber Eats).
- New entrants – developing proposition to lock-in existing users, forming partnerships to approach new audiences.
- Share ownership amongst drivers

Case Study 1.2 Amazon – the world's largest digital business?

Questions

Assess how the characteristics of the digital business together with strategic decisions taken by its management team have supported Amazon's continued growth.

Students should be guided as to whether they review the whole Amazon business or one of the core sources of revenue.

It is best to divide this question into two parts.

1. How the characteristics of digital business have supported Amazon's growth.

The particular characteristics of digital business compared to traditional business that are important to Amazon are straightforward:

- Change from a one-to-many engagement model to one-to-one or many-to-many engagement model.
- The ability to create user-generated reviews is also related to the one-to-one aspect. This is important as well.
- From push to pull – Amazon offerings are visible within search engines.
- From monologue to dialogue (a two-way information exchange for enquiries about products facilitated by email).
- Ratings for products are important to generate trust (although there are methods of falsifying these).
- Community – the sense that Amazon customers are part of a community and additionally are bypassing traditional retail channels will be important from some users.

2. How strategic decisions have supported growth.

As with other cases based on SEC filings that is, United States Securities and Exchange Commission submission, this case is useful for showing how growth is dependent not only on exploiting the right opportunities but also is about managing risks successfully.

Students may structure strategic decisions in different ways according to the level of course they are following, but since the case is early on in the book, they could be advised to simply look for success factors. Alternatively, if they have completed Chapter 5 on Digital Business Strategy and Chapter 7 on Digital Marketing, then these provide alternative frameworks.

Strategic success factors that students may mention include the following:

- Branding – a distinctive brand.
- First mover advantage – gaining a critical mass through the foresight of the owner.
- Security and fraud – realising that this is important to its reputation Amazon has developed systems to manage this, thereby investing in managing this and controlling PR related to this.
- Partnerships and acquisitions, which fit relate well to the service, that is, Alexa (the data business not the voice agent) and IMDB.
- Communication of value proposition – the case describes how Amazon explains this through its mission.
- Revenue model – the different sources are extremely diverse. How does this help secure Amazon's future?

- Global expansion – Amazon's global proposition makes it a familiar offering in different parts of the world.

Introduction to how to use Questions for Debate in classes

The text below shows how the debate can be introduced for students. This example is taken from an approach Dave Chaffey developed at the University of Derby. Students were assessed on their presentations and contribution.

Two debates each week will take place during normal tutorial sessions. Each debate will be argued between two groups of two or three students.

For each debate, the format will be as follows:

- An initial vote will be taken amongst the non-presenting members of the tutorial group for an initial benchmark.
- The team presenting the case FOR the statement will make a 10-minute presentation supporting the topic statement.
- Each team in the opening part of their presentation should take care to define terms used in the topic in question.
- The team presenting the case AGAINST the statement will then make an appropriate 10-minute presentation.
- The teams presenting each side of the case question the other in turn for 5 minutes each.
- Questions and discussions involving the whole tutorial group will follow for 10 minutes.
- FOR followed by AGAINST, each to make a short summary of their key points and observations.
- Final vote to take place FOR and AGAINST the statement – this will reflect the success of the various arguments presented.
- Remember tutors do not play a role here and students must take ownership of classroom management, etc.

Assessment

Assessment will be made by the tutor of each presenter's performance. Criteria will include the following:

- Strength of argument
- Use of current Information System (IS) industry examples
- Use of academic references
- Quality of presentation (visual and verbal)

- Response to questions and counter arguments
- Accuracy of observations and conclusions
- Discretionary mark for involvement in other debates.

The voting will not influence the marks awarded unless it is clearly the result of a poorly presented case. A 'difficult' case well-presented and defended will not be penalised even if no-one agrees with it!

Questions for debate

Debate 1.1 How new is the digital business concept?

'Digital business is just a new label – there is no distinction between the role of digital business and traditional information systems management'.

Summary of arguments for are as follows:

- The tools are the same – hardware, software and communications technology are not new – witness use of EDI (Chapter 3).
- IS strategies have always looked at portfolio of applications across the business and links with third parties and how they can be utilised for competitive advantage (Chapter 4).
- Control of digital business usually resides with the IT department.
- Only the largest companies tend to have specific responsibilities and departments for digital business – typically part of IS function.

Summary of arguments against are as follows:

- The emphasis is different – away from technology to how information can support business.
- The expenditure on digital business has exceeded traditional IS expenditure.
- New organisational structures and new processes have been introduced (see Chapter 4).
- Digital business is seen as a board-level issue with board-level responsibility.

Debate 1.2 Limited SME adoption of digital business

'Adoption of digital business by established SMEs is generally less than that in larger businesses. This is principally a consequence of the negative attitude of managing directors and CEOs to the business benefits of digital business'.

Summary of arguments for are as follows:

- Refer to any data you can identify which shows that SME adoption is lower than larger businesses.

- Look at the arguments presented in benchmarking data in Chapter 1 – many of these arguments show that the benefits on investment are not clear.

Summary of arguments against are as follows:

- More a matter of resources – would like to invest, but there are other priorities; not enough time.
- Depends on the type and age of business and market – technology start-ups and innovators are active adopters.
- Many customers of SMEs are themselves SMEs and adoption rates for these groups are lower (Chapter 3).

Exercises

Self-assessment questions

1. Distinguish between e-commerce and digital business.

This can best be explained by referring to different elements shown in Figure 1.2 that:

- sell-side e-commerce;
- buy-side e-commerce;
- internal use of electronic communications to support business processes.

Digital business is generally understood to include all three elements. E-commerce is commonly used to refer to either the first one or first two of these elements, but less commonly the third. Digital business is broader in scope than e-commerce.

2. Explain what is meant by buy-side and sell-side e-commerce.

Again refer to Figure 1.2. Buy-side e-commerce is using communications technology to support the upstream supply chain from procurement to inbound logistics. Sell-side refers to selling and distributing products and services from an organisation to its customers.

3. Explain the scope and benefits of social media and social commerce to an organisation of your choice.

The scope of social media can be explored using this classification described in the chapter when social media is first introduced:

1. Social networking
2. Social knowledge
3. Social sharing
4. Social news

5. Social streaming
6. Company user-generated content and community.

The benefits can be explained with regard to the customer life cycle and RACE mnemonic described later in the book, i.e.

- Reach audience – social media sharing gives ‘amplification’ of a message through sharing.
- Encourage interaction lead to lead or sale – includes interactions with share buttons, or completion of forms.
- Convert to sale – online or through traditional channels – social proof of seeing other recommendations can help here.
- Engage – develop long-term social media engagement to encourage repeat purchase. Also includes social customer-service.

4. Summarise the consumer and business adoption levels in your country. What seem to be the main barriers to adoption?

Do a search for ‘digital marketing trends’ for the year you are in or the next year to come. See if it’s possible to identify from different sources common factors that might stop adoption of new trends.

5. Outline the reasons why a business may wish to adopt e-commerce.

The Six Cs are a good framework here:

- Cost reduction – less use of physical resources and staff.
- New capability – for example, to sell into an overseas market.
- Improved communication – internal and external.
- Control – better visibility/information for managers of trading relationships.
- Customer service – more detailed information, faster response can be provided 24 hours, and 7 days a week.
- Competitive advantage – any of the above.
- Factors may provide this, but it is likely to be short-lived.

6. What are the main differences between business-to-business and business-to-consumer e-commerce?

Please refer to the table below for a summary of the differences. Note that this table was originally included in earlier editions of the book.

Table: Differences in characteristics of B2C and B2B trading

Characteristic	B2C	B2B
Proportion of adopters with access	Low to medium	High to very high
Complexity of buying decisions	Relatively simple – individual and influencers	More complex – buying process involves users, specifiers, buyers, etc.
Channel	Relatively simple – direct or from retailer	More complex, direct or via wholesaler, agent or distributor
Purchasing characteristics	Low value, high volume or high value, low volume. May be high involvement	Similar volume/value. May be high involvement. Repeat orders (rebuys) more common
Product characteristic	Often standardised items	Standardised items or bespoke for sale

7. Summarise the impact of the introduction of digital business on different aspects of an organisation.

The McKinsey 7S model is a useful framework for looking at the different aspects of a business that may be affected by the move to digital business.

- Strategy – new strategic responses are required.
- Structure – new structures and responsibilities may be required.
- Systems – new information systems and new processes will be required.
- Style – less likely to change, but some organisational styles are more responsive to change.
- Staff – new responsibilities.
- Skills – new skills.
- Superordinate goals – higher level aims may be updated depending on the business.

8. What is the relevance of intermediary or influencer sites to a B2C company?

Companies must think about whether they are represented on such intermediaries. If they are not, they may lose potential business. They also need to consider the positioning of their products relative to competitors who also use the intermediary.

Have a look at comparison sites for insurance and holiday booking. Have a look at marketplaces where Google effectively operates as an intermediary.

Essay and discussion questions

- 1. Suggest how an organisation can evaluate the impact of digital technology on its business. Is it a passing fad or does it have a significant impact?**

Suggested approach:

This is covered by the situation analysis later in the book.

Situation analysis should concentrate on the micro-environment including demand for digital services from customers. Services should be considered across the buying cycle from pre-purchase (supplier and product selection), purchase and post-purchase support. Demand levels can be assessed by reviewing figures of percentage of customers with access and those who are prepared to use it for information gathering and purchase. Competitor activity can also be benchmarked. Macro-environment SLEPT factors should also be reviewed, but they are not the main thrust of the question.

Assessment of whether the impact is transitory or permanent can be done through developing projections of the online revenue and promotion contribution.

- 2. Explain the concepts of social media and social commerce and how they can assist organisations in reaching their objectives.**

The scope of social media can be explored using this classification described in the chapter when social media is first introduced:

1. Social networking
2. Social knowledge
3. Social sharing
4. Social news
5. Social streaming
6. Company user-generated content and community.

The benefits can be explained with regard to the customer life cycle objectives of business using the RACE mnemonic described later in the book, i.e.

- Reach audience – social media sharing gives ‘amplification’ of a message through sharing.
- Encourage interaction lead to lead or sale – includes interactions with share buttons, or completion of forms.
- Convert to sale – online or through traditional channels – social proof of seeing other recommendations can help here.
- Engage – Develop long-term social media engagement to encourage repeat purchase. Also includes social customer-service.

3. Similar benefits and barriers exist for the adoption of sell-side e-commerce for both B2B and B2C organisations. Discuss.

It is recommended that students review the common benefits initially from the point of view of the business using e-commerce to sell services. Then look at exception by business type.

Common benefits:

- Wider, potentially global reach
- Opportunities to improve brand preference through content and services
- Lower cost of reach (e.g. through organic search visibility)
- Lower cost of service (self-service).

Barriers:

- Organisational changes needed
- Cost of set up

With B2B organisation, there are more potential channel conflicts if someone is already selling a product.

4. Evaluate how social media marketing techniques can be applied within an organisation and with its stakeholders.

This question is similar to Question 2 in this section since it asks how social media can be applied across a business. The customer life cycle of RACE is a suitable technique that can be used to review how social media can be applied. This question also looks at the organisational issues of managing social media, so the McKinsey 7S framework introduced at the end of the chapter is suitable to structure the answer around.

5. The digital presence of a company has similar aims regardless of the sector in which the company operates.

This question can be tackled in different ways, e.g. functions by position in customer life cycle/conversion funnel, e.g. RACE.

Alternatively, but similarly, the answer can review the opportunities by methods of enhancing the brand:

- Brand awareness, e.g. better visibility in search engines and social media
- Brand familiarity – by explaining about the companies, products and services
- Brand favourability – by providing free value-added services
- Brand purchase intent – using the website to prompt sale through online or offline channels, e.g. through promotions or communications (social or email marketing).

The answer can be tackled for different platforms such as desktop site, mobile site.

Examination questions

1. Explain the relationship between the concepts of e-commerce and digital business.

E-commerce is generally understood to be a sub-set of digital business. E-commerce refers to financial and non-financial transactions between organisations. These transactions are often considered in the context of a supplier organisation distributing and selling its product to consumers. Digital business includes transactions from a buy-side and sell-side e-commerce perspective and also the use of communications technology to improve internal process efficiencies.

2. Distinguish between buy-side and sell-side e-commerce and give an example of the application of each.

Buy-side e-commerce refers to electronic transactions concerned with the purchase and inbound logistics of goods such as a supermarket coordinating purchases from its suppliers. Sell-side e-commerce concerns transactions related to the sale and distribution of goods such as a supermarket selling direct to its customers.

3. Summarise three reasons why a company may wish to introduce e-commerce.

- Cost reduction in purchasing or selling through less human involvement and lower resource costs.
- Increased efficiency enabling faster cycle times for purchasing or sale of goods.
- Capability to sell to overseas markets or previously untargeted markets.

4. Describe three of the main barriers to adoption of e-commerce by consumers and suggest how a company could counter these.

- Security fears – fraudulent use of credit cards.
- Privacy fears – personal data held by companies or criminals.
- Cost of access devices and online costs.
- Lack of perceived need.

Education and reassurance via the website and offline communications can counter these.

5. Outline the internal changes a company may need to make when introducing digital business.

No suggested answer.

6. Summarise the benefits of applying social media marketing approaches to an organisation.

- Ability to monitor and facilitate C2C interaction and participation.
- Encourages positive engagement with a company and its brands.
- Can be used as a traditional broadcast medium.

7. Name three risks for a company that introduces buy-side e-commerce.

- Payback period may be long due to cost of implementation.
- Maverick purchasing (Chapter 7).
- Some purchasing staff may need to be redeployed or made redundant.
- Security risks of outside organisations accessing company data.

8. Name three risks for a company that introduces sell-side e-commerce.

- Payback period may be long due to cost of implementation.
- High cost of sales due to fraudulent use of credit cards.
- Security risks of outside organisations accessing company data.

Activity answers

Activity 1.1 Innovative digital businesses

1. Think about the innovation that you have witnessed during the time you have used a mobile device. What would you say are the main businesses that work in your country that have changed the way we spend our time or buy online?

Not applicable – depends on student opinion and country.

2. We talk about these businesses being ‘successful’, but what is success for a start-up business? And when does a start-up stop being a start-up?

For established businesses, success is stable or growing profitability, but start-ups will rarely be able to achieve this. What becomes important are:

- Unique visitors – number of individuals per month.
- Engagement or stickiness – page views per visitor (useful for advertising) and percentage of active or returning visitors (essential for a social network such as Facebook).

- Monetisation – is it possible to gain revenue, for example, ad revenue from visitors.
- Growth.
- Publicity – this will help fuel the other success measures given above.

3. What do these services have in common that you think has made them successful?

- Many global digital businesses come from the United States, so the funding and publicity they can achieve is significant.
- You will notice that many of these digital businesses were originally developed in the United States, with the majority now used around the world. But in each country, similar types of businesses have evolved, for example, Ali Baba and Ola.
- Meet a fundamental consumer need.
- Clear revenue model.
- Memorable branding and experience.
- Initially they had a straightforward proposition – offering one service.
- Often they were first-movers.
- Notable that many have taken several years before becoming widely known and used.

Activity 1.2 The most popular apps today

- 1. Identify the most popular categories of apps from the top 10 or 20 most popular ones, including browser applications such as Google's Chrome or Apple's Safari.**

No suggested answer.

- 2. Discuss the opportunities for companies to promote their brands or services using apps in comparison with mobile sites delivered through web browsers.**

No suggested answer.

Activity 1.3 Understanding different types of digital presence

Review the popularity of the different site types in your country or globally.

Visit each of the sites below and then indicate which of the five categories of digital presence are their primary and secondary focus:

1. Transactional e-commerce site
2. Services-oriented relationship-building website
3. Brand-building site

4. Portal or media site
5. Social network.

You should also indicate their secondary focus in terms of these four site types.

1. *Transactional e-commerce site*

Bank, for example, HSBC (www.hsbc.com), secondary purpose is relationship-building or brand-building.

Travel company, Thomas Cook (www.thomascook.com), secondary purpose as for HSBC online retailer such as Amazon (www.amazon.com). Secondary objectives are to be a portal.

2. *Services-oriented relationship-building website*

Management consultants such as PricewaterhouseCooper (www.pwcglobal.com) and Accenture (www.accenture.com). Secondary aim – brand-building.

An end-product manufacturer such as Vauxhall (www.vauxhall.co.uk). Secondary objectives are building brand and referring leads or transactions to offline sources.

3. *Brand-building site*

Lingerie manufacturer, for example, Gossard (www.gossard.com). Secondary objectives are linking to transactional sites.

Beverage manufacturers, for example, Tango (www.tango.com), Guinness (www.guinness.com). Secondary objectives are supporting relationship building.

4. *Portal or media site*

- Business site: Silicon (www.silicon.com) (secondary transactional site for subscriptions).
- Consumer site Yahoo! (www.yahoo.com). Yahoo! is more than a search engine – it is an online portal. Secondary objectives are encouraging transactions.