

Business ecosystems

A **business ecosystem** is a network of companies, competitors, products and stakeholders which work together in a way that makes them greater than their individual elements.

Definition

Business ecosystem – Marshall, Harmer and Davidson

A complex web of interdependent enterprises and relationships aimed to create and allocate business value. Ecosystems are broad by nature, spanning multiple geographies and industries, including public and private institutions and consumers.

Similarities between business ecosystems and traditional markets

Both are broad, spanning many different geographical locations and industries, in the public and private sector.

Both are made up of:

- **Participants** - The organisations, or individuals, within the environment
- **Interactions** - The services, or products, that are exchanged amongst the participants in the environment

Differences between business ecosystems and traditional markets

There are three main elements that separate business ecosystems from a traditional market:

Value creation

Traditional market	Participants provide other participants with a service, or product, and are paid for it. Each market involves several parties operating out of self-interest.
Business ecosystem	Participants collaborate to create value in a way that is mutually beneficial to both participants.

The value created can be captured by a company in three different ways:

- **Directly** – Value is captured through transactions directly
- **Indirectly** – An entity is allocated payments by a third party; an orchestrator, after it has been paid by consumers, e.g. for flights purchased via a travel agency
- **Mix** – The combination of direct and indirect capturing of value, e.g. a consumer purchases flights via a travel agency, but purchases extra luggage directly from the airline

Orchestration

- Occurs within business ecosystems, but not within traditional markets
- Orchestrators coordinate mutual relationships within a business ecosystem
- Orchestration relates to the extent of an orchestrator's influence over the others within the ecosystem

Mutuality

- A feature of business ecosystems, but not traditional markets
- Encapsulates the idea that by working together, the participants of an ecosystem can deliver greater value than if they worked alone

Benefits of an effective business ecosystem

If an ecosystem is performing well, it results in a number of benefits for its participants.

Benefits of an effective business ecosystem:

- Capital, ideas and talent will move quickly and efficiently throughout the ecosystem
- Creates more value for customers
- Raises the barrier to entry for competitors, as a new competitor must find a similar set of partnerships in order to compete
- Reduces the cost of production, through participants working together and sharing expertise skills and knowledge
- New customers can be reached

Participants

In a business ecosystem, organisations and individuals interact with one another as **participants**.

Difference between participants in a traditional market and a business ecosystem

- In a traditional market, the participants are known as **stakeholders**
- In a business ecosystem, the term **participant** has a broader meaning
- Collaborative relationships between participants are more important in a business ecosystem

Definition**Stakeholders**

Any parties that have some kind of interest in the business and can either affect, or be affected by, the activities that it undertakes.

Business ecosystem participant

Anyone connected to the business ecosystem.

Factors to consider relating to ecosystem participants

There are three key factors an organisation should consider in regards to all of the participants that make up the ecosystem:

Role of the participant	The specific role of the participant in the ecosystem, with regards to the organisation itself, e.g. a self-employed delivery worker.
The key value proposition	What value the participant provides, e.g. a self-employed delivery worker delivers the organisation's products.
Reach of the participant	Whether the participant can scale up their operations, e.g. move from a local market to a national market.

Porter's five forces

Porter's five forces model can be used to analyse the impact of participants on the market.

Major participants which impact on a market

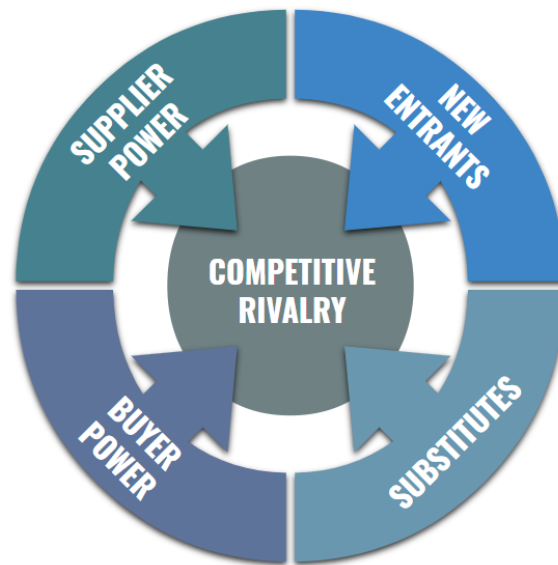
These are:

- Competitors
- Suppliers
- Customers

Porter's five forces can be used to:

- Understand how profitable an industry is in order to decide whether to enter or exit the market
- Understand the forces impacting industry profitability, which would allow a business operating in that industry to change how they operate to become more profitable

PORTER'S FIVE FORCES



- Each of the five forces must be analysed to determine the size of the force
- If the combined forces are high, the industry profitability is low, and the market is not good to enter
- If the combined forces are low, the industry is profitable, and the market is good to enter

Competitive rivalry

This force will be high, and the industry less profitable when there are:

- **Lots of competitors** - As pricing will be kept low
- **Little difference between products** – Products of the different competitors in the market are similar
- **Strong competitors** – With the means to dominate the market, e.g. economies of scale
- **Exit barriers to the market** – There is a high cost of leaving a market, resulting in a greater number of competitors in the market

Threat of new entrants

The threat of new entrants related to new companies entering the market. The force will be high, and the industry less profitable when:

- New companies can easily enter the market
- New companies are likely to or intend to enter the market

It is harder to enter the market when there are significant barriers to entry.

Barriers to entry include:

- **High costs of entry** – E.g. setting up production facilities
- **Patents** – If a patent relating to a product exists, other businesses may not be able to produce this product or may have to pay for the right to do so
- **Customer contracts in place** – Potential customers may have a long-standing account with an established competitor, e.g. a contract for a streaming service
- **Cost advantages** – Of existing competitors are significant, e.g. due to the scale of operation
- **Strong brands** – Amongst competitors, making it difficult to gain customers

Buyer power

The force of **buyer power** is high, and the industry is less profitable when:

- Customers are large and provide a large proportion of company profits
- Customers can switch between competitors easily

Definition

Buyer power

The power customers have over the competitors in an industry.

Supplier power

The force of **supplier power** is high, and the industry less profitable when:

- There are few alternative suppliers
- The cost of changing suppliers is high, e.g. a contract exists for a set period

Definition

Supplier power

The power of the suppliers in the industry

Substitutes

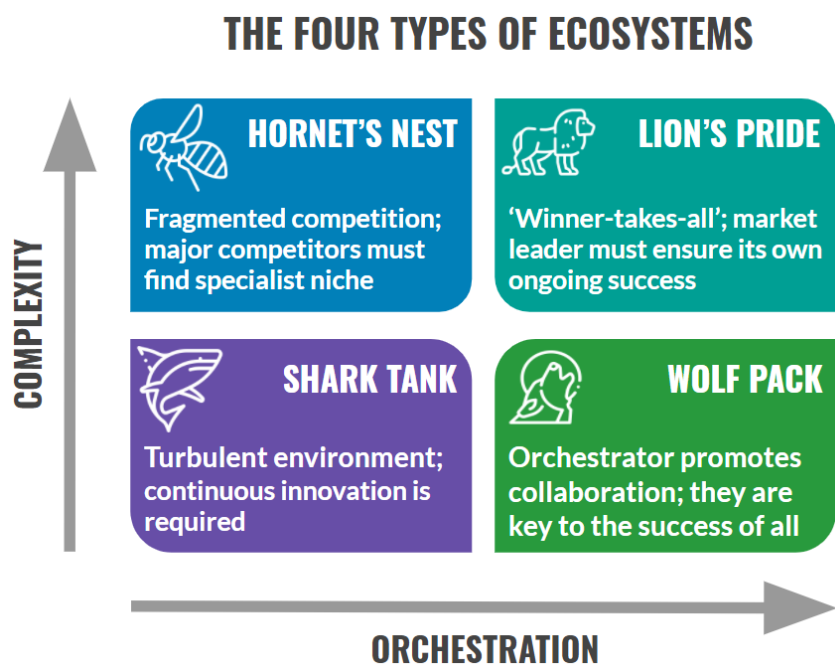
When customers can have their needs met from many different **substitutes**, it is easy for them to switch, e.g. if prices rise. This makes the profitability in the industry low.

Definition

Substitutes

Products to which a customer can easily switch and still have their needs met.

Different types of ecosystems



Complexity

Complexity is defined by:

- The number of participants in an ecosystem
- The range of the participants' roles
- How the participants relate to each other

Levels of complexity can be broken down into two categories:

The levels of complexity in an ecosystem

High complexity

A highly complex ecosystem could result from:

- A vast range of participants which require a central orchestrator, e.g. Amazon brings together a large number of buyers, sellers, suppliers and distributors
- Participants undertaking sophisticated activities, e.g. deep-sea drilling
- There are obstacles that restrict entry into the environment, e.g. high start-up costs

A highly complex ecosystem has a higher barrier to entry, which act as an advantage for participants in the ecosystem as their position is relatively secure.

Low complexity:

- A low complexity ecosystem is the opposite of a high complexity ecosystem
- There are lower barriers to entry, which means that participants are more vulnerable as their role could be easily replaced by new entrants

Orchestration

Orchestration can be split into two types:

Tight

The orchestrator is able to influence the behaviour and actions of participants across the entire ecosystem. They may also be able to capture value for other participants.

Loose

There is no central coordinator. The participants act more independently of each other and must capture all value by themselves.

The four types of business ecosystems

- Combining these two factors gives the following four different types of business ecosystems
- Depending on which type of ecosystem an organisation is in, their strategy for success will differ

Shark tank

- Has low complexity and low orchestration, e.g. bargain retail stores
- As there is no strong orchestrator, the participants have to create value themselves through innovation to separate themselves from competitors
- Value must be captured directly with other participants
- As it is highly competitive, competitors must continue to innovate to keep ahead of new entrants – sometimes referred to as jumping with the sharks

Lion's pride

- Has high complexity and high orchestration
- The orchestrator facilitates, monitors and remunerate participants' actions within the ecosystem, e.g. Amazon acts as an orchestrator for suppliers, customers, distributors, etc.
- The orchestrator dominates the industry, but they must be vigilant of changes in the industry that may cause them to lose their position, e.g. changes to technology – sometimes referred to as roaring with the lions

Hornet's nest

- Has high complexity but low orchestration, e.g. the video streaming industry
- As complexity is high, new entrants find it difficult to enter the ecosystem resulting in a limited number of competitors who tend to be large

- In the absence of orchestration, competitors must find their own way to capture value, ideally in a different way to competitors; this is called 'fragmented competition'
- To retain their position as a major competitor, this involves finding and occupying a specialist niche – sometimes referred to as flying with the hornets

Wolf pack

- Has low complexity and high levels of orchestration
- New entrants can enter easily, but the ecosystem itself is complicated, e.g. an energy and utilities sector in which individual households can produce and sell energy, as well as consume it
- The orchestrator supports all the participants to coordinate them to work together for mutual benefit – sometimes referred to as dancing with the wolves

Regulation of ecosystems

Regulators exist to ensure fair but competitive marketplaces, both for organisations and their customers. However, due to their dynamic nature, ecosystems are causing problems for regulators.

Reasons ecosystems cause issues for regulators:

Rapid change	Because of the speed in which ecosystems change or are created, it can be difficult for regulators to keep pace with the change.
Diversity	Diverse, non-comparable, participants, interacting and operating in different ways, means it will be harder to set regulations.
Creation of new products and services	Ecosystems drive the creation of new products and services, requiring regulators to keep pace with the changes. They must determine whether regulation is required in an industry and whose job it will be.
Bypassing of regulations	Even if a regulator is able to regulate an industry, participants will try to find a way to bypass regulations, e.g. by using the regulators.

Digital technology and the ecosystem environment

The invention and development of digital technology have created the conditions that allow business ecosystems to exist, and has resulted in organisations taking on particular characteristics.

Characteristics of organisations in ecosystems

According to IBM, there are three characteristics of organisations in ecosystems:

Connected and open	Due to the development of digital technology, e.g. computers and mobile technology, participants in an ecosystem can easily communicate and collaborate.
Simple and intelligent	Developments in technology are allowing organisations to utilise it easily, and collect and analyse data which is used to make informed and intelligent decisions.
Fast and scalable	Using technology has increased the number and speed of transactions that an organisation can undertake, allowing the size of the system to be quickly increased.

Drivers of the digital world

There are certain drivers which are creating the digital environment businesses are now operating in, including:

- **More people using the internet** – E.g. due to many people from emerging markets, which are experiencing rising living standards and lower costs, subscribing to smartphone contracts
- **An increasing number of connections** – Of individuals to different devices, allowing more data to be collected and aiding real-time customisation for consumers
- **Data analytics** – The science of analysing raw data, which is evolving to keep pace with the increasing volumes of data
- **People interacting with machines** – In new ways, so that tasks can be carried out more quickly and efficiently

- **Affordability of technology** – As the middle class is growing throughout the world, more people can afford digital technology and will spend more time online
- **Urbanisation** – Globally, more people are now living in urban areas, allowing new innovative distribution and delivery systems can be used

Drivers of consumer change in the digital age

The digital age has changed customer needs.

Drivers of change to customer needs	
Contextualised interactions	Digital consumers expect a personalised interaction or products, e.g. customisable products.
Connected digital systems	Digital consumers expect to buy something, pay for it easily and have it delivered quickly. Organisations need to connect their digital systems to attract and retain customers.
Real-time	Digital consumers expect to be able to access product information and services at any time through the internet.
Service	Digital consumers are willing to switch providers due to poor service. They are also prepared to self-serve, e.g. resolve own technical issues through information provided by the business.
Transparency	Digital consumers expect to be able to access product or service information easily before they make a purchase. They also expect to be provided with information on how their data will be used and how it will be kept safe.
Peer reviews	Organisations should be aware that peer reviews may be more valued by digital consumers than professional reviews of products and should be quick to respond to negative feedback online.

Companies can improve customer experience by:

Design thinking This encourages organisations to design for the individual they are creating the product or service for, therefore, requiring in-depth knowledge about the customer's behaviour and needs.

Prototyping	The development of a prototype product in the early stages of a product's development which is tested on customers to assess how they interact with it, allowing changes to be made before the finished product goes to market.
Experimental pilots	Used to analyse the behaviour of consumers and how they interact with a product or service to help design new products, e.g. by assessing how customers interact with each other.
Brand atomization	Brands can allow some areas of the organisation's products to be more widely distributed through a variety of different platforms, e.g. the product could be sold through social media platforms.

And finally...

Stop!

By this stage you should know:

- What a business ecosystem is
- The similarities between ecosystems and traditional markets
- What the differences between ecosystems and traditional markets are
- The different ways value can be created
- What is orchestration?
- What mutuality means
- About the benefits of an effective business ecosystem
- What is a participant?
- What the differences between participants in a traditional market and an ecosystem are
- What factors should an organisation consider relating to participants in an ecosystem?
- Who are the major participants which impact on a market?
- Why Porter's five forces are useful for studying a market

- What are the five forces of the Porter's five forces model, and how do they relate to each other?
- What competitive rivalry is
- About the threat of new entrants
- What are some barriers to entering a market?
- What is buyer power?
- What supplier power is
- What is a substitute?
- The four types of business ecosystems
- How can the level of complexity differ between ecosystems?
- How the level of orchestration can differ between ecosystems
- The characteristics of a 'shark tank' ecosystem
- What a 'lion's pride' ecosystem is
- What is a 'hornet's nest' ecosystem?
- The characteristics of a 'wolf pack' ecosystem
- Why are ecosystems more difficult to regulate?
- What are the characteristics of organisations in ecosystems, according to IBM?
- About the drivers of the digital world
- What are the drivers of changes to consumer needs in the digital age?
- How can companies improve their customer experience in the digital age?

Got it?

If not, go back and re-read the study text before moving on.

Question Time

It's now time to practise questions.

If **you've signed up** for our practice questions or are on our fully inclusive course, here's a direct link to questions for this chapter:

[Go to Practice Questions](#)

If **you want to sign up** for our practise questions here's where you will find more details:

[Sign Up for Questions](#)