CHAPTER 3 - Understanding the business environment

Contents

СНАРТ	ER 3 - Understanding the business environment	2
3.12	Network organizations	2
3.13	Business ecosystems	4

CHAPTER 3 - Understanding the business environment

3.12 Network organizations

Active reading. Note how the practice of outsourcing activities to specialist organizations, and the need to collaborate through the supply chain, or value system, has influenced the development of network organizations, that provide certain advantages.

Porter (1985) suggested that organizations should be clear about the basis of their competitive advantage. Mainly one of cost leadership or differentiation (see Chapter 6, section 6.3, for a discussion of competitive strategies), and many scholars have suggested that uncertainty in an environment requires greater differentiation and, consequently, more complex business processes. Contributing to the complexity is the degree of competition in the market, which in turn leads to more dynamism being required in the organization structure (Rumelt, 1974; Lawrence and Lorsch, 1986). Thus, there is a strong link between the strategy, environment, and organization structure.

A resource-based view of strategy formulation suggests that focusing on the competencies of the organization can provide the basis of the competitive strategy. It is also possible to tap into expertise by outsourcing activities to specialist organizations. One of the main benefits is that a specialist firm may be able to perform the operation more efficiently and effectively due to economies of scale and expertise achieved via the learning curve from the specialization. Thus, working together, organizations may put themselves in a position to add more value to the customer than is possible on their own.

The increasing practice of outsourcing and collaborative working led to the development of network organizations in which several organizations contributed to the provision of the product or service to the end customer. Primarily a network organization is a collection of autonomous organizations or units that behave as if they are a single entity, using social mechanisms for coordination and control. This arrangement enables organizations to be more flexible and adapt to environmental changes (Vega-Redondo, 2013).

Various authors have described three types of network organization. These are typically seen as:

• **Internal**, where a large organization has separate business units, some of which may be separate subsidiary legal entities that act together.

- **Stable**, where a central organization outsources some of the work to other organizations, and,
- **Dynamic**, where a central organization, which is known as a network integrator and may do little except to manage the network, outsources heavily from other organizations.

The advantages to be gained include:

Lower transaction costs

Lower transaction costs between the various organizations as they share a common goal and can organize themselves to reduce the costs of transferring and combining goods and services. This management of costs is also facilitated by the frequency of transactions between the network organizations.

Demand uncertainty

It is possible to cope with demand uncertainty more readily. The use of contract or jobbing staff in certain industries enables an organization to operate with a minimum level of core employees, knowing that it can recruit and shed staff as required to cope with fluctuations in demand. For example, a film is made by bringing together a network of different parties for a specific project, all of whom work in the industry, each bringing their own particular skill set. Organizations and parties within the industry accept the fact that once the project is complete, they move on to look for the next opportunity in which to apply their specific skill set to a common goal.

Customization and asset specificity

In some industries, the requirements may be quite wide-ranging in that very few jobs are the same, and therefore being able to call on specialist organizations to provide products and services customized to an individual customer allows this to be achieved without the need to retain the capability in-house. This ability offers a high degree of flexibility in product and service providers and also means that assets that are used for a specific purpose do not have to be owned by many companies, but that one can provide the service to many. For example, a theater production company that can arrange the finance, find a suitable venue, hire actors and directors, musicians, specialist backstage staff as required, and promote the production.

Task complexity

Where the task is overly complicated and to maintain the capability in-house would be very costly, it is beneficial to operate on a network basis.

The emergence of the ecosystem

The emergence of the term business ecosystem is beginning to replace the network organization. Authors such as Satell (2017) suggest that if you can create an organization chart of a networked organization, it is not genuinely networked. The definition of a networked organization is moving towards describing networks where the relationship is much more informal than formal. It is suggested that true networks would form naturally, and it is the common goals that bind the members together rather than a formal structure. Imagine the wedding planner who has a book of contacts that they can call on to provide the perfect wedding for their client. Now scale this up to larger projects, and you have an international organization that can pull together resources and skills as and when required.

Organizations are no longer seen as an entity that does everything but can be viewed as bundles of discrete parts, each of which undertakes a particular function and combine to add value to the end customer. This relationship is the essence of a networked organization, which is now frequently being referred to as operating within an organizational ecosystem.

3.13 Business ecosystems

Active reading: Note how the term business ecosystem encompasses collaboration and competition. Also, note the strong link to the concept of stakeholders and the wider environment. Also, notice how technology and IT platforms are used as the enabler for cooperation and coordination within an ecosystem.

The term ecosystem was originally used by the British botanist Arthur Tansley in the 1930s to refer to a community of living organisms that interacted with each other and their environment (air, water, minerals, soil, and other natural elements). The term was then borrowed and applied to a business context by Moore (1993). He argues that organizations need to innovate and that innovation cannot happen in a vacuum. Organizations need to work cooperatively and competitively to support the development of new products, satisfy customer needs, and continue to innovate. Moore suggests that organizations should be viewed as part of a business ecosystem that crosses a variety of industries, drawing on capital, partners, suppliers, and customers to create a cooperative network.

The business ecosystem offers a dynamic, system view that includes not only the organizations within its supply chain but also those with more indirect roles, such as from companies producing complementary products, regulator bodies, financial institutions, research institutes, media, universities and even competitors (Iansiti and Levien, 2004). Figure 3.6 provides a representation of the business ecosystem.

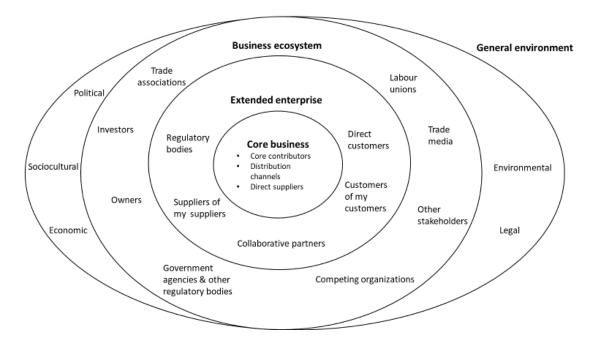


Figure 3.6 The business ecosystem

The diagram in Figure 3.6 indicates where the business ecosystem fits into the environmental analysis. Note that the general environment, which is represented by a PESTEL style analysis, sits on the outer rim, and the ecosystem then contains the relevant stakeholders. This links closely to stakeholder analysis in that consideration of the ecosystem encourages the organization to think of the wider impact that certain stakeholder groups have on their organization and, conversely, the impact that a strategic choice has on various stakeholder groups.

It could be argued that there has always been the need for organizations to work together through the supply chain, as a delay anywhere in the system from the provision of raw materials, production, distribution, retailers, finance and customer service would impact adversely on the customer experience (Iansiti and Richards, 2006). The concept of the ecosystem, however, can extend beyond the traditional supply chain and, in some cases, act as a disrupter of the conventional supply chain via disintermediation, that is, cutting out the middleman, as in the case of eBay or Airbnb.

The evolution of the ecosystem structure in which organizations operate has been facilitated by factors such as developments in technology; the Internet; increasing competition; increased awareness of the need to be socially responsible and the impact of organizational activity on communities and society in general; the rapid pace of change and innovation; and the growing sophistication of customer demands.

The definition is captured by Deloitte Consulting (2015: 5), who suggests that "Ecosystems are dynamic and co-evolving communities of diverse actors who create and capture new value through increasingly sophisticated models of both collaboration and competition." Ecosystems are

also sometimes referred to as value webs, as they represent a web of loosely connected organizations that work towards creating value.

There are distinct advantages to developing and being part of an organizational ecosystem. They include:

- The ability to develop new collaborations to address rising social and environmental challenges.
- They present opportunities to harness creativity and innovation to lower costs of production and service provisions or to enable members to reach new customers.
- They enable an acceleration of the learning process via collaborations, sharing of knowledge, skills, and expertise.
- They facilitate ways to address fundamental human needs and desires.

Examples of how technology and creativity have provided new ways to satisfy human needs that are visible to the consumer are the emergence of companies such as Uber, Airbnb, and Just Eat and Grub Hub. These companies have changed the business model in their industries. They use technology to act as an intermediary between companies in the case of Just Eat, Grub Hub, or Uber, or in the case of Airbnb, between end-users so that they replace the traditional intermediary, such as the travel agent, altogether.

In Business-2-Business (B2B) scenarios, there are many stakeholders involved, of which some may be unseen by the end consumer. They include suppliers, distributors, customers, competitors, government agencies and regulatory bodies, finance providers, local communities, consumer groups, and pressure groups, and so on.

There is often a controlling company that occupies a vital role in the ecosystem. These are also known as 'leaders' or 'central contributors' (Moore, 1993). For example, Microsoft's Windows operating system and tools or Walmart's procurement system, to which its suppliers are linked, that provide a stable and predictable set of common standards. Over time the members of the ecosystem co-evolve so that they tend to align themselves with the direction set by one or more of the control companies. The control companies may change over time, but the community members value the leadership function they perform as it allows them to align their investment decisions to work towards a shared vision and goals (Gueguen, 2009).

Ecosystems may go through periods of internal turbulence. For example, several organizations that operate in the gig economy have faced criticism over their practices. One high profile case is that of Uber. Drivers who had signed up to Uber began to argue that they should be treated as employees. Uber, like many other organizations built around a digital platform, relied on treating workers as independent self-employed contractors rather than employees, thus avoiding social charges and employee benefits such as holiday pay. In 2016 in the U.K., the drivers won a tribunal that ruled they should be treated as employees. The judgment was upheld in 2018 by the court of appeal. Similar laws were passed in some U.S. states that indicated that Uber drivers should be treated as employees. The competitors from established taxi operators were also suggesting that

the competition was unfair, and regulators have been struggling to find ways to regulate the activities.

It is often the case that the rules and regulations do not always cover the new business models and the regulations governing the operation of the market lag. Indeed, it is one of the ways in which new business models can gain an advantage over the competition. The gig economy, which is dominated by the use of zero-hours contracts, under which workers only get paid for the hours they work and when the organization wants them, has caused regulators to examine the equality and fairness of such contracts. Some pressure groups argue that they are exploiting vulnerable sections of the workforce and are ignoring workers' rights.

Internal and external ecosystems

Despite the concept of collaboration and competition and the benefit for society and sustainability, ecosystems can be established that seek to create a barrier to entry and to exclude others from participating. This situation builds on the concept that ecosystems encourage collaboration and cooperation in the form of coopetition, as well as competition. There may be an opportunity to gain a competitive advantage through mutual exchange. For example, a pharmaceutical company financing innovative technology at a small biotechnology firm, on the basis that it gains access to the research findings first. These exchanges of resources are referred to as closed-loop ecosystems and seek to limit the number of participants.

More extensive external ecosystems are often developed from closed-loop systems due to the benefits that could be gained from broader participation. For example, a supermarket chain may work closely with a packaging supplier, designer, and supplier to develop a more sustainable way of packaging food so that both the packaging company and the supermarket gain a first-mover competitive advantage in the marketplace. There are, however, arguments to suggest that as the supermarket industry sector operates on low margins, and is highly price-sensitive, that it is too expensive for one company to go it alone. There is the viewpoint that recyclable packaging may be more costly, and therefore eliminating the problem of non-recyclable packagings, such as single-use plastic, will only be solved by the industry working together. This issue may also be aided by government regulation and consumer groups; therefore, the benefits of an enhanced ecosystem encourage more collaboration between a wider group of participants. The acceptance of consumers also must be encouraged. Packaging protects, preserves, transports, informs, and sells the products. If less or no packaging is used, there is a trade-off between these elements, and the packaging industry argues that consumers must accept that compromises may be necessary if recyclable packaging is used. The challenge for the ecosystem is to work together to achieve the overall goal.

A key aspect of developing a strategy is the activity of environmental scanning in which potential opportunities and threats can be identified. This scanning includes spotting potential competitors or substitutes for the product or service provided. Recognizing and working with the stakeholders that make up the business ecosystem can aid this process. For example, in the early

days of office technology and automation, a company noticed many organizations had a range of printers from different manufacturers and that they did not always talk to each other very effectively. This problem of 'handshaking' was common in that different manufacturers had different specifications, and getting different products to talk to each other was often problematic, particularly for small organizations that did not have in-house technical expertise. The company, working solo rather than in collaboration with the printer manufacturers, developed a software package that integrated the printers solving many of the 'handshaking' problems.

It did not take long, however, before printer manufacturers worked together with hardware and software providers and began to incorporate integration software into their products, which made the software product of the original provider obsolete. It would have been advantageous for the original company to have recognized the potential ecosystem and worked closely with the printer manufacturers to develop an integrated product. They would then have retained a viable long-term interest in the product. The point here is that it can be beneficial to recognize those parties with a wider interest and that independent competitive advantage can be short-lived when collaboration would provide a more sustainable business proposition. The critical element that the original organization missed was identifying the relevant stakeholders in their ecosystem and assessing their degree of influence and power. As a competitive response, the printer manufacturers chose to collaborate to eliminate the original innovator.

This winner takes all strategy often happens with new innovative technology, where in the early stage of the life cycle, competitors develop different standards. Competing organizations vie for supremacy to make their standard the industry standard. This competitive element can be problematic for collaborative organizations in that it creates compatibility issues. Do they back one standard only, or ensure compatibility with more than one? This dilemma means that they must work closely with more than one central organization, for example, mobile phone app developers whose apps must work with Apple iOS, Google Android, Microsoft's Windows OS, HarmonyOS, and other operating systems. Does this situation mean that app developers are part of several organizations ecosystems — or is it better viewed as just one vast ecosystem relevant to the mobile phone sector?

Identifying ecosystem stakeholders

It is essential to identify the different stakeholders and their vested interests. Ideally, the most effective and ultimate aim of an ecosystem, or value web, is to work towards common goals (Gueguen, 2009). However, note that the definitions suggest that organizations collaborate *and* compete within ecosystems. Innovations and progress are often made through competition, and one value web could compete with another value web. Indeed, some organizations may be members of more than one value web in what amounts to overlapping ecosystems creating a much larger ecosystem. This concept can become complex as the formal and informal relationship between organizations ebb and flow and change over time.

In creating the ecosystem, there may be different levels inhabited by various stakeholders who have different levels of interest and influence. Indeed, each organization is said to have its own ecosystem, and the power and influence of certain stakeholders could be expressed differently depending on its relationship with other organizations. For example, Walmart or Amazon are powerful players in their respective ecosystems. It is, however, possible to buy certain products from either Walmart or Amazon, so they compete. Some organizations supply products to Walmart and also make them available via Amazon, thus being members of both ecosystems. Still, the supplying organizations may see Walmart and Amazon as large players (customers) within the same ecosystem. These different viewpoints become significant in negotiating the relationship between the organizations. Walmart could exercise its buyer power over smaller suppliers, and Amazon could impose contract terms for using its trading portal. However, the supplier has two potential outlets for its products and could make tradeoffs between the benefits of selling its products via either, or both, of the two options.

Amazon has expanded into sports and entertainment provision, and so is a member of a separate ecosystem where they currently may not have as much power and influence. It is possible to see both the complexity and the potential benefits of the concept for members of a management team in developing strategy as it provides a fresh way of thinking about business relationships, the business model, what markets you compete in, and against who you compete.

The IT industry represents some of the early examples of ecosystem development. If an organization develops an operating system such as Android, or iOS, and apps are developed by other parties that use the operating system, the provider of the operating system needs to ensure that as the product develops everyone in the ecosystem is considered, thus creating the need to collaborate and share information. Open-source software such as Linux is an example of a product produced via the collaboration of many partners. And, of course, these products are developed by people situated anywhere in the world. The nature of the product means that organizations, particularly software companies, can recruit the best talent from anywhere as and when needed. The connectivity, often across different ecosystems, provides a degree of flexibility and responsiveness not previously enjoyed by organizations.

The Internet has also enabled the development of new products that offer connectivity. It is now possible to remotely control physical devices in the home from a mobile phone, such as changing the heating controls, recording TV shows (which can be watched anywhere on a mobile device), manage a bank account, place bets, and many other activities that require the cooperation of the manufactures of devices to conform to industry standards.

Ecosystem platforms

Ecosystems are often formed on top of a business platform (Iansiti and Levien, 2004). These platforms are typically created and owned by a single business or entity and are designed to attract a range of participants that work actively to perpetuate the platform's use. An early example is the

formation of VISA. Dee Hock had noticed that many banks were attempting to create a credit card payment system of their own, and investing high levels of resource and marketing effort in doing so. Dee Hock proposed the creation of a common platform which would aid banks in developing and managing credit card payments, which later became VISA, and essentially taking away the burden of each bank attempting to create their own system.

The use of a technology platform that brings individual buyers and sellers together is demonstrated by eBay and at a wholesale level by Alibaba. Uber is a good example of an app using a platform provided by the providers of cellular networks accessed by devices supplied by mobile phone companies. Members of a business ecosystem often invest in a shared platform. The platform upon which the ecosystem is based provides all parties with the tools and frameworks to assist them in driving innovation and improvement in performance (Eisenmann et al., 2006).

There are said to be three types of platform:

Aggregate platforms

Aggregate platforms facilitate transactions, connect users to resources, and tend to operate on a hub and spoke model with a controlling entity. These can be platforms that are based on the provision and sharing of information via access to a database, such as stock performance platforms that provide information on performance for investors, or scientific databases that can be accessed by many organizations as part of their research and development. In the case of scientific databases, these can often speed up the development of new products to treat diseases and conditions via the sharing of information and data. Within this category, there are also marketplace aggregate platforms such as eBay and Apple App Store, Android apps on Google Play, that put buyers and sellers in contact with each other. There are also contest platforms where a problem is posed, and solutions are invited with a reward for the best solution. These are often used by organizations running a competition as part of their promotional activities, many of which are run in conjunction with social media campaigns.

Social platforms

Social platforms, as the name suggests, enable lots of people to interact. Facebook and Twitter are common examples. These facilitate social interactions and connect individuals to communities.

Mobilization platforms

Mobilization platforms are platforms where the purpose is to change opinion or mobilize people to act together. The #MeToo campaign or #BlackLivesMatter are examples of where Twitter acts as a mobilization platform. The use of Twitter and Facebook to mobilize public opinion illustrates that the typologies are not necessarily discrete but can merge their purpose. From a purely

organizational viewpoint, the platforms are the most valuable when they become learning platforms in which organizations share and build trust relationships that work for the good of society and sustainability in general.

Benefits of ecosystems

By sharing learning and innovation, the development and use of ecosystems accelerate growth in economic development. Enabling organizations from around the globe to work together can stimulate economic growth in different countries as well as providing social and environmental benefits. For example, the Global Food Safety Initiative promotes quality and food safety standards. Many of its members compete for markets, but together they share best practices to ensure that standards are kept high, and food safety is maintained as a priority that benefits the industry and helps to increase end consumer confidence.

The use of cloud computing and intelligence sharing is bringing positive benefits in the world of science and social projects. These projects range from monitoring food waste, changes to weather patterns, surveys of changes to the population of certain species beneficial to the human ecosystem, such as bees, birds, and other animals, monitoring the incidence of diseases in different countries, and widening the research base for science projects. These examples illustrate the potential of the new ecosystems to provide opportunities for organizations to tap into projects that have a much wider benefit to society and the sustainability of the planet.

Ecosystems are removing many of the boundaries that constrained traditional business models. For example, the increasing use of advanced manufacturing technology, office automation, and more recently, artificial intelligence in business applications is changing the way humans and machines interact. This change in the human-machine interface has changed the way industries operate and the business models necessary to survive, such that they can be viewed as ecosystems, often without the actors consciously setting out to create an ecosystem. Technology has also impacted on the producer-consumer interface, where consumers are now the active participants in the system rather than the passive recipient at the end of the chain.

The case of newspapers

Newspapers were traditionally produced by journalists gathering news, creating copy, which was edited by in-house editors, typeset by typesetters, and then the typeset plate prepared for printing the paper, which was delivered to retailers, who sold it to the consumer. With the development of the Internet, newspapers produced an online version, and now, much of the news content consumed is via social media.

As technology changes, news providers must take note, not only of the way news is consumed, but of any changes in the mobile technology as updates in the end-user technology could mean that content is not accessible in a readily useable format. For example, when mobile phones and tablets became the medium of choice by the consumer, organizations had to make changes to their

web pages so that they were optimized for use on a mobile phone and tablet. This compatibility issue requires collaboration between all those involved in the collection and dissemination of news content. It highlights the need to be aware of the impact that changes by one organization, or group of organizations, makes in the broader ecosystem. This requirement has cost implications for members of the ecosystem that could be intentional or unintentional, and recognition of this should be included within the strategic planning process.

The ecosystem behind the news media today is a good illustration of how both competitive and collaborative elements can thrive within the system. The traditional newspapers, while having to embrace the new technology in terms of consumption of their output, would ideally like to have some form of control over how news is presented and consumed. Yet they need to harness the social media content, not just for consumption but also for generating the content, as many stories now emerge via social media. Many stories receive their first public airing on platforms such as YouTube, which is a competitor, but in another sense is a collaborative provider of news content. Anyone with a mobile phone now becomes a potential reporter of news. Adhoc news gathering also brings with it potential problems of fake news and regulation of the industry. But what it does illustrate very clearly is how the business model has changed significantly due to the technology and how humans interact with it.

3.13.1 Risks and regulation of the ecosystem concept

Active reading. Note how redefining the business model impacts on the broader general environment and creates opportunities but also risks from the PESTEL elements.

Cybercrime

As business ecosystems develop, primarily enabled by technology, it is not without its risks. Cybercrime has grown in recent years, making the cybersecurity and data protection industry a crucial part of any ecosystem. This potential risk highlights the societal and ethical impacts of the new business models. The use of artificial intelligence to determine customer preferences, tailor content, and promote specific offers, is one example of potential difficulties regulators are faced with in deciding where the new boundaries lie. There have been accusations of data analysis being used to influence general elections and tamper with the political systems in different countries. The development of a new business model breaks down traditional boundaries. Still, regulators must work hard to determine where the new boundaries are to be drawn to stop the abuse of the system and ultimately to protect society and the consumer.

Old regulation - new business model

One of the difficulties is in determining how the existing regulations apply to the new business models. For example, is Uber operating on the same basis as a traditional taxi company, or not? What rights do drivers have? Are they treated as employees or self-employed? A case that has received some discussion in the media is whether people using Airbnb have the same protection as if they had booked through a traditional travel agent? It is often difficult to apply existing rules to a new business model. The process of challenging the rules helps the regulations to develop, but there will inevitably be a time lag, as regulators cannot regulate based on anticipated new methods of operation.

Rigid regulations may deprive society of value in the future

One of the dangers is that if regulations are applied rigidly, then it could deprive society of value in the future. Proponents of new business models recognize that there needs to be a balance between the quality of life and innovation. A case in point is the development of personal monitoring devices for medical conditions where patients wearing a digital device can be monitored remotely. How safe is the data, and how is it shared? The same could be said of fitness apps, diet apps, and other personal wearer devices where data has been collected and shared with other companies. Concern over medical data and medical records is that they could eventually be used by insurance companies to assess risk.

Who is in control of the ecosystem, and its development or widening participation is a problem of regulation? The same issue arises over the use of big data and the sharing of data across government agencies. For example, the use of mobile phones to track individuals, CCTV footage, vehicle registration plate recognition systems, and more general surveillance systems are causing debate about how to regulate the use of data. Many of these systems are used by commercial organizations to understand customer habits and for targeting marketing campaigns.

The issue over data security has been raised in many countries concerning the track and trace policy to counter the spread of the covid-19 virus. The majority recognizes the importance of the policy in combating the spread of the virus. However, the means of tracking via mobile app still carries with it the concern over data privacy and security. There is an issue of trust between the platform controllers and the users.

Impact on jobs, skills, and employment

The impact on skills and ultimately, jobs and employment has been raised as an issue. The development of peer-to-peer transactions is much easier to undertake, even across nations, such that organizations are now able to take advantage of the prevalence of factor conditions such as labor, capital, and technology in different countries, and in effect remove the advantage of being physically located in a particular country. For example, organizations can take advantage of highly skilled workers but at lower labor costs. Activities such as computer software development, and

call centers are often situated in counties with low labor costs, but good levels of education. Some social commentators are worried about the economic effects and governance of such systems that creating value from a range of diverse organizations that the benefits may have long term consequences which governments are not considering.

Self-regulation

There is a move towards promoting the self-regulation of the ecosystems. In some cases, this is done by the rules and incentives set by the central organization operating as the hub. For example, eBay, an online marketplace, is keen to share the value it creates with the members of its ecosystem - the commission is much less than other retailers, seven percent (at the time of writing) as opposed to the thirty to seventy percent that is often charged. They have tools to assist the sellers, such as the Seller's Assistant, which helps sellers to create a professional-looking online presence. These are like website providers such as GoDaddy and ensures, at the very least, a certain level of quality and functionality on the website. eBay's buyers and sellers rate one another, which helps to regulate and control the system as well as increasing overall confidence in the system. Those that achieve high ratings achieve PowerSeller status, which acts as an incentive and benefits the whole ecosystem. Amazon Services provides its customers with an e-commerce infrastructure for order-taking and fulfillment. Other online marketplaces operate similar practices. By creating an element of transparency through inviting feedback from customers and making them visible, benefits the whole ecosystem, and provides a level of control over rogue practices.

In B2B, auction sites became popular for the procurement of components in manufacturing industries allowing firms to bid for contracts. These sites are governed by specific criteria but essentially switches the focus of procurement onto the supplier organizations to actively seek out opportunities to sell their products to manufacturers.

3.13.2 Governance of ecosystems and networks

Active reading. Note how collaboration within a competitive environment relies on informal controls and trust between the business partners. How effective do you think this will be?

The development of ecosystems has enabled the development of more complex relationships, which are more informal than being tied to formal contractual terms, as in the case of outsourcing. They also allow smaller players to work together to either contribute to more extensive networks or to compete with the larger organizations via their collective resources.

Some business commentators have suggested that the development of ecosystems will reduce the merger and acquisition activity undertaken by organizations as the benefits can be gained without ownership. However, the governance elements need to be considered as to how the network will be managed. For ecosystem networks to operate effectively, several factors need to be considered. These include:

Trust

Trust becomes a significant factor in the successful operation of an ecosystem. As the linkages become more informal, rather than being governed by a formal contractual arrangement, parties need to build up trust in each other. Trust is something that develops over time during a relationship and can be enhanced by reputation and status so that the individual members become recognized as a partner that always delivers what is promised.

Goal consensus

The goal consensus can act as an element of governance as all organizations are working towards a common goal and hence have a vested interest in making the alliances and relationships work for mutual benefit. It is in everybody's interest to collaborate.

Number and size of organizations

The number and size of organizations comprising the network can influence the governance as a few organizations can operate with common consent much more easily than a large number. There may be different levels of commitment required to create and provide value to the end recipients. The nature of the task can have a similar impact. Complex tasks that require a high level of competency are more difficult to control than simple tasks.

The need for guidelines

For large complex networks, there may be some guidelines laid down by a key participant or lead-hub organization that is agreed by major participants to which minor participants must abide when joining the network. The lead-hub organization may be more powerful due to size, resource capability, or legitimacy, as in the Amazon Services and e-Bay are examples.

Separate entity as overseer

In some instances, there may be a separate entity that does not actively participate in the ecosystem's creation of value but oversees the governance of the network. Large humanitarian projects that constitute an ecosystem are often managed by an organization that undertakes a purely administrative and management role.

3.13.3 Ecosystems and strategy

Active reading. Note how the concept of the business ecosystem can be encompassed within existing strategic activities, but also how it can add a different dimension to thinking about potential opportunities and threats.

There are several activities that managers can do to take advantage of the development of ecosystems.

Monitor the environment

It is now more critical than ever that senior managers monitor changes in the environment so that they are able, not just to identify the changes from PESTEL, Porter's five forces model, and competitor analysis, but that they monitor the development of the relationships between industry members, and how these are changing.

Analyzing the stakeholders

It is also essential to analyze the various stakeholders in the ecosystem, together with the degree of influence and power to dominate or dictate terms. The relationships with the stakeholders need to be fully understood. In the case of platforms, this helps to identify the key players in the network.

Key competencies

Identifying the key competencies and ascertaining whether these are best performed by the organization or performed by others in collaboration.

Seek out opportunities

Organizations can seek out opportunities for collaboration to develop innovations, products, and markets. These may come from environmental analysis or strengths and weaknesses. A strength could be developed to create a competitive advantage from a collaboration with another organization, or a weakness addressed.

Raise awareness

Organizational ecosystems are a relatively new concept in business practices, and raising awareness that organizations are operating within an ecosystem will help managers to identify and monitor changes in the inter- and intra-organizational relationships that exist. Ecosystems are fundamentally about relationships, and managers need to work towards accentuating the positives and minimizing the negatives from their relationships with other organizations.

3.13.4 Ecosystem and management accounting

Active reading. Note how management accounting techniques can facilitate the collaboration for mutual benefit within the ecosystem, but also provides an element of regulating behavior.

As ecosystems and network organizations require greater cooperation between parties, the concept of transfer pricing (see section 10.8) becomes much more significant. Ensuring that each organization involved in providing the product or service to the end customer receives a fair reward for its contribution requires a full understanding of the costs each organization incurs. This also has implications for the pricing of the product or service. It would not be good for consumers to find there were hidden costs involved within a purchase.

The sharing of the profit margin becomes relevant when goods and services are bundled together. This practice was widespread in the IT hardware and software sector in the early days of this market, as many retailers adopted the strategy of bundling the software and hardware together. In the commercial sector, this would often include elements of training and consultancy, which requires the cooperation of the various providers and has profit implications for all parties.

Where products and services are used together by the end-user, changes to one aspect can have implications for other members of the ecosystem. For example, changes to an operating system can affect the functioning of apps and other software. Therefore, there needs to be consideration of the potential implications on other members when changes are made. Design considerations need to be shared between partners as design choices by one organization can lock in future costs of other organizations, for example, in the maintenance and repair of products. The concept of life cycle costing (see section 7.9) can aid the management of product development.

Techniques such as target costing (see section 7.8) have significance where a range of organizations are involved in the provision of goods and services, as the understanding of costs and where potential savings can be made requires cooperation and the sharing of cost information between parties. This sharing of information leads to the concept of open-book accounting in which each organization provides access to the costs and revenues so that the margin can be shared between participating organizations.

Techniques such as activity-based costing (see section 6.6) can lead to a better understanding of what drives costs and strategy models such as the value creation system (see section 4.9) aid the identification of where value can be added to the customer. It is helpful if the costing method adopted is consistent throughout the ecosystem so that a full understanding of the cost implication can be gained. Inconsistent methods could lead to inappropriate decisions being made by members of the ecosystem. Ensuring that costing methods are consistent becomes significant when considered as part of the transfer pricing model.

Management accounting can make a significant contribution to the successful operation of the business ecosystem, and accountants should not be afraid to highlight the cost implications of operating jointly with other organizations. Every action within a business has cost implications, and accountants within an ecosystem should work together to achieve the best economic benefits for all the organizations involved and the ultimate customer.

Learning activity. Think of the ecosystems of which you are a member, either as a student, consumer, employee, or member of the public. Include social networks as well as commercial networks. What interactions do you have with other members of the ecosystem, and what, if any, influence do you have? Do you have any concerns about being a member of the ecosystem? What actions could you take as a member to mitigate these concerns?