

CIMA

Subject E2

Managing Performance

Study Text



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Introduction

How to use the Materials

These official CIMA learning materials have been carefully designed to make your learning experience as easy as possible and to give you the best chances of success in your objective tests.

The product range contains a number of features to help you in the study process. They include:

- a detailed explanation of all syllabus areas
- extensive 'practical' materials
- generous question practice, together with full solutions.

This Study Text has been designed with the needs of home study and distance learning candidates in mind. Such students require very full coverage of the syllabus topics, and also the facility to undertake extensive question practice. However, the Study Text is also ideal for fully taught courses.

The main body of the text is divided into a number of chapters, each of which is organised on the following pattern:

- **Detailed learning outcomes.** These describe the knowledge expected after your studies of the chapter are complete. You should assimilate these before beginning detailed work on the chapter, so that you can appreciate where your studies are leading.
- **Step-by-step topic coverage.** This is the heart of each chapter, containing detailed explanatory text supported where appropriate by worked examples and exercises. You should work carefully through this section, ensuring that you understand the material being explained and can tackle the examples and exercises successfully. Remember that in many cases knowledge is cumulative: if you fail to digest earlier material thoroughly, you may struggle to understand later chapters.
- **Activities.** Some chapters are illustrated by more practical elements, such as comments and questions designed to stimulate discussion.
- **Question practice.** The text contains three styles of question:
 - Exam-style objective test questions (OTQs).
 - 'Integration' questions – these test your ability to understand topics within a wider context. This is particularly important with calculations where OTQs may focus on just one element but an integration question tackles the full calculation, just as you would be expected to do in the workplace.

- ‘Case’ style questions – these test your ability to analyse and discuss issues in greater depth, particularly focusing on scenarios that are less clear cut than in the objective tests, and thus provide excellent practice for developing the skills needed for success in the Management Level Case Study Examination.
- **Solutions.** Avoid the temptation merely to ‘audit’ the solutions provided. It is an illusion to think that this provides the same benefits as you would gain from a serious attempt of your own. However, if you are struggling to get started on a question you should read the introductory guidance provided at the beginning of the solution, where provided, and then make your own attempt before referring back to the full solution.

If you work conscientiously through this Official CIMA Study Text according to the guidelines above you will be giving yourself an excellent chance of success in your objective tests. Good luck with your studies!

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Our Quality Co-ordinator will work with our technical team to verify the error and take action to ensure it is corrected in future editions.

Icon explanations



Definition – These sections explain important areas of knowledge which must be understood and reproduced in an assessment environment.



Key point – Identifies topics which are key to success and are often examined.



Supplementary reading – These sections will help to provide a deeper understanding of core areas. The supplementary reading is **NOT** optional reading. It is vital to provide you with the breadth of knowledge you will need to address the wide range of topics within your syllabus that could feature in an assessment question. **Reference to this text is vital when self-studying.**



Test your understanding – Following key points and definitions are exercises which give the opportunity to assess the understanding of these core areas.



Illustration – To help develop an understanding of particular topics. The illustrative examples are useful in preparing for the Test your understanding exercises.

Study technique

Passing exams is partly a matter of intellectual ability, but however accomplished you are in that respect you can improve your chances significantly by the use of appropriate study and revision techniques. In this section we briefly outline some tips for effective study during the earlier stages of your approach to the objective tests. We also mention some techniques that you will find useful at the revision stage.

Planning

To begin with, formal planning is essential to get the best return from the time you spend studying. Estimate how much time in total you are going to need for each subject you are studying. Remember that you need to allow time for revision as well as for initial study of the material.

With your study material before you, decide which chapters you are going to study in each week, and which weeks you will devote to revision and final question practice.

Prepare a written schedule summarising the above and stick to it!

It is essential to know your syllabus. As your studies progress you will become more familiar with how long it takes to cover topics in sufficient depth. Your timetable may need to be adapted to allocate enough time for the whole syllabus.

Students are advised to refer to the examination blueprints (see page P.13 for further information) and the CIMA website, www.cimaglobal.com, to ensure they are up-to-date.

The amount of space allocated to a topic in the Study Text is not a very good guide as to how long it will take you. The syllabus weighting is the better guide as to how long you should spend on a syllabus topic.

Tips for effective studying

- (1) Aim to find a quiet and undisturbed location for your study, and plan as far as possible to use the same period of time each day. Getting into a routine helps to avoid wasting time. Make sure that you have all the materials you need before you begin so as to minimise interruptions.
- (2) Store all your materials in one place, so that you do not waste time searching for items every time you want to begin studying. If you have to pack everything away after each study period, keep your study materials in a box, or even a suitcase, which will not be disturbed until the next time.
- (3) Limit distractions. To make the most effective use of your study periods you should be able to apply total concentration, so turn off all entertainment equipment, set your phones to message mode, and put up your 'do not disturb' sign.
- (4) Your timetable will tell you which topic to study. However, before diving in and becoming engrossed in the finer points, make sure you have an overall picture of all the areas that need to be covered by the end of that session. After an hour, allow yourself a short break and move away from your Study Text. With experience, you will learn to assess the pace you need to work at. Each study session should focus on component learning outcomes – the basis for all questions.
- (5) Work carefully through a chapter, making notes as you go. When you have covered a suitable amount of material, vary the pattern by attempting a practice question. When you have finished your attempt, make notes of any mistakes you made, or any areas that you failed to cover or covered more briefly. Be aware that all component learning outcomes will be tested in each examination.
- (6) Make notes as you study, and discover the techniques that work best for you. Your notes may be in the form of lists, bullet points, diagrams, summaries, 'mind maps', or the written word, but remember that you will need to refer back to them at a later date, so they must be intelligible. If you are on a taught course, make sure you highlight any issues you would like to follow up with your lecturer.
- (7) Organise your notes. Make sure that all your notes, calculations etc. can be effectively filed and easily retrieved later.

Progression

There are two elements of progression that we can measure: how quickly students move through individual topics within a subject; and how quickly they move from one course to the next. We know that there is an optimum for both, but it can vary from subject to subject and from student to student. However, using data and our experience of student performance over many years, we can make some generalisations.

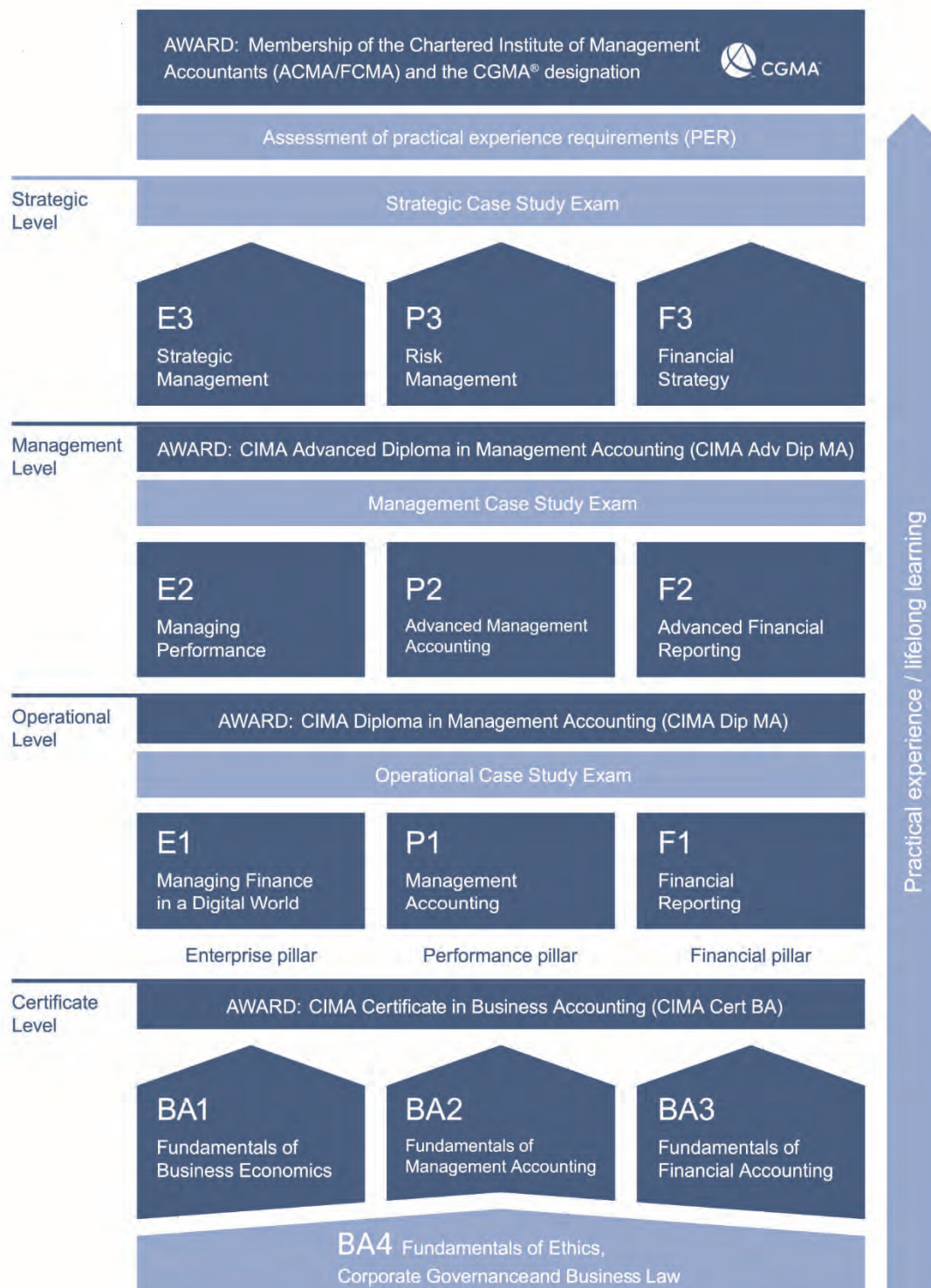
A fixed period of study set out at the start of a course with key milestones is important. This can be within a subject, for example 'I will finish this topic by 30 June', or for overall achievement, such as 'I want to be qualified by the end of next year'.

Your qualification is cumulative, as earlier papers provide a foundation for your subsequent studies, so do not allow there to be too big a gap between one subject and another. For example, E2 *Managing performance* builds on your knowledge of data use from E1 *Managing finance in a digital world* and lays the foundations for E3 *Strategic management*.

We know that exams encourage techniques that lead to some degree of short term retention, the result being that you will simply forget much of what you have already learned unless it is refreshed (look up Ebbinghaus Forgetting Curve for more details on this). This makes it more difficult as you move from one subject to another: not only will you have to learn the new subject, you will also have to relearn all the underpinning knowledge as well. This is very inefficient and slows down your overall progression which makes it more likely you may not succeed at all.

In addition, delaying your studies slows your path to qualification which can have negative impacts on your career, postponing the opportunity to apply for higher level positions and therefore higher pay.

You can use the following diagram showing the whole structure of your qualification to help you keep track of your progress. Make sure you carefully review the 2019 CIMA syllabus transition rules and seek appropriate advice if you are unsure about your progression through the qualification.



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Objective test

Objective test questions require you to choose or provide a response to a question whose correct answer is predetermined.

The most common types of objective test question you will see are:

- Multiple choice, where you have to choose the correct answer(s) from a list of possible answers. This could either be numbers or text.
- Multiple choice with more choices and answers, for example, choosing two correct answers from a list of eight possible answers. This could either be numbers or text.
- Single numeric entry, where you give your numeric answer, for example, profit is \$10,000.
- Multiple entry, where you give several numeric answers.
- True/false questions, where you state whether a statement is true or false.
- Matching pairs of text, for example, matching a technical term with the correct definition.
- Other types could be matching text with graphs and labelling graphs/diagrams.

In every chapter of this Study Text we have introduced these types of questions, but obviously we have had to label answers A, B, C etc. rather than using click boxes. For convenience, we have retained quite a few questions where an initial scenario leads to a number of sub-questions. There will be no questions of this type in the objective test.

Guidance re CIMA on-screen calculator

As part of the CIMA objective test software, candidates are now provided with a calculator. This calculator is on-screen and is available for the duration of the assessment. The calculator is available in each of the objective tests and is accessed by clicking the calculator button in the top left hand corner of the screen at any time during the assessment. Candidates are permitted to utilise personal calculators as long as they are an approved CIMA model. Authorised CIMA models are listed here: <https://www.cimaglobal.com/Studying/study-and-resources/>.

All candidates must complete a 15-minute exam tutorial before the assessment begins and will have the opportunity to familiarise themselves with the calculator and practise using it. The exam tutorial is also available online via the CIMA website.

Candidates may practise using the calculator by accessing the online exam tutorial.

Fundamentals of objective tests

The objective tests are 90-minute assessments comprising 60 compulsory questions, with one or more parts. There will be no choice and all questions should be attempted. All elements of a question must be answered correctly for the question to be marked correctly. All questions are equally weighted.

CIMA syllabus 2019 – Structure of subjects and learning outcomes

Details regarding the content of the new CIMA syllabus can be located within the CIMA 2019 professional syllabus document.

Each subject within the syllabus is divided into a number of broad syllabus topics. The topics contain one or more lead learning outcomes, related component learning outcomes and indicative knowledge content.

A learning outcome has two main purposes:

- (a) To define the skill or ability that a well prepared candidate should be able to exhibit in the examination.
- (b) To demonstrate the approach likely to be taken in examination questions.

The learning outcomes are part of a hierarchy of learning objectives. The verbs used at the beginning of each learning outcome relate to a specific learning objective, e.g.

Calculate the break-even point, profit target, margin of safety and profit/volume ratio for a single product or service.

The verb '**calculate**' indicates a level three learning objective. The following tables list the verbs that appear in the syllabus learning outcomes and examination questions.

The examination blueprints and representative task statements

CIMA have also published examination blueprints giving learners clear expectations regarding what is expected of them.

The blueprint is structured as follows:

- Exam content sections (reflecting the syllabus document)
- Lead and component outcomes (reflecting the syllabus document)
- Representative task statements.

A representative task statement is a plain English description of what a CIMA finance professional should know and be able to do.

The content and skill level determine the language and verbs used in the representative task.

CIMA will test up to the level of the task statement in the objective tests (an objective test question on a particular topic could be set at a lower level than the task statement in the blueprint).

The format of the objective test blueprints follows that of the published syllabus for the 2019 CIMA Professional Qualification.

Weightings for content sections are also included in the individual subject blueprints.

CIMA VERB HIERARCHY

CIMA place great importance on the definition of verbs in structuring objective tests. It is therefore crucial that you understand the verbs in order to appreciate the depth and breadth of a topic and the level of skill required. The objective tests will focus on levels one, two and three of the CIMA hierarchy of verbs. However, they will also test levels four and five, especially at the management and strategic levels.

Skill level	Verbs used	Definition
Level 5 Evaluation How you are expected to use your learning to evaluate, make decisions or recommendations	Advise Assess Evaluate Recommend Review	Counsel, inform or notify Evaluate or estimate the nature, ability or quality of Appraise or assess the value of Propose a course of action Assess and evaluate in order, to change if necessary
Level 4 Analysis How you are expected to analyse the detail of what you have learned	Align Analyse Communicate Compare and contrast Develop Discuss Examine Interpret Monitor Prioritise Produce	Arrange in an orderly way Examine in detail the structure of Share or exchange information Show the similarities and/or differences between Grow and expand a concept Examine in detail by argument Inspect thoroughly Translate into intelligible or familiar terms Observe and check the progress of Place in order of priority or sequence for action Create or bring into existence
Level 3 Application How you are expected to apply your knowledge	Apply Calculate Conduct Demonstrate Prepare Reconcile	Put to practical use Ascertain or reckon mathematically Organise and carry out Prove with certainty or exhibit by practical means Make or get ready for use Make or prove consistent/compatible

Skill level	Verbs used	Definition
Level 2 Comprehension What you are expected to understand	Describe Distinguish Explain Identify Illustrate	Communicate the key features of Highlight the differences between Make clear or intelligible/state the meaning or purpose of Recognise, establish or select after consideration Use an example to describe or explain something
Level 1 Knowledge What you are expected to know	List State Define Outline	Make a list of Express, fully or clearly, the details/facts of Give the exact meaning of Give a summary of

Information concerning formulae and tables will be provided via the CIMA website, www.cimaglobal.com.

SYLLABUS GRIDS

E2: Managing Performance

Mechanisms to implement decisions and manage people performance

Content weighting

Content area		Weighting
A	Business models and value creation	30%
B	Managing people performance	40%
C	Managing projects	30%
		100%

E2A: Business models and value creation

The digital world is characterised by disruptions to business models by new entrants and incumbents who seek superior performance and competitive advantage. This section covers the fundamentals of business models and how new business and operating models can be developed to improve the performance of organisations.

Lead outcome	Component outcome	Topics to be covered	Explanatory notes
1. Explain the ecosystems of organisations.	Explain: a. Markets and competition b. Society and regulation	<ul style="list-style-type: none"> • Definition of ecosystems • Participants and roles • Interactions and dynamics • Rules and governance • Technology • Risks and opportunities 	What is the nature of the ecosystem? What are its critical elements and how do they interact with each other? How do they impact the organisation?
2. Explain the elements of business models.	Explain the following a. Concept of value and the business model b. Defining value c. Creating value d. Delivering value e. Capturing and sharing value	<ul style="list-style-type: none"> • Stakeholders and relevant value • Stakeholder analysis • Resources, process, activities and people in creating value • Products, services, customer segments, channels and platforms to deliver value • Distribution of value to key stakeholders 	This section covers the concept of value from different stakeholder perspectives. It examines the various elements of the business model, their interaction with each other and their implication for costs and revenue. The section also covers the connectivity and alignment between the ecosystem and the elements of the business model.
3. Analyse new business models in digital ecosystems.	a. Analyse digital business models and their related operating models	<ul style="list-style-type: none"> • Disruption • Ways to build disruptive and resilient business models • Creating digital operating models • Types of digital operating models 	New business models have evolved to disrupt industries and their ecosystems. What are they? How have they redefined their industries?

E2B: Managing people performance

Human capital is one of the key intangible assets of organisations in an age where intangible assets are the dominant means by which organisations create and preserve value. Leadership is a crucial means for managing individual performance and the relationships between people. This section examines how different styles of leadership can be used to improve the performance of individuals so they can achieve organisational goals.

Lead outcome	Component outcome	Topics to be covered	Explanatory notes
1. Compare and contrast different types of leadership and management styles.	Compare and contrast: <ol style="list-style-type: none"> Different leadership concepts Types of leadership Leadership in different contexts 	<ul style="list-style-type: none"> Power, authority, delegation and empowerment Contingent and situational leadership Transactional and transformational leadership Leadership of virtual teams Leadership and ethics 	Leadership is key to performance management. In a digital world it is an area that is least susceptible to automation. What constitutes leadership? What are the different types of leadership? How does one choose a style of leadership that is appropriate for the particular context?
2. Analyse individual and team performance.	Analyse the following: <ol style="list-style-type: none"> Employee performance objective setting Employee appraisals Coaching and mentoring Managing workplace environment 	<ul style="list-style-type: none"> Target setting and employee alignment Employee empowerment and engagement Performance reporting and review Rewards and sanctions in managing performance Different approaches to coaching and mentoring to improve performance Diversity and equity practices Health and safety Organisational culture 	Individual performance is achieved through structured processes and approaches. These include objective setting and regular review of performance against objectives. How should these processes be developed to ensure employee engagement, empowerment and alignment? How should the work environment be configured to enhance performance? What is the role of the leader in coaching and mentoring for high performance?
3. Explain how to manage relationships.	Explain the following in the context of managing relationships: <ol style="list-style-type: none"> Building and leading teams Communications Negotiations Managing conflicts 	<ul style="list-style-type: none"> Characteristics of high-performing teams Motivating team members Communication process Digital tools for communication Negotiation process Strategies for negotiation Sources and types of conflicts Strategies for managing conflicts Leadership and ethics 	Individuals work in teams and their performance contributes to the team performance. How should teams be built and led to improve performance? How is collaboration enhanced using technology? How can conflicts be managed?

E2C: Managing projects

Projects have become pervasive means by which organisations execute their strategies. This section shows candidates how to use project management concepts and techniques to implement strategies effectively and efficiently. It is linked to capital investment decision-making that is covered in other areas of the Management Level.

Lead outcome	Component outcome	Topics to be covered	Explanatory notes
1. Describe the concepts and phases of projects.	Describe the following: a. Project objectives b. Key stages of the project life cycle c. Project control	<ul style="list-style-type: none"> • Overall project objectives • Objectives relating to time, cost and quality • Purpose and activities associated with key stages of the project life cycle 	Projects are the primary means by which many organisations implement strategic decisions. It is also how organisations ensure cross-functional collaboration. This section covers the key elements of project management. It seeks to provide both awareness and understanding of the project management process and the ability to apply tools and techniques to participate in projects and to identify, evaluate and manage project risks. The objective is not to train project managers but to equip finance people to work within projects and to lead some parts of projects.
2. Apply tools and techniques to manage projects.	Apply the following to manage projects: a. Project management tools and techniques b. Project risk management tools	<ul style="list-style-type: none"> • Workstreams • Work breakdown schedule, Gantt charts, network analysis • PERT charts • Sources and types of project risks • Scenario planning • Managing project risks • Project management software 	
3. Explain the concepts of project leadership.	Explain a. Project structure b. Roles of key project personnel c. How to manage project stakeholders	<ul style="list-style-type: none"> • Project structures and their impact on project performance • Role of project manager • Role of key members of project team • Life cycle of project teams • Managing key stakeholders of projects • Leading and motivating project team 	

The concept of business ecosystems

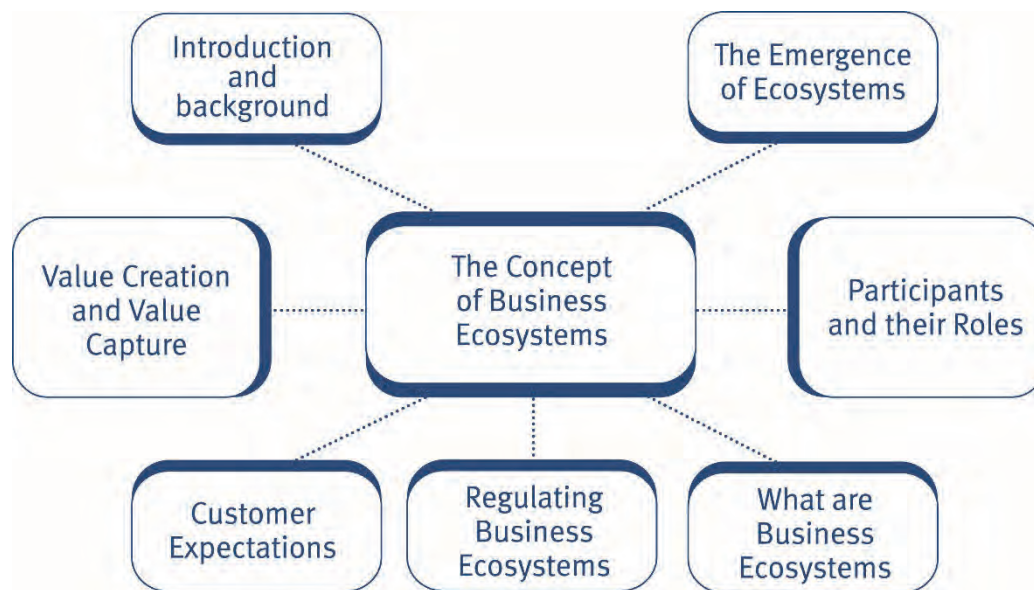
Chapter learning objectives

Lead	Component
A1: Explain the ecosystems of organisations	(a) Markets and competition (b) Society and regulation

Topics to be covered

- Definition of ecosystems
- Participants and roles
- Interactions and dynamics
- Rules and governance
- Technology
- Risks and opportunities.

1 Session content diagram



2 Introduction and background

2.1 The traditional approach to understanding markets

A “market” is a place where two parties can gather to facilitate the exchange of goods and services. The parties involved are usually buyers and sellers.

The market may be physical e.g. a retail outlet, where people meet face-to-face, or virtual e.g. online, where there is no direct physical contact between buyers and sellers.

Markets are therefore comprised of individuals or organisations who exchange products or services within an environment governed by the laws of supply and demand.

Business is however changing and the growth of technologies, such as social, mobile, analytics, cloud, 3D printing, bio- and nanotechnology are rapidly altering the competitive landscape.

Traditional methods of analysing these markets and competitive landscape may still apply but will need to be updated to reflect the disruption that these rapidly advancing technologies provide.

The changing business environments associated with these developments provide organisations with new and uncharted opportunities and threats. If they do not adapt and reflect these changes in their chosen strategies, organisations will miss what threatens to be a seismic shift in the way business is conducted. This will provide competitors who adapt quicker with the opportunity to leave the more traditional market players behind by creating new experiences for the consumer.

To create these experiences, businesses must embrace the concept, mechanics and implications of ecosystems and revise and review the methods used to analyse the competitive landscape.



More detail on the analysis of traditional markets

Traditionally the business environment has been analysed by the use of, for example, business models and tools such as **PESTLE, Porter's Five Forces and Porter's Generic Strategies**.

NB – These models are not explicitly mentioned in the E2 syllabus but the language and terms used are widely referred to in the literature on ecosystems and new business models. They are thus included for reference purposes.

PESTLE is an acronym used to help organise the analysis of the business environment into broad categories. PESTLE analysis divides the business environment into political, economic, social (and cultural), technical, legal and ecological/environmental factors. Analysing these factors can help organisations understand the opportunities and threats within their environment and this understanding is crucial in shaping the organisation's current and future strategic decisions, for example:

- **political influences and events** – legislation, government policies, changes to competition policy or import duties, etc.
- **economic influences** – a multinational company will be concerned about the international situation, while an organisation trading exclusively in one country might be more concerned with the level and timing of domestic development. Items of information relevant to marketing plans might include changes in the gross domestic product, changes in consumers' income and expenditure, and population growth.
- **social influences** – includes social, cultural or demographic factors (i.e. population shifts, age profiles, etc.) and refers to attitudes, value and beliefs held by people; also changes in lifestyles, education and health and so on.
- **technological influences** – changes in material supply, processing methods and new product development.
- **legal influences** – changes in laws and regulations affecting, for example, competition, patents, sale of goods, pollution, working regulations and industrial standards.
- **ecological/environmental influences** – includes the impact the organisation has on its external environment in terms of pollution etc.

Porter's five forces analysis

Just because a market is growing, it does not follow that it is possible to make money in it. Porter's five forces approach looks in detail at the company's competitive environment by analysing five forces. Companies must identify these forces and assess the strength of each force. The relative strength of each of these forces (high, moderate or low) will determine the **profit potential of the industry**.

- 1 **New entrants** – new entrants into a market will bring extra capacity and intensify competition and any barriers to entry which may exist.
- 2 **Rivalry amongst competitors** – existing competition and its intensity.
- 3 **Substitutes** – this threat is across industries (e.g. rail travel or bus travel or private car).
- 4 **Power of buyers** – powerful buyers can force price cuts and/or quality improvements.
- 5 **Power of suppliers** – powerful suppliers can charge higher prices, forcing down profit margins.

Porter's three generic strategies

According to Porter, there are three generic strategies' through which an organisation can generate superior competitive performance (known as generic because they are widely applicable to firms of all sizes and in all industries):

- 1 **Cost leadership** – offering products and services of the same quality as competitors but at lower prices.
- 2 **Differentiation** – changing higher prices by offering more innovative products, or products with a higher perceived quality.
- 3 **Focus** – concentrating only on a small part of the market.

The adoption of one or other of these strategies by a business unit is made on the basis of:

- an analysis of the threats and opportunities posed by forces operating in the specific industry of which the business is a part
- the general environment in which the business operates
- an assessment of the organisation's strengths and weaknesses relative to competitors.

The general idea is that the strategy to be adopted by the organisation is one which best positions the company relative to its rivals and other threats from suppliers, buyers, new entrants, substitutes and the macro environment, and to take opportunities offered by the market and general environment.

Decisions on the above questions will determine the generic strategy options for achieving competitive advantage.



Test your understanding 1

Charlton Inc. is a major manufacturer of ground-source heat-pumps. These devices allow users to extract geothermal energy from the earth, and to use that energy to heat their premises. In order to develop new products and services, Charlton has already developed mutually-beneficial relationships with its supply chain.

Charlton Inc. is currently analysing its business environment, and has realised that there might be competitive advantage to be gained by treating its environment as an 'ecosystem'. This is not something that has ever been done in Charlton's industry.

Align each of the following 'competitive forces' to match the likely effect of Charlton's new approach. You may use each effect more than once.

Force	Effect
Bargaining power of suppliers	Increase
Bargaining power of customers	Decrease
Rivalry	Remain stable
Threat of new entrants	

2.2 The impact and effect of technology on traditional markets

Organisations will always have to evolve to keep up with changing environments e.g. expectations of customers, advances in technology, environmental change etc.

Technology impacts markets through its effect on productivity, efficiency and the production and delivery of new types of goods and services. As a result it has been the source of competitive advantage for organisations and strongly influences how value is created and delivered.

Advances in technology and increasing globalisation have changed ideas about the best ways to do business. The idea of a business ecosystem is thought to help companies understand how to thrive in this rapidly changing environment.

In recent years, the rapid increase in the development of new technologies, greater openness and escalating customer expectations are converging into a fundamental business change.

Customers have begun to experience individualised and integrated experiences in areas such as telephony and are now expecting similar experiences across all their interactions, regardless of whether they are in a business-to-consumer, business-to-business or consumer-to-government context.

Most organisations are not set up to deliver these types of experiences and, as a result, are often faced with customer frustration and, at times, anger. At the same time, customers know that technology is already available to make such experiences possible—cloud, analytics, mobile and social media.

Organisations therefore face increased risk for the future success if they do not respond and increased costs (at least in the short term) to ensure that they understand the changes within key stakeholder groups and respond appropriately.



Illustration 1 – The music industry

In the music industry the accepted offering for listening to music was, for many years, vinyl and cassette format. This then changed in the 1980s to CD, before the advent of the internet enabled consumers to purchase online and download to mobile devices such as MP3 players. This then progressed further to streaming instead of outright purchase. Each successive development led to a decline in demand for the previous format (although interestingly there has been a recent resurgence in demand for how it all started, as sales of vinyl have started to grow again!).

However, since the start of the new millennium, the rate of change has grown considerably, driven by 2 principal factors: organisations are adopting technologies that enable them to transform the experience that customers can enjoy; and the expectations of the customers themselves are changing at a much faster rate. This latter point is only likely to continue, as present and future consumers, who have been born and raised in such a digital world, embrace new technologies more quickly and expect that they will be able to benefit from improvements to their lives as a result, meaning that organisations will find it much more difficult to surprise them.

Organisations will therefore need to constantly reinvent what they offer to customers if they are to satisfy their rapidly changing expectations.

Drivers of the digital revolution

If organisations are to meet these ever-changing needs, it is important that they understand the key drivers behind such change. The following are identified as key factors:

- **Mobile and internet penetration** – the increasing rate of mobile phone ownership, combined with access to the internet (with mobile beginning to exceed broadband). It is estimated that by 2025 the number of smartphone subscriptions will reach 4 billion, with much of the growth coming from emerging economies.
- **Connected devices** – the number of connected devices are expected to grow from 2.5 billion in 2009 to 30 billion by 2020. This will help enable real-time customisation of products and services.
- **Data analytics and the cloud** – the increasing use of e-commerce platforms, social networks, apps etc will result in increased need for automated data analytics.

- **User interfaces** – advances in how human beings interact with machines (e.g. through voice recognition or motion-tracking systems) means that carrying out tasks becomes quicker and more efficient for humans.
- **Global accessibility** – rising living standards in developing economies means that more and more people are gaining access to the internet and so increased connectivity.
- **Increasing urbanisation** – the growing percentage of people who live in urban as opposed to rural areas. The United Nations estimates that, from approximately 54% of the global population in 2014, this will grow to almost 60% by 2050.

In essence, more and more people are becoming connected to technology, enjoying the benefits that it delivers, and demanding that such benefits increase, not just within 1 industry but across industries – there is no reason to believe that advances in 1 area of business cannot be transferred to other areas.



Illustration 2 – Pager

Based in New York, Pager is a company that provides on-demand health care from local medical professionals via mobile-based services. Users can request services such as check-ups, arranging prescriptions and diagnosis of illnesses from the doctor of their choice within their local area. House calls are made within 2 hours of the service being requested.

In many respects, this is an example of how benefits can be transferred from 1 industry (such as Uber and transport requirements) to another (healthcare). It is therefore little surprise that Pager was founded by Oscar Salazar, a former Uber engineer.

3 The emergence of “business ecosystems”

As noted earlier, technologies mature and grow e.g. social, mobile, analytics, cloud, 3D printing, bio- and nanotechnology. The external competitive environment for industry and business is similarly changing rapidly as these emerging technologies create an environment that is connected and open, simple and intelligent, fast and scalable:

- **Connected and open** – the proliferation of mobile devices and Internet access, necessitating new levels of trust and accountability with partners and consumers.
- **Simple and intelligent** – advances in technology continue to reduce and mask complexity and organisations gain more information and use data analytics and insights to drive decision-making.
- **Fast and scalable** – transactions increase both in number and frequency but the cost of collaboration inside and outside the organisation continues to decline.

The conundrum that market players face is that despite the technology driving this transparency by becoming more sophisticated, intelligent and predictive, it is also becoming easier to use by focussing on ease and “usability”. This allows organisations to tap into structured and unstructured data, motivating intelligent and predictive decision-making.

This rapid development of new technologies, greater openness and escalating customer expectations are converging to create a fundamental business change from traditional markets to the new concept of “business ecosystems”.

It is these experiences with these new technologies and resulting change to traditional business models (see Chapter 2) that is increasing the expectations and the empowerment of the consumer stakeholder group.

Organisations must react to these changes and adapt their business models or risk being left in the wilderness. The increasing technological sophistication is leading to:

- More information to consumers, allowing more choices and enabling greater opportunity to influence organisations
- Higher expectations of integrated and sophisticated experiences that are simple to use and access
- Decreasing brand loyalty, as consumers have less patience and are more willing to switch interchangeably among brands.

In response, organisations face increasing pressure to play catch-up and meet the next generation of consumer demands by providing integrated, customised, consumer centric experiences.

Consumers expect personalisation across all of their business dealings experiences. Whether it be buying cars or purchasing airline tickets, they expect integration across channels and touch points, and they are quick to change loyalties to organisations that can better meet their needs.

For example, in a recent survey by IBM in which one of the questions was “To what extent should organisations change to meet customer expectations”:

- 81 percent of millennial consumers demand improved response time
- 76 percent expect organisations to understand individual needs
- 68 percent anticipate organisations to harmonise consumer experiences.



Illustration 3 – Xiaomi

Chinese smartphone manufacturer Xiaomi is seeking to engage connected consumers. Xiaomi uses customer segmentation as a brand differentiator. It sells high-end phones for prices close to cost, less than half the price of some rivals. The company leverages consumer feedback captured via Weibo (i.e. Twitter-like social media application) to release new versions of its operating system, which it does on a weekly schedule.

The Xiaomi illustration demonstrates that, to create an opportunity to provide a differentiated experience in line with consumer expectations, organisations must embrace data and analytics to underpin experience and pursue social media to promote collaboration.

Conclusion

As the business world rapidly develops beyond traditional markets, organisations will need to rethink how their business environment operates, how they partner and how they interact with customers.

They must embrace the concept of **mutuality** (see later discussion) a level of formal or informal collaboration among organisations around shared ideals, standards, or goals.



More detail on ecosystems

Ecosystems exist in the natural world

The word “ecosystem” was coined in the 1930s by British botanist Arthur Tansley to refer to a localised community of living organisms interacting with each other and their particular environment of air, water, mineral soil, and other elements. These organisms influence each other, and their terrain; they compete and collaborate, share and create resources, and coevolve; and they are inevitably subject to external disruptions, to which they adapt together to be able to grow and thrive in ever changing conditions.

In the 1993 Harvard Business Review article “Predators and Prey: A New Ecology of Competition” business strategist James Moore adopted this biological concept to the world of commerce.

He suggested that a company be viewed not as a single firm in an industry, but as a member of a business ecosystem with participants spanning across multiple industries.

From a business perspective therefore an ecosystem can be thought of as a complex web of interdependent enterprises and relationships that creates and allocates business value.

In the 1993 Harvard Business Review, business strategist James Moore adapted the concept to the business world –

“Successful businesses are those that evolve rapidly and effectively. Yet innovative businesses can’t evolve in a vacuum.

They must attract resources of all sorts, drawing in capital, partners, suppliers, and customers to create cooperative networks. I suggest that a company be viewed not as a member of a single industry but as part of a business ecosystem that crosses a variety of industries.

In a business ecosystem, companies co-evolve capabilities around a new innovation: They work cooperatively and competitively to support new products, satisfy customer needs, and eventually incorporate the next round of innovations”



Illustration 4 – Digital Marketing Ecosystem



Consider online marketing to be an ecosystem – a system of interconnecting and interacting parts – formed by three distinct areas of content creation: search engine optimisation, social media, and target marketing.

Sustainable success in digital marketing is achieved using strategies that leverage the interrelationship of these ecosystem elements.

The specific strategies and individual tools included in a marketing ecosystem (and used to execute digital marketing campaigns) are dependent on many factors including the goals for the campaign as well as the company's industry and their customer's buying habits.

It is therefore key for organisations to maintain a keen eye on new developments, monitor trends, and test new tools as they emerge.

4 What are Business Ecosystems?

A business ecosystem can be defined as a network of organisations (suppliers, distributors, customers, competitors, government agencies, etc.), who are involved in the delivery of a specific product or service through both competition and cooperation. This network of organisations and individuals will collaborate and evolve roles and capabilities to build value and increase efficiency.

The idea is that each entity in the ecosystem affects and is affected by the others, creating a constantly evolving relationship in which each entity must be flexible and adaptable in order to survive, as is the case in a biological ecosystem.

In this context, an ecosystem is a number of interdependent enterprises drawn together in complex relationships aimed at creating and allocating business value. There is a mutual and multiplicative interaction about business ecosystems whereby the whole is greater than the sum of the individual part, thus providing the incentive for the participants to be part of the system.

Business ecosystems are broad by nature, potentially spanning multiple geographies and industries, including public and private institutions, and consumers. Organisations will therefore come together to create value.

In a less-competitive ecosystem, groups such as a government, charity and a community group might collaborate on health or public policy because each entity has a shared interest and goal.



Illustration 5 – Business Ecosystems

When BMW and Toyota need to develop key technologies, such as batteries, they may join together and then later go on to compete in the marketplace. Similarly, Apple, Fitbit and Garmin created an ecosystem focused on fitness and apps.

Ecosystems and traditional markets are not unlike however being composed of participants and interactions. These are:

- **Participants** – the individual players or organisations within the environment defined by:
 - Participants function (or part played in a given environment)
 - Participants ability to extend activity or interactions through the environment
 - Range of activities that participants are able to pursue or undertake within the environment (key value proposition).
- **Interactions** – the products or services exchanged among participants defined by:
 - Set of explicit or implicit principles governing conduct within the environment
 - Linkages across the environment connecting elements such as data, knowledge, or products
 - Speed and direction at which content or value is exchanged among participants.

4.1 Fundamental characteristics of a business ecosystem

As we noted earlier, within a market individuals or organisations who exchange products or services within an environment which is governed by the laws of supply and demand.

A business ecosystem comprises individual and organisations that operate out of mutual self-interest and who formally or informally operate together to produce something of greater value for the mutual benefit of the organisation and the ecosystem as a whole. Organisations may therefore

- Be a part of one or many ecosystems
- Play different roles in different ecosystems
- Evolve their roles in the ecosystem, as ecosystems evolve.

Ecosystems exist because participants can deliver more value within the ecosystem acting together and have two defining characteristics.

These are orchestration and mutuality and are based on the premise that ecosystems exist because participants acting together can deliver more value.

- **Orchestration** refers to the formal or informal coordination of interactions or collaborations among participants within the ecosystem i.e. the coordination, arrangement and management of these complex environments.

Orchestration can be informal, for example via the culture of an organisation, or it may be formal through explicit rules or the presence of an actual “orchestrator” – i.e. an explicit entity that facilitates orchestration processes.

For example, according to PwC, firms need to orchestrate the interactions of both the different players in their operating environment and the customers to maximise the value delivered, make money out of that for all players and give the firms a fair share of that value.



Illustration 6 – Orchestration (Kaiser Permanente)

Kaiser Permanente is a U.S.-based integrated managed care consortium that orchestrates insurance, hospitals, and physicians to provide integrated healthcare services. The company coordinates and orchestrates a membership base of 9 million members, along with physicians, doctors and medical centres. Kaiser Permanente’s “My Health Manager” program facilitates the delivery of preventative care by connecting care providers, pharmacies and physicians.

- **Mutuality** reflects an enhanced level of coordination with formally or informally shared ideals, standards, or goals.



Illustration 7 – Mutuality (Doorman)

Doorman, a San Francisco-based logistics service, orchestrates storage and delivery to solve the “last mile” problem of package delivery. The service facilitates carriers such as FedEx and UPS by receiving packages and delivering them at the customer’s convenience after traditional carrier delivery hours, up until midnight. This enables consumers to control logistics in a manner previously unavailable.

4.2 The goals of business ecosystems

As we have established already, a business ecosystem consists of a network of interlinked companies that dynamically interact with each other through competition and cooperation to grow sales and survive. It includes many different stakeholder groups e.g. suppliers, distributors, consumers, government, processes, products and competitors.

When an ecosystem thrives, it means that the participants have developed patterns of behaviour that streamline the flow of ideas, talent and capital throughout the system.

Ecosystems will also create strong barriers to entry for new competition, as potential entrants not only have to duplicate or better the core product, but they also must compete against the entire system of independent complementing businesses and suppliers that form the network.

Being a part of a business ecosystem provides mechanisms to leverage technology achieve excellence in research and business competence and compete effectively against other companies.

Some other goals of a business ecosystem may include:

- driving new collaborations to address rising social and environmental challenges
- harnessing creativity and innovation to lower the cost of production or allow members to reach new customers
- accelerating the learning process to effectively collaborate and share insights, skills, expertise and knowledge
- creating new ways to address fundamental human needs and desires.



Test your understanding 2

Dragon Breath is a consultancy firm, specialising in the provision of advice on the use of disruptive technologies in FMCG production, logistics and retail. It has previously used traditional 'environment analysis' to identify opportunities and threats in its environment.

Jane Li, the Chief Strategy Officer of Dragon Breath, is considering changing the approach taken to environment analysis. She feels that the environment of Dragon Breath resembles an 'ecosystem', rather than a traditional linear supply chain.

Required:

Identify which TWO of the following characteristics distinguish an ecosystem from a traditional supply chain.

- Interaction
- Orchestration
- Mutuality
- Communication
- Conflict

5 Value creation and value capture in a business ecosystem

The way organisations create and capture value in an ecosystem differs from traditional markets.

Two fundamental questions need to be addressed.

- Firstly, what can organisations do to create value in ecosystems?
- Secondly, how do organisations capture the value they help to create within an ecosystem?

How is value created?

Value creation refers to the act of bringing something of value into existence. Participants can therefore create value by products enhancements, product development, and the creation of new services or customer experience.

In an ecosystem partners must collaborate to create and deliver something of a mutually beneficial value to all of the participants.

How is value captured?

Value capture is the act or process of appropriating or allocating value. Participants can capture value directly through transactions or indirectly from an orchestrator.

Ecosystem complexity and the extent or intensity of orchestration impact the potential and govern the nature of value capture.

As a result, ecosystems can produce more value as a whole than the sum of the individual participants acting independently.

5.1 The difference between traditional markets and ecosystems

Value creation in traditional markets tends to be linear; value creation in ecosystems tends to be networked and mutual.

To create value, organisations need to identify opportunities, develop competencies and leverage synergies. Organisations must understand how value is created in the ecosystem and, as a result, identify and exploit opportunities for value creation. To facilitate this, organisations must maintain flexibility in the role they adopt within the ecosystem and interactions they may have with other ecosystem participants.

Organisations must also leverage common synergies and complementary strengths within ecosystems to drive value creation. To do so, they will need to apply their capabilities across the ecosystem, identifying and pursuing compatibility gaps and needs, and develop contracting and connectivity arrangement to insinuate themselves to fill gaps and exploit other opportunities. The more essential and unique the activity organisations can fulfil within an ecosystem, the more sustainable will be their position and role.

In identifying opportunities, organisations must understand how value is created in the ecosystem. They will need to identify and exploit pockets of potential value creation. However given the extent and speed of the change, they must maintain flexibility in the role they adopt within the ecosystem, as well as the type of interactions they have with other ecosystem participants.



Illustration 8 – Value Creation (Google)

Recently, Google initiated and coordinated the Open Automotive Alliance to innovate in-car operating systems with GM, Honda, Audi, Hyundai, along with organizations such as Nvidia. Google aims to become the centre of personal operating systems through partnerships. Google seeks to capitalize on the 80 million new cars and light trucks sold each year – a major opportunity for Internet-based services.



Illustration 9 – Partnerships (Amazon)

One opportunity being pursued by Amazon, for example, is to use existing partnerships to target the next frontier of online sales. The online retailer has established a physical presence in the warehouses and distribution centres of existing suppliers (e.g. Procter & Gamble) through its “Vendor Flex” initiative. As a result, Amazon is expanding its selling efforts into new and different markets through partnering arrangements. It reduces fulfilment costs and delivery time and allows Amazon to compete even more aggressively with other retailers.

The participants in an ecosystem can capture value directly through transactions or indirectly from the orchestrator.

Direct value capture

Organisations can capture value directly through transactions that occur within the ecosystem. Participants facilitate an exchange of value for goods or services rendered, for example, when they buy a ticket on public transport. Value capture is instantaneous and corresponds with the transaction.

Indirect value capture

Alternatively, organisations may capture value indirectly by transfer from an orchestrator (which captures value directly from consumers) for goods or services.

Consumers will pay an orchestrator for goods and services (pay to play), and the orchestrator will then allocate payment to participants within the ecosystem thereby incentivising them to continue participating in the ecosystem e.g. buying a pass for all public transport in a city for unlimited trips on trains, trams, buses or subways within a defined time.

A third option is a combination of direct and indirect, with some pay-to-play component and some direct component. For example, in the transportation ecosystem of the future, organisations will most likely capture value both directly and indirectly.



Illustration 10 – Direct and indirect value capture

The mobility (transportation) ecosystem of the future in which consumers pay to have access to services that transport them from one location to another, irrespective where they are, when they want to travel and where they want to travel to.

Organisations will most likely capture value both directly and indirectly. Mobility providers will operate in an orchestrated environment, but with specific usage-based transactions co-existing with overall pay-to-play.

Orchestrators will facilitate overarching ecosystems that are composed of numerous implicit services and will allocate value to participants based on the role they play in the ecosystem.

Consumers may be able to choose to pay directly for specific distance-related or transportation type-related services. Direct transactions for usage-based services and infrastructure access could therefore co-exist with an orchestrated, indirect-payment pay-to-play environment.

5.2 Strategies to capture value

Each organisation will need to pursue different actions to capture value, depending on the underlying nature of the ecosystems in which they operate.

Each organisation will face differences within their own ecosystem and therefore a strategy developed and pursued in one environment may differ drastically from strategies pursued in other environments.

Key drivers of these differences are firstly the level of complexity in the activities undertaken, and secondly the extent and formality of the orchestration in and around the ecosystem.

Complexity:

Complexity is a function of the number and diversity of participants, the sophistication of activities within the ecosystem and the range and nature of relationships that exist within that ecosystem.

- High complexity – an environment in which barriers to entry are high and the threat of new entrants is low. It suggests that a participant's role in the ecosystem is relatively secure as their particular capabilities are typically difficult to replicate e.g. nuclear power, or oil exploration.
- Low complexity – an environment in which barriers to entry are low and the threat of new entrants is high. In this environment, a participant's position in the ecosystem is vulnerable, as their capabilities are typically easy to copy e.g. production of consumables (bakeries), retailing (individual boutiques), fitness instruction etc.

Orchestration

Orchestration depicts the extent of an organisation's influence over others within an ecosystem, the formality of ecosystem interactions and the degree of enforceability and compliance.

- Tight orchestration reflects an environment in which orchestrators have an ability to influence behaviour or actions across the entire ecosystem. For example, financial services, in which transactions are governed by stringent and regulated rules of privacy, security and compliance. Interactions will by necessity be rules-based, with orchestrators able to enforce their will over others.
- Loose orchestration refers to an environment in which no individual participant has significant influence across the ecosystem. There is often an absence of strong regulation with limited ability for any particular participant to enforce its will over others. For example the Internet in regimes that have freedom of speech laws. While some content and behaviour is specifically outlawed on criminal grounds in the most part, individuals and organizations are free to express themselves and behave any way they want.

Based on this premise that Ecosystems are not all alike and as they differ in specific fundamental ways there will be a number of approaches necessary to depict appropriate strategies to deal with these differences.

Complexity and orchestration characterize a spectrum of ecosystem archetypes.

In the IBM Report “The new age of ecosystems: Redefining partnership in an ecosystem environment” The following matrix depicts how some of these different combinations may be characterised in a “spectrum of ecosystem archetypes”

Ecosystem Archetypes

		Orchestration	
		Loose	Tight
Complexity	High	Hornet’s Nest Where high complexity and loose orchestration promotes fragmented competition	Lion’s Pride Where high complexity and tight orchestration motivate a winner-take-all mentality
	Low	Shark Tank Where low complexity and loose orchestration creates a turbulent environment	Wolf Pack Low complexity and tight orchestration promotes collaboration

These are referred to as the Shark Tank, the Hornet's Nest, the Wolf Pack and the Lion's Pride

- **Shark Tank** – low orchestration and low complexity. Each participant will fend for themselves, identifying opportunities, aligning capabilities and making connections. An example of Shark Tank is the retail ecosystem of the future where new technologies will make entry costs into retail ever lower and competition will become even more intense. Consumers will have low switching costs, changing between products at will, while the potential competitive threat will increase as new entrants or existing players watch on ready to take advantage of opportunities. Search costs will become ever lower, with multiple organisations seeking to attract and connect with consumers.
- **Lion's Pride** – threats of new entrants are low due to the relative complexity of the activities in which participants are engaged. In the Lion's Pride orchestration tends to be formal. The orchestrator will enable and monitor activities within the ecosystem and remunerate individuals or organisations for their participation. An example of Lions Pride will be the future healthcare industry where an orchestrator will facilitate and manage the interaction between patients, providers and physicians into a fully integrated health, wellness and medical experience.
- **Hornet's Nest** – complexity is high, but orchestration is low. Ecosystems of this type tend to be simpler, with most of the value being transferred directly by means of payment for specific activities. An example will be the future of Media and Entertainment business where will likely become the Hornet's Nest ecosystem where consumers will likely be unwilling to be tied to a single system to view content. They will demand whatever content they want, on whatever platform or device they want, whenever they want it, anywhere in the world.
- **Wolf Pack** – low complexity and high levels of orchestration. Barriers to entry are low, indicating that entry into the ecosystem is relatively easy. Orchestration is however high, suggesting that while individual activities within the ecosystem are simple, the overall environment created is potentially highly sophisticated. An example of Wolf Pack maybe the future Energy and Utilities industry. In the future, every home, building, facility or appliance may be both a consumer and producer of energy. The presence of a strong orchestrator will ensure that energy flows are measured, reserve energy is stored and networks remain in good working order.



Test your understanding 3

Geronimo is a consumer electronics manufacturer. It produces hardware communications devices (tablets, laptops, PCs and phones) and also supplies a range of software to operate on those devices (operating systems, tools and apps).

Geronimo has developed a close working relationship, for mutual benefit, with a network of other organisations and individuals. These include software developers, suppliers, retailers and consumers. As a result of these arrangements, Geronimo and its partners create and capture value added, which is shared between the partners.

Required:

Identify which of the following approaches is being taken by Geronimo

- Franchising
- Ecosystem development
- Upstream supply chain management
- Customer relationship management

6 Participants and their roles

We have seen above that the business ecosystem is “an economic community supported by a foundation of interacting organisations and individuals – the organisms of the business world.”

The interacting organisations and individuals are the participants. For example, the economic community produces goods and services of value to customers, who are themselves members of the ecosystem.

Other participants include suppliers, lead producers, competitors and other stakeholders. These participants will, over time, co-evolve their capabilities and roles and tend to align themselves with the directions set by one or more central companies.



Illustration 11 – The Apple ecosystem

Apple exists in a highly complex business ecosystem, made up of many participants. Examples would include:

Software developers – both those employed by the company and those who are not e.g. developers of apps which are then marketed via the App Store.

Suppliers – of components, organisations that assemble the product, of accessories (e.g. Belkin is an approved manufacturer of Apple accessories).

Retailers – not just employees in Apple Stores, but also approved 3rd party retailers.

Competitors – organisations such as Microsoft and Samsung, which are constantly innovating and therefore forcing Apple to do the same.

Customers – both individuals and also corporate customers.

Learning institutions – such as universities, that develop potential employees with the necessary skills.

Governments – e.g. much of Apple's product is sourced from China. Any trade wars between the US and China will inevitably impact Apple.

Legislators – those who formulate the law, which impacts not just on Apple but also other organisations e.g. privacy laws and Facebook.

NB This list is not exhaustive; there are many other elements of Apple's ecosystem!

An ecosystem therefore reflects interaction and collaboration between participants to create an opportunity to provide a differentiated experience in line with consumer expectations.

It is important for organisations to embrace data and analytics to underpin these customer experiences and pursue social media to promote collaboration. They will also need to reduce or minimise any barriers to engagement and partnering with other participants.

3 key questions need to be asked with regards to each participant that makes up the ecosystem, and thus how it might impact on any one organisation's strategy:

- **The precise role of the participant within the environment** – what is that participant bringing to the party? It may be cloud computing capacity, distribution capability, unique software skills or access to certain markets due to owning a particular licence to operate. It makes sense that, for the ecosystem to create the value that is possible, all necessary participants are present.
- **Each participant's reach through the environment** – this relates to the participant's ability to extend activity or interactions through the environment. For example, can the participant operate on a global or just a local level and deal with both consumer (B2C) and industrial (B2B) markets?
- **The capability or key value proposition** – this is the range of activities that participants are able to pursue or undertake in the environment. What is the key value that each participant is able to deliver?



Illustration 12 – Nest

Nest is a US-based provider of home automation products, from thermostats that control the central heating system to surveillance cameras and smoke alarms. It has created a new technology platform that offers homeowners a unique experience because it has correctly brought in other companies such as Mercedes Benz and LG to bring capabilities that Nest itself does not possess.



Illustration 13 – Burberry

Luxury fashion house Burberry, a traditionally conservative brand, digitized its organization to create a seamless consumer experience.

Burberry removed organizational boundaries between digital and physical; for example, it equipped employees with iPads to enable online access to leverage consumer data to improve the in-store experience.

Through digital-physical integration, Burberry has transformed into a modern, relevant, and hip luxury brand.

Ecosystems provide a new frame and mind-set that captures a profound shift in the economy and the business landscape.

The importance of relationships, partnerships, networks, alliances, and collaborations is not new but it is of increased significance in the ecosystem discussion. It is becoming increasingly possible for firms to deploy and activate assets they neither own nor control, to engage and mobilise larger and larger numbers of participants.

- ecosystems enable and encourage the participation of a diverse range of organisations, and often individuals, who together can create, scale, and serve markets beyond the capabilities of any single organisation.
- participants interact and co-create in increasingly sophisticated ways that would historically have been hard to formally coordinate in a “top-down” manner, by deploying a proliferation of technologies, tools of connectivity and collaboration. There is dynamism and substantial potential for increasingly productive ecosystem development in the years ahead.
- participants including customers—are bonded by some combination of shared interests, purpose, and values which incentivises them to collectively nurture, sustain, and protect the ecosystem as a shared common ground. Everyone contributes, everyone benefits enhancing the longevity and durability of ecosystems.

The rise of business ecosystems is fundamentally altering the key success factors for organisations, forcing them to think and act very differently regarding their strategies, business models, leadership, core capabilities, value creation and capture systems, and organizational models.

7 Regulating ecosystems

As was noted above, the economy is fast becoming characterised by ecosystems—dynamic and co-evolving communities of diverse participants who create and capture new value through both collaboration and competition.

In that context, these new markets will need to be regulated. Regulation is always contentious to some degree but in relatively slow-moving industries the historical intent and enforcement of the rules can be understood well enough by all involved. This understanding become less clear however when the boundaries of traditional industries becomes less defined, when products blend with services to create customer-centric solutions, and when knowledge assets take on as much importance as physical assets in the creation of value. Constant, high-impact innovation is a prominent new feature in businesses that used to advance only incrementally.



Examples of reasons for regulation

Some of today's most popular products, like the smartphone and tablet, didn't even exist eight years ago. Apple Inc. estimated in 2011 that over 60 percent of its revenue came from products that were less than three years old. Business models are being reinvented to take advantage of technological change, for example enabling peer-to-peer transactions, asset sharing, and social collaboration.

The nature of work itself is in flux. Sites like Task Rabbit allow anyone to outsource small jobs to people with extra time, and the "creative economy" continues to expand. By one reckoning, half of today's jobs are in occupations that didn't exist 25 years ago.

In a recent study researchers at Oxford University estimate that up to 45 percent of American jobs are at a high risk of disappearing within the next two decades. In fast-changing environments like this, as the US Office of Management and Budget has observed, regulations "have enormous potential for both good and harm."

The challenge is to exercise due caution on behalf of the public while minimizing any "adverse effects on flexibility and innovation."

The case of Uber shows how tricky this balance is to achieve. As of January 2015, the company was engaged in no fewer than 40 concurrent regulatory conflicts around the world. Ordinary citizens may love having an alternative to taxis, but their governments aren't giving the service a free ride.

Regulatory frameworks are being challenged on several fronts – for example

- **Speed of change** – effective regulation depends upon the regulators' understanding of the solutions being offered by businesses, their efficacy, and their possible unintended consequences. Constant innovation makes that very difficult e.g. regulators are confronted with the exponential expansion of digital information assets "big data". This flood of data combined with ever-sharper analytics allows the discovery of previously

unseen patterns and behaviours. Businesses can personalise marketing to better engage consumers, challenging privacy. Traditional means of protecting privacy were not designed for an automated, digital world where much is seen and monitored without explicit consent.

- **Innovators find “back doors”** e.g. Uber has attempted to find legitimate ways around regulatory hurdles which have governed taxis and liveries for ages, including stringent controls over taxi medallions and the licensing fees dictating their ownership and transfer. Uber is a system that helps people access transportation, affordably, fast, and reliably. It is about making life easier for potentially millions of people, and regulation has to be rethought to ensure that it is consumer-safe and socially beneficial, rather than stifle innovation.
- **Ecosystems evolve** and new and clever business models proliferate, the sheer diversity of competitors and competitive modes is yet another complicating factor for regulators. In a market-based economy, a major objective of regulation is preserving an even playing field for competitive businesses. Regulators must set the terms of engagement that will keep these non-comparable entities working in ways that benefit society.
- **Innovations cross lines of jurisdiction** and in business ecosystems, product definitions, market boundaries, the traditional distinction between digital and physical goods blur. These blurring lines complicate the decision as to which agency or authority has jurisdiction?



Test your understanding 4

The Competition and Markets Regulator (CMR) of Newlandia is tasked with regulating the activities of firms within that country. The regulators are finding it increasingly difficult to regulate the activities of organisations who choose to participate in a ‘business ecosystem’.

Required:

Identify which THREE of the following are major challenges to the CMR as a result of firms taking an ecosystem approach.

- New legislation is expensive to develop
- Speed of change
- Data protection is a major issue
- Ecosystems evolve
- Innovations cross lines of jurisdiction

8 What does the digital customer want?

According to the World Economic Forum/Accenture analysis, there are a number of factors that drive customer demands in the digital era. These include the following:

- **Contextualised interactions** – this is a rather complicated way of saying that customers expect a product or service that is tailored to their own specific needs. The video streaming service Netflix helps meet this demand by making recommendations on programmes that are likely to be of interest to the viewer based on historic patterns.
- **Seamless experience across channels** – from being made aware that a product or service exists, to doing the research about the product or service, to then taking the decision to purchase, customers expect a seamless service throughout the process. This can also be extended to how the customer pays and takes delivery of the goods.
- **Anytime, anywhere** – there is an expectation of being able to access real time information about a product or service. This does not just mean characteristics of the product; it also relates to inventory levels, how soon delivery will occur, the ability to track progress etc.
- **Great service** (it doesn't matter who provides it) – there is less instance these days of customers remaining loyal to a provider following an example of poor service. Customers are prepared to shop around for products or services if they have had a bad experience.
- **Self-service** – customers are prepared to invest more time and energy into getting exactly what they want. This doesn't simply mean customising the features of an existing product; it may mean developing new models that correspond exactly to their needs. Innovations such as 3D printing are an example of just how this is becoming possible.
- **Transparency** – the digital customer expects to have full transparency of information about a product or service before they commit to a purchase. This includes details such as precise features of the product, but also extends to how personal information is to be collected and used. Customers are protective of their personal data and want choice in deciding whether or not it is shared.

- **Peer review and advocacy** – there is greater instance these days of customers attaching more importance to independent reviews of products or services than to marketing information provided by the business or reviews from other organisations (such as trade journals). The purchase decision will be influenced by what fellow customers have said, meaning that a poor review can have a disastrous effect on future sales potential.

For example, many customers on Amazon place great store by the reviews and star ratings attached to products that have been bought by other people. Similarly, the decision on which hotel to stay at or restaurant to eat at could well be determined by comments on sites such as Booking.com or TripAdvisor.

It is also estimated that bad reviews are seen by twice as many people as good reviews.

8.1 Keeping ahead of customer expectations

The question must therefore be asked: given that customer demands are evolving at such a rapid pace, how can organisations adapt so that they keep up with, or preferably ahead of, those expectations? A seemingly successful offering today could rapidly fall out of favour and lead to a reversal of the organisation's competitive advantage.

This can be avoided via the following:

- **Design thinking** – instead of designing a single product or service that can be marketed to many customers, there should be a shift in mind-set to designing many experiences for one customer. This must be mixed with the ability to constantly learn and adapt as customer needs change.
- **Experiential pilots** – this refers to the need to monitor how customers behave and to gain an appreciation of their reaction to new experiences. Questions should be asked such as “How are the customers responding to a new technology in the way they engage with it? How are customers being influenced by others? What reactions, emotional and behavioural, are we seeing through the new customer experience?”

The organisation should be prepared to continuously take products to a new level, through innovation and developing prototypes, to be able to gauge such reactions.

- **Prototyping** – instead of waiting until a new product has been perfected before bringing it to market, an organisation should recognise that speed to market is vital. So, the first generation of a product may be only about 80% ready, but it provides vital feedback in terms of customer reactions and what needs to be done with the second version.
- **Brand atomisation** – organisations will need to design their offerings so that they can be more widely distributed and be part of the platform that is offered by other providers.



Test your understanding 5

The 'digital revolution' (sometimes known as Web 3.0) is a response to the changing expectations of customers, very often driven by advances in technology.

Required:

Identify which THREE of the following are technological advances driving change in this way.

- Increased demand for fast service provision
- Data analytics and the cloud
- Reduction in hardware cost
- Global Internet access
- Increased numbers of connected devices



Test your understanding 6

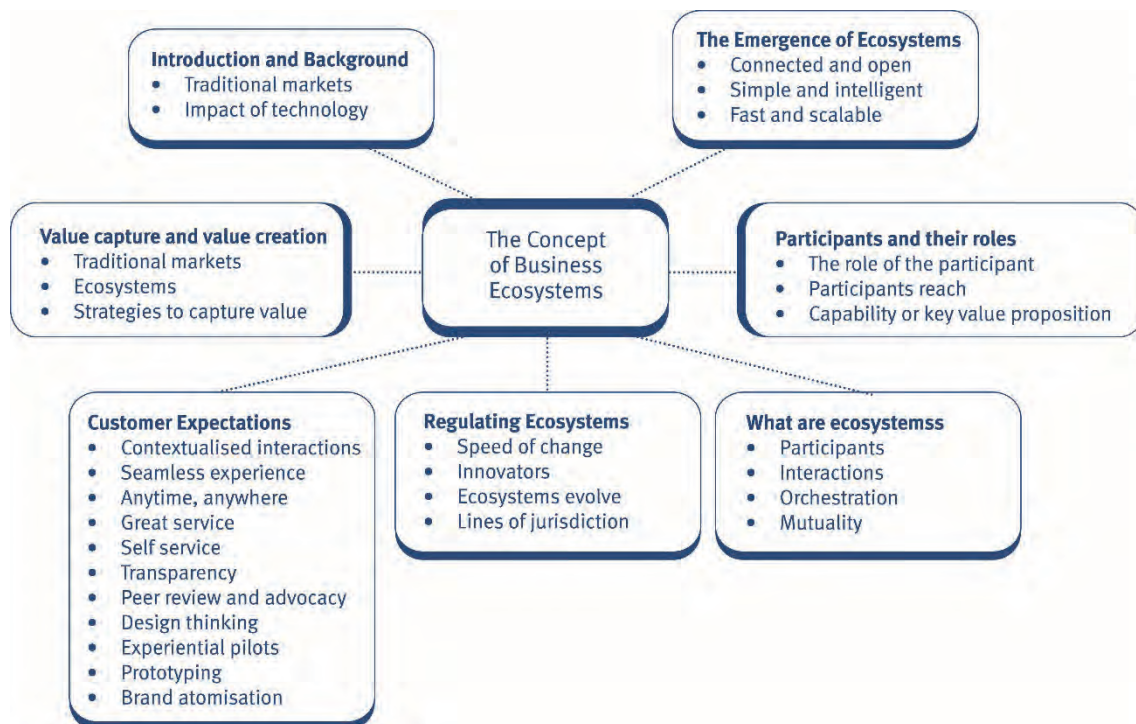
Discussion question

X is a retailer of clothes in country A.

Using PESTLE analysis, categorise the following issues identified by the Board of A as sources of risk facing X in the light of the increasing volatility and rate of change in the global market.

- A Unemployment levels in country A
- B Change of government
- C Education levels
- D Changing fashions
- E Changing tax regimes
- F Increased use of automation in production
- G Shift in customer attitudes towards ethical consumerism
- H Requirement for faster service provision
- I Data, storage and analytics facilities increased
- J Reduction in cost of IT hardware
- K Increased Internet access
- L Proliferation of connected devices

9 Chapter summary



End of chapter questions

**Question 1**

Which **three** of the following are normally associated with the concept of a business ecosystem?

- A Network of organisations
- B Large scale business
- C Relationships between organisations
- D Interdependency
- E Brand loyalty

**Question 2**

In the context of business ecosystems, which of the following statements are true?

- (1) Customers expect a similar experience from all aspects of their lives including the products that they buy; fast, convenient and tailored to themselves.
 - (2) Regulators whilst trying to control large players can inhibit emerging players.
- A (1) only
 - B (2) only
 - C Both are true
 - D Neither are true

**Question 3**

In the context of value creation in an ecosystem, which of the following statements are true?

- (1) Although the value created as a whole maybe greater with collaboration, an individual player will often be worse off.
 - (2) End to end solutions, where different elements of the supply chain cooperate is likely to create more value for all players.
- A (1) only
 - B (2) only
 - C Both are true
 - D Neither are true



Question 4

When buying a train ticket through an orchestrator (such as Trainline), which is usable through any train operator, as far as the train operator is concerned, this is known as:

- A Direct value capture
- B Indirect value capture



Question 5

The future retail environment is expected to feature ever decreasing barriers to entry and, within the confines of what is safe and legal, players are free to introduce or trade with any product that they wish.

In this situation, which is the recommended strategy?

- A Fly with the hornets
- B Jump with the sharks
- C Roar with the lions
- D Dance with the wolves

Test your understanding answers



Test your understanding 1

Matching items – correct matches		Force	Effect
A	Bargaining power of suppliers	Remain stable	3
B	Bargaining power of customers	Remain stable	3
C	Rivalry	Decrease	2
D	Threat of new entrants	Decrease	2

As Charlton already has mutually-beneficial relationships with customers and suppliers, the adoption of an ecosystem approach is unlikely to have any significant effect on those forces. The most likely impact, if successful, would be to gain Charlton advantage over rivals, as none of them currently take this approach, thus decreasing rivalry. Due to the cost and time involved in establishing an ecosystem approach, a barrier to entry would be created, thus decreasing the threat of new entrants.



Test your understanding 2

Option 1	Interaction	
Option 2	Orchestration	X
Option 3	Mutuality	X
Option 4	Communication	
Option 5	Conflict	

Orchestration and Mutuality are characteristics of an ecosystem. Interaction and Communication would exist in either an ecosystem or a traditional linear supply chain. Conflict would only be a characteristic of a traditional supply chain.



Test your understanding 3

Option 1	Franchising	
Option 2	Ecosystem development	X
Option 3	Upstream supply chain management	
Option 4	Customer relationship management	

A business ecosystem is “an economic community supported by a foundation of interacting organisations and individuals — the organisms of the business world.”



Test your understanding 4

Option 1	New legislation is expensive to develop	
Option 2	Speed of change	X
Option 3	Data protection is a major issue	
Option 4	Ecosystems evolve	X
Option 5	Innovations cross lines of jurisdiction	X

Regulatory frameworks are being challenged by ecosystems on several fronts – these include

- Speed of change – effective regulation depends upon the regulators’ understanding of the solutions being offered by businesses, their efficacy, and their possible unintended consequences.
- Ecosystems evolve and new and clever business models proliferate, the sheer diversity of competitors and competitive modes is yet another complicating factor for regulators.
- Innovations cross lines of jurisdiction and in business ecosystems, product definitions, market boundaries, the traditional distinction between digital and physical goods blur.

The high cost of new legislation and the need for data protection are both general challenges that are not specific to regulating ecosystems.



Test your understanding 5

Option 1	Increased demand for fast service provision	
Option 2	Data analytics and the cloud	X
Option 3	Reduction in hardware cost	
Option 4	Global Internet access	X
Option 5	Increased numbers of connected devices	X

The following are identified as key factors:

Mobile and internet penetration – the increasing rate of mobile phone ownership, combined with access to the internet (with mobile beginning to exceed broadband).

Connected devices – the number of connected devices are expected to grow from 2.5 billion in 2009 to 30 billion by 2020. This will help enable real-time customisation of products and services.

Data analytics and the cloud – the increasing use of e-commerce platforms, social networks, apps etc will result in increased need for automated data analytics.

User interfaces – advances in how human beings interact with machines (e.g. through voice recognition or motion-tracking systems) means that carrying out tasks becomes quicker and more efficient for humans.

Global accessibility – rising living standards in developing economies means that more and more people are gaining access to the internet and so increased connectivity.

Increasing urbanisation – the growing percentage of people who live in urban as opposed to rural areas.

The increase in demand for fast service provision is social, NOT technological. Reducing hardware costs are financial, NOT technological.



Test your understanding 6

Risks could be categorised as:

- A is economic
- B is political
- C is social
- D is social
- E is political
- F is technological
- G is social
- H is social
- I is technological
- J is financial
- K is technological
- L is technological



Question 1

A, C and D

The terms network, relationships and interdependency are all normally associated with business ecosystems.



Question 2

C

Customer expectations are cross fertilising and what they get in one aspect of their lives is becoming a requirement in others. If we can put a man on the moon then surely we can..... Regulations tends to react to abuse by large players and any new rules can become too onerous on the smaller emerging businesses .



Question 3

B

Most studies and past experience show that cooperation leads to more value for all.

**Question 4****B**

The value is captured by a third party and is therefore indirect as far as the train operator is concerned.

**Question 5****B**

This is a turbulent environment which tends to encourage a highly competitive stance being taken by the players. It has loose orchestration and low complexity.