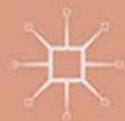


RICHARD CUTHBERTSON
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INNOVATING IN A SERVICE-DRIVEN ECONOMY

Insights, Application,
and Practice



Innovating in a Service-Driven Economy

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Innovating in a Service-Driven Economy: Insights, Application, and Practice

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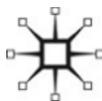
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Preface

The global digital revolution has changed consumer society, service expectations, and funding models forever. New companies have risen quickly to dominate sectors, processes, and markets.

Amazon is a classic case. Amazon set out to achieve success first in book retailing, then other retailing, and now services, with the aim of being “the most customer centric company in the universe.” This is an organization that is not tied down to a particular sector or consumer segment, is not fixed in terms of the product or service offered, and is happy to flout business conventions, focusing on long-term expansion and sales above short-term profits. As consumers change, as technology changes, as capital changes, Amazon intends to change and to lead that change. This is the *Amazon economy*!

There is a new digitally enabled global consumer society, where new services through new channels dominate new products that are ubiquitous and quickly copied. Consumers inform one another, bypassing traditional marketing channels; companies integrate vertically and horizontally, breaking down old structures; new venture push out traditional players; value-driven service innovation becomes the new driver of economic growth and social change.

The *Amazon economy* is a paradigm shift that businesses and governments must now embrace or they will most likely wither away.

This book aims to help practitioners understand these changes from the perspectives of leading thinkers and practitioners in the field of innovation today.

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Part I

Innovating in the *Amazon Economy*: Proposing a New Model

This book is about innovating in an economy as we see some new dominant trends: globalization, digitization, and the dominance of services over products in creating value. Most models of innovation are based on an understanding of the manufacturing economy and on the innovation of physical products. We argue that this knowledge needs to be complemented with an understanding of service innovation in an advanced consumer society. While there have been many calls for more focus on the service economy and innovation within such an economy, there is a lack of perspectives and models to handle this, both for the private and public sectors.

The need for perspectives and models to understand innovation in the service economy is perhaps best illustrated by Ostrom and colleagues (2010: 24): “Little is known about how to manage cocreated services because the underlying mechanisms that link customers and organizations are not well understood.” While we do not set out to identify all these mechanisms, we introduce a new model and obtain a systematic review of its elements from leading thinkers and practitioners as well as demonstrate the application of the model to some of the world’s best-known companies, some of which are successes while others are failures.

This book is split into four parts. The first section illuminates what we call an *Amazon economy*, a label that encompasses five connected trends of the new economy developing in the 21st century, as follows:

- (1) value creation has increasingly shifted from products to services;
- (2) value creation in services are driven by a competence across sectors rather than a knowledge of one sector;
- (3) social networks drive scale in service value creation in both mass and niche markets;
- (4) in a socially connected world, ideas must be quickly turned into action; and
- (5) high risk aversion kills companies.

Given these trends, there is a need for a new model of innovation.

We present the Service Innovation Triangle (SIT), a model that we have developed and first fully presented in Furseth and Cuthbertson's *Innovation in a Consumer Society* (2016). We think this model complements other important models in the innovation literature and is readily accessible to the practitioner wanting to innovate successfully.

The failure rate in innovation is high. While there are lots of lessons from failed innovation projects, they also represent wasted time and money. We argue that the failure rate may be somewhat smaller if corporations apply the model we advocate: the Service Innovation Triangle. A core question is what is most important for innovation to succeed. We present a threefold answer, one in each of Parts II, III, and IV of the book.

Part II provides insights from leading thinkers and practitioners on what is most important for innovation to succeed. We present responses from six thinkers and practitioners not only to what is most important for innovation to succeed, but also to topics like how to define innovation and value, which failure is most serious in innovation, and so on. The quotes in Part II suggest that firms need to broaden their view when it comes to innovation and growth, viewing themselves more in terms of service competence than product focus.

Part III develops insights about the three layers of the SIT model, based on responses from the same six thinkers and practitioners, on innovation capacity, innovation ability, and innovation commercialization and value creation. The thinkers and practitioners respond to statements closely tied to the Service Innovation Triangle. There is at least one statement from the literature for each of the nine subtriangles in the SIT model; for example, "Involve design thinkers at the very start of the innovation process" (Brown, 2008)¹, "All businesses are service businesses" (Vargo and Lusch, 2004)², and "Service innovation starts with culture" (Berry et al, 2006)³. The responses from the thinkers and practitioners to the statements tie in with their understanding of what innovation and value are, and what is most important for innovation to succeed, as presented in Part II.

Part IV then demonstrates how the SIT model is applied to ten varied corporate case studies: Xerox, Kodak, Tesco, Sainsbury's, Amazon, Borders, Facebook, MySpace, Apple, and Nokia. We present the case studies in pairs, for example, Xerox v. Kodak, Facebook v. MySpace, and so on. Each of the five pairs is tied in with one of the five trends we think characterize the *Amazon economy*. The aim with the case analysis is to

highlight both success and failure in service innovation across a wide range of sectors and so explain how the Service Innovation Triangle can be applied to any firm.

In Part V, we end the book by presenting the findings in a simple innovation process and checklist for everyday innovation.

1

Explaining the *Amazon Economy* and the Need for a New Model in Innovation

Globalization and digitization are important concepts in business today. These expansionist trends increase the focus on innovation. At the same time, many countries are moving to a service economy. In most advanced economies, services make up about 75 percent of Gross Domestic Products (GDP).

Some of the most successful firms today are relatively young, such as Amazon (founded in 1994), Netflix (1997), and Google (1998). A lot of older firms, and even some industries, have gone out of business lately, such as record stores, video stores, photo shops and bookstores. We believe the successful firms excel in innovation capacity and innovation ability, and hence in value creation, or the commercialization of innovation. These three topics form the three basic layers of the Service Innovation Triangle (SIT) model, as we will explain in Chapter 2.

The successes of the three firms mentioned above, as well as many others, have happened in a challenging economic climate, where services play a greater and greater role. For example, as we learn in the study named “The Atlantic Century II,” from the Information Technology and Innovation Foundation in Washington, DC, the corporate tax rate in the United States is the highest among countries in the Organization for Economic Cooperation and Development (OECD). The rate of improvement in innovation capacity for 1999–2011 in the United States is among the poorest in the OECD – under 5 percent – in contrast to China, which is at the top at over 20 percent improvement in innovation capacity during the same period of time.¹

However, innovation is far from over in the United States, as Netflix, Google, and, particularly, Amazon prove to us. Globally, innovation resources are more available than ever. For example, about 92 percent of all scientists and engineers in world history are alive today. The “App

economy” as Michael Mandel describes it, has created several hundred thousand jobs since 2007. Globally, there are over 100 million downloads per day of mobile applications, meaning more than 36 billion per year. US mobile-applications development generated \$25 billion in revenues in 2013.

Until late October 1994, Amazon was called Cadabra. As CEO Jeff Bezos read through the “A” section of a dictionary, he had an epiphany when he reached the word “Amazon,” the Earth’s largest river. He registered the new URL on November 1, 1994. “This is not only the largest river in the world, it’s many times larger than the next biggest river. It blows all other rivers away,” Bezos said.²

Bezos wanted not only to make the largest bookstore in the world but also to create the world’s largest store. Amazon has become a game-changer in retailing and in business in general. Amazon continues to grow, and many companies need to think again about creating value based on new ideas.

As Brad Stone points out:

Amazon cleared \$61 billion in sales in 2012, its seventeenth year of operation, and will likely be the fastest retailer in history to surpass \$100 billion. It is loved by many of its customers, and it is feared just as fervently by its many competitors. Even the name has informally entered the business lexicon, and not in an altogether favorable way. *To be Amazoned* means “to watch helplessly as the online upstart from Seattle vacuums up the customers and profits of your traditional brick-and-mortar business.”³

Jeff Bezos wanted Amazon to offer limitless selection and great convenience at low prices – to become “the everything store,” as Stone labels it. This ambition points directly to one of the five trends we identify: service competence across all sectors rather than knowledge of one sector.

When combining Amazon’s development with economic and business developments more generally, we see the contours of a new economy that we label “an *Amazon economy*.” This economy has five characteristics:

- value creation is driven by services;
- services are driven by a competence;
- social networks drive scale;
- ideas must be quickly turned into action; and
- high risk aversion kills companies.

We see elements of all these five trends in Amazon and can explain them further by referencing contrasting pairs of companies. We apply a new model of innovation in this book: the Service Innovation Triangle (SIT). We apply the model to pairs of companies that highlight each of these trends and believe that the new SIT model captures the core concepts for analyzing and stimulating innovation in a firm in an advanced consumer economy. Each pair of companies is carefully selected to illustrate the importance of innovation for their success, existence, or failure. Here is a brief presentation of the companies in each pair and their focus for the proposed model:

- Apple and Nokia: the transformation from products to services
- Amazon and Borders: from sector focus to competence focus
- Facebook and MySpace: the importance of social networks
- Tesco and Sainsbury's: the need to turn ideas into action
- Xerox and Kodak: how risk aversion kills innovation and eventually kills the company

Let us relate these pairs of companies to the five trends.

Apple and Nokia are two technology companies in the area of mobile communications. While Nokia focused on product development first and services as an add-on, Apple focused on service development first and product development as a consequence.

Amazon and Borders should be characterized as two book retailers with very different approaches. While Borders stayed focused on product sector rather than service competence, Amazon focused on service competence rather than product sector. This creates two advantages. The first advantage is a broader potential marketplace, which is obvious. The second advantage is more subtle but much more important. Amazon focused on the best way to service the customer who wished to buy a book (and later a multitude of other products): from pre-purchase, comprehensive searching for products across the whole sector (not just through Amazon); to easy, convenient, one-click purchasing; to offers of other products bought by similar customers.

Facebook and MySpace are two social networks with a different capacity for innovation. Our discussion highlights that in a digital world, the physical world cannot be forgotten. Assets and resources, especially people, are hugely important in providing a relevant service system.

Tesco and Sainsbury's are two grocery retailers in the UK market that saw contrasting growth in the early 2000s because one focused on action while the other focused on ideas. These case studies illustrate the need

to turn ideas into action. Innovation is in the *action* of innovating; it is not the idea of innovating.

Xerox and Kodak can be characterized as two technology-based firms that were potentially undermined by new technological developments. While Xerox tackled the issue head-on and innovated around its business model, Kodak showed how an aversion to risk not only killed innovation but also eventually killed the company.

Perhaps the most important acknowledgment in innovation from these case studies is that while a customer may be able to assess a prototype product, the phrase “the customer knows best” is only true after a product has been provided through a service that has taken place. It is not the idea or concept of the product or service; it is the customer experience that sells a service and any inclusive product.

Through updated information about these ten companies, we illustrate the importance of value-driven service innovation. We apply all nine subtriangles of the Service Innovation Triangle for each pair, identifying where each company possessed an advantage or disadvantage with regard to each of the subtriangles. While in this book we compare companies, we also underline that the SIT model can be used to compare the relative innovation strengths and weaknesses of sectors and nations, such as the retail sectors in two nations. However, for this book we focus on how to compare the strength of innovation between two companies. Typically, this may be for a selected company and its main rival, making it fairly simple to apply the SIT model for any organization.

We point out the importance of services for GDP and the importance of the app economy. However, the share of firms in services that fail after one year has increased quite a lot. In fact, from 1991 until 2011, the share of firms that failed after one year almost doubled in services. Now, while services may have been defined slightly differently in 1991 than they would be 20 years later, the same is true for other sectors as well. While there is a general tendency that the share of firms that fail after one year has increased across a variety of sectors, such as finance, retail, manufacturing, and construction, the increase in failure is among the strongest in the services sector, as we see in Figure 1.1. This shows that there is a particularly strong need in the services sector to reduce failures and increase the number of successes. Therefore, innovation is particularly important to this sector. The large number of firms that fail indicates that there is a dire need for new innovation models and new innovation perspectives.

In this *Amazon economy* there is a need for a new model in innovation. There are some great models or perspectives of innovation, such as the

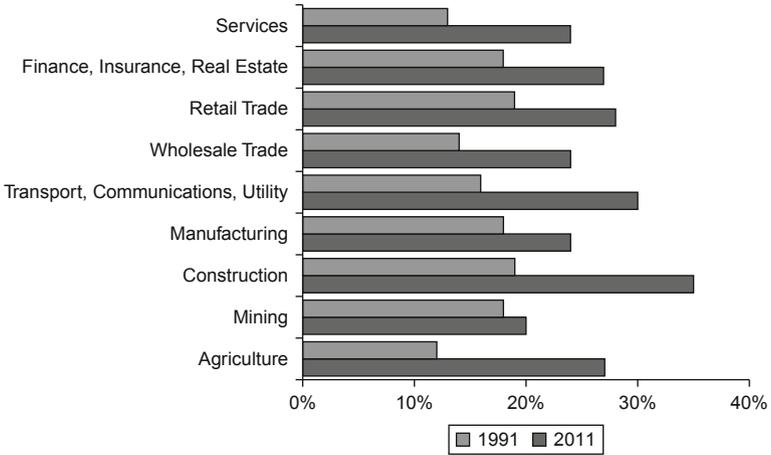


Figure 1.1 Exit rate of firms aged one year by sector

Source: Hathaway, I. and Litan, R. (2014). The Other Aging of America: The Increasing Dominance of Older Firms. Economic Studies at Brookings.

Doblin model of “Ten Types of Innovation” and Osterwalder’s Business Model Canvas. These are good models that organizations can turn to when looking to develop innovations. However, they lack a strategic perspective, which is provided by the Service Innovation Triangle. We will elaborate on that in the next chapter.

2

The New Model of the Innovative Firm

Given the changes that are explained in Chapter 1, we need to think of a new way to explain the firm and how to respond to these trends of a dynamic, service-based, global, digital marketplace – an *Amazon economy*. This requires firms to move away from a statically structured organization toward a more integrated view of the firm with its network of customers, suppliers, and stakeholders alongside a more flexible view of the market. Our research has led us to develop the Service Innovation Triangle.¹

The Service Innovation Triangle (SIT) is a simple but comprehensive model of the firm in an *Amazon economy*. It is derived from a new conceptualization of the existing literature and semi-structured interviews with leading innovation thinkers and practitioners, as well as an analysis of longitudinal case studies.

At its core, the Service Innovation Triangle is a practical framework that allows firms to assess their capacity, ability, and development of innovation, thus allowing strengths and weaknesses to be identified. This book focuses on the application of this framework and has been funded through the Value-Driven Service Innovation research project, sponsored by the Norwegian Research Council (project 187941), Borg Innovation, and Accenture Norway.

The framework

The framework provides a model to evaluate and link the critical dimensions that influence innovation within a firm. The model consists of nine integrated elements in three layers, and builds on the approaches of Teece (2009)², Chesbrough (2006)³, Johnson (2010)⁴, and Osterwalder (2010)⁵. It provides an integrated view of value creation through innovation, encompassing multiple perspectives. It does not limit innovation to a linear

development. The model has been further validated through structured interviews with a selection of the best-known thinkers and practitioners in the field of innovation, who are introduced in Part II, and their views on innovation related to the SIT model are examined in further detail in Part III. This framework allows for analysis of potential explanations for success or failure, as well as identifies strategies for future innovation. This is demonstrated in Part IV through ten detailed case study analyses.

The Service Innovation Triangle addresses the principles of successful innovation in an *Amazon economy*, while allowing the detail of innovation to vary in every case. The main Service Innovation Triangle represents an organization and is summarized in Figure 2.1 below. Each subtriangle within the overall framework contributes in different ways to delivering the value created through innovation.

The Service Innovation Triangle can be applied by organizations to develop value for their customers, owners, and suppliers.

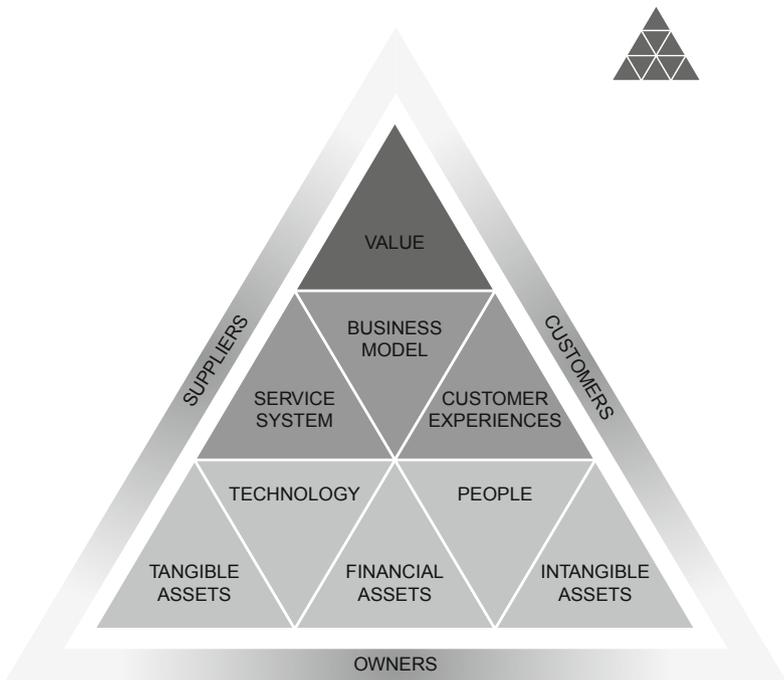


Figure 2.1 The Service Innovation Triangle

Source: Service Innovation Triangle: the building blocks for innovation, OXIRM, BI, Jan 2013.

Service firm, customers, owners, and suppliers

The outcome of any innovation is dependent on the value created. However, this value needs to be created and re-created over time if the relationships between the organization, the organization’s customers (or users), the owners, and the organization’s suppliers (or partners) are to continue to thrive. When value is no longer created, these relationships will break down. However, any value is only possible if the organization has the ability to deliver the required service in a relevant way at a reasonable cost. Again, this business model needs to be viable for all the parties concerned: customers, owners, and suppliers. This will only happen if the necessary resources are in place. Thus, any service innovation is comprised of three levels, driven by the value created and re-created: the capacity to innovate, the ability to innovate, and the outcome of the innovation, as shown in Figure 2.2.

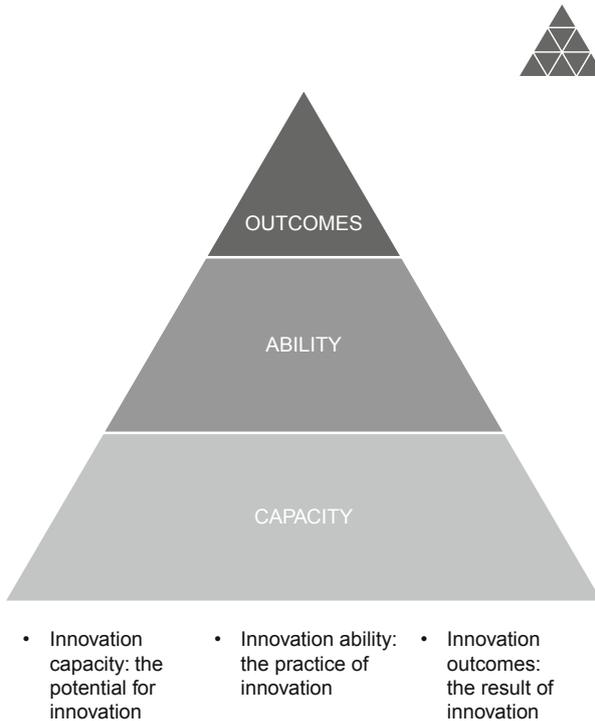


Figure 2.2 The layers of the Service Innovation Triangle

Source: Service Innovation Triangle: the building blocks for innovation, OXIRM, BI, Jan 2013.

The capacity to innovate

The innovation-capacity layer of the SIT model represents the potential for innovation within an organization. To deliver the relevant value, an organization must have the resources necessary for successful innovation in the form of people and technology, as well as financial, tangible, and intangible assets. Within innovation capacity lies the foundations of service innovation success, and hence these are positioned at the base of the SIT model.

People are a hugely important innovation resource in any organization, but their contribution to innovation capacity may vary enormously, sometimes creating barriers as much as creating opportunities. Technology covers the automation and information systems of the organization. Financial assets include all forms of cash and credit. Tangible assets cover both fixed assets and current assets, for example, machinery, offices, shops, warehouses, land, and inventory. Intangible assets cover a wide variety of difficult-to-value assets, such as patents, trademarks, copyrights, goodwill and brand recognition, and may even include customer data and unique processes. The financial, tangible, and intangible assets are the solid foundations of any service organization, and are difficult to change in the short term, while people and technology may provide more flexible capacity for innovation.

Note that larger assets and resources may provide greater innovation capacity but do not necessarily provide greater innovation ability. For example, a small, local organization may implement innovation initiatives more quickly and easily than a large, global organization.

The ability to innovate

The innovation-ability layer of the SIT model represents the practice of innovation within a firm. Successful innovation depends upon the ability to provide added value through relevant customer (or user) experiences. The service system of the firm provides all of the activities necessary to deliver the customer experiences. The business model of the firm provides the system for all parties to give and receive value in all its forms: economic, social, environmental, and so on.

Management requires the ability to innovate customer experiences delivered through a service system and united by a business model. These elements lie at the very heart of the SIT model and highlight the differences between sustainable innovative management and failing management.

The outcome of innovation

The innovation-outcomes layer of the SIT model represents the results of innovation. This represents the value that is actually delivered. The value of any innovation lies in the value driven by the service organization and created for all parties involved: the organization and its owners, the organization's customers (or users), and the organization's suppliers (or partners).

Note that the SIT model can be used in both commercial firms and public sector organizations, as these outcomes are not just a consideration of economic value. Value may be personal, social, environmental, and so on. Individuals and organizations will trade off such values. For example, do you choose a cheaper service over a more socially inclusive service? Value is a complex issue with many viewpoints and often conflicting metrics.

These viewpoints may be more complex when the payer is the not the direct customer (or user). So, in the healthcare sector, for example, a patient may gain value from services paid for by the government. The patient is the customer (or user) in the SIT model, while the government may either be the owner, in the case of a national health service, or may be the supplier (or partner), in the case of a privately run health service paid for by the government. In this latter case, the government is supplying the finance necessary for the service system to operate.

The elements of innovation

Financial assets

Financial assets include all forms of cash and credit. Innovative ideas and practices attract the availability of finance. The amount of finance available to a public organization is often dependent upon political priorities and budgets. However, innovation knows no such constraints! Innovative ideas and practices attract the availability of finance. This is the basis of entrepreneurial start-up companies. Hence, successful innovation is not usually thwarted by a lack of cash. Indeed, a lack of cash can be a generator of innovation, rather than an inhibitor, by encouraging people to think about doing things in different ways using the same resources.

Tangible assets

Tangible assets cover both fixed assets and current assets: machinery, offices, shops, warehouses, land, and inventory. These are an important,

Financial assets

Can we afford to create the customer experiences that we aim to deliver?
How much of our financial resources are spent on innovation?
What service innovations might create the greatest value?



Figure 2.3 Financial assets in the Service Innovation Triangle

Source: Service Innovation Triangle: the building blocks for innovation, OXIRM, BI, Jan 2013.

Tangible assets

Does our company have sufficient physical resources to deliver more value to our customers, our firm and suppliers?

Do we have the right physical and online channels for valued communications and transactions with our customers and suppliers?

How important is it to increase the tangible assets to create more value?



Figure 2.4 Tangible assets in the Service Innovation Triangle

Source: Service Innovation Triangle: the building blocks for innovation, OXIRM, BI, Jan 2013.

identifiable element of corporate balance sheets, or audited public accounts. Some tangible assets are clearly identifiable to a user, such as a hospital. However, other tangible assets may operate behind the scenes, such as warehouses and management offices.

Intangible assets

Intangible assets cover a wide variety of often difficult to value assets, including intellectual property, goodwill, brand recognition, and specialized customer knowledge. It is important to note that in public service environments, there is often a lack of intellectual property rights, which are the mainstay of a product-based organization. New products can be protected in law via intellectual property rights, while new services cannot be protected in the same way. An innovative new product cannot be copied directly, but an innovative new service is usually open to duplication immediately. Historically, this lack of copyright for service innovation has obscured the real activity within this area,

Intangible assets

Do we have the right intangible assets to support our customer experiences?

Does our firm deliver on our brand promises?

Does our firm have a relevant system for capturing ideas from customers, employees, and suppliers?



Figure 2.5 Intangible assets in the Service Innovation Triangle

Source: Service Innovation Triangle: the building blocks for innovation, OXIRM, BI, Jan 2013.

while government surveys can easily count the number of new product patents to understand innovation activity within the manufacturing industry. In other words, when a service company innovates, it won't be long before others copy. The only sustainable protection for a service company is to keep on moving, to embed innovation as an integral part of the management process.

Technology

Technology includes the automation and information systems of the organization. Data is often at the heart of public services, and technology provides the storage, processing, and capacity to translate data into actionable information. While technology infrastructure takes time to change, software is more flexible, and the use of information by people may change very quickly. Information technology has become a critical enabler of innovation in the *Amazon economy*, and service organizations need to make information management a core competency of the firm.

People

People are a hugely important resource in any organization, but their contribution to innovation capacity may vary enormously, both in terms of driving innovation as well as sometimes acting as a barrier to innovation. Though generally more flexible than technology, there are still aspects of people that are more difficult to change. Some people are great enablers of innovation, while others may be more constraining. This variety of contribution not only reflects individual personalities but also reflects roles and responsibilities within the organization. For example, the role of the quality control clerk is focused on consistency rather than change.

Technology

Do we have the right technology in place to improve our service system?

Do we have the right technology in place to improve our customer experiences?

How integrated is our strategy across digital and physical channels?



Figure 2.6 Technology in the Service Innovation Triangle

Source: Service Innovation Triangle: the building blocks for innovation, OXIRM, BI, Jan 2013.

People

Do we have the right individuals to improve our customer experiences?

How many people are involved in developing new services?

How relevant is the competence of our employees in delivering better customer experiences?



Figure 2.7 People in the Service Innovation Triangle

Source: Service Innovation Triangle: the building blocks for innovation, OXIRM, BI, Jan 2013.

Customer experiences

Customer experiences reflect the ability to provide value through a relevant experience. The customer experience represents all of the outcomes necessary for customers or users to “feel” the desired effects of innovation. The focus is on the development of the experience to build confidence in current and future demand. However, in populations, different groups will have different requirements, expectations, and desires. Thus, the customer experience is plural; hence customer experiences with an *s*. It needs to be flexible to accommodate such differences and so tends to be built around the innovation capabilities of people, finance, and intangible assets, forming an innovation-demand subtriangle. However, this still requires the right mix of technology and tangible assets to support this activity.

Customer experiences

How may we serve our customers better to reach our value proposition?

To what extent are our customers satisfied and loyal?

To what extent do we involve customers in the development of our services?

Do we make relevant prototypes or representations of our customers experiences?



Figure 2.8 Customer experiences in the Service Innovation Triangle

Source: Service Innovation Triangle: the building blocks for innovation, OXIRM, BI, Jan 2013.

Service system

To what extent does our company have systems that support our customer experiences?

How can our service system deliver better customer experiences?

What social networks are useful in understanding how to improve our customer experiences?



Figure 2.9 Service system in the Service Innovation Triangle

Source: Service Innovation Triangle: the building blocks for innovation, OXIRM, BI, Jan 2013.

Service system

The service system represents all of the activities and operations necessary to deliver an innovation. This will typically include existing activities as well as some new ones. The initial focus of a service system is on making sure that the innovation is delivered as expected. Over time, the management of service operations will tend toward a focus on productivity, cost, and consistency. Thus, service systems tend to be built around the innovation capabilities of technology, tangible, and financial assets, forming an innovation-supply subtriangle. However, this still requires the right mix of people and intangible assets to be successful.

Business model

The business model provides the system for all parties to give and receive value in all its forms, whether it is economic value, social value, or any

Business model

How well do our employees understand the business model of the firm?

How can our firm create, capture, and deliver more value to our customers, our firm and suppliers?

What are the commercial implications of improving customer experiences?



Figure 2.10 Business model in the Service Innovation Triangle

Source: Service Innovation Triangle: the building blocks for innovation, OXIRM, BI, Jan 2013.

Value

What in our value proposition makes our company stand out?

How many an increase in services create more value for our customers, our firm, and suppliers?

How many we create a new or improved value proposition?



Figure 2.11 Value in the Service Innovation Triangle

Source: Service Innovation Triangle: the building blocks for innovation, OXIRM, BI, Jan 2013.

other form of value that is important to any of the parties involved: a user or customer, the organization, a supplier, or any other stakeholder. This can be described as the value diamond within the Service Innovation Triangle, combining value with the business model.

Value

Value lies at the heart of what is created by all involved: the organization, the organization's customers or users, and the organization's suppliers. Value creation is the ultimate goal of the organization, but sustainable value creation requires that value is created for everyone involved: user, customer, service provider, supplier, and all the stakeholders. The customer or user tends to be the initial focal point for driving value, but everyone needs to gain over the long term for the interrelationships to be sustainable. Ultimately, value is wholly dependent upon the perspective of each actor involved. Suppliers may value entry into new

markets, the service organization may value service effectiveness, one customer may value the speed of service, and another customer may value the minimal environmental impact of the service. So, a wide range of potentially disconnected values may exist. It is the business model that attempts to align these potentially disparate values to create the overall value proposition.

Summary

Within the overall Service Innovation Triangle, there are various subtriangles that reflect major subprocesses. The innovation-value subtriangle is driven by the integration of the business model, customer experiences, and service system. The innovation-demand subtriangle is driven by customer experiences, focuses on the interactions of people, and is primarily supported by financial and intangible assets. The innovation-supply subtriangle is driven by the service system, underpinned by technology and supported by financial and tangible assets.

In Chapter 1, we introduced five connected trends that constitute what we label an *Amazon economy*. These trends are reflected in the Service Innovation Triangle. Firstly, we do not refer to a production system but instead to a service system. It is a service that is being delivered, even though that service may include some products. Amazon provides many products, but people use Amazon because of the service provided. The same products exist elsewhere; it is the service that Amazon provides that differentiates the firm in the marketplace. Secondly, the value subtriangle is driven by the competence of management to integrate the business model, customer experiences, and service system, regardless of the sector to which they apply such expertise. Again, the example of Amazon demonstrates this competence to work across sectors rather than a deep knowledge of one particular sector. The SIT model is a triangle as this highlights the interconnectedness of the firm with three parties: customers, owners, and suppliers. These social networks, whether digital or physical, drive scale in value creation in both mass and niche markets. For example, in the book market, Amazon provides for both the popular fiction market and the niche academic market. Moreover, in a socially connected world, ideas must be quickly turned into action, and so Amazon provides instant feedback, from updates on supplier delivery times to reviews highlighting customer tastes. Finally, high risk aversion kills companies. Amazon, in some cases, aims to supersede and

so kill off its current business model, its current customer experiences, and current service system – in order so that the next-generation business model, customer experience, and underlying service system can come forward and prevail. Amazon’s introduction of digital books and the Kindle vividly demonstrate this kind of thinking.

Part II

Insights: What Is Most Important for Innovation to Succeed?

In this second part of the book we present material about core questions about innovation from six globally known thinkers and practitioners. In particular, we focus on how innovation and value are defined as well as which failure is most serious in innovation and what is most important for innovation to succeed. The last two questions are quite important for this book, as it is a book for practitioners. The questions about failure and success in innovation are the foci for most practitioners. Here we try to highlight the questions both from thinkers' and practitioners' views. We then relate their insights to the five elements of the *Amazon economy*, as laid out in Chapter 1. Once we arrive at Part III, we will relate other insights from the thinkers and practitioners closer to the Service Innovation Triangle than in the current chapter.

We will learn how each interviewee defines innovation and value, what they currently are working on, who has been most influential in their thinking about innovation, and what is their strongest contribution to the field or practice of innovation.

The commonality of these interviewees is that they are global influencers, both in terms of their organizations and their own competence. This gives credibility to the insights presented by the thinkers and practitioners.

The thinkers are David Teece, Henry Chesbrough, and Stephen Vargo, and the practitioners include Erik Kiaer, Jon Pittman, and Jose Avalos. Their backgrounds are provided in the Acknowledgments to this book.

The authors have interviewed the thinkers and practitioners about their understandings and contributions to the field of service innovation (Part II), as well as their opinions of each of the nine subtriangles of the Service Innovation Triangle (Part III). Each interview lasted up to one-and-a-half hours. In this part of the book, Chapter 3 is devoted to the thinkers and Chapter 4 focuses on the practitioners. Much of this material is available on YouTube when you search for "VDSI – Value-Driven Service Innovation."

The questions asked in 2011–2013 are:

1. *How do you define innovation?*
2. *How do you define value?*
3. *Please tell us what you currently work with and how this is related to innovation.*
4. *Who has been most influential in your thinking about innovation?*
5. *What is your strongest contribution to the field or practice of innovation?*
6. *How does this help change peoples' lives?*
7. *What is most important for innovation to succeed?*
8. *Which failure do you consider most serious in innovation?*
9. *Which three companies have been the most innovative ones globally in the last three years?*

There is a more detailed presentation about each thinker and practitioner at the start of each section in Chapters 3 and 4. We selected interviewees primarily located in the San Francisco Bay Area because of its very innovative culture. We aimed for a more diverse background as regards gender and race than what we ended up with, but we did not reach all those we intended to interview. Still we think we can present the views of some of the most insightful and competent innovation thinkers and practitioners in the world. We are pleased to have had the opportunity to interview these six eminent thinkers and practitioners. We should also add that we do not distinguish strictly between thinkers and practitioners, as the persons we label thinkers also have, and present, great insights into practical matters when it comes to innovation. Likewise, the persons we label practitioners have deep insights into the academic field of innovation. For example, Erik Kiaer has contributed toward the renewed version of the Doblin model (also known as the “Ten Types of Innovation”).

We will now present responses of the thinkers to all nine questions about innovation, value, and so on. This is presented in Chapter 2. In the following chapter we present and comment upon the responses of the practitioners. We will sum up the interviews and relate insights from them to the characteristics of an *Amazon economy*. We select quotes from four of the questions above as we find them particularly relevant to our understanding of an *Amazon economy*: How do you define innovation? How do you define value? Which failure do you consider most serious in innovation? What is most important for innovation to succeed?

3

Insights from Service Innovation Thinkers

We start with presenting the responses from David Teece and proceed with the responses from Henry Chesbrough and Stephen Vargo. We present the questions in the same order for all three of them.

Profiting from innovation and dynamic capabilities: David Teece

One of the most important contributions from Dr David Teece is the paper called “Profiting from Technological Innovation.”¹ Based on three classes of independent variables, there is a predictive theory that tells when the pioneer is likely to succeed, or when the follower is likely to succeed. This theory helps to explain the characteristics of firms and technologies that help them capture value from new products and processes. In the following interview with Teece these insights are discussed, as well as his understanding of the concepts of innovation and value creation and capture. Further, Teece discussed along with Gary Pisano and Amy Shuen in their seminal paper “Dynamic Capabilities and Strategic Management”², and later in “Explicating Dynamic Capabilities”, strong capabilities (in both the organization and its leadership) in (a) sensing new opportunities and threats, (b) acting on (or seizing) these opportunities and threats and subsequently (c) renewing (transforming), make for better performance in rapidly changing business environments.

How do you define innovation?

“I always distinguish between invention and innovation. Often the two get confused: invention is simply the creation of something new, a technical breakthrough of one kind or another that has utility; innovation is about that plus more, the more being bringing the invention to the market successfully. Now, you could have innovation based on

somebody else's technical inventions. In fact that's very common, and the open innovation framework tends to take that as the main case, although it isn't always so."

"In short, technological innovation to me is really the "soup to nuts" of getting technical ideas and technical breakthroughs embedded in products, processes, and services and bringing it all to market in ways that benefit consumers and yields a profit to the innovator."

How do you define value?

"Value is a very large economic subject; I think even Adam Smith had three different definitions of value. But in this context I think about innovation as creating new value for the customer, for the user and ultimately for the economy as well because it improves economic and societal welfare."

"So value, in some fundamental sense, is about what something is worth. Extra or surplus value is what something is worth over and above the next-best alternative. So when you're thinking about value and you're thinking about the value of innovation, then I think that the right measure is the incremental value it brings to the consumer and society above the next-best available alternative. Of course, the value to a consumer may be different from the value to society, and vice versa, depending on externalities and all the other things that we know create a wedge between private and social value."

Please tell us what you currently work with and how this is related to innovation.

"What animates my current research agenda is the subject of dynamic capabilities, which is essentially the set of organizational and leadership traits and capacities that undergird the long-run competitive advantage of business enterprises. Clearly, innovation is a key part of that; firms that exhibit strong dynamic capabilities are almost always highly innovative in one way or another. In the context of strategic management, I'm trying to connect innovation to competitive advantage in ways that traditionally have not been in classical strategy literature or classical industrial organization literature."

Who has been the most influential in your thinking about innovation?

"I was fortunate to be a student of Ed Mansfield at the Wharton School, University of Pennsylvania. Mansfield, an economist, was really the first scholar to take up the study of industrial research and industrial innovation. He began down this road in the 1950s. If you go back into the

literature from the 1960s, 70s and 1980s, Mansfield unquestionably was the dominant name in business scholarship around industrial research. His work still stands today and is frequently referenced. He brought empirical rigor to the study of the innovation process. So Mansfield is clearly one.”

“Another is Dick Nelson, who was at Yale for many years and is emeritus at Columbia today. Dick has contributed, in particular, to the public policy side: the understanding of national institutions, and the importance of government institutions the science of engineering establishment and other accoutrements of the economy and society in supporting innovation. He is not quite as firm-specific and firm-focused as Mansfield, but clearly Dick Nelson has and his coauthor Sidney Winter have been very influential in my thinking, and I think he is a all three are great scholars. Nelson & Winter’s work on evolutionary economics is one of the starting points for my work on dynamic capabilities.”

“The third fourth influential person would probably be the Stanford economic historian, Nathan Rosenberg. Nate was one of the first to drive home the importance of complements in the innovation process.”

“What is true of all these scholars is that they have dug deep enough to find some enduring truths and unpack some of the basic logic of innovation at a fundamental deep level. These great scholars are not theorem provers. Their work is both conceptual and applied. A lot of the management literature just skirts across the top of fundamental issues (often, unfortunately, very unaware of bigger and deeper issues). This is definitely not true of any of the names that I have mentioned.”

“So those four I would categorize as deep scholars of the innovation process. They are giants as were Chris Freeman and Keith Pavitt at Sussex. I sometimes worry that there are too few scholars of that capacity coming along behind them.”

What is your strongest contribution to the field or practice of innovation?

“Perhaps the most elegant piece of work that I’ve done is a paper called “Profiting from Technological Innovation.”¹ That actually outlined a predictive theory about when an innovator is likely to succeed in the marketplace with an innovation, and when the follower or imitator is likely to eclipse the pioneer at the money tables. It’s a fairly rigorous framework that clears away the clutter to help one understand the difference between those that innovate and those that merely profit from innovation. The factors I singled out to explain winners and losers were first appropriability, which is not just a function of the intellectual property protection available, but also the nature of knowledge, and the ease of imitation. Secondly, you’ve got to look at complementary assets and

who owns them, because asset positioning impacts the distribution of rents – as the economists would say – inside the industry. Thirdly, you’ve got to look at timing as well: whereabouts in the innovation cycle does one play, particularly as it relates to the evolution of standards.”

“Out of three simple classes of independent variables, there is a predictive theory that will tell you when the pioneer is likely to succeed financially, or when the follower is likely to succeed. It provides a framework to help you think about the distribution of profits as between the innovator and the imitators/followers.

How does this help change peoples’ lives?

“Fundamentally, my quest is to understand how competitive advantage is built at the level of the firm. As the great business historian Alfred Chandler was fond of saying you cannot have strong national economies unless there are also strong firms. So in essence, having a managerial class that knows what it’s doing – that can build and maintain competitive advantage companies – means employment growth, profits, and a virtuous cycle of innovation and investment that will drive economic growth, job creation, and prosperity.”

“There’s little doubt that ‘dynamic capabilities’ is important to understanding the wealth of nations. Management is not something that Adam Smith wrote about in his book, *The Wealth of Nations*. That’s in part because dynamic capabilities are really about the wealth of firms. Modern corporations had yet to be invented. Managers weren’t needed as the modern business enterprise was yet to be born. But if you layer Alfred Chandler’s perspective into those of Adam Smith, the firm must be seen as impacting the wealth of nations. Of course, with multinational firms and outsourcing, it’s not a one-to-one correlation at all; you could have very successful firms based in one economy delivering most of their value to residents in another. Having said that, studies have been done in the case of Apple and the iPod and notebook PCs which show that, despite significant outsourcing something like 50 percent of the gross margin from the value chain was retained by Apple; most of the value added actually stayed domestically in the USA despite major outsourcing (I’m referring to a study by another one of my colleagues, Greg Linden).”³

“These are complicated issues, but in answer to your question, when firms succeed (or fail) many lives are impacted. Adam Smith didn’t write a follow-on title to *The Wealth of Nations*. If he had done so and penned *The Wealth of Firms*, maybe we already would have a theory of dynamic capabilities. But because he didn’t, there’s a gap in the intellectual structure that I’m trying to fill. It’s both a gap in management theory and a

gap in economic theory and it has huge implications for public policy and developmental policy in particular.”

What is most important for innovation to succeed?

“Let’s remind ourselves of definitions so that we clearly distinguish invention from innovation. So I will interpret your question as, what is critical with respect to achieving a commercial success with innovation. In this regard I will go back to perhaps the first study ever done that endeavored to answer that, which was done in the UK in the 1960s at the Science Policy Research Unit at the University of Sussex (SPRU). Researchers conducting what was called project SAPPHO looked at a sample of new product and process of successes and failures and showed statistically that the most powerful discriminating factor was whether or not user needs were understood. Or in today’s language, did the would be innovator understand the customer? If the answer was yes, they are more likely to be successful than if the answer is no. Buried underneath that is tremendous amounts of complexity because the result begs the question of how do you get to know the customers? The answer is by being in the marketplace. Too many failures come from brilliant engineers that come up with what they think is the next cool thing, but they don’t really understand the consumer. And so it doesn’t go anywhere commercially, which means of course that a portion of society’s resources, including private resources, are wasted.”

“So I would say that building on the initial results of the SPRU work at Sussex – and that study has been repeated in other contexts and found to be true – syncing up or matching the consumer with technological opportunities is the critical part of the equation. Which of course brings you back to dynamic capabilities. Innovation success requires sensing and then seizing. It requires the ecological or evolutionary fitness of firms. I would say that in the end, having strong dynamic capabilities is the biggest class of discriminating factor in determining whether firms succeed or fail at innovation.”

Which failure do you consider most serious in innovation?

“Commercialization failures are the most serious in innovation because that’s where the big money is spent. If you’re looking at expenditures through the different phases of innovation, the early creative phase typically doesn’t cost a lot of money. It’s investing in the plant and equipment required to bring the innovation to market. These are important exceptions, like software, where the big dollars are spent on R&D. So the most expensive failures are the ones that result from failure to

understand the marketplace when good money gets thrown after bad, especially in the manufacturing and marketing phases.”

Which three companies have been the most innovative ones globally in the last three years?

“I haven’t systematically studied that question but at the top of my list, perhaps because it’s a company that’s local to me here in California and that I’ve known and followed for a long time, is Apple. It has gone through some major transformations. There was the early period with the Apple 2, and then John Sculley (previously of Pepsi-Cola) coming in and supposedly focused on the commercial side but screwed up the innovation side. The board clearly knew that Apple needed to have a better marketing strategy, but they didn’t recognize that it required a deep passion for the technology and an understanding of today’s consumer. For a variety of reasons the board dismissed Steve Jobs and brought in John Sculley. Sculley didn’t have a deep understanding of latent consumer demand, despite his consumer product background. So in the abstract, the board kind of got it right: Apple needed to marry marketing savvy and technology. But the board made a bad choice with Sculley and the others that followed. The company came within a whisker of going bankrupt.”

“Steve Jobs then got brought back as CEO. The more mature Steve then did an absolutely fabulous job of sensing where the marketplace was heading: what consumers want, what the new world of music and the Internet was all about. He dramatically focused product development efforts down to a few key products. Apple came out first with the iPod, then the iPhone, followed by the iPad. These are three amazing game changers; expertly sensed, and with the team at Apple superbly deployed.”

“The question is: When will Apple need to transform again or be transformed? I think there are fairly long legs to the businesses that they’re in, because there’s a little bit of an installed base effect in each. Apple has built a healthy ecosystem; they have done the cocreation part very well. They figured out that it’s no longer a matter of entrepreneurship in the narrow; rather it’s about spawning entrepreneurship and innovation throughout the ecosystem. Steve Jobs did that brilliantly. Hopefully those genes are now deeply embedded in the Apple organization, so that this will keep on going.”

“Apple, in my opinion, stands above anybody else. My second choice might be Google, although so far is basically a one-trick pony: search. They are challenged because Facebook, and all these other technologies, have come along with different value propositions for the customer; and you see them now, to some extent struggling to prove that they can be successful pioneers beyond search. I hope they can.”

“An example of a very innovative company is Netflix. With the delivery of digital TV, they’ve had to change their business model repeatedly (they’ve done it about six times). For the organizational ecologists that say you can’t do that, Netflix has done it. At the same time, they’re not a trillion-dollar company either. Their market value has fluctuated but gone up; they’re having some success in an extremely competitive situation, with multiple pathways for providing digital media and movies to the individual at home, at low cost, and on demand.”

“I would ‘hate’ to be the CEO of Netflix because there is just too much competition there. Having said that, I’m impressed with the number of times that they’ve done more than tweak their business model. They even crowd source ideas about how to improve their company. So I’ll give them very high marks for perseverance and the continuous reengineering of their company. But it’s still an open question as to who’s going to win in the space in which they compete, The stakes, however, are enormous.”

Dynamic capabilities: summary

In this brief summary, we relate some material presented in each interview with our thinkers to the five characteristics of the *Amazon economy*.

During this interview, David Teece underlines that the value of innovation is what it brings to the consumer and society above the next-best alternative. He is studying innovation in the context of strategic management, trying to connect innovation to competitive advantage in ways that traditionally have not been done.

Teece sees commercialization failures as the most serious in innovation because that’s where the big money is spent. In his predictive theory of when an innovation is likely to succeed in the marketplace with an innovation that we know has value for consumers, he focuses on appropriability, complementary assets, and timing. These variables will explain the distribution of profits between the innovator and others.

Teece also brings up the importance of understanding the customer as well as the complexity in doing so. These insights may be applicable to our understanding of the *Amazon economy*. In this economy, the best engineers need to understand where the consumer is at. Otherwise innovation won’t go anywhere commercially.

Open innovation: Henry Chesbrough

Henry Chesbrough is best known for the open innovation model. He found that companies had too many restrictions on both the inflow of information into the innovation process and on the outflow from

the innovation process, beyond the scope of the current business. In this interview, Chesbrough points to three open innovation benefits for companies: (1) reduce the cost of doing internal research and development; (2) save time by starting in the middle, rather than at the beginning, with outsiders who have already encountered a number of common challenges; and (3) pave the way to new markets. If you allow others to make use of some of your internal ideas that you are not using, and they find a market, then you may have other similar ideas for which you now have a demonstrable market.

How do you define innovation?

“I think it’s important to separate innovation from invention. I say that for a very practical reason – that I think one can be very inventive without necessarily being innovative. Equally, one can be innovative without being particularly inventive. Once we separate those two terms – where one is the discovery of new knowledge, and the other is taking ideas and technologies to market – then we begin to see possibilities where people can collaborate within the processes of invention and innovation.”

“We even have markets between suppliers of invention who are here at the University of California, Berkeley; a pretty inventive place that, generally speaking, is terrible at innovation. We don’t try to commercialize much, and it’s probably very good that we don’t. But in turn, companies that work with us – that utilize our ideas and discoveries, and take them to market – may not have invented them themselves, but they’re the ones taking the risks and making the adjustments and necessary improvements to take it into the marketplace to solve a customer’s problem.”

How do you define value?

“Economists talk about the utility of a product or service, and then when they characterize the desires of consumers they create what they call ‘utility preference functions.’ I think there’s actually the kernel of a good idea there; that value is determined by the consumer based on their desires, their preferences.”

“But those who are trying to produce services to meet those desires are not passive in this process; there’s a great deal we can do, both in choosing which people to serve, the expectations that are set for those people, and what they will experience. If we get into co-innovation and cocreation, there is the opportunity for people to create new things that they may not have been able to explain to us ahead of time. Once they are exposed to a set of possibilities, and given the opportunity to work

with them, they can sometimes come up with things that they would not have known in advance but that are wonderfully delightful.”

Please tell us what you currently work with and how this is related to innovation

“My current work is reflected in a new book I have out called *Open Services Innovation*. It continues a program of research I’ve had now for eight years on open innovation. The first book came out in 2003 and talked about a new model of both more external technologies being used in one’s own business and, in turn, allowing unused technologies in your business to be used in another company’s business. In 2006, I wrote a book called *Open Business Models*, which took the open innovation idea from technology and R&D into business model innovation. This new book, which came out in January 2011, is about taking this into services and service businesses.”

Who has been most influential in your thinking about innovation?

“I would have to start with my thesis adviser, David Teece. He is somebody who I think is a very thoughtful, careful scholar on the one hand, but also somebody who is very much attuned to business on the other. For many years, his thought and work in trying to make strategy more dynamic tried to bring knowledge management ideas more directly into strategy and now these ideas both of ‘dynamic capabilities’ and a new way of thinking about strategy that moves well beyond the ‘five forces’ concepts of Michael Porter. I give David Teece a tremendous credit, and he’s really influenced me quite a bit.”

“Another person who I’ve gotten to know very well, who has also been very influential, is Clay Christensen from Harvard Business School. Clay, like David Teece, nicely straddles the academic world and the business world. I had the privilege to teach his class with him for two years when I taught at Harvard. I worked with him very closely and got to know his work very well. I’ve been heavily influenced by him as a result.”

“A third person I would say has been very influential in my thinking is somebody from the industry, Jim Spohrer from IBM. Jim led the charge within IBM’s research organization on this initiative of ‘services science.’ In the *Springer Handbook of Service Science*, he’s one of the co-authors. He is really quite a polymath in his ability to absorb ideas from a variety of academic disciplines and then find ways to synthesize these things together to create some new and compelling insights.”

“Of course, being on the industry side, although he knows the academic work and is a very good co-author – I’ve written a couple of

papers with him – he’s always being asked on the business side to deliver, to demonstrate, to prove; and so his ability to do both, to me, is very inspiring and very impressive.”

What is your strongest contribution to the field or practice of innovation?

“I’m certainly best known and recognized for the new model of industrial innovation called ‘open innovation.’ Part of the insight there came from looking at the practices of a number of leading industrial research organizations, both in the US and in Europe, and finding that some of the serious problems they encountered were to do with too many restrictions on both the inflow of information into the innovation process as well as restrictions on the outflow from the innovation process, beyond the scope of the current business. This is, I think, what I’m best known for.”

How does this help change peoples’ lives?

“Let’s talk separately about peoples’ lives and businesses, and how open innovation changes them. In terms of peoples’ lives, I mentioned to you earlier the pharmaceutical industry; it’s well known that you start with five or even ten thousand compounds for every compound that makes it all the way through to the marketplace. That means that there are researchers out there in the pharmaceutical industry who’ve worked for 30 years and have never worked on a compound that gets to market. Think of the human cost of that; how demoralizing that must be for these excellently trained people, who’ve worked hard and done their best, done exactly what the companies have asked, and they’ve never been able to show their family and friends the results of their work.”

“One of the benefits of open innovation on a personal level is that it provides many more opportunities for these ideas to be tested in the market – if not by your company, then by another. In some cases, we have intermediaries such as InnoCentive or NineSigma, and you can actually send your ideas and thinking to them, compete for a prize, and see your ideas used that way. So I think from a personal level it creates many more possibilities and opportunities to make an impact on the world.”

“Now let’s talk about companies. I think on the companies’ side, the open innovation benefits are at least three: one is that it can reduce the cost of doing internal research and development, because when you partner with others for some of that you don’t necessarily have to

pay the full cost of all the development; you only have to pay for what you're going to use. So if you're going to use an idea in one industry, but that idea might also be useful in others, you might want exclusivity within your industry but be happy to let others take it to their industries on their own, which means you don't have to pay the full cost."

"Related to this, you may also save time in developing your ideas and technologies, because when you work with outsiders you are reviewing things that they have already worked on; you're not starting at the very beginning (as opposed to when you do things internally, when every blind alley, every dead end is on your tab and all the time it takes to deal with). But when you work with outsiders, they have to demonstrate their ideas and capabilities to you to a certain level. So they've already encountered a number of blind alleys and dead ends before they get to you. You can start in the middle with them, rather than at the beginning. I think this can accelerate the time it takes for these projects to get to market."

"Perhaps the third thing open innovation does for companies is point the way to new markets. If you have some internal ideas that you're not using, and you allow others to make use of those ideas, if when they start using them they find a market, an application, a set of customers that value them, then you may have other similar ideas in your organization for which you now have a demonstrable market. If you think about it, it's the best market research you can buy because you've got a real company, selling a real product, to a real customer, who pays real money – and all of this was done with somebody else's money. In fact, if you've licensed it, they're paying you for the privilege. Then you have the additional opportunity to take that into consideration as you make your plans going forward."

What is most important for innovation to succeed?

"I think a couple of things are very important for innovation to succeed. One is failure; you don't ever get it right the first time. Anything ambitious that has a certain reach to it is inevitably going to involve a risk and is also going to involve some unforeseen consequences along the way. So ironically, to succeed with innovation it's very important to think hard about failure. The first two sentences of the book *Open Services Innovation* are, 'Most innovations fail. And companies that don't innovate die.' I think that tension nicely captures one of the critical necessities for innovation."

"The second thing I would say that is necessary for innovation success is a belief, a vision, some sixth sense that we can do better: This isn't

good enough, and therefore it is worth engaging in something where there is going to be failure, because at the end of this process something very good may come from it. You have to have that belief, I think, to weather the dark days; the storms and difficulties that are going to arise in pursuing anything difficult enough to differentiate you from the competition.”

Which failure do you consider most serious in innovation?

“A colleague of mine at Harvard, Stefan Thomke, has considered the difference between failure and mistake: a failure is an experiment that you run and it turns out that the result doesn’t materialize, so it’s actually evidence along the path to proving something; a mistake is where either you don’t set up the test properly, or you already know the outcome before doing the experiment, so that you don’t really learn anything from the experiment itself. He has a nice example of a child. The first time a child touches a hot stove, there’s a tremendous amount of innovation that comes back with that sensation of intense pain in the child’s hand – that’s an experiment. Now, if the child goes and touches the hot stove again – that’s a mistake.”

Which three companies have been the most innovative ones globally in the last three years?

“I read the surveys and I think they are right, albeit with a time lag. The companies we are celebrating today did some wonderful things a few years ago, and we’re seeing the results today. I think we always have to have that in mind because, if we talk about a company like Apple, there’s no question it’s generated tremendous momentum from the incredible products that the company’s been able to bring to market (such that, today, I believe, the company has the second-largest market capitalization of any company in the US stock market – I think Exxon Oil was the only one with a bigger market cap). That’s extraordinary. But it is a lagging indicator, and I think that, all too often, when we look at these surveys of who’s up and who’s down, we’re actually seeing things that took place two, three, maybe four years ago, but we’re only now seeing the results.”

“A company that I give credit for facing a very difficult challenge, is Nokia. [Former CEO] Stephen Elop articulated that very famous memo of the burning platform in saying, ‘We are in a situation that is unsustainable. We can’t win with what we’re doing. We’ve got to make a change.’ That humility is the beginning of wisdom, and is vital in order to be innovative. Now in retrospect we’re not talking about what a wonderful, innovative company it is (as indeed, we would have said ten years ago about Nokia). But I give them credit for having the courage to face some very difficult challenges.”

“A company that I’ve gotten to know better that strikes me as particularly interesting and innovative is the personal financial software company Intuit. The company does a great deal of very rigorous experimentation and testing in its innovation process; they’re constantly running experiments – and anybody in the company, whether at the very top or near the very bottom of the organization, is entitled to go and try. Those experiments, in turn, generate data that are used in discussions about future direction and future choices. Instead of it being largely a political discussion, or one based on authority, they really try to focus the decision making on the data itself. This experimental culture at Intuit is really being very effective, and it’s something I’m very impressed with.”

Open innovation: summary

When asked what is most important for innovation to succeed, Henry Chesbrough points to two things. One is failure: you don’t ever get it right the first time. The second thing he says is necessary for innovation success is a belief, a vision, “some sixth sense” that we can do better.

A failure, Chesbrough points out, is an experiment that you run and it turns out that the result doesn’t materialize, so it’s actually evidence along the path to providing something. A mistake is where either you don’t set up the test properly, or you already know the outcome before doing the experiment, so that you don’t really learn anything new from the experiment itself.

Service-dominant logic: Stephen Vargo

Stephen Vargo has been working with Robert Lusch on a market theory called service-dominant logic. They are not dealing directly with innovation, but we find their strong focus on service interesting and important in understanding the concept of the *Amazon economy*. Vargo and Lusch have been synthesizing a framework for thinking about cocreation through resource integration and service exchange, which is a contribution to the field of innovation. This is a perspective that lets you see the world differently, which can stimulate people to innovate in creative ways. Vargo defines innovation as: “Creative ways of integrating resources that can be applied to provide service, which results in value cocreation.” With this definition in mind, our follow-up question to him was how he defines value. Then the same questions asked to the previous interviewees follow.

How do you define value?

“We’ve defined value as an increase in the viability or well-being of the system; the reference system can change, so there can be an exchange

of some sort. I can define value through the individual, the customer. But there may also be a different creation of value for the family; it may have different value implications still for society. So it's not that there's one definition or the other; it's that value always has to be defined in terms of some particular system. It may be different, and those systems are nested and overlapping."

Please tell us what you currently work with and how this is related to innovation

"Bob Lusch and I are working on market theory, specifically service-dominant logic. In one sense, I'm not dealing directly with innovation; but in working with those concepts and those research directions, it obviously has implications for innovation."

Who has been most influential in your thinking about innovation?

"I can name four people who have been influential in my thinking pretty quickly: Herbert Simon, who wrote *The Science of the Artificial*, and his other work on institutions and effectuation theory;⁴ Richard Norman, specifically his willingness to rethink the logic of what's happening, so I particularly liked *Reframing Business*;⁵ There's a guy named Fredric Bastiat who was an economist in the mid-1850s. Bastiat said in 1848, 'Services are exchanged for services, and once we understand that and all its implications, we have the beginning and the middle and the end of economic science.' He also analyzed what value is, and how to think about it, in his essays. The other influence is Clayton Christensen, both in his work on 'disruptive innovation,' which I think has been really important to our understanding, and also in the 'jobs to be done' work, which is somewhat related to that."

What is your strongest contribution to the field or practice of innovation?

"I think what we've been doing, which is synthesizing a framework. I think it's important we're not claiming we invented, so much as we're just resource integrators like everybody else, but we've focused at a slightly higher level of abstraction and synthesized a framework out of a whole lot of thinking, so it sometimes appears to be disparate thinking. It's a framework for thinking about benefit that is about cocreation through resource integration and service exchange. So I think that's our contribution to innovation. As I said, it reframes the way that we think about it – or potentially does."

How does this help change peoples' lives?

"Although it doesn't change peoples' lives directly, what it does do is give them a different vision. How does this change what a company does? The answer is I don't know, because that's sort of like asking me when I go to have cataract surgery, 'How does this change my life?' Well, it allows me to see better, but it's what I do with that vision that changes my life, not the cataract surgery directly. So it's a lens, a perspective that lets you see the world a little bit differently; it potentially lets you innovate in creative ways."

What is most important for innovation to succeed?

"I see the world in terms of the invention of markets, the creation of markets, which happens if innovation has become institutionalized. I don't think we've thought enough about that institutionalization process; and, to some extent, the de-institutionalization process. We have to break down old logics in order to build new logics and solutions."

"The second important factor for innovation to succeed is thinking in terms of ecosystems as a unit of analysis, which we often do not do. We think about companies and we think about the output, but we don't think about the ecosystem in which the customer is in the middle, and all the other players that are necessary to make something work; the infrastructure not being there to support electric cars or liquefied petroleum cars, for example. Nobody has said it better than Nokia's former CEO Elop: 'We're not losing the battle, but the better products are losing it to better ecosystems.' I think the world's getting to know that."

Which failure do you consider most serious in innovation?

"I think the other important thing that comes up in what we are saying is the failure to grasp the customers' role in value creation. We still tend to be very firm-centric and think firms create value and deliver it. We argue that is not the case at all. You can take a value proposition, and you can participate in the customers' value-creation process (that you can cocreate), but the value gets created in the customers' space, not in the firms'. Failing to recognize that is another significant factor that causes failure overall."

Which three companies have been the most innovative ones globally in the last three years?

"I don't think Jobs is quite the 'God' that we've made him out to be since he died. In fact, he made an awful lot of huge mistakes that are just as notable as his successes."

“But he did sort of get it right, even if partly accidentally, in the whole ecosystem approach to the iPod, iPhone, and the iPad. It has as much to do with the applications as with the equipment, but he did have the vision to build the equipment that supported the applications, and to grab onto the opportunity as it unfolded; that he could get all these free players putting together and developing applications for the system. So I think you have to include Apple as one of the most innovative global companies.”

“I have trouble figuring out who are really innovators; it sort of depends how you mean it.”

Service-dominant logic: summary

When it comes to what is most important for innovation to succeed, Stephen Vargo points first to the importance of breaking down old logics in order to build new logics and solutions. For example, he points to the overly strong focus on products in traditional economics, while a service perspective is often lacking. He suggests the second important factor is thinking in terms of the ecosystem as a unit of analysis. We should think about the ecosystem in which the customer is in the middle and all the other players that are necessary to make something work. He refers to the former CEO of Nokia, who stated that they were not losing the battle, but the better products were losing it to better ecosystems.

This statement can also be used in understanding part of the concept of the *Amazon economy*, as the focus should not be focusing on products but on a platform – or even better, an ecosystem that focuses on the customer. Vargo underlines that in the future economy – whether we label it the *Amazon economy* or something else – firms must grasp the customer’s role in value creation. Up till today, most companies, we think, are too focused on their products and channels, not on their customers.

This is the third and final interview of thinkers we present in this book. In the next chapter we turn to three practitioners. We consider the responses from them equally important for understanding service innovation, in particular, as they highlight the delivery and implementation aspect of the innovation process with great examples. The next chapter is the last in Part II.

In Part III, we will present responses from the same six thinkers and practitioners, but we then ask them their responses to statements that are directly related to the Service Innovation Triangle.

4

Insights from Service Innovation Practitioners

Here we interview Erik Kiaer, Jon H. Pittman, and Jose Avalos. Each of the three persons is presented in a separate section. Here we learn how each defines innovation and value, what they currently are working on, who has been most influential in their thinking about innovation, and what their strongest contribution to the field of practice of innovation is. We also get responses to which failure is considered the most serious in innovation. The most important insight we are looking for is what is most important for innovation to succeed.

The commonality of these interviewees is that they are global influencers, both in terms of their organizations as well as in their own competence. This gives credibility to the insights presented by the thinkers and practitioners.

Ten types of innovation: Erik Kiaer

Erik Kiaer states that an innovation has to be an idea with a business (model) around it that throws off positive cash flow. His job at Monitor Deloitte, strategy consultants, is about helping companies who are uncertain of how they will find growth. This is an important statement – although most companies won't admit uncertainty about any of their functions – we believe that in an advanced consumer society economic growth for firms is getting more and more complicated to find. The 'solution' – as we will adhere to – is to understand the principles of the *Amazon economy*. Here we present Erik Kiaer's responses to our questions, and then we will comment on them in relation to the *Amazon economy*.

How do you define innovation?

"We usually let the client define what innovation really means for them, but the way we look at it is: How do you come up with a new offering or

business service that throws off enough free cash flow that it gives you the right to do it again? It's not just an idea; it has to be an idea with a business around it that throws off positive cash flow. That's how we look at it. A lot of companies have different nuances; they have expectations of \$100 million, or whatever it is. Ultimately, it has to be about giving you options to grow that you didn't have before."

How do you define value?

"Value, likewise, is very relative to who the client is. To whom are you delivering this? Is it a customer who gets value because they can do things they couldn't do before? Is it a shareholder whose company shares are now worth more? Is it a charity that is now more impactful? We try to tie it back down to the value in how we help our clients grow."

Please tell us what you currently work with and how this is related to innovation

"My job is to work with clients to help them find ways to grow through innovation. It's really about helping companies who are uncertain of how they will find growth. They come to us to figure out whether there are things that are either adjacent to or beyond what they're currently doing that might be opportunities. It's very much about finding ways for our clients to grow that are meaningful for them. Within Monitor, we have companies that focus on innovation and growth in the social sector; we also do work for governments and corporations. So what is meaningful for them? How do we find ways for them to grow?"

Who has been most influential in your thinking about innovation?

"My boss, Larry Keeley, has been very influential; similarly the Institute of Design, where I did my graduate work."

"To roll back, Jay Doblin (of the Doblin Group) was a very influential designer in the middle part of the 20th century, all the way into the late 1980s. At the Institute of Design, he built a school around the question: How do you create discipline around a practice [design] that makes it repeatable, makes it understandable that it's not a subjective truth?"

"My clients – how do you become empathetic to what they're trying to do? Frontline personnel, who are told to do one thing and then the other, and then the opposite thing; they've seen it all, but you have to be empathetic to the client in what they're trying to do."

“We like to come up with new theories. What’s the idealistic approach to something? That’s why people think that it’s fun, you know, to come up with great and wonderful ideas. But you actually need the insights into how you actually make them happen. So I’d say there’s a lot of earlier thinking that is increasingly important and reminds you that oftentimes we’re just reinventing the wheel.”

What is your strongest contribution to the field or practice of innovation?

“I think my strongest contribution is very much colored by the company I work for and by Doblin. But I think it’s about empathy. Most innovation comes about because you have a deeper understanding of the customer, the client, and also the organization that needs to implement it. I think that Doblin has been very good over the years at making what is complex simple and easy to understand, whether it’s the ten types of innovation, or some of our work or experiences. How do you take something that’s complex and nuanced, and make it clear, understandable, and actionable? It doesn’t have to be encyclopedic, but it does have to be something that helps people to take action. So that’s my contribution for clients; the ten types of innovation is one example.”

“We started working on the ten types of innovation in 1998. We had moved our focus away from helping clients design and manage how they developed their offerings, to look more holistically at how one actually develops innovations and the capability to innovate. As part of that, we figured it would make sense to understand what innovation was.”

“So we took all the different things we saw around us, both in business and outside of it, and tried to understand: What makes Southwest Airlines, or Dell Computers, or whoever – what makes them innovative? We looked at it much like a forensic specialist will try to when figuring out the different elements and how they come together; we started clustering them and pulling out the different things.”

“The different types of innovation that we identified fell into roughly ten – or we’d define them as ten – different types that are about: the offering (what the product is and how it performs), what the system of products is (and how the different products interact with each other and create value), and what the services are that are attached to a product that help sell it.”

“Then you have the core processes – that is really where you provide value and where you add value to the offering. The enabling processes are in many ways how you run the enterprise, and how you set things

up that are available to others but might not be proprietary, so that you can do it more effectively.”

“Then the delivery of innovation – what are the channels you use? What is the brand? How do you communicate the value of the offering and, ultimately, what’s the experience you provide to the customers through your offering?”

“The last but often overlooked part of innovation is how you network with other companies – your suppliers, partners, and others – to create an ecosystem where you can provide value in the most efficient way. Finally, how do you then create a business model from all this that gives you an advantage?”

“So these ten types are one way to help companies get out of what is often a rut where they focus only on the offering. They focus on technologies – that might be slightly faster, slightly smaller, slightly lighter – and forget about the experience part, the business model in the processes. How do you actually incorporate that idea into the capabilities and skills that you have?”

“I think that the experience of most innovations is most overlooked, and I think Machiavelli of all people said it very well: Once you’re introducing, in his terms, “a new order of things” – something new into the world – most people will be against it because it’s unfamiliar, it’s not something they’re used to. The ones who will be on your side will be very lukewarm. They’re lukewarm because they have not had the experience of what is different.”

“If you look at most successful innovations in the world, they created an experience that changed the way people thought about something. They changed it such that it was no longer an apples-to-apples comparison. So, understanding how you can take an experience and reframe it – so that people really feel that it’s something else and something new – helps you to differentiate and actually root the innovation in the culture. I think it’s fair to say that most innovations that have changed the game have just reframed what people thought of before. The car was known as a horseless carriage because it reframed an experience we knew – the car really changed how you thought about mobility and transportation, and it was a different experience and didn’t have a horse. Telephones did the same thing where it was a very different experience. Fast-forward to the present day, and think how the hybrid motors of Toyota cars focused on providing a different experience. It wasn’t like driving a different car, with some elements that were magic – that the car stopped, then it started again. It was still running.”

“So I think that experience is really where companies have the ability to differentiate themselves, and to change the way people perceive an activity.”

How does this help change peoples’ lives?

“I think it is a question of context. In the 20th century, companies developed scale, production, distribution, and ways to get products out to people; it was just a matter of convincing them that they needed those things. Nowadays, I think it’s changed completely; companies have to convince customers that they are worth their time. I think that, fundamentally, how you understand the context that people live in – what they’re trying to do – that is where you start to win them over, because you’re making their lives easier, more efficient, and more effective. But it’s from their point of view, not from the company’s point of view.”

“People are very good at reading what a company says about its products. There was a book that came out a few years ago, by a professor of marketing at Harvard, and she talked about teaching people how to make something different. Ultimately, everything was so different that nothing was different. So you have to move away from that, and start to look at it from the point of view of the people who are receiving this; you have to be very human and very understanding of what it is. I started out by saying empathy was one of the biggest things. You have to understand customers and what they’re trying to achieve, and not cast judgment on what they’re doing, but rather understand them. Every individual person you talk to will have stories that on the surface seem insane, but that’s the way our lives are. We do things that are not rational, yet market research – all kinds of research brought to the table for developing new products – is based on averages. Averages are not what give you the stories to create compelling new offerings and innovations for people. So you have to empathize with customers, and listen in a way that is very different. Likewise, you have to understand the organizational culture into which you’re putting this information, so that you can actually give the people who work on it the ability to have an impact, to change, and take part in it.”

What is most important for innovation to succeed?

“I think we touched upon it briefly, but for customers, you have to understand their context. You have to understand that people do not get up in the morning because they want to go out and buy a can of

food. That's not why people get up. Yet a lot of companies who make cans of food assume that's what they do. Today, they're going to shop online, so you have to understand their context – understand that the can of food is an option in a very complicated pallet that people are selecting from throughout their day.”

“For clients, I think you have to make sure that the strategy and ambition of what they're doing is aligned with what they actually can do – their capabilities, and the strategy and execution of it. Very often, innovation is put into labs or small departments, and people come up with new ideas that don't align with the strategy, and it's not going to work. So I'd say that the most important thing for an innovation to succeed is that it balances what is desirable from a customer's point of view with what's feasible from a technology and capability perspective. Ultimately, what's viable? What can you actually make into a sustainable business?”

Which failure do you consider most serious in innovation?

“I think greed. It's very hard for companies and leaders who grew up in an era where you competed with a small number of other players in the industry, and it was pretty defined. The industry boundaries were clear and it was primarily about market share. It was primarily about winning incrementally.”

“I think today that has shifted, so there is much more need to understand an ecosystem and come up with how to win without necessarily taking on the entire burden for innovation yourself – instead giving opportunities for others to make the innovation riches. Platforms (the way we define them) are a way of delivering value where you might control certain elements of the platform but provide a lot of other people with the ability to earn money as well – it's not just about what you can provide. I think where you see companies fail is when they do not understand the network nature of how businesses operate and how, increasingly, customers are the ones who are adding value to the innovations.”

“So I think greed and the desire to control too much are probably the biggest failure modes. That said, there are companies that are seen as being greedy, but frankly they often have the strategic control necessary to capture more of the value. This they do, and to a certain degree they have a fiduciary responsibility to capture as much of it as they can. But I do think that, ultimately, your ability to provide others with an opportunity to win is increasingly an element of successful innovation.”

Which three companies have been the most innovative ones globally in the last three years?

“I’m sure you’re getting top hits on this one: it’s very hard to get away from Apple, just because three or four years ago they weren’t in a number of businesses that they are now the leaders in. That speaks for itself in many ways.”

“I think a lot of people use Apple as an example, yet they’re probably the least transferable example that anyone can use. “Just do like Apple” – it’s very hard. I talked earlier about the alignment of knowing what you’re good at with the strategy, vision, and ambition of what you’re doing; being very clear on that and then knowing what to give up. Apple has been able to give up very little.”

“I’ve been very impressed by Procter & Gamble (P&G). If you look at their production system – where they source ideas from, and how they get things out into the market and receive information back – it’s an extremely efficient machine. It’s attuned to what they’re good at doing, and how they’ve optimized the system in a way that won’t work for others. They have scale; they have a lot of different pieces; and when P&G CEO Alan Lafley first looked at it, he was clear that all the good ideas can’t come from just us. We have to open it up somehow. How they’ve operationalized – that, I think, has been extremely impressive.”

“I think there are a number of companies – I’ll use Tata as an example – which have been able to capture the imagination of people in a way that I don’t think people expected, especially in North America. I mean, Jaguar Cars is now under the ownership of the Indian Tata group. It’s doing very well; they’re making good cars. Tata have created hotel rooms that are of a high standard and very low price. They’ve done things that I think are very advanced, and they have helped people see that the locus for good ideas is not just in America, which I think is a big bias that we have. I think they’re one exemplar of how things truly are becoming global.

“So I think they are a second company, and if you want to have a third, General Electric has been very good at aligning what they’re good at with a growth challenge that is huge; they have to grow by the size of a Fortune 500 company every year, which takes a lot to do. But I’ve been impressed by how they’ve incorporated their talent development engine with the business unit growth, and also the incentives system and how things work together. Again, it’s about knowing yourself well enough and being humble enough to know what you’re good at doing, but also being confident that what you have is really worthwhile.”

“The Gates Foundation has changed the world of philanthropy. They have done so by taking business discipline and moving it into an area

that was previously overly reliant on what we think of as traditional philanthropy. They've brought a lot of discipline to what they're doing – and frankly made it hard for a lot of other charities to compete because they own large areas of philanthropy. I think they are a good example of somebody who has changed the name of things, where they can go in and actually do things that other foundations – and sometimes countries – can't. They can give more to an organization fighting disease on a continent than governments can because they have a focus on it, and they don't need political agreement to do so."

Ten types of innovation: summary

Erik Kiaer points to giving clients something that helps them take action when we ask him about his strongest contribution to the field or practice of innovation. He also focuses on experience, as he says: "If you look at most successful innovations in the world, they created an experience that changed the way people thought about something." He uses the car as an example. The car was known as a horseless carriage because it reframed an experience we knew.

We believe that Kiaer makes a strong contribution to the understanding of innovation with the focus he places on the context of an innovation. He says [emphasis added]: "*for customers, you have to understand their context*", as he responds to what is most important for innovation to succeed. In our interview, he expands on the concept of "context" in this way: "I think that, fundamentally, how you understand the context that people live in – what they are trying to do – that is where you start to win them over, because you are making their lives easier, more efficient, and more effective. But it is from their point of view, not from the company's point of view." He develops this when he comments that much market research is based on averages. However, averages, he states, are not what give you the stories to create compelling new offerings and stories for people. Companies rather need to understand customers in their real context and bother to make the investment to do so.

Erik Kiaer also makes an important point regarding failure for innovation. He states it in one word: Greed. Previously – before the *Amazon economy* – it was about winning incrementally. Kiaer has given what we consider a very important insight: you must understand the ecosystem, and come up with how to win without necessarily taking on the entire burden of innovation yourself. "Your ability to provide others with an opportunity to win is increasingly an element of successful innovation," he states. This underlines the contribution that Henry Chesbrough laid

out earlier. Based on Kiaer's statements, we see how open innovation can work in practice.

Innovation by design: Jon Pittman

Jon Pittman is responsible for corporate strategy at Autodesk in San Francisco, California. He also taught a course on design thinking at the Haas School of Business at the University of California, Berkeley.

Pittman has a broad design background. He has tied together design, business, and technology, and has contributed to moving organizations in directions they might not otherwise have gone. When asked how his contribution helps change peoples' lives, he responds with saying, 'So the question is: "How do we make a better world, or in some ways, what's the innovation, or the design?"' While there are a lot of different ways to think about design, he says, they all have some similar characteristics. He points in this interview to four such characteristics: a deep understanding of the ultimate recipient of the design process; a systems view – looking at things not as objects or small elements, but really trying to understand the system in context; a prototyping kind of mentality; and the area of creativity. In the following interview he expands on these as well as other interesting issues regarding innovation.

How do you define innovation?

"Before I do that, let me tell you how I wouldn't define innovation. I think a lot of the time people confuse invention with innovation – I'll define invention as the creation of a new and novel approach (in fact, the dictionary definition is something like that: a novel approach, method or process). Innovation is really taking that and making it socially useful; whether it's useful to a company from a profitability standpoint, whether it's useful from a social responsibility standpoint – making it somehow useful to society."

"Often we conflate the two definitions. It's very interesting in conversations: I was in a Chief Strategy Officer roundtable a couple of weeks ago, and the very first thing we talked about was the definition of invention and innovation. Then for the rest of the conversation people kept conflating the two. If you look at the US, a lot of the national dialogue is about, 'gee, we need more math and science, and more patents,' and those kinds of things. Those are necessary ingredients, but they don't necessarily drive innovation. They are inputs to innovation, but they aren't innovation. We sort of miss what innovation is really about, which is the deployment of an idea, making it useful to society. That's kind of a

messy process, and it tends to be a very interdisciplinary process. It's not easily codified in some sense. It really has a lot to do with experimentation, trial and error, and understanding your user and the business conditions. It's a very holistic process."

"I heard an interesting discussion on one of our radio shows the other day. Chris Trimble, who's a professor at Dartmouth, was talking about how he makes waffles with his son every Saturday morning. For waffles, you need flour, water, eggs, and some other ingredients. The dialogue in the United States about innovation often talks about the flour and the water, and they never mention the eggs. He said the problem is that the number of waffles you can make is limited by the smallest ingredient you have; so if you have lots of flour and water but not enough eggs, you don't actually get waffles, but you do get a gooey mess!"

"Similarly, if you have a lot of invention – you have a lot of science, math, patents, those kinds of things – you create one of the conditions for innovation, but if you don't actually have innovation skills, or innovation processes, you won't get that innovation. You'll have lots of invention, but you won't deploy it. You will have wasted invention. So, I think the key is getting those things in balance."

How do you define value?

"I would take it back to Autodesk. Our vision as a company is to help people imagine, design, and create a better world. We deliberately used 'a better world' because I think the notion of a better world captures value quite nicely – it's very broad. So while some of our employees are very focused on making video games, their definition of 'a better world' might be, 'We entertain, we help people relax and enjoy themselves' (although some of the games may not be that relaxing)! But to a certain demographic, a whole other group of people might say, 'Gee, we're making the world a more sustainable place because we're focusing on sustainable design.' Another group might be focused on the assertion, 'We're helping our customers be more profitable.'"

"So, I think the value of innovation, the value of design, is a very broad concept. In some ways it's what's meaningful to the audience or the receiver. But I would contrast art and design – I was educated as a designer, as an architect, and one of the things that happens in the design world, or the popular view of design, is people often conflate art and design. I would say that art is about self-expression; with design you always have an end user in mind, or a socially useful purpose. So, when we talk about value it's more than self-expression; it has something to do with a purpose that someone has, whether it's

to occupy a shelter, or to make a profit with a product, or something like that. Designers always have a client or customer.”

Please tell us what you currently work with and how this is related to innovation

“At Autodesk, I’m responsible for corporate strategy, and there are really two aspects to my role: one is a traditional corporate strategy role of working with the various business units, the CEO, and other business leaders around what Autodesk’s strategy should be for each business unit, and how this relates to our long-term vision. The other part, which is what most of my team does, is really looking at long-term directions that affect Autodesk and our customers. We try to engage in conversations with – the way we say it – the right people, at the right time, and on the right topics. What we’re trying to do is to understand where society is moving, where technology is moving, where design is moving. That does two things: it feeds back in our direction because it helps us shape the corporate strategy, but it also engages with our customers and industry leaders to help them understand where we’re going. There’s sort of an inbound aspect to this – of us understanding better – but there’s also an outbound aspect of people understanding us better too.”

“That’s the role at Autodesk. In the past, I have taught at the Business School at UC Berkeley. I tried to teach what some people would call ‘design thinking’ (we’ll get to that term in a little while). I tried to give my students two things: an appreciation of what design is and its strategic value; and then some experience in doing design, or what some people call design thinking. I prefer it more as ‘design doing,’ but we gave them some of those skills and background.”

“The program was kind of interesting because it was in the Business School, but about half of the students were from outside the school. About half were engineers of various kinds; I had students from the Information School, so that’s about user-interface design, information design, and those kinds of things. So, we had a pretty eclectic group of people.”

Who has been most influential in your thinking about innovation?

“That’s an interesting question, and I’ll base my reply on my teaching. I actually use a lot of materials, and point to a lot of things that happened in the 1970s, which is when I went through architectural school. So there’s a body of material. But there were also a lot of people

who were thinking about design then in some interesting ways. For example, a guy named Victor Papanek wrote a book called *Design for the Real World*, in which he was really questioning design in the service of consumerism;¹ that question is once again on the table, 40 years later. So Papanek is an example. ‘Bucky’ Fuller, who looked at the world very holistically; Christopher Alexander, who was a design theorist looking at the world in the 1960s and 1970s. There existed a great set of traditions that got lost in the 1980s, 1990s, and early 2000s. Hence, the literature I’ve referred to for my students actually comes from the 1970s, and more recently.”

“It seems as though we went through this dearth of innovative thinking, and went into an era of optimization. There were two things that were happening, I think, in the 1980s through the 1990s: we thought a lot about optimizing things – think of things like Six Sigma, that was all about optimization – and while we heralded that as innovation it was really about tuning what you already had and perfecting it (that’s not a bad thing, but it wasn’t really innovation). I think the other thing that happened is that parts of the design world went off into fad and fashion; they were operating more in the art realm than in the design realm.”

“So I find it very interesting when I look for material; some of it may be when I was attending the things, but in those two eras I find a lot of inspiration, and I find a doughnut hole in the middle.”

What is your strongest contribution to the field or practice of innovation?

“One of the things I told my students on the first day of class is that in every job I’ve held – not every job, but most of the important jobs I’ve held – the position didn’t exist; it wasn’t a position I applied for. Either it was created for me, or I created it. They’ve all been kind of the same – they’ve all been around what I do now, looking at future direction, trying to help organizations move beyond where they are today.”

“I think the reason that’s happened is because I’ve had a broad design background. I’ve tied together design, business, and technology. I think having this eclectic set of skills and backgrounds helps me to think in a more ‘design thinking’ kind of way, this more open-ended way. I don’t know that there’s any big contribution. I actually see a lot of small contributions, of having moved organizations in a direction they might not otherwise have gone.”

How does this help change peoples' lives?

“So the question is: How does one create a better world, or in some ways, what’s the innovation process, or the design process? Let me answer a different question. I’ll answer the design question: Where does great design come from? There’s actually a lot of debate about that. I don’t think I talked about it quite as directly when the Norwegian group came, but I think there’s a big question of: Does it come from a great designer? Some people view it as an innate talent, and the best we can do is nurture that talent. As an example, the great designer theory would be espoused by a lot of great designers. It’s espoused by a guy in the computing world named Fred Brooks, who wrote *The Mythical Man-Month*.² He says that great design of software systems, and other things, only comes from the conceptual integrity that can be held in one’s mind.”

“Does it come from method or process? A company like IDEO, which has really promulgated this idea of design thinking, says it comes from process or method; as an educator, you have to have some sympathy for that point of view, because it’s hard to teach if you don’t have a method or process.”

“There are others who say that it comes from the crowd; there’s a debate now as to whether you get great design from the crowd, from crowdsourcing. Do you get great design from tools? As a software company, we make that case to some extent, but I don’t know that we would say it’s the sole ingredient. There are also people who think that it comes from the vernacular; from evolution, from nature, or from some sort of vernacular design that’s evolved over periods of time as people learn and make craft. So, that’s kind of a response to the question of where design comes from.”

“How do you make this a better world? I talked about design, and the question of where design fits between invention and innovation. I think that’s exactly where it fits. Design is an activity that makes innovation happen.”

“There are a lot of different ways to think about design, a lot of different approaches. But they all have some similar characteristics. One is a deep understanding of the ultimate recipient of the design process – so the users and customers of design – whether those are business customers, or citizens, or whoever. Another is a systems view – looking at things not as objects or small elements, but really trying to understand the system in context. A third is a prototyping kind of mentality of doing and building, and seeing and learning from artifacts, rather than purely

as an intellectual exercise. And finally, a squishy area of creativity: How do you actually think about new possibilities, beyond what's there today? Most design approaches have those elements in common. When you think about innovation, you want to look at those elements as key things in the process that leads to it." "We actually think innovation comes from three things, toolsets, skillsets, and mindsets. Toolsets are the thing Autodesk makes. We make tools to capture reality; design, and, and create the things people design. Tools can help innovation, I'd even say they are necessary, but they are not sufficient. Skillsets are also needed for innovation. Innovators certainly need skills to use tools, but they also need more fundamental skills in developing insight, designing, and collaborating. Like toolsets, skillsets are necessary but not sufficient for innovation. The last essential ingredient is mindset – the will to separate from the pack – do something different that is valuable to customers, an attitude of experimentation, and finally – the curiosity to explore and fascinate. Innovation actually requires all three elements – toolsets, skillsets, and mindsets. Lacking any of them will retard innovation."

What is most important for innovation to succeed?

"I don't think there's one specific thing; I think there are a couple of things. One is a will actually to move beyond what's here today. The textbook I use in my class holds the quote, 'Design is the process of making dreams come true.' Some of the writers about design and innovation have said that a good designer, or a good innovator, is dissatisfied with the world. So if you're complacent, if you're happy with the way things are, you will not be an innovator because you will never try to change. Innovators are change agents. I think the most important thing is to have dissatisfaction with the world, or a willingness and desire to make it a better place. That's probably the first ingredient."

"I think the second ingredient is an understanding that it is an experimental and iterative process; that you can't just think of an idea and, voilà, you've got it. It's going to require some iteration, it's going to require some trial and error, and that's not a bad thing. It really will take persistence."

Which failure do you consider most serious in innovation?

"The most important failure to avoid is failing to learn. Because we know we're going to fail, failing and then giving up is probably the fatal flaw in innovation."

"If you really want to innovate, you have to build failure into the process and build learning from that failure into the process. So, construct the process as a series of experiments and be very deliberate about each experiment: What am I trying to learn from it, and what

did I learn from it? Move on from there and adapt, based on that failure.”

“If we just view it as a linear process of ‘I failed’ or ‘I didn’t’ ... if you never fail you’re not taking enough risk. You’re not really learning; you may be doing something incremental, but you’re not really learning.”

“If you fail over and over again and never improve – that’s the other side of the coin – you’re not really innovating there because you’re just failing. So, really, building that learning loop is the key.”

Which three companies have been the most innovative ones globally in the last three years?

“In some ways it’s a little bit trite to say it, but Apple comes to mind. My students are always fascinated with Apple, partially because they have been so successful. What I like about Apple is not what you might think from an innovation standpoint (they’ve certainly innovated from a product standpoint, and they’ve got well-designed products). What I think is fascinating about Apple is that they’re one of the few examples I can point to where they actually did what good strategists should do: they’ve innovated with the company’s business model.”

“So someone, whether Steve Jobs or others, looked deeply at the company and said, ‘What are our core assets?’ They took a company that was a computer company – albeit a computer company that had a consumer products cachet to it – and they said (to use some strategy lingo), ‘What are the things we could do with those core competencies?’ They actually reinvented the company, first with the iPod, then the iPhone, and now the iPad.”

“What is interesting about that is they found some core competencies that weren’t immediately obvious. But they parlayed that into different businesses, and they didn’t just abandon the core business and move on to another one. In fact, they reinvigorated the core business by really understanding, at a fairly deep level, what its key elements were. They weren’t the obvious key elements either. It wasn’t that, ‘We do better microprocessors, and we know how to do great industrial design.’ It was some other things.”

“So Apple’s always a key innovator in one sense. And I think you get a real question, if you go back to the sources of innovation: Is the source that one person? Or is it more systematic? Jeff Kowalski, our CEO at Autodesk who used to work at Apple many years ago, said one of the things he’s heard from other Apple alumni is that, while sometimes it’s a terrible place to work – it’s a brutal place to work – people often say, ‘I did my best work there.’ It’s kind of an interesting statement. So, I think

from a company standpoint, I would continue to point to them as a very innovative company.”

“There are all the standard companies people talk about: companies like GE; Nike comes to mind as being pretty innovative at a branding level; a lot of folks point to Procter & Gamble, which I actually think is a little bit humorous. I went to school in Cincinnati, grew up there, know Procter & Gamble quite well – they’re a fairly incremental company, but they’ve done some good things. They’re good at acquiring innovation, but that’s not necessarily a bad thing. We are as well; we buy little companies and integrate them, and there’s an art to that.”

“I think there’s a bunch of brand-oriented companies: certainly, Virgin comes to mind (they are interesting because they’re a conglomerate). But I think what they’ve done – if you think of Virgin America, or big Virgin Airlines – they have re-created a flying experience that [in other airlines], in the US anyway, is pretty miserable. If you fly Virgin, or Southwest (there’s another example), or Jet Blue, we do see companies that have actually reinvented that process. And while the basic product is the same as everybody else – getting you from point A to point B – you somehow feel better about it on those airlines than the mainstream airlines. So you find companies that really focus on customer experience.”

“I guess – so you’re sparking some thoughts, too – one of my favorite innovators is Amazon. I’m a huge customer of theirs. In fact, one of the things to have happened in my personal life is that I have increasingly – and this is not a conscious effort – concentrated my purchases with Amazon. So, even when I purchase something I can purchase from someone directly, I’ll often go through Amazon because it’s so easy. The whole ‘1-click’ system, Amazon Prime, the Kindle, all the things they do, too; many companies talk about customer experience, but Amazon actually delivers. So that, to me, is a pretty important characteristic.”

“Now that you have me on a roll, I’ll give you another example. In addition to all the other things that I do, I’m a pilot. I’m a commercially licensed pilot in the United States, and I’m a pretty advanced-level pilot – not at the professional level, but for an amateur, I’m pretty advanced. I’m also the owner of an airplane called the Cirrus.”

“In the United States, general aviation manufacturers – because of liability reasons in the 1990s – stopped making planes. A lot of planes stopped being made. There’s some law that was changed in the late 1990s that protected the manufacturers from liability, so the industry started up again. Cessna was the big manufacturer worldwide; kind of the granddaddy of airplanes. But a lot of their planes were designed in the 1950s, post-World War II, to take care of the glut of pilots coming out of the military. So the industry hadn’t really innovated very much.”

“Cirrus was started by two brothers, one of whom had been in a midair collision early in his aviation career (the other guy died, he survived). So when they started Cirrus they wanted to make a very safe airplane; safety was a huge goal. At the same time, NASA believed that the airline system in the United States was flawed (basically, all of our traffic goes through the 30 largest hubs; there are 5000 general aviation airports in the United States that are underutilized). NASA had a program to say, ‘What would it take to make flying easy?’ They invested a lot in avionics and a whole bunch of things.”

“So the Cirrus – the two brothers – they took a lot of that NASA research and made an airplane that’s incredibly safe, very advanced, but very easy to fly. They’ve been very innovative in a number of ways. For a pilot, they designed it so that everything – once you learn how to fly it – everything is intuitive. When you reach for something, it’s where you expect it to be. In flying, you often think of flows in the cockpit – of a series of tasks – and they’ve ordered the tasks quite nicely. There are a bunch of aerodynamic characteristics to make it easy to fly. It’s comfortable.”

“They looked holistically at the customer experience. They went and studied high-end car dealerships and said, ‘How can we make this service experience like the BMW dealer?’ In aviation, there wasn’t anything like that.”

“They created a whole set of innovations through their process: there was the product itself; they had innovations in training – so the experience in terms of learning to fly the airplane. I bought mine used, so I didn’t get the delivery experience, but people who’ve bought them say you go to a hangar in Duluth, Minnesota (where they’re produced), you walk into the room, the lights come up, and there’s your plane. There’s a whole service delivery experience.”

“So that’s an example that’s only known to a small part of the population, but they actually – in about three or four years – surpassed Cessna, which had been in business forever in terms of planes delivered. Now the Cirrus is the best-selling in that category. They’re the best-selling aircraft, with a very fanatical, high-end customer base.”

Innovation by design: summary

As we heard from Jon Pittman, when it comes to what is most important for innovation to succeed, there are two things. One is a will to actually move beyond what is here today. He refers to some writers on design and innovation, who have said that a good designer or a good innovator is dissatisfied with the world. If you are happy with the way things are,

you will not be an innovator. The second ingredient in what is most important for innovation to succeed is an understanding that innovation is an experimental and iterative process. A new idea will require some iteration, it is going to require some trial and error, and that is not a bad thing, says Pittman. He ends the interview by stating that innovation “will really take some persistence.”

When we try to relate some of the insights from the interview to what we label the *Amazon economy*, there are a couple of things that spring to mind. One is the example of the Cirrus brothers who wanted to make a very safe airplane, but not only that. They looked holistically at the customer experience. They went and studied high-end car dealerships and asked how they could make a similar service experience in aviation. Such a focus on the customer experience is vital in the *Amazon economy*. More and more power of transactions lie with consumers. A second thing from the interview with Pittman is that he actually refers to Amazon. His comment shows how supreme Amazon has become: even when Pittman purchases something he can purchase from someone directly, he often goes through Amazon because it is so easy. He refers to the “1-click” system, and other elements with Amazon, such as Amazon Prime. As we will explain later when we present a case about Amazon, customer experiences and simplicity are core elements from the future economy. Finally, we will add that, as Customer Experiences are part of our model labeled the Service Innovation Triangle, these comments by Pittman help underline the importance of that part of the model.

Connected innovation: José Avalos

Technology investment and innovations from Intel have played a significant role in driving productivity improvement around the globe, according to Jose Avalos. Such growth in productivity has been translated into improved gross national product and quality of life for people worldwide. At Intel, Avalos’s team has spearheaded innovative intelligent Visual Retail product categories, such as Digital Signs, Interactive Kiosks, Vending & Dispensing, Digital Jukeboxes and Interactive Whiteboards. In essence, such innovation has allowed for significant reduction in total cost of ownership and energy savings, effectively delivering new forms of value for clients.

How do you define innovation?

“When you look at the technology industry in general terms, for example, if you go onto the Internet and look at Wikipedia definitions,

most of the definitions for innovation are around the introduction of something new – a new idea for doing business, a new idea for a business model, or a new method or process for doing something, or a new device.”

“Intel is a technology company, and we’re a business for profit. In my team everyone knows that it’s important to go beyond just the introduction of something new, or the introduction of a new idea, or a new device. For us, it is really important to deliver value when delivering something new – to the industry, to our customers, and our customers’ customers, effectively improving the everyday life of consumers.”

How do you define value?

“As we develop new platforms and new processors, we integrate new technologies and capabilities into those processors and platforms. If you take, for example, our second-generation Intel® Core™ processors, the Intel® Core™ i5 and the Intel® Core™ i7 processors, those processors have new technologies that enable new value propositions, new solutions for our customers.”

“In many cases we implement such new technologies and capabilities independent of the operating system. For example, if you have a digital signage network in a retail environment where the binaries and the operating system get corrupted over time, with our technology we’re able to manage that digital sign from a remote location. We’re able to recover the functionality of corrupted signs remotely so you don’t have a blue or gray screen on the digital sign. We can load a new image of the operating system (OS), and update applications and device drivers remotely. In summary, we use these new technologies to re-invent existing business models and deliver value to our customers, and to our customers’ customers.”

“One of the things we have been doing recently is moving towards what we call a ‘pull model.’ Let me give you a little bit of background as to why a pull model makes sense for driving innovation. Traditionally, the majority of our business has been done under what we call a ‘push model’ – so think of Intel as a microprocessor, or an ingredient supplier. We sell the component to a distributor, and then the distributor sells it to an original design manufacturer (ODM) in Taiwan. Then the ODM in Taiwan sells it to an original equipment manufacturer (OEM), which could be someone like Dell or HP, and then they sell it to a system integrator. The system integrator sells it to a service provider, who sells it to the customer.”

“That’s a very long value chain. And it makes it very difficult to communicate to the end customer what the value of the technology

is in terms of how we can change people's behaviors, and how we can enhance people's lives. What we have done differently now is to complement our push model with what we call a pull model."

"What we do now in our pull model is to start with the end customer. We engage with consumers across the world. For every one of our proof of concepts, we will do research in Europe, sometimes in London, sometimes in Paris, or other major cities; we'll do research in the US, in New York, or San Francisco; and in Asia, we do research in Tokyo or Shanghai. What we're trying to understand is: what business problem are we trying to solve and what is the benefit to the consumer. What does the end user like from a technology perspective? What is it they don't like? How does technology work for them? What value are we creating?"

"Based on this research, we then look for opportunities to improve existing usage models or to create new usage models that will be relevant to the end user; that will create benefit the consumer and will motivate the industry. We'll take those usage models and translate them into proof of concepts that we develop with brands, for example, P&G, Adidas, Kraft, Best Buy, and many others."

"Once we develop these proofs of concept, then it becomes a lot easier for us to articulate the value of the technology in terms of the benefit to the end user and what it can do for the consumer. One of the things we have learned is that while technology is great, technology for the sake of technology is not innovation unless you tie it to the consumer and business problems for the end user. In order for technology to be valuable it has to provide a benefit to the end user. It has to change the way the end user behaves in a positive way: the way they do business, the way they buy products, and the way they go about their daily life."

Please tell us what you currently work with and how this is related to innovation

"I work for the Internet of Things Group (IOTG) at Intel, and specifically I work for the Retail Solutions Division at Intel. A bit of background, most people typically think of Intel as a PC company. Yes, our core business is microprocessors and components, as you know, ingredients that go into PC-type products, such as notebooks, desktops, servers, netbooks, tablets, and so on."

"Where the embedded IOT Group fits in, it's pretty much everything else. So everything that is not a PC, that is not a smart tablet or a smart-phone – it's in the IOT Group. So the IOT Group consists of a set of businesses that include things like gaming, industrial, in-vehicle entertainment, and smart home. And of course, digital signage and retail, but

there's about 30 to 40 different segments that we track, and there are about 12 major businesses within those 40 or so segments. Two of those businesses are our retail business and our digital signage business, and I'm responsible for those businesses here in the IOT group."

"The retail business consists of basically the transactional platforms, such as Point of Sales (POS), electronic cash registers, vending machines, interactive kiosks, and ATMs. The second business that I manage is the digital signage business, and as you know digital signage goes into a lot of different vertical industries: from transportation, to entertainment, to hospitality, to banking, to retail."

"Part of my job, and my team's job, is to deliver new, advanced, intelligent digital signage and retail platforms to the industry, and that also includes initiatives that are designed to fuel the growth of the business and the industry as a whole. Innovation is at the heart of everything that we do. We have to innovate in the way we deliver a product; we have to innovate in our business processes; we have to innovate in our business models, in setting standards, in working with our ecosystem partners and in our value propositions. Innovation is key to the way we do business and deliver value at Intel."

Who has been most influential in your thinking about innovation?

"I think for me it has been the people who founded Intel. People like Robert Noyce and Andy Grove, some of our earlier leaders. One of Robert Noyce's famous quotes that we still have on posters in our conference rooms is – 'Don't be encumbered by history. Go off and do something wonderful.' What leaders like Robert Noyce, Andy Grove and Gordon Moore did at Intel is to create a culture of innovation where we highly value innovation. As a result of that, as I mentioned, we have been at the forefront of new technologies and new devices in semiconductors: from the microprocessor, to the micro controller, to the EPROM, to Flash memory, to server platforms, to new device categories, including interactive, digital signage and retail solutions."

What is your strongest contribution to the field or practice of innovation, and how would you sum up the strongest way in which Intel contributes to peoples' lives?

"I'm going to answer your question from two perspectives, from the overall Intel company perspective, and then from my business perspective. From an Intel perspective our biggest contribution to the field of innovation has been the immense improvement in productivity;

productivity at the worldwide level that can be translated into improved gross national product (GNP) for countries around the world. Intel invented the microprocessor, we invented the micro controller, and we invented the EPROM and Flash memory. So when you look at the history of semiconductors, Intel has been an inventor, and those technologies, those innovations, those new capabilities have translated into increased levels of productivity worldwide. They can be easily translated into increases in GNP for governments, and they can be translated into a better quality of life for people across the world."

"I think the contribution of my team is a little bit different. We focus on digital signage and retail. When I first started working in digital signage a few years ago, the industry was moving on a path towards an end to end architecture that consisted of a very thin client and all the intelligence was in the cloud. I thought that was the wrong direction for the industry. If you look at what happened to the set top box business in the US in the 1980s and 1990s: all the service providers launched this very entry level, and to some extent dumb, set top box. Everybody was really happy because it was inexpensive to scale the network. The problem was that for the next 20 years the service providers couldn't deploy any services on that platform, because that platform didn't have the performance to support those services."

"For the digital signage business, we did things differently. What we really need is a thicker client, one that can be remotely managed, that you turn on and off remotely for energy savings; a thicker client that can support analytics so that we can collect anonymous demographic data on shoppers and delivers audience metrics (dwell, reach, and frequency) in real time and quantitatively. So we can do proof of play and proof of impression. This is all information that advertisers, media planners, and operators want access to in real-time. We wanted a platform that can support the integration of back-end management systems and help people understand the ROI or the return on objective (ROO) of a network."

"We also said, 'We need a thicker platform because we need to be able to process rich media content. And it has to be highly interactive to create an experience for the consumer that is productive, relevant and engaging.'"

"So that has been our biggest contribution in digital signage: we helped the industry move from the perception that the right solution was a thin client to the perception that the right solution for digital

signage is an intelligent client that is energy efficient; that can support analytics for return on investment and return on objective; that can be secure end to end; that can process rich media content, and that can provide an enjoyable experience through interactivity.”

“On the retail front we have had very similar contributions to what we did in digital signage. We focused on how to improve the shopping experience? Some shoppers want to be more productive, they want to be more efficient. How do we do that? Some shoppers want to have fun. They want to go to the mall and enjoy being out at the mall buying clothes, so we’ve got to be able to do that. Some shoppers are looking for an experience when they’re buying a product. So what you need is an intelligent platform that gives you the ability to create usage models that allow us to deliver unique values to the consumer. And these are the platforms we are delivering today to our industry.”

“So to re-cap, I think the investments that we continue to make in technology are having a profound impact on productivity and better quality of life. As well as enabling in the digital signage and retail industries a set of new services and experiences in the store that are productive, relevant, engaging and secure.”

What is most important for innovation to succeed?

“I think it’s the culture of the organization: you’ve got to be willing to nurture and facilitate diversity of ideas because good ideas can come from anywhere. So tolerance for diversity of ideas is really important. Tolerance for risk taking and failure, especially failure that allows you to learn, is really critical for empowering the organization. There are a lot of elements around culture that drive innovation. Creating a culture that is willing to take risks – that is willing to learn, that is willing to fail – and that can flourish on diversity of thought, is very important.”

Which failure do you consider most serious in innovation?

“New technology for new technology’s sake is the most serious failure. For example, if the technology doesn’t improve the lives of people; if the technology doesn’t deliver a better experience; if the technology doesn’t solve a business problem then I think at that point it’s just technology for the sake of technology and that is not innovation. You’ve got to deliver value.”

“So I think that’s probably one of the misconceptions about innovation. I mean, innovation has to be able to deliver value.”

Which three companies have been the most innovative ones globally in the last three years?

“I think we’re seeing a lot of innovation across the board. Companies such as Amazon, Google and Apple are very innovative Amazon has driven tremendous innovation in online retail and cloud services. Google has enhanced online browsing significantly and driven tremendous innovation in online advertising.”

“If you look at technology – and this is something that I impress with my team and work to integrate into the solutions that Intel brings to market in retail and in digital signage – for most of our generation great energy has been focused on ease of use. But I think that’s almost taken for granted now. I think that for the younger generation ease of use has become table stakes, it’s expected. I think what Apple has done is really focus on what I call ‘ease of joy,’ which is not only making the experience easy, or the device easy to use, but making the experience of using the device enjoyable. And so that’s an innovation that I’m trying to drive with my team.”

“Those are all companies that have been very innovative. In retail, you have companies like Best Buy, Tesco, and Macy’s; companies that are willing to innovate, to invest in technology that are willing to take risks.”

“At Intel, if you look at the last five years, the work that we have done in the cloud infrastructure space has really fueled industries worldwide. Everybody talks about the Cloud, but behind every Cloud there’s a bunch of Intel servers driving it. I think that is the innovation that Intel has driven over the last few years that is really critical and has impacted businesses across the board and industries across the globe.”

Connected innovation: summary

“The culture of an organization,” José Avalos responds, when we ask him what is most important for innovation to succeed. And he continues: “You’ve got to be willing to tolerate diversity of ideas because good ideas can come from anywhere Tolerance for failure, especially failure that allows you to learn, is really critical for empowering the organization.”

It is important to note the focus on culture, especially as it comes from a technology giant. We underline that, because many persons may wrongly think that a focus on culture is what you primarily find in other industries, such as design companies. The focus on culture becomes extra strong and important when it is stated by a technology company. Furthermore, it is important to note from this interview the focus on

the end user. Avalos states that in order for technology to be valuable, it has to provide benefit to the end user. This is important to underline, as the value chain for a company like Intel is very long, as illustrated in the interview.

The foci on culture and on the end user are traits for what we label the *Amazon economy*. Intel represents an example of a technology company that illustrates this. Many tech companies globally should learn from Avalos' comments and insights on these topics. This doesn't mean to say that Intel may be struggling in the economic transition from a PC to smartphones, but we think, that without having the focus on culture and end users, Intel would be performing a lot less well than they currently are doing. The comments from Avalos also underline the importance of the People subtriangle in the Service Innovation Triangle, and indicates that it is important, even for what we can label pure technology companies.

Reflections: what is most important for innovation to succeed?

Here we will relate responses to the five elements that characterize the *Amazon economy*. We presented these characteristics in Chapter 1. The four main questions we focus on here are:

- how the interviewees define innovation;
- how they define value;
- which failure they consider most serious in innovation; and
- what is most important for innovation to succeed.

We proceed with presenting the core of the responses from our six interviewees and then comment on how the common part of the responses tie into one of the five characteristics of the *Amazon economy*.

The first main question is about **how to define innovation**. While these definitions are presented as briefly as possible, readers who would like more detail should consult the full interviews. We will present briefs in the order presented earlier in Chapter 3, starting with David Teece, continuing with Chesbrough, Vargo, Kiaer, Pittman, and Avalos.

Teece: Innovation to me is really the “soup to nuts” of getting technical ideas and technical breakthroughs embedded in products, processes, and services, and bringing it to market in ways that benefit consumers.

Chesbrough: It is important to separate invention from innovation. The first is the discovery of new knowledge; the other is taking ideas and technologies to market.

Vargo: Creative ways of integrating resources that can be applied to provide service, which results in value cocreation.

Kiaer: It's not just an idea; it has to be an idea with a business around it that throws off a positive cash flow. Ultimately, it has to be about giving a firm options to grow that it didn't have before.

Pittman: It is the creation of a new and novel approach and making it socially useful. That's kind of a messy process, and it tends to be a very interdisciplinary process.

Avalos: Delivering something new that's delivering value.

Our comment to these briefs is that a common ground for the interviewees is that innovation consists of two elements. The first part is an idea, or the discovery of something new. The second part is taking the new approach to market, or more generally speaking, making it socially useful. This will be important for the *Amazon economy*: taking ideas or solutions to market and making them useful, for all kinds of actors, will be important. This is strongly related to one of our characteristics of the *Amazon economy*: the need to turn ideas into action. When you turn ideas into action there is an element of implementation, in the sense of reaching customers or end users. This also ties in with another of our characteristics, namely how high risk aversion kills companies. With high risk aversion, firms have a hard time in launching new ideas, discoveries, or knowledge to the market. Firms are too afraid of things possibly going wrong. However, as Pittman points out, firms need to make a culture change as part of becoming more innovative; firms need to understand that they are going to fail the first time(s) they try to innovate – but also they will fail if they don't try to innovate at all.

The second main question is about the **definition of value**, and here are the selected briefs from our interviews.

Teece: The value of innovation is what it brings to the consumer and society over and above the next-best alternative.

Chesbrough: Value is determined by the consumer based on their desires, their preferences. If we get into co-innovation and cocreation, there is the opportunity for people to create new things that they may not have been able to explain to us ahead of time.

Vargo: Value is an increase in the viability or well-being of the system; the reference system can change, so there can be an exchange of some sort. Value always has to be defined in terms of some particular system.

Kiaer: Value is very relative to who the client is. Value is about how we help clients grow.

Pittman: In some ways it's what's meaningful to the audience or the receiver. Value is more than self-expression; it has something to do with a purpose that someone has, whether it's to occupy a shelter, or to make a profit with a product, or something like that.

Avalos: In order for technology to be valuable it has to provide a benefit to the end user. Once we have developed proofs of concept, then we can articulate the value of technology in terms of benefit to the end user, and what it can do for the end user.

Value is a concept that is hard to define or operationalize. Value must be created for three kinds of actors: consumers, suppliers, and firms. What is striking with the responses from the interviewees is the focus on the end user, clients, consumers, or society. We think this is an essential part in the *Amazon economy*; the transformation from value creation based on products to value creation based on services creates a much stronger focus on the user or consumer. People also get more involved in the creation of new things or services.

As most innovations fail, we were curious to learn **which failure is most serious in innovation**. Here are the selected briefs from our interviews.

Teece: Commercialization failures. The most expensive failures are the ones that result from failure to understand the marketplace and the necessary connection between technology and the market.

Chesbrough: A failure is an experiment that you run and it turns out that the result doesn't materialize, so it's actually evidence along the path to proving something; a mistake is where either you don't set up the test properly, or you already know the outcome before doing the experiment, so that you don't really learn anything from the experiment itself.

Vargo: The failure to grasp the customers' role in value creation. We still tend to be very firm-centric and think firms create value and deliver it. We argue that is not the case at all. The value gets created in the customers' space, not in the firms'.

Kiaer: Greed. Greed and the desire to control too much are probably the biggest failure modes.

Pittman: Failure to learn. Because we know we're going to fail, failing and then giving up is probably the fatal flaw in innovation. Construct the innovation process as a series of experiments, and be very deliberate about each experiment.

Avalos: New technology for new technology's sake. Technology must make people's daily lives more enjoyable.

The responses to which failure is most serious in innovation tie in with the understanding of what innovation is. Since innovation consists of invention plus going to market, as well as a culture of taking risks, the most serious failures are breaking those two insights. In addition, some of the interviewees point out that most companies are too firm-centric and too little customer-centric. One respondent adds the concept of greed to the list of elements that are most serious in innovation. Greed, which is an instrumentally rational act, limits creativity as one thinks of what is the shortest way to get from A to B. Rationality may, or will, limit creativity, and hence the innovative process as such. Rather, persons, firms, and organizations need to get impulses from each other, both from within and outside of the organization. In other words, social networks are very important to innovation, as we also think they are to the *Amazon economy*. Social networks also represent insights from many persons and firms – such insights may be particularly important in an innovation project, where it more or less is a given that the first version(s) of a project will fail. To get on the correct course, the ability to know other persons and take their insights into account, is important to hinder innovation failures.

The final main question to our interviewees was **what is most important for innovation to succeed**. This is more than just reversing the previous question of the most serious failure of innovation, as just avoiding a failure is not enough to succeed; firms need to be able to create new services and get them to market. Here are the selected briefs from each respondent.

Teece: Dynamic capabilities – it's around the sensing and the seizing, and the ecological or evolutionary fitness of the idea. I would say that is the biggest discriminating factor.

Chesbrough: One is failure; you don't ever get it right the first time. The second is a belief, a vision, some sixth sense that we can do better. You have to have that belief to weather the storms and difficulties that are going to arise in pursuing anything difficult enough to differentiate you from the competition.

Vargo: Thinking in terms of ecosystems as a unit of analysis, in which the consumer is in the middle.

Kiaer: You have to understand customers' context. The innovation must balance what is desirable from a customers' point of view with what is feasible from a technology and capability perspective.

Pittman: One is a will to move beyond what's here today. A second ingredient is an understanding that it is an experimental and iterative process.

Avalos: The culture of the organization: You've got to be willing to tolerate diversity of ideas because good ideas can come from anywhere.

Chapter summary

The insights from the interviewees are particularly important here. However, we do refer the reader to the full presentations of our interviews, as we do not think there is a silver bullet for successful innovation that can be presented in short statements. What the brief selection of quotes suggests is the need for firms to broaden their views. This resonates with one of our five characteristics of the *Amazon economy*: the transformation from sector retailing to retailing for all sectors – in the sense that this is done by one company, for example, where Amazon is heading. One factor important for innovation to succeed is to have a will to move beyond what is here today. This also sums up more of the characteristics of the *Amazon economy*: to be able to move beyond what is here today companies cannot have high risk aversion – otherwise they will never be able to move. Companies also need to turn ideas into action – if ideas just stay in the drawer they will never reach the market, or new users or customers. For companies to move beyond what is here today they also need to expand the number of partners and customers; in other words, companies need to expand their networks. Finally, for companies to succeed with innovation they also need to focus more on services than on products. All products will be judged by the service they perform, or by the problems they solve for customers.

This is our conclusion to Part II. In short, what is most important for firms to succeed with innovation cannot be summed up with a “silver bullet.” However, we believe that using our five characteristics is a brief yet instructive way of figuring out how to innovate under circumstances we see evolve in our economies.

In Part III, we turn to the application of the Service Innovation Triangle. We will look at how to create value in the nine components of the Triangle. Here we will focus more directly on the three layers of the Triangle – innovation capacity, innovation ability, and value – and present statements about service innovation that our interviewees responded to. We will sum up in relation to the characteristics of the *Amazon economy*. Then we will be presenting five pairs of cases studies, showing how to use the Service Innovation Triangle in practice.

Part III

Application: Creating Value in the Components of Service Innovation: Statements, Methodology, and Checklist

This book focuses on how firms can innovate in a consumer society. In such a society, it is assumed that consumers have choices, often from a competitive set of global, national, and local firms. Moreover, it is assumed that consumers have information about their choices, in a digital format that can be readily accessed and is from many sources: companies, news media, politicians, influential voices including celebrities, lobby groups, friends, and family. In such economies, services represent the major proportion of value creation. Managers need new models for innovation. While manufacturing may provide products for the consumer market, the ultimate value of those products depends on the overall customer experience of the choice of service provided, and information shared, through a combination of forms, prices, channels, and branding. In a consumer society, all firms, including manufacturers, are ultimately dependent upon the relative customer experience of the service provided, real or perceived. Products are bought to provide a service: food, fashion, and even housing, to satisfy intangible desires as well as tangible needs. On top of this complex mix, consumer tastes change, and information technology continues to develop, creating a dynamic service environment for all firms. The need for a practical model of service innovation is paramount.

Until recently, the theory of service innovation has been quite disjointed, and relatively little has been known about how to successfully innovate in a service environment. This is partly because some of the underlying mechanisms that link consumers, providers, and suppliers are still not well understood, but also because there has been little attempt to bring together the widely agreed elements of successful service innovation, such as design thinking, resource allocation, management practice, and value creation, into a single model that is both

simple and comprehensive, taking account not only of a single firm but also of the whole value chain in a dynamic environment. This theory has now been formed in the book on *Innovation in a Consumer Society* by Furseth and Cuthbertson (2014). This book takes the theory of Value-Driven Service Innovation and applies it in practice using the Service Innovation Triangle (SIT). Chapter 4 explains the SIT framework.

This part then provides insights from the practitioners and thinkers introduced in Part II on the main elements of the Service Innovation Triangle. Short videos portraying these views can be found online.¹ Each of the six thinkers and practitioners are asked to react to selected statements relating to each of the elements of the Service Innovation Triangle. Through these 11 statements, we get a nuanced and fascinating view on this model of service innovation. Within this part, each of the nine subtriangles of SIT are considered across three chapters, representing the different layers of the Service Innovation Triangle.

Chapter 5 considers the bottom layer of the SIT model, representing the Capacity of a firm to innovate. This considers the overall capacity for innovation based on the assets and resources available. The assets are financial, tangible, and intangible, while the resources are technology and people. This chapter discusses four statements in particular regarding innovation capacity:

“Involve design thinkers at the very start of the innovation process.” – Brown, 2008.²

Brown focuses on introducing design thinking at the very start of the innovation process to give time for tangible assets to be fully developed.

“All businesses are service businesses.” – Vargo and Lusch, 2004.³

Vargo and Lusch show that intangible assets tend to dominate tangible assets in service firms.

“Service innovation starts with culture.” – Berry, Shankar, Parish, Cadwallader, and Dotzel, 2006.⁴

Berry et al. highlight the importance of people in the service innovation process.

“The success of an innovation depends on your ability to mobilize around your network.” – Hargadon, 2002.⁵

Hargadon illustrates the importance of a network for driving innovation. In a global, digital society, the role of technology in sustaining this network is vital.

Chapter 6 considers the middle layer of the SIT model, representing the management Ability of a firm to innovate. This considers the management, organization, design, and control of the customer experiences provided by the firm, the service system that creates those experiences, and the business model from all perspectives: customer, shareholder, employee, as well as external suppliers and partners. This chapter discusses four statements in particular regarding innovation ability:

“A better business model will often beat a better idea or technology.” – Chesbrough, 2007.⁶

Chesbrough illustrates the hierarchy of the SIT model where the business model is critical in providing value to all stakeholders.

“Ultimately, it is the customers who define the value of innovation.” – Furseth, Cuthbertson, and Reynolds, 2011.⁷

The critical role of successful customer experiences is highlighted by Furseth et al.

“Both customer and competitor orientation can be successfully used to develop innovative products and services.” – Grinstein, 2008.⁸

Grinstein illustrates the importance of understanding and awareness of both customers and competitors. However, the SIT model considers innovation to require a further step: what can a firm do, rather than what are other firms doing. This requires a focus on the service system.

“When an established logic for satisfying consumer needs is overturned, the business model must change too.” – Teece, 2010.⁹

Teece highlights the dynamic nature of innovation, and so the service system, customer experiences, and the business model need to continually evolve.

Chapter 7 considers the top of the SIT model, representing the Value created by the firm and its innovations. In other words, this considers the commercial success or failure of any innovation. This chapter discusses three statements in particular on the creation of Value:

“Successful innovation is driven by the value created.” – Furseth, Cuthbertson, and Reynolds, 2011.¹⁰

Furseth et al. show that the focus of innovation is on creating value, the top of the SIT model, for all parties: customers, suppliers, and owners.

“Through innovation and growth, firms can do untold good for society.” – Ahlstrom, 2010.¹¹

Ahlstrom reminds us that such value is then transferred to a wider society, the space around the Service Innovation Triangle.

“The strategic role of the supplier is to support the customer value creating processes.” – Ballantyne and Varey, 2008.¹²

Important participants in this wider society are the other firms that are supported and supporting the service innovation of the firm.

All three chapters in this section illustrate the value of the Service Innovation Triangle in both theory and, most importantly, practice.

5

Innovation Capacity

This chapter discusses four statements regarding Innovation Capacity:

- “Involve design thinkers at the very start of the innovation process.” – Brown, 2008.¹
- “All businesses are service businesses.” – Vargo and Lusch, 2004.²
- “Service innovation starts with culture.” – Berry, Shankar, Parish, Cadwallader, and Dotzel, 2006.³
- “The success of an innovation depends on your ability to mobilize around your network.” – Hargadon, 2002.⁴

Tangible design

Involve design thinkers at the very start of the innovation process.

Brown, 2008.⁵

David Teece: I agree with that. I think that design is important. I think that if you do not have a holistic process, it’s hard to put design in as an afterthought. That’s unless you’ve got a low-cost prototyping environment (and with the Internet and CAD, sometimes you do). But whenever you don’t have a low-cost prototyping environment, then you’d better get design right early on.

Henry Chesbrough: I’m agreeing with this. If you had said, “Involve design personnel at the start of the innovation process” I would have agreed with it as well. Because I think sometimes we think of service as the last part of the value chain, before the product goes to the market. In that conception, the role of service is to keep the product from being sent back by the customer. There’s much more that service can and needs to do in the business to truly differentiate and add value, and that has to be incorporated much earlier.

What design thinking does is provide a methodology to inject more creativity, more empathy for the customer, into the design process and the innovation process. And getting that in early is a very valuable thing. Because often the things you can do early to improve a customer's experience are not greatly different in expense from what you would have done otherwise. But if you wait until the middle or end of the process, you've already made a number of commitments that may have to be undone if you really want to follow a more design-centered path to your customers. And now it becomes much more expensive to do it. And so a lot of companies think, "We can't afford it because it's too expensive." I think the reason they feel that way is that they're bringing it in relatively late in the process.

Stephen Vargo: I've put down "agree?" but there is no "start." It must be part of a corporate culture. It's not the start of the innovation process; it's more fundamental to the organization as a whole. Design thinking, to me, is not so much related to classical design of output as it is to using design principles as a management philosophy. And so I think adopting a design mentality rather than a make-and-sell mentality is pretty fundamental to success with innovation.

Erik Kiaer: I'm uncertain of that statement, not because I don't think it's a good idea to involve design thinkers, but I think it puts people in buckets where design thinkers – people with black turtlenecks – and I think it's... Roger Martin used a term in an earlier book he wrote on integrative thinking. Who are the people who are able to not question either/or, and how do we come up with something that is better? I don't think that is the domain purely of designers. I think a lot of designers use that; I think a lot of designers don't. So I think design thinking as just a term, to me, is a little bit hollow and it makes the designers either feel like more than they are or less than they are, so that's why I disagree to a certain degree with that statement.

I think it's about having the right people, and it might be an accountant; an accountant who does not know what design thinking is about. It's a way of seeing the world that isn't black and white; it's shades of gray. It's understanding that there's always a better way. And I think A.G. Lafley has said it very well in terms of: How do you have patience for the right answer to come? Often times we force ourselves to an answer before we're really ready, and I think a number of books – Stephen Johnson's *Natural History of Innovation* talks about it too – but it's like allowing for that slow hunch, the way in which things come to you and come together over time. So that's why I'm sort of neutral on the design thinkers. It's more terminology and what you call it, I think.

Jon Pittman: I “strongly agree,” but struck out the word “thinkers.” And here’s why. There’s this very trendy term called “design thinking,” which is actually very polarizing; so while some people really like the idea of design thinking, others hate the idea.

And I think here’s the reason why. Some view design thinking as IDEO’s – or IDEO and other design firms’ – marketing tool to take what they do and take it across a broader span of business opportunities. And there’s some truth to that. I don’t know that that’s particularly a bad thing, but some people identify it a little too closely with certain organizations. So there’s a group of people that go, “This is just a marketing ploy.”

There’s another group of people – and interestingly these are often designers – very traditional designers – who view it as devaluing what design is about. And there’s a third group that sees it as designers trying to inflate their importance. So the term design thinking, while it’s captured the imagination of a lot of people, I think it actually does more damage than good.

That said, the reason I “agreed strongly” is: I think if we look at design in a tactical sense – and we do it here in some of our groups – you view it as the stage that has to do with making it pretty, or dealing with its form. After the real work is done, it’s figuring out what it is, and before it’s actually built. That is in the realm of fashion.

If you really look at how design can influence things – so think back to my example of Apple, or even Cirrus, where what’s really magical about both those companies – or Amazon, so all the examples I gave – is they’ve thought about the experience holistically, as a total system, and not, “Here I’m going to design the Web page” (in the case of Amazon). They’ve thought more systematically, as a systems thinking kind of exercise.

So I think if you’re really practicing design effectively you are a systems thinker, you are looking at the whole system – you understand up front what the business challenge is; what the user challenge is; what the actual design of the thing is; what the engineering is; how it’s manufactured. So you’re looking at it holistically. I think if we look at design as this holistic exercise, rather than a tactical exercise, that’s where the magic happens. But I would take the “thinking” part out of it.

José Avalos: I strongly agree with that. Remember I mentioned that, when we do our POCs, the first thing we do is we collect end customer research? The people who do that research are designers.

Summary

All the leading thinkers and practitioners agree that design is important in innovation, both in thinking and, more importantly, in practice. Design must lead to action and not just be wishful thinking. The importance of design is reflected in the integrated thinking that it supports, which is typical of the service environment, where intangible aspects of service may be more important than the tangible such that the whole experience is more important than any individual element. Design action also suggests early piloting rather than waiting to perfect the service or product, by which time the market may have moved on completely. The role of digital technology to help scale successful designs is also mentioned. Finally, an important aspect of design recognized by all the interviewees is the role of the team and the importance of interaction between different people, with different experiences, different educations, different personalities, different nationalities, and so on – a melting pot of ideas and action.

Intangible service

All businesses are service businesses.

Vargo and Lusch, 2004.⁶

David Teece: I don't think that's completely true. I mean: (1) most businesses have a service component; and (2) there are many businesses that are appropriately thought of in service terms these days, which is perhaps the point being made. But I don't think that all businesses are better thought of in service terms. I'm thinking about commodity products, like corn. Now of course you can say, "I'm not going to sell just corn. I'm going to sell branded corn at a premium because my corn is better tasting." And yes, you can go that way if you're good at that. But let's suppose you happen to be the low-cost producer. Then what's wrong with selling into a commodity market? You don't necessarily have to reframe your business model and say, "No, I've got to sell wheat plus something else. It depends on your underlying competitive advantage."

So I do agree with the sentiment of the question, which is that in advanced economies with high incomes, people no longer want to just consume more stuff. You know, most people don't want commodity products. It's a different economy. They want services and services associated with products. That's not to say they don't also want the products.

I mean a Gucci purse is a Gucci purse, but there's brand, there's the shopping experience there's a whole raft of accoutrements there. And the purse also better be high quality to the price premium. Products are a means to an end, and the end is often services.

Henry Chesbrough: This is a statement that I might not have strongly agreed with a few years ago. It was really the process of researching and then writing the *Open Services Innovation* book that forced me to rethink this idea, because most of my earlier field research had been in companies that were making products and technologies, and not services. It was really when I started working with services more directly with people like Jim Spohrer and others that I began to really immerse myself in that. And then going back to read some of the ideas from people writing at the same time: Michael Porter was writing in the 1970s and 1980s, but writing about products from the perspective of their utility rather than the product itself.

I began to see that even product businesses generate, ultimately, utility for their customers. And utility is very close to customer experience. Once we're in customer experience, to me it's impossible to separate services out of that. So through this process of logic and elimination, I came to strongly agree with the statement.

Stephen Vargo: "All businesses are service businesses"⁷ is a pretty simple statement, but it has pretty strong implications. There's a related one by Ballantyne and Varey [paraphrasing]: the strategic role of suppliers is to support the customers' value creating process. I might change a few words in that, but basically it's what I said a while ago: it's the customers' value creating space, the customer space where value gets created.

Erik Kiaer: I think to a certain degree that's true. There's a service around, I mean, I talked earlier about: How do you choose to interact with your customers? How do you choose to interact and provide value in ways that are not just about the offering you provide? So I'd say there's a component of that. Service is one of the ten types of innovation, and I don't think all companies choose to compete on it. So I don't necessarily put it as the first thing. Apple does not choose to compete on service and that's okay. Again, it lets other people pick up some of that and some of that slack. So I'd say that there's a service component to what most companies do.

Jon Pittman: I think, ultimately, a product is a transitory thing; even products that are fairly enduring, like buildings or civil structures, or durable goods like airplanes or cars. I think, ultimately, it's about experience. And experience is a service. I think, increasingly, businesses are defined – we certainly are becoming aware of this – are defined by the

service they provide. Products are, in some ways, they're service frozen in time, or frozen in space. But I think ultimately it's about value delivered. And I think we often don't think about that enough. We think about products and shipping stuff out. But ultimately I think it's the whole relationship with the company that people care about, not just the thing.

Summary

The idea that all business are service businesses may seem perverse given our current classification systems for different sectors. However, the leading thinkers and practitioners presented here all agree that it is the overall service experience that ultimately counts with a customer. Thus, even a manufacturing firm relies on timely delivery, consistent quality, and fair price regardless of the technical superiority of its products. In a global marketplace where there are many choices available at the touch of a button through digital technology, it is the overall experience that ultimately leads to continued success.

Culture of innovation

Service innovation starts with culture.

Berry, Shankar, Parish, Cadwallader, and Dotzel, 2006.⁸

David Teece: I think service innovation comes with the way you frame what it is you're doing, or the way you're defining the business you're in and the things that you're doing. You know, are you a car company or are you a transportation company? For some consumers you're a transportation company, but for others you're a car company because they actually enjoy the product and the beauty of the product, and they're not going to substitute an Aston Martin for a Zip Car (or if they do, it's going to be when they're out of town and nobody is looking). So I think it's as much a cognitive issue as a cultural issue.

Henry Chesbrough: This idea of a mindset or culture of thinking about your business as a service business – whether you're making a product or a service – I think is a really fundamental starting point. In order to do this in an organization of any size, you're going to need to do it not just through your actions but through the actions of the people that work in your organization (some of whom may be multiple levels away from you and so you cannot easily coordinate and direct them). It's the culture; the values; the norms; the behaviors; the reward systems that will instill

this. Tony Hsieh, who founded Zappos, has a book out called *Delivering Happiness*. It's about the history of Zappos, which is an online retailer selling shoes. They now sell other things as well, but they really created a billion-dollar business – that they eventually sold to Amazon – from selling what sounds like a real commodity, you know, shoes. And they did it by delivering a really strong culture.

Now, why did I not check “Strongly agree” here? I guess it's because I think there are also issues around risk, around vision, and so forth that aren't quite fully comprised in the statement, so I didn't want to strongly agree.

Erik Kiaer: I'm uncertain about the term “culture” because it is a very vague and fuzzy thing. I mean, is it the company's culture, is it how they view their customer, or is it understanding how it fits in a culture? So I think it's the specificity of that term that makes me a little bit uncomfortable.

Clearly, I've talked a lot about context and understanding context, and that's understanding culture on one level, whether it's ethnography and going deep to find the thick description of something... But changing a company's culture is very hard. You can change things such as the strategy, the leadership, the talent mechanism – the processes you use – but those are the levers by which over time you change culture. The culture is a very hard thing to change, and to say that a company can't do service because they don't have the culture for it is shooting yourself a little bit in the foot. You can value the right things, and you can help people understand what they're trying to achieve. That will create the culture over time.

Jon Pittman: I generally agree with that. I think maybe the only nuance I would add is perspective, and it relates to whether you view yourself as doing a product or a service. And it also relates to the question of competitors versus customers.

I think if you focus overly on the competitor, from a strategy standpoint, that drives you to a product orientation. Whereas if you're really focused on the customer, that's a cultural thing. And that can lead to a better service, a better experience. Certainly, if you look at traditional services like hotels and restaurants and all that, that's culture. It's around your attitude toward the customer, your attitude to what you're doing.

Just a side story: I was telling someone about traveling to Russia the other day. And when I traveled to Russia I was with a Czech; he was 14 when the Czech Republic became non-Communist. The service in Russia is terrible and I didn't know why, and he explained it to me. He said in Communist Russia everybody was equal, so to serve meant

being subservient. So to serve someone – a service culture – meant you were demeaning yourself. So I think there, until that attitude changes, they will never have good service innovation because it's seen as not having a value; whereas in other cultures, where service is an honor, it's a different kind of culture.

Summary

A service culture is not enough on its own, but it is a starting point. As the leading thinkers and practitioners point out, a culture as a way of thinking requires leadership so that it moves as the market moves, as technology changes, as people change. It cannot stand still.

Networked innovation

The success of an innovation depends on your ability to mobilize around your network.

Hargadon, 2002.⁹

David Teece: It is true that in today's world complements are important. In a world where there's great diversity in the sources of innovation and capabilities and diverse markets and so forth, then I do think you need to figure out how to orchestrate all of these relationships. So if by that statement you mean this asset orchestration function, which I highlight in dynamic capabilities, then I would strongly agree with you. But to the extent to which you have a different notion of networks, I'm not sure I would agree. I would not wish to imply that innovation is just about networking. That idea, I think, should be viewed in context. Innovation requires having one's own capabilities too.

I remember being in a presentation in UC Berkeley with [Steve] Wozniak, Apple's co-founder. The auditorium of course was filled because it was "the Woz," as he's called. A student in front put a hand up and asked, "How important was networking amongst the tech and financial communities to Apple's initial success?" And Wozniak paused and said, "It was subsidiary to the fact that I could build something. I had some knowledge and some competence." He went on recommend to the student that she should build some knowledge and competence before getting too starry-eyed about what you can do as an entrepreneur. I think that's very good advice.

Henry Chesbrough: I strongly agree with this because I think when you are able to build and activate a network to carry your ideas further,

so many good things happen, many of them with other people's money and other people's energy, time, and initiative. That does at least two things: one is it reduces the weight and burden financially on you; but maybe more importantly, they're going to take these ideas into places you wouldn't necessarily have access to. So they're going to carry these ideas further and faster as a result.

Think about competing against something like that. If you've got a company with a really strong network, supporting you and carrying these things further, your competitor can look at what you're doing and try to imitate or even beat that. But that will not be sufficient; they've actually got to convert all of these people in the network as well, who are having real success with you, and get them to switch over there.

We have seen this competition in the mobile telephone space, with Nokia and Microsoft partnering together to compete against Android, the iPhone, and Research in Motion's Blackberry. The developers out there are recruited by these companies who either say, "Hey, stick with us and keep going" or, "Hey, switch to us" (if you're Microsoft and Nokia). And so the determinant of success in this battle is probably due to the network, rather than the companies' own devices or products, if you see what I'm saying.

Erik Kiaer: I would strongly agree with that statement. I think I mentioned earlier one's ability to see how value is migrating in networks and always be a little bit ahead. A lot of companies get very comfortable in one position and they forget that things change, so I think the way you engage with your network – what you choose to control in it – are big elements of success or sometimes failure.

José Avalos: Many companies are organized functionally or in silos; thus, it's really important to align the different stakeholders across different organizations, from IT, to omni-channel marketing, to merchandizing, to sales channels. Sometimes it takes longer to align the different stakeholders needed to ramp a new product than it takes to design and develop the product. The best idea doesn't always win. So you have to be able to know how to socialize your ideas. I agree with this statement.

Summary

The translation of ideas into action into products and services cannot be done alone. In this digitally interconnected world, the networked relationships necessary to launch new products and services are increasing in number and complexity, not diminishing.

Reflecting on an *Amazon economy*

In an *Amazon economy*, value creation has shifted increasingly from products to services such that the whole experience is more important than any individual element. The design of products can be bought and sold, transformed and substituted, copied both legally and illegally. The design of services cannot so easily be copied as the intangible, inseparable, and perishable nature means that they are heterogeneous from the outset (see Zeithaml, 1981)¹⁰. They are not a standardized product, thus the leading thinkers and practitioners recognize the importance of designing the service system to provide the relevant customer experiences. They also all agree that it is the overall service experience that ultimately counts with a customer, regardless of any technical superiority of individual product elements.

The idea that value creation in services is driven by a competence across sectors rather than a knowledge of one sector is reflected in the importance of diversity within the team, an interaction between different people, with different experiences, different educational backgrounds, different personalities, different nationalities, and so on. This melting pot of ideas and action helps provide a competence across sectors rather than knowledge within one sector, leading to broader thinking and variety in practice.

The potential role of digital technology to help scale successful designs is clearly recognized, including the use of social networks. In such a socially connected world, ideas must be quickly turned into action because in a global marketplace there are many choices available at the touch of a button through digital technology. The translation of ideas into action into products and services cannot be done alone and this digitally interconnected world helps integrate the networked relationships necessary to launch new products and services. However, any service network that is designed requires clear guidance and management. This requires leadership so that the whole network moves as the market moves, as new technologies become available, new cultures developed. Market scale exists only at a point in time. Without evolving further, scale in a market will decline over time. Even the most successful companies and networks cannot stand still.

So, high risk aversion kills companies. Proactively leading innovative service design, through developing the network and service culture, implies constant experimentation, early piloting, bold (but not reckless) decision making, and quick rollout. The market does not wait for perfection.

6

Innovation Ability

This chapter discusses four statements regarding Innovation Ability:

- “A better business model will often beat a better idea or technology.” – Chesbrough, 2007.¹
- “Ultimately, it is the customers who define the value of innovation.” – Furseth, Cuthbertson, and Reynolds, 2011.²
- “Both customer and competitor orientation can be successfully used to develop innovative products and services.” – Grinstein, 2008.³
- “When an established logic for satisfying consumer needs is overturned, the business model must change too.” – Teece, 2010.⁴

Better business models win markets

A better business model will often beat a better idea or technology.

Chesbrough, 2007.⁵

David Teece: I actually have a paper in *Long Range Planning* on business models where I very much make that point so I agree (with my former student!) He and Dick Rosenbloom said it before I did in an important article in *Industrial and Corporate Change*. You can think of great companies like Dell, which really got going because of a different business model (even though it's been on a bit of a plateau for the last five or ten years). Walmart has won in the marketplace based on a different and better business model too.

Very ordinary businesses can often be reshaped by new business models without the employment of a lot of technology. I think that in the past this has been underappreciated, even though there are examples

going back through human history of new business models creating new sources of competitive advantage.

Henry Chesbrough: Well, this gets us back to the idea of the difference between invention and innovation. When you have an invention, you might have a better idea or better technology, but you don't yet have any market feedback on it. In turn, when you are going to the market – back to our earlier question about the dominant logic and the myopia of a business model – you don't just have a clean sheet of paper; you've got to find a way to construct a business model to take these ideas to market.

When we were talking about Microsoft and how they were able to be the last ones standing in product category after product category in personal computer software, it was really their business model that was the reason for their success. It wasn't that their first-generation products were better; in fact, the old joke is that it took Microsoft until version three to have a product that was actually any good. Versions one and two were really just experiments along the way. But the reason that Microsoft could get to version three and prevail was because of its business model. Other companies with great products didn't have good enough business models to beat them.

One other example we haven't discussed so far: when the founders of Google left Stanford, they already had their page-rank algorithm as a technology. But their business model was actually one of being an OEM to companies like AOL and Yahoo, who would contract with Google to handle their search enquiries. So you would log into AOL or Yahoo, enter in your search, and then Yahoo or AOL would send that to the Google search engine. The Google search engine would give you a result and feed it back to AOL or Yahoo, who would display it to the user. That was their original business model. Yahoo famously turned down a chance to buy Google for \$10 million in 2000 because the latter wasn't the only one doing this. There were others, too, and page ranking, although a new technology, was not the only methodology. It wasn't all that clear how this was much better than any other.

It was only when Google found the idea of charging for the advertising and linking that, not just to how much people pay, but also how frequently those words come up in the page-rank algorithm, that the company was able to come up with a new way of making money, a new logic. That, in turn, unleashed the company that today has a stock price north of \$500 a share, after Yahoo turned down the chance to buy them in 2000. It was basically the same technology but a very different business model.

Erik Kiaer: I'd say I strongly agree with that. I think there are a number of examples where people have chosen inferior technology – well, not inferior technology but they've not focused on the technology – so Dell did that. You know, they basically focused on when they got paid. I think Nintendo did that with the Wii. And I think Nike and Nike Plus did that again.

There are a lot of different times where it's sometimes hard for a company to justify a new business if you draw a very tight ring around its financial influence, or its profitability. It does not make sense to look at Nike Plus as a stand-alone business selling little devices and access to the website. If you look at how it influences people to buy shoes, it starts to make sense. So how you are organized and how you recognize the value that can be driven comes back to some of the examples of the great innovators and innovation companies. GE has been very good at thinking about that very clearly; the value is not just what you do in your unit but also what you do in others.

So I think it's certainly true that a better business model will beat an idea or technology.

Jon Pittman: I think that's generally true. I think we undervalue business models and overvalue technology. I didn't put it as a "strongly agree" because I think there are some times when an idea or technology is the spark.

I think there's some interesting thinking coming out now around where innovation is going to come from. The thinking is around business model innovation as opposed to product innovation, particularly in emerging markets where they have very large volumes with very low ability to pay. So I think that's going to drive some very fundamental innovation that is all around business models. And there may not be any innovation in technology or ideas; it may be around how we deliver. So I think that's going to be an area to watch.

Summary

So, the leading thinkers and practitioners agree that it is often the business model that drives success rather than a particular technology. This is reflected in the Service Innovation Triangle, where technology provides innovation capacity or the potential for innovation; but it is the management's ability to devise a relevant business model that leads to success or not, alongside a relevant service system providing relevant customer experiences. However, it is recognized that innovation can start from a new technology even though it cannot be fulfilled without a relevant business model for all the parties involved.

Better customer experiences create value

Ultimately, it is the customers who define the value of innovation.

Furseth, Cuthbertson, and Reynolds, 2011.⁶

David Teece: I agree with that. The producer may think what they have is of great value, but that means nothing unless someone is willing to pay for it. So the customer is king around questions of value if you're in a society where consumer sovereignty is recognized. I mean, if you're in a socialist economy where consumer sovereignty is not recognized, then maybe the customer is not important. In fact, we know that the customer was not important in the old Soviet Union. But in a market economy, where there's a high degree of consumer sovereignty, then it's the customer that one must listen to.

Henry Chesbrough: That's right. This is a corollary really to the idea that, ultimately, all businesses are service businesses. I think it was Peter Drucker who said, "The purpose of a business is to get and keep a customer." And what we're saying here in this statement is that when we are innovating to create value, ultimately it's the customer who's going to be the judge of that. And if we succeed in delighting our customers we can do great things.

If, however, we have a very strong research and development capability – very good science, very good technology – but we don't have the right business model – we haven't figured out who the customer really is and what that customer really needs – then I've seen lots of great technology projects (not only the ones out of Xerox Park, but out of many other R&D laboratories) where they truly struggle to turn it into a business.

One final data point here is that when you look at Apple financially, and you look at how much money they're spending on R&D, they're not spending all that much. Certainly nothing in relation to what they've got to show for it. The biggest research and development spenders are the automotive companies, the petroleum companies, and the pharmaceutical industry. And yet companies like Apple, spending less money, are getting a great deal more out of the money they're spending. I think it has to do with this thinking about the customer's experience as being at the center of what you're doing. Not just thinking about the product, but thinking about the services that wrap around the product and creating something we haven't talked about yet, this idea of a platform.

A platform is something that you build, that's architecture or scaffolding, that not only delivers a solution to a customer's problem, but also invites many others to build alongside or on top of what you're

doing. And I think Apple is a nice example of a company that's getting so much leverage out of their internal R&D spending because they're very good at integrating and connecting with external participants in these platforms that they're building.

Erik Kiaer: Ultimately, it's the customers who define the value of innovation. I think earlier we talked a little bit about who the customers are. Sometimes it's not somebody who's paying. But if people aren't using it, if people don't value it, it's not an innovation. And so I would strongly agree with that statement.

Summary

It is clear from the leading thinkers and practitioners that in a market economy for a service, the value of an innovation is driven by the customer. However, it is also highlighted that this does not mean that the customer necessarily pays directly to the service provider. The value may be driven by the customer through a third party, such as an advertiser, who is willing to pay on the customer's behalf.

Understanding and awareness supports innovation

Both customer and competitor orientation can be successfully used to develop innovative products and services.

Grinstein, 2008

David Teece: I agree with that. I would go further and say that you must have both perspectives: both understand the customer and the competitor, as well as, of course, the sources of opportunity. If you understand the user well, you will also know the choices available, and that means you'll have some understanding of competition, which is also critically important.

Henry Chesbrough: Yes, I agreed with this because I think we've talked a lot about customer orientation already, the importance of that. Now this question asks about customer and competitor orientation. I do see organizations that do a lot of benchmarking, and I've already referenced this idea of a "commodity trap." If you find yourself being pressed harder and harder by your competitors, I think this actually can build an argument for why you need to be bolder and more aggressive in moving toward a more service-focused approach.

I do worry that if you focus exclusively on your competitors you will miss the so-called "blue ocean" opportunities that Kim and Mauborgne

talk about; and also genuinely new innovations that might delight your customers, but which your competitors haven't figured out yet. So if you are a Samsung, and you have risen to being world-class in consumer electronics by doing a great job of rapidly following everybody else's innovations, your future growth is going to be limited unless you can generate new innovations yourself. You've now caught up, but if you need to lead the industry, then being too focused on your competitors, I worry, will take your attention off the need to be a leader.

So if you're in China right now, I think being competitively oriented is very appropriate because you're still catching up. But if you're Samsung, now you've done that and you're at the frontier; now you will have to lead and pioneer things to continue to grow. I think that too much of a competitor orientation may take your eye off the ball.

Stephen Vargo: I've increasingly been arguing that customer orientation is inherently firm-centric, and that raises a few eyebrows, but it's partly why I say it. First of all, there is no customer except from the perspective of the firm. And what it's become in practice has not really been customer-centric, it's been: How much can I learn about the customer so I can sell them more of my offering? That's not, in my view, customer-centric. And I've increasingly been arguing that competition is the wrong way to think. I mean, you've got to be aware that there are other people trying to succeed, too; but if you see yourself as competing, in one sense, you've already locked yourself into a certain logic, so you rule out a lot of different kinds of innovation. By competing in the car market – predefined as whatever we define it – then I lock into solutions related to individual transportation, rather than being customer-centric and thinking about what the customer is trying to get done, in a Christensen sort of sense, and inventing markets, creating new markets. By chasing the competition and trying to get market share, I can't possibly be customer focused.

So I'm getting terribly uncomfortable with either of those notions; and of course we would never use products and services, so the latter as a form of output is not in our vocabulary.

Erik Kiaer: Both customer and competitor orientation can be successfully used to develop innovative products and services, I would agree. I might have strongly agreed. Again, it's very hard to win and have longevity to your success if you don't understand and have customer orientation. Competitor orientation depends a bit on your ability to be critical of yourself as well.

Companies are made up of departments where what motivates the people in those departments is to get a little bit better at what they did

yesterday. And sometimes, overly focusing on competitor analysis is just about finding smaller and smaller weak spots. So you have to balance that with some other view, one that doesn't catch you in a trap where you are only looking at your competitors today, and you forget that your competitors ten years from now might not yet even exist. So you have to have a wider lens than purely the competitor analysis.

Jon Pittman: The question is why I disagree with the statement, "Both customer and competitor orientation can be successfully used to develop innovative products and services." Some of it may be colored by some recent work I've been doing inside Autodesk, in our strategy work, trying to get our organization to look less at competitors and more at customers. The reason for doing that is: if you look at competitors, I believe it's backward-looking. Your ultimate goal is to satisfy the customer need, or the user need. And if you look at the competitors, what you're really doing is you're looking at that user need or customer need through their eyes rather than your own. From a strategy standpoint, you're following rather than leading.

There's a notion we have called "competitive separation." We didn't invent it – other people invented the term – but the definition is "Doing something your customers value highly that your competitor cannot or will not do." Often in strategy, and sometimes in attempted innovation, people look at what the "competitor cannot or will not do" and they forget about "something your customers value highly." So what I try to get our organization to do, what I'm trying right now, is to get them to focus on is what your customer values highly – and of course, they're willing to pay for (so that's the measure of whether they value it highly) – and focus less on what your competitor cannot or will not do. In the long term, that will produce a better result because you're moving toward something, rather than reacting to something. If you're just focusing on your competitors, you will be forever following and never catching up. Whereas if you focus on the customer, there is a much better chance you'll create value that's truly unique and something that your customers care about.

So, ultimately, focusing too much on the competitors can be a distraction and a side show from the real game, where the real game is satisfying the customer.

José Avalos: For Intel, yes; but I think it would be a different answer for different companies. If you are a leader and you're defining markets – you're shaping markets, you're delivering new products – then I think the customer's more important than a competitor. Our philosophy at Intel is that we want to obsolete our own products.

Now, for businesses where their business model is to be a follower or fast follower, I would think in that case a competitor orientation might play a stronger role. But in the case of Intel, because we want to be leaders – we want to build new markets, we want to deliver new products, and we want to be innovative – I think in our case the customer orientation would be a lot stronger.

Summary

While the leading thinkers and practitioners largely agree on the need to focus on the customer, there are a variety of views on the importance of orienting toward competitors. This is perhaps best summed up by José Avalos' view that it depends upon the strategic intent of the organization. If the organization wishes to lead the market, then focusing on competitors is unlikely to fulfill that goal. However, as Henry Chesbrough points out, there are clearly commercial opportunities for followers, especially fast followers. Stephen Vargo provides an alternative view that discounts competitor orientation and even questions customer orientation in that the firm defines the customer set. All the interviewees stress the importance of being future focused. What do customers really want? Not, what do we, competitors included, provide them with today?

Changing times drive innovation

When an established logic for satisfying consumer needs is overturned, the business model must change too.

Teece, 2010.⁷

David Teece: If your value proposition to the customer erodes, yes you better be ready to reengineer the business model. So I do agree with that statement, although I admit its almost tautological. The two go hand-in-hand."

Henry Chesbrough: Well, the starting point for me was an article that was written by C.K. Prahalad and Richard Bettis back in 1986, about what they called "dominant logic." The concept of dominant logic, in their case, was how do we make money? And it was a powerful heuristic that allowed you to filter and process a lot of complex information in a rapidly changing environment. It really gave you a compass to steer by. But the point is there's also a cost to this: that you can, at times, become myopic.

In my own thinking on business models themselves – an article I published with Richard Rosenbloom in 2002, the *Open Business Models* book I wrote in 2006 – we really develop and explore this heuristic of dominant logic in business models. And we found across a number of companies, but most specifically with Xerox in the Palo Alto Research Center (PARC): one of the core sources of the difficulty Xerox had was that their logic in their business was being a copier and printer business. And so they were looking at things that would make more copies, faster, with higher quality and higher image quality. A lot of the things that were coming out of the lab didn't enable those imperatives for the business. And so Xerox literally didn't know what to do with them.

Some of these projects, as I document, go on to become enormously successful companies, but they needed an entirely different business model to unlock that value. So one reason I'm strongly agreeing with the statement is that I've seen it directly in my own research. And when I talk about the Xerox experience to other companies, their heads start to nod and they say, "Yes, we could have made the same mistakes." So I don't think this is a specific pathology of one company. I think this is something that hits many companies.

Erik Kiaer: I would say that's quite true and oftentimes business models are confined to predefined competitor sets, or predefined industry boundaries. When the logic, as you put it, is overturned, it's very often a blurring of the boundaries; it's what we call convergences. It's when IT goes into health care and all of a sudden things are very different; the ways in which you see patterns, and the control and power of physicians versus the people who have the information and data.

So I would probably strongly agree with that statement. But it's not purely based on the logic. It's based on the boundaries and which assets people bring to bear and how you monetize those.

Jon Pittman: Again, I put in an "agree" but not a "strongly agree" because I think it often changes; it doesn't have to change. But I think there is some magic that happens when both the technology and business models change concurrently. That's when we get the big disruptions. But you can have either change without the other.

José Avalos: The example I will give you is if you look at the brick-and-mortar retailers: a lot of them have taken the wrong attitude toward some of the innovation that is happening in online retail. They will see a shopper in the store with a Smartphone doing a price comparison, and the response is to cringe and say, "Well, maybe I should have a wireless blocker so that the customers in the store cannot do price comparisons."

To me, I think that's the wrong answer. I think the right answer is to figure out how you take some of the innovation from online retail and apply it to the brick and mortar environment to improve the experience of the shoppers. Retailers must invest in bridging the online business with the physical store and invest in data-driven decisions based on operational insight and a deep understanding of the shopper genome—shopper habits, desires, and expectations. This is to help them optimize profits by optimizing operational efficiency, delivering personalized experiences and value that customers crave, and deliver personalized offers, dynamic pricing, and the customized products and services shoppers want.

Summary

The leading practitioners and thinkers largely agree with the view that the business model has to change when the established logic of consumer needs changes – though there are some different interpretations of what is meant by business model and the established logic of consumer needs. In the Service Innovation Triangle, these elements are brought together in the Management Ability layer. As one element (Customer Experiences, Business Model, or Service System) changes, then the other elements will have to be adapted accordingly. As Pittman points out and Avalos provides an example, this is often due to changes in technology in recent years.

Reflecting on an *Amazon economy*

The idea that a better business model will beat a superior technology is a reflection of the increasing shift in value creation from products to services. It is more important how a firm provides something than any inherent superiority of the technology employed. This can be translated to the Service Innovation Triangle, by recognizing that Management Ability (the middle layer) is more important than Innovation Capacity (the lower layer) in creating Value (the upper layer). So it is not only a better business model that will often beat a superior technology, but a better business model will usually beat superior resources of any nature: people, technology, finance, as well as both tangible and intangible assets. Witness the number of small start-ups that are able to compete with established brands, even though they cannot compete in terms of resources. Moreover, a better service system or better customer experiences will also usually outweigh superior resources. It is the ability of management to provide relevant innovations that are far more

important than the technical superiority of any invention. However, superior resources can help drive the overall commercial success of an innovation, especially through providing scale. Moreover, it is recognized that the spark for an innovation can come from the development of a new resource, whether in technology, people, finance, or tangible and intangible resources. However, the realization of such an innovation cannot be fulfilled without the relevant business model, service system, and customer experiences. Competence across these integrative elements, rather than superiority in one element of innovation capacity, such as technology, is key to success.

In a socially connected, market economy, ideas must be quickly turned into action to gain innovation leadership, though following competitors can be a successful alternative strategy in particular circumstances. In such a world, the leading practitioners and thinkers largely agree that the business model has to change when the established logic of consumer needs changes. In the Service Innovation Triangle, these elements are brought together in the Management Ability layer. As one element (Customer Experiences, Business Model, or Service System) changes, then the other elements will have to be adapted accordingly. As Pittman points out and Avalos provides an example, this has often been due to changes in technology over the last few years.

So, high risk aversion kills companies. While the leading thinkers and practitioners largely agree on the need to focus on the customer, there are a variety of views on the importance of orienting toward competitors. Stephen Vargo provides an alternative view that discounts competitor orientation and even questions customer orientation in that the firm defines the customer set. Vargo points out that, "if you see yourself as competing, in one sense you've already locked yourself into certain logic, so you rule out a lot of different kinds of innovation." All the interviewees stress the importance of being future focused. What do customers really want? Not, what do we, competitors included, provide them with today?

7

Innovation Commercialization and Value Formation

This chapter discusses three statements on the creation of Value:

- “Successful innovation is driven by the value created.” – Furseth, Cuthbertson, and Reynolds, 2011.¹
- “Through innovation and growth, firms can do untold good for society.” – Ahlstrom, 2010.²
- “The strategic role of the supplier is to support the customer value creating processes.” – Ballantyne and Varey, 2008.³

Successful innovation creates value

Successful innovation is driven by the value created.

Furseth, Cuthbertson, and Reynolds, 2011.⁴

David Teece: I would disagree with the statement as written because I think that innovation drives value. Successful innovation requires value capture as well as value creation because unless the innovator also captures a good slice of the value, they won't be able to afford to invest in the next round of innovation.

Henry Chesbrough: I did agree to that because, if I think about innovation as a system, if there is positive value that results from this in the system, then it's possible for everybody to win. The customer wins – if the customer doesn't win, the customer won't adopt or switch to the technology. You win – if you can't make money, you can't sustain your participation in the business. Your suppliers or other partners in the ecosystem can win. But if that value is not there, if we're simply redistributing the pie – or value – from one party to another, then the people who are on the losing side have very strong incentives to fight, block, defect, and

compete. And so the result could be quite interesting for academics to watch, but I'm not sure it would be described as successful innovation.

Erik Kjaer: I think I would pretty strongly agree with that. Of course, we talked a little bit at the beginning about what does value mean? I think it's easy to get locked into purely financial terms. It's interesting to see companies, like Craigslist, which have very clearly defined their success not to be about creating financial value. It's mostly free for most places; they earn their money in a small number of markets. It's a choice we make, and that is the value.

And again, what motivates you? Linux is a very important and useful innovation, and it's not about the financial accrual to the people who developed it. I think the music industry is going through the same kind of change: it's not necessarily about the number of albums you've sold. There are other things that motivate people to do these things, and there are other ways to monetize that value. Do you have to be richer than the next guy, or just rich enough? I think we're seeing more and more of that, where people make choices that are a little bit more nuanced.

Jon Pittman: So the thing I was not quite clear about was "driven by the value created." I'm not sure it's *driven* by the value created; I think it's *measured* by the value created. So, the way I saw that question is the value created is... value is a result, not an input. Now, intention about what value to create might be an input, but you can't really say until you've actually created the value.

Summary

While it is agreed that successful innovation creates value for all involved – customers, the firm and the owners, as well as suppliers and partners – there is no consensus on which drives which. Successful innovation clearly drives value, by definition. On the other hand, the search for value can also drive the innovation process, especially at the level of the firm.

Successful innovation contributes to society

Through innovation and growth, firms can do untold good for society.

Ahlstrom, 2010.⁵

David Teece: I agree completely. I mean, if you go back to what really is the benefit of capitalism – the fundamental difference between capitalism and socialism – it is that capitalism and market-based economies can innovate. Socialist ones can't. That's why, in the end, the Soviet Union collapsed. It's fatal flaw was an inability to innovate and because

of that the economy couldn't deliver for either consumers or the military. The Soviets spent an increasing percentage of their national income on defense, and in the end, they became convinced that path was no longer viable. The hallmark of capitalism is really innovation and it is innovation which delivers productivity increases and higher living standards.

This is where the economists so often get it wrong. The twin theorems of welfare economics get drummed into every graduate student in economics. But static efficiency and optimisation are not the outstanding hallmarks of a capitalist market system; it is innovation that is the distinguishing feature. It allows the market-based free enterprise system to create new goods and services, create jobs, and to drive wealth creation more generally.

So the welfare economics and public policy textbooks are incredibly static. They often ignore innovation. This has been so for fifty years. If you go back earlier, that wasn't true. Even Adam Smith recognized that the invention of common workmen improved productivity and the division of labour; Karl Marx was especially eloquent about capitalism and innovation. Schumpeter brought the story to a full roar. Then the neo-classical economists in the United States, beginning perhaps with Samuelson, squeezed innovation out of their models. And graduate schools around the world in economics now essentially ignore the innovation story (although claiming all along to embrace it). They ignore it in the analytics that they employ. They know it's important, but they can't reconcile their analytics with it, because it makes the analytics very hard; so they kind of run this schizophrenic course where they both claim to be focusing on innovation, while in fact employing entirely static methods and models.

Coming back to the key theme here, innovation unquestionably is the driver of wealth creation. However, absent the ability to enter into and enforce contract, and absent other basic legal infrastructure, including a system of property rights and protections against takings (i.e. stealing by thieves and by the government) you're not going to get innovation. So you're not going to get much innovation in places where you can't rely on contracts, and where you don't have credible commitments to contracts and where you don't have protections against individuals or governments taking too much of the spoils generated by innovation and entrepreneurship. But if you accept a basic legal system that protects the innovators winnings from innovation – and I don't just mean an IP system, but a system that enables you both to support the innovation process and to capture and hold onto value – then given that basic apparatus (most developed economies have key elements in place), then innovation can build real value. for individuals and society.

Henry Chesbrough: I guess as a scholar of innovation, there are innovations that go wrong. We can talk about malware and we can talk about when terrible things happen. But I do think that, even since the second industrial revolution, our lives are so much better as a result of these innovations. And you can look at that from a lifespan or quality-adjusted life years. You can look at it in terms of the percentage of our children that are educated now. I think – when you talked earlier about innovation and value – if we are delivering value to society that creates a bigger pie to then distribute among our members, we can invest in educating our children rather than forcing them to work in the fields at the age of five or ten years of age. We can make those investments, and that in turn can build things for the future.

Then if we're not creating value, it can be that the struggle and the imperative for surviving today can crowd out the ability to make the investments for tomorrow that would be the basis for a better life. So there is, I think, a threshold here that has to be cleared. And so I interpreted the question as: Once we're past the survival threshold, then I think it is a good thing.

Erik Kiaer: I would strongly agree with that statement, and I'd focus on the word "can." I think there are a lot of innovations that have not necessarily done a lot of good, but ultimately growth – and what we're seeing now is growth more globally – raises more people out of poverty, allows people to do things that they couldn't do before. So I would strongly agree that innovation and growth is the future of where we are going and the acceptance that ideas will come from a lot of different places.

Summary

These answers focus on the good that innovation can bring to a society and, in particular, to an economy. However, they also hint at the darker side of innovation. Innovation is about change rather than change in one particular direction. Therefore, while the overwhelming balance of innovation might be considered positive, innovation has the potential to destroy value as well as create value for society.

Successful innovation develops other firms

The strategic role of the supplier is to support the customer's value creating processes.

Ballantyne and Varey, 2008.⁶

David Teece: I'm uncertain about that. I mean, remember earlier we talked about the importance of cocreation. I do think suppliers are

important in product innovation. Look at Boeing with the Dreamliner: they went to a strategy of excessive reliance on suppliers scattered around the world, and then they discovered that the suppliers couldn't build what they're supposed to build. That's why the Dreamliner was two to three years late. If you're going to rely on suppliers to cocreate, you'd better make sure they can cocreate. Otherwise, you end up in the unfortunate position that Boeing was in, where they had to go back and upgrade their suppliers' capabilities. In the process they gave away much of their own technology and capability, and their ability to compete in the next round of innovation may have been compromised.

Henry Chesbrough: I checked "agree" to this statement. On the one hand, I think it's very appropriate for suppliers to try to align themselves with their customers' dominant logic, their business model, etc. But there are cases where I think the supplier strategically is getting squeezed by the customer. They can find themselves in a real commodity trap themselves.

I think of suppliers, for example, to the US automotive industry. For many years, the so-called "big three" pushed really hard on the suppliers to lower prices. And I think in the process they really squeezed innovation out of the system. Because as soon as something new and better came along from the suppliers, it was immediately appropriated by the customer, who then went back to pushing for lower and lower prices. So over time, you reduce the ability and the incentive to innovate. And so the reason I only agreed with this, rather than strongly agreed, is I think sometimes the supplier needs to retain an outside option beyond the customer, so that they have some strategic flexibility.

Take the case of a German supplier like Bosch: they've got a strong brand in the aftermarket in Europe, so that if BMW or Daimler doesn't like something that they're doing, they can take it to the aftermarket and try selling it there. If customers like it, they've got new evidence to go back to the customers and they're making money in the aftermarket in a way that many of the US automotive suppliers are not able to. So that would be, in my mind, the exception to the statement, which is why I agreed but didn't strongly agree.

Erik Kiaer: I would probably agree with that, not necessarily strongly because I think sometimes the lines between being a supplier and being a partner are very fine. And a lot of companies get into trouble by having predefined relationships that presuppose which way the information and the value should be flowing. More and more, innovation ideas will be coming from places other than you expected, so suppliers are one of

those. I'm sure you could come up with examples of companies whose supplier is now the one they supply. IBM and the Windows Operating System is one early example of where it sort of changed. So I think the relationship, and the fact that it's networked and the flow is multidirectional, is the important thing there.

Jon Pittman: When I was thinking about this question I was thinking of a more traditional OEM relationship, where I think generally your role is to support your customer's value creating process. The only reason I wouldn't "strongly agree" is that I think suppliers sometimes have the opportunity to push their customers. And they may push them beyond their comfort zone.

I would put Autodesk in that same category; I think we do make a very strong effort to be humble and to depict ourselves as enablers of our customers, who are the real innovators. We're providing them with an ability to do that, but we don't design buildings, we don't design products, we don't make movies. We try to give them the best possible tools, and we try to push them beyond their comfort zone and say, "Here's a new way of doing things, here's something maybe you haven't considered, and if you have this ability..." So we're not just a passive enabler, we're an active enabler saying, "You can be more than you are today."

So it's an attitude of trying to serve them – but not serving them just by giving them what they ask for, but also pushing them. In fact, it's much like a teacher; a teacher is in a service role, but a good teacher pushes you to be more than you thought you could be and challenges you and pushes you out of your comfort zone. I think there is a role of a supplier in doing that.

Summary

Our leading thinkers and practitioners agreed that the suppliers can play an important role in both instigating and supporting a firm's innovation. However, they also all add a caveat that you can push a supplier too far such that they cannot continue to invest in their role in innovation. This is why the Service Innovation Triangle is a triangle, in that all three sides – customer, supplier, and the firm's owners – must share the value created. For innovation to be sustainable, then all three parties must enjoy a share of the value created through the innovation. It is worth noting, as recognized by Kiaer in the previous section, that value is not just about economic value. There are other things that motivate people to do things. Personal and social values are important considerations alongside economic and financial value.

Reflecting on an *Amazon economy*

In an *Amazon economy*, value creation is driven by services, which are driven by the competence of the overall group rather than the one contribution of an individual, albeit that the leadership role is widely considered to be crucial to the whole process. Our leading thinkers and practitioners agreed that suppliers can play an important role in both instigating and supporting a firm's innovation. However, they also all add a caveat that you can push a supplier too far such that they cannot continue to invest in their role in innovation. For innovation to be sustainable, then all three parties (customers, suppliers, and owners) must enjoy a share of the value created through the innovation, whether economic, social, or another kind of value.

The scale of an innovation is driven by the social network, whether that is a society defined by physical geography or an online community. Innovation can bring good or bad to a society. The overwhelming balance of innovation is considered positive, creating great value for society, particularly through economic development. However, the speed of innovation and the impact on economic development can be helped or hindered through the political and legal system employed. So, high risk aversion to innovation can kill companies and impact societies. Successful innovation clearly drives value, by definition. On the other hand, the search for value can also drive the innovation process, especially at the level of the firm.

8

An Innovation Audit: The SIT Checklist

This book contributes to the literature on how to effectively conceive and execute innovation management, and this is backed up by a unique combination of interviews with leading thinkers and practitioners, as discussed previously in this section, and will be further demonstrated in the analysis of cases that follow in Part IV.

Before considering the comparative case studies, we provide the SIT checklist. The SIT checklist allows an innovation audit to take place that identifies both strengths and weaknesses. Each element of the Service Innovation Triangle is considered, in turn, in relation to core innovation attributes. We will consider the case study companies on this basis. This overall assessment identifies those areas that provide a strong platform for innovation and thus the innovation strength of the organization, as well as identifying those areas that are potentially under threat and urgently need some innovation to rectify such weaknesses. Any firm may ask these questions of their own situation. This comprehensive approach can be used to identify potential areas of success or failure for the organization, as demonstrated in the comparative analysis of our case companies in Part IV.

SIT Checklist

1 Value

What in our value proposition makes our company stand out?

Without a defined value proposition, it is difficult to understand what success looks like. Such a value proposition may include a social, ethical, and environmental context, as well as the more obvious commercial aims. A complete value proposition would normally include consideration

of all three major external relationships: with customers, owners, and suppliers, as well as reference to the firm itself, often in the form of the major internal relationship, with employees.

How might we create new or improved value for our customers, our owners, or suppliers?

By identifying potential areas of value creation for any of the three major parties involved – customers, owners, and suppliers – the contribution of proposed innovations can be measured against these target areas.

2 Customer experiences

How may we serve our customers better to reach our value proposition?

By identifying potential areas of value creation for customers, potential innovations may be identified. This analysis should be broken down by key customer groups, as some potential innovations may create value for one customer group while destroying value for another.

To what extent are our customers satisfied and loyal?

Understanding the extent and areas in which our customers are satisfied and loyal may help to identify potential areas of value creation. Again, this analysis should be broken down by key customer groups.

To what extent do we involve customers in the development of our services?

Allowing customers to cocreate value not only enables increased value creation but also highlights areas where customers are willing to engage with the firm as well as areas where customers would prefer that the firm did all of the work.

Do we make relevant prototypes or representations of our customer experiences?

By simulating and experimenting with new customer experiences, our understanding of our customers improves. This also helps in identifying the differing requirements of key customer groups.

3 Service system

To what extent does our company have a single system that supports all of our customer experiences?

By having a single system that provides all of the intended customer experiences, productivity increases through scale and integration.

How can our service system deliver better customer experiences?

By identifying areas for improving the service system in delivering the intended customer experiences, the effectiveness of the service system increases.

What social networks are useful in understanding how to improve our customer experiences?

Identifying the social networks, both physical and digital, that might improve the intended customer experiences enables the key partnerships with suppliers and key relationships with customers to be identified, which may lead to an increase in the cocreation of value through the service system.

4 Business model

How well do our employees understand the business model of the firm?

Understanding the business model of the firm allows employees to better prioritize and more effectively target their work.

How can our firm create, capture, and deliver more value to our customers, our firm, and suppliers?

Understanding where the business model of the firm may be improved to deliver more value to any of the three parties involved – customers, owners, and suppliers – helps identify potential areas of future value creation.

What are the commercial implications of improving customer experiences?

Understanding the impact of improving customer experiences on the business model enables the firm and suppliers to better prioritize and more effectively target their work together.

5 Financial assets

Can we afford to create the customer experiences that we aim to deliver?

Understanding the cost of new innovations that create better customer experiences enables better planning and decision making on sources of funding.

How much of our financial resources are spent on innovation?

Understanding the expenditure on innovation enables a better understanding of the priority and effectiveness of the investment in innovation.

What innovations might create the greatest economic value?

Understanding which innovations might create the greatest economic value enables better prioritization, planning, and decision making.

6 Tangible assets

Does our company have sufficient physical resources to deliver more value to our customers, our firm, and suppliers?

Understanding whether the tangible resources are sufficient (or in excess) allows for better planning and decision making on tangible asset management.

Do we have the right physical and online channels for valued communications and transactions with our customers and suppliers?

Understanding the relevant balance between physical and online channels enables a better understanding of the priority and development of such channels.

How important is it to increase the tangible assets to create more value?

Understanding which tangible assets might create more value enables better prioritization, planning, and decision making.

7 Intangible assets

Do we have the right intangible assets to support our customer experiences?

Understanding whether the intangible resources are sufficient (or in excess) allows for better planning and decision making on intangible asset management.

Does our firm deliver on our brand promises?

Understanding the effectiveness of delivering on brand promises enables a better understanding of the development of the brand and service system.

Does our firm have a relevant process for capturing and developing ideas from customers, employees, and suppliers?

Providing a clear process for innovation development that may be driven by other stakeholders creates an intangible asset that may be difficult for competitors to copy.

8 Technology

Do we have the right technology in place to improve our service system?

Building in technological capacity to improve the service system can enable quicker, more effective innovation development. However, this may impact the business model.

Do we have the right technology in place to improve our customer experiences?

Building in technological capacity to improve customer experiences can enable quicker, more effective innovation development. However, this may adversely affect the business model.

How integrated is our strategy across digital and physical channels?

Successfully integrating technology resources and tangible assets helps improve the service system, customer experiences, and the business model.

9 People

Do we have the right individuals to improve our customer experiences?

Developing human capacity to improve customer experiences enables quicker, more effective innovation development. However, this may impact the business model.

How many people are involved in developing new services?

Developing human capacity to improve the service system enables quicker, more effective innovation development. However, this may impact the business model.

How relevant is the competence of our employees in delivering better customer experiences?

Successfully training employees helps improve customer experiences, the service system, and the business model.

Part IV

Practice: Analyzing Cases with the Service Innovation Triangle

In this section, we demonstrate how the Service Innovation Triangle can be applied to some well-known case studies of successful and unsuccessful service innovations. We have chosen five pairs of comparative case studies, each consisting of a pair of companies competing in a similar market space, one of which has succeeded through embracing the tenets of value-driven service innovation, the other of which has failed in relative terms and experienced significant loss of market share, reduced profitability, or, in the worst-case scenario, bankruptcy. Each pair has been carefully selected to illustrate a different type of marketplace, as well as demonstrating the importance of innovation in their subsequent success or failure. The case studies are compared using the Service Innovation Triangle as a framework for comparison. This not only demonstrates the comparative advantage or disadvantage of competing firms, but also illustrates the different ways in which innovation can take place successfully.

Chapter 9 focuses on Apple and Nokia, two technology companies in the booming area of mobile communications. While Nokia focused on product development first and services as an add-on, Apple focused on service development first and product development as a consequence. Perhaps the most important acknowledgment in innovation from these case studies is that while a customer may be able to assess a prototype product, the phrase “the customer knows best” is only true after a service has been released and not in the form of an idea. It is the customer experience that sells a service, not the concept.

Chapter 10 focuses on Amazon and Borders, two book retailers with very different approaches. While Borders stayed focused on product rather than service, Amazon focused on service rather than product. This creates two advantages. The first advantage is a broader potential marketplace, which is obvious. The second advantage is more subtle but much more important. Amazon focused on the best way to service the customer who wished to buy a book (and later, a multitude of other products): from pre-purchase, comprehensive searching for products

across the whole sector, not just through Amazon, to easy, convenient, one-click purchasing, to post-purchase offers of other products bought by similar customers.

Chapter 11 focuses on Facebook and MySpace, two social networks with a different capacity for innovation. This chapter highlights that in a digital world, the physical world cannot be forgotten. Assets and resources, especially people, are hugely important in providing a relevant service system.

Chapter 12 focuses on Tesco and Sainsbury's, two grocery retailers in the UK market that saw contrasting growth during the 1990s because one focused on action while the other focused on ideas. These case studies illustrate the need to turn ideas into action. Innovation is the action of innovating; it is not the idea of innovating.

Chapter 13 focuses on Xerox and Kodak, two technology-based firms that were potentially undermined by new technological developments. While Xerox tackled the issue head-on and innovated around its business model, the Kodak case study shows how an aversion to risk not only killed innovation, but also eventually killed the company.

Each chapter in this section presents an analysis of all of the components of the Service Innovation Triangle and so highlights its use in practice.

9

Apple and Nokia: The Transformation from Products to Services

In the mid- to late 2000s, Nokia flourished as the world's dominant mobile phone – and mobile phone operating software – producer. Founded in 1871 originally as a rubber boots manufacturer, by 2007 Nokia produced more than half of all mobile phones sold on the planet, and its Symbian mobile operating system commanded a 65.6 percent global market share.¹ But within half a decade, Nokia would falter and be surpassed in the smartphone market not only by Apple's revolutionary iPhone but also by competitors including Google and Samsung. And in September 2013, Nokia would sell its mobile phone business to Microsoft for \$7 billion.² Apple literally came out of nowhere – it sold exactly zero mobile phones before the year 2007 (the year Nokia held more than half of the global market share) – but by the first quarter of 2013, Apple had captured almost 40 percent of the US smartphone market and over 50 percent of the operating profit in the global handset industry.³ In fiscal year 2013, Apple would sell five times more smartphones than Nokia: 150 million iPhones compared to Nokia's sales of 30 million Lumia Windows phones.⁴ In contrast to Nokia, Apple realized it wasn't just about the mobile device itself, it was about leveraging software to create a platform for developing compelling mobile experiences – including not just telephony but also music, movies, applications, and computing – and then building a business model that allows partners to make money alongside the company (e.g., Apple's iTunes and AppStore) and, in so doing, perpetuate a virtuous cycle of making the iPhone attractive to customers over multiple life cycles through ever-expanding feature sets. In short, while Nokia was focused on manufacturing

technologically superior products (i.e., feature-rich mobile phones), Apple surpassed Nokia by developing a superior product-service ecosystem.

But at its core, the Apple versus Nokia story is one about which company was hungrier to innovate, particularly by introducing new innovations in technology, business models, and customer experiences. Apple innovated from the iPod – the breakthrough mobile MP3 player that resurrected the Apple franchise with its introduction in 2001 – to the iPhone because it feared that an existing mobile phone manufacturer would add music download and listening functionality to its mobile phones, a marriage that would largely obviate the need for an iPod. Concerned that a competitor would do so, Apple risked cannibalizing its own iPod product with the introduction of the iPhone before someone else could do so. As Michael Saylor explains, “In 2005, riding the success of the iPod, Steve Jobs was worried. He had seen how camera phones had shriveled the digital camera market, and worried that phones with music players could undermine the iPod. He also realized that most cell phones were cheap, hard to use, and ‘brain dead.’ So he set about creating a better one.”⁵

To be sure, Nokia was a firm that had long prided itself on radical, even category-creating, innovation – along with a storied history of reinvention itself. A diverse industrial conglomerate through the first half of the 20th century, Nokia moved into networking equipment in the 1960s and introduced its first mobile phones in the 1970s. By the early 1990s, Nokia decided to concentrate solely on telecommunications, divesting itself of all non-telecommunications businesses, including rubber, cable, and other consumer electronics. In 1992, new Nokia CEO Jorma Ollila created a radical strategy that restructured the organization, focusing away from the current mobile users of the time (business people) and toward younger consumers.⁶ There was little emphasis on price. At the time, this represented a radical and brave step away from the conventional niche business user toward a mass-market, mainstream culture, and it resulted in Nokia’s share price soaring 2300 percent during the first eight years with Ollila as CEO. As noted, Nokia rode that success in the mid-2000s, to become the world’s largest mobile phone manufacturer.⁷ From a value-driven service perspective, by identifying a potential new market – the mainstream consumer – Ollila restructured the organization around both the broad services marketing required to cultivate the brand and connection with the consumer, as well as the operational platform required to build in the mass customerization of the product. The supporting network (the service system) followed the increase in sales and grew accordingly.⁸

But Nokia ran into severe trouble by the early 2010s, particularly because its thinking was dominated by a “phone-first” paradigm that failed to quickly enough adapt to a mobile ecosystem approach combining hardware, operating systems, and applications. To be sure, Nokia continued to innovate brilliant technical features in its mobile devices – Nokia phones were in fact often among the first to introduce novel features, including touchscreen, cameras, WiFi, wireless charging, etc. – but Nokia failed to innovate either in its business model or by introducing radically differentiated customer experiences. Or, as *IHS Screen Digest* analyst Daniel Gleeson puts it, “Nokia’s emphasis was on incremental innovation of existing products rather than aggressively pushing a disruptive innovation.”⁹ In other words, having innovated radically once, Nokia then retreated to a more comfortable state, developing technologically improved products on the same basis but not radical new products and services.

The following tells the tale of the Apple versus Nokia story along the nine dimensions of the Service Innovation Triangle. As Figure 9.1 shows, Apple bested Nokia on virtually every element of the Service Innovation Triangle, with the exception of financial assets, in which the two firms started at parity.

Customer experiences

The Apple versus Nokia story is ultimately one of companies leveraging technology to create compelling customer experiences and being able to monetize those through an effective business model. In fact, Nokia’s initial success arose largely because it reframed the market space away from a singular focus on the business customer and toward a younger consumer, providing them with an alternative to their parents’ land-lines. Nokia’s hip mobile phones focused on brand image, with a lot of customization possible, extra functionality, and a robust product that could withstand being in someone’s back pocket in a Finnish nightclub.¹⁰ Nokia made substantial customization possible by enabling users to encase their Nokia phones in personally designed cases. This was in fact a lesson Nokia learned from the extensive customization Swatch made possible for customers of its watches. This insight led Nokia to see the mobile phone as a fashion accessory. In fact, so popular was Nokia’s iconic Nokia 1100 phone that it was once described as “the most popular phone ever.”¹¹ By 2006, Nokia stood head and shoulders above all rivals in customer satisfaction scores.

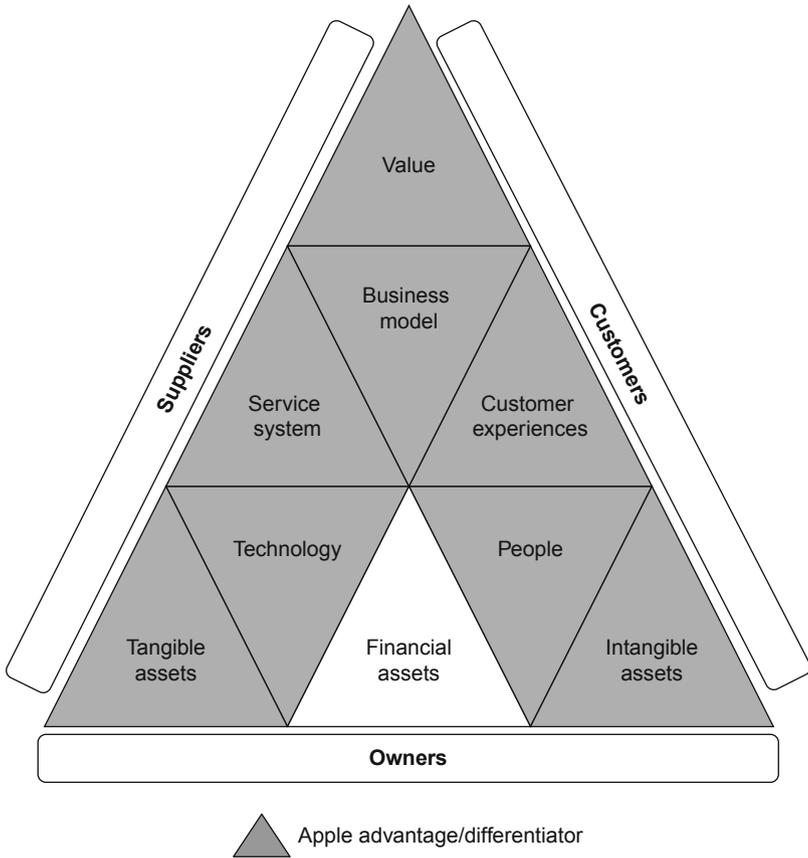


Figure 9.1 Comparing Apple to Nokia on the Service Innovation Triangle

But, as Ryan Kim notes, Apple’s introduction of the iPhone in 2007 “changed everything.”¹² The iPhone offered a striking user experience. Its revolutionary touchscreen interface eliminated keys and menus. It knew its physical orientation and flipped its screen from vertical to horizontal depending on how it was held – a startling experience at the time. It offered unfettered access to the Internet. Connected to iTunes, it offered access to its owner’s complete music library. It connected via the AppStore to thousands of unique, value-added applications. And the iPhone offered all this with an intuitive, elegant design and seamless customer experience. As José Avalos, Worldwide Director of Intel’s Retail

and Digital Signage business, notes, “I think what Apple has done is really focus on what I call ease of joy, which is not only making the experience easy to use or the device easy to use but also making the experience of using the device enjoyable.”¹³ Apple had achieved what Steve Jobs had set out to accomplish: build a phone that he would want for himself as a customer.¹⁴

While even now Nokia has retained a loyal following, it’s clear it never recovered from the competitive jolt delivered by Apple’s iPhone. So much was vividly reflected in a 2010 UK customer satisfaction survey. It found that – even among Nokia owners who stated that they wanted their next phone to be a Nokia – these Nokia phone owners *were not willing to recommend* Nokia to friends; they were, in effect, *ashamed to own Nokia*.¹⁵ By 2011, one study found that only three out of every five loyal Nokia smartphone users five years earlier still supported Nokia.¹⁶ Nokia had once made the must-have phones; by 2011, few Nokia owners were recommending Nokia phones to their friends. That’s a stark contrast to Apple’s devoted base of followers, with whom iPhones command a retention rate of 91 percent.¹⁷ In fact, Apple has ranked highest in customer satisfaction nine consecutive times. As John McCray, Juan Gonzalez, and John Darling conclude in “Crisis Management in Smart Phones: The Case of Nokia versus Apple,” clearly “Nokia fell behind Apple in the development of total capability to deliver a user experience equal to the Apple iPhone.”¹⁸

Business model

Nokia’s business model revolved around selling mobile devices – and, for a time, its Symbian mobile operating system (OS). Having the ability to design its own mobile operating software was actually a key source of comparative advantage for Nokia, and could have positioned the firm well to develop the software that would better support the applications and content downloads that would help make the iPhone so attractive to consumers. But Nokia’s real challenge, as *The Economist* explained, was that, “Today’s smartphone business is less about specific devices than about ‘ecosystems,’ a combination of hardware, operating system, and applications. This is where Nokia and RIM have lost out: their ecosystems have been sidelined by Apple’s iPhone and by Android, an operating system orchestrated by Google. These two platforms have attracted the most developers, investors, and users.”¹⁹

As then-Nokia CEO Stephen Elop acknowledged in his now-famous “Burning Platform” memo of February 2011, “The battle of devices has now become a war of ecosystems, where ecosystems include not only the hardware and software of the device, but developers, applications, e-commerce, advertising, search, social applications, location-based services, unified communications and many other things. Our competitors aren’t taking our market share with devices; they are taking our market share with an entire ecosystem.”²⁰ As he continued, “the better products are losing out to the better ecosystems.” But Nokia made at least three major mistakes: it failed to recognize the competitive challenge posed by Apple’s iPhone and how it signaled a shift to software as a key differentiator for phones; it failed to continue, and ultimately abandoned, its mobile operating software; and it fundamentally never evolved its business model beyond selling mobile devices to include a diverse revenue stream derived not only from device sales, but also content (e.g., music, video, book) sales and partner-generated application revenue.

Subsequently, strategically, as products such as Apple’s iPhone and Google’s Android began to squeeze Nokia in the smartphone segment (particularly in profitable North American markets, where Nokia held just a 2 percent market share in the second quarter of 2012),²¹ Nokia’s strategy turned to relying on profits generated by selling feature-phones (or “world-phones”) in developing countries, particularly to China, India, and African nations. For a time, Nokia would hold the largest market share in many of these emerging nations – for example, Nokia once held a 70 percent share of the Chinese smartphone market – but Nokia soon found itself embroiled in a low-price competition against lower-cost Chinese and Indian handset manufacturers such as HTE, Huawei, and G’Five.²² (This competition only intensified after MediaTek, a Taiwanese fabless semiconductor manufacturer, supplied complete reference designs for phone chipsets, which enabled manufacturers in the Shenzhen region of China to start producing phones at an unbelievable pace.²³) In short, Nokia lacked strategic clarity about which markets it wanted to serve globally. Nokia thus got caught in a multifront war, increasingly losing the high-end smartphone market to Apple’s iPhone and Google’s and Samsung’s Android-powered mobile devices, while also losing in the lower-end feature phone market in developing nations to lower-cost Asian manufacturers such as HTE.

Perhaps one of Nokia’s biggest strategic missteps was not adequately recognizing or reacting to the threat posed by Apple’s iPhone/iTunes/AppStore ecosystem until it was too late. As McCray, Gonzalez, and Darling write, “In 2001, when Apple iTunes 1.01 was introduced to

provide songs and video files for Apple computer users by downloading them from the Internet, it was apparently not clear to Nokia that they should react. Nokia did not apparently see the approaching crisis. Nokia's principal decision at that time was to produce better and cheaper mobile phones."²⁴ In fact, a total of seven critical years would pass before Nokia developed a similar site to iTunes, in 2008. As McCray, Gonzalez, and Darling write, after Apple's 2007 introduction of the iPhone, finally "Nokia saw the looming crisis," but it didn't have a response.²⁵ Within a year, Apple would become the world's leading smartphone maker. As McCray, Gonzalez, and Darling write, "With iTunes, the iPhone, and applications that would deliver Internet content directly to the iPhone, Apple established itself as the dominant producer of the most exciting new smartphone. Although Nokia had developed [the first] smartphones, it was unable to match the service provided by the iPhone in combination with iTunes and 1,000s of applications that had been developed to use the iPhone."²⁶ As then-Nokia CEO Elop would lament in his "Burning Platform" memo, "The first iPhone shipped in 2007, and we still don't have a product that is close to their experience."²⁷

As analysts with investment firm Piper Jaffray presciently noted, Apple's iPhone (and Google's Android) presented Nokia with "a fundamental identity problem."²⁸ As they wrote in a 2010 investment memo, "Software is what fuels interest in Apple and Android devices. Google is clearly a software company focused on making Android a great mobile OS. Apple is clearly a software company focused on making a great mobile OS and [taking] it a step further by providing integrated hardware. We view competitors like Nokia and RIM as hardware companies that are dabbling in software."²⁹

Of course, the great irony in that statement was that, for years, Nokia's Symbian had been the dominant mobile phone operating system, capturing a 65.6 percent share of the global mobile OS market in 2007. But by February 2011 – and even at a time when Nokia's Symbian still commanded 36.6 percent of the global mobile OS market – Nokia abandoned Symbian as part of a partnership with Microsoft that would task the Redmond-based company with developing operating software for Nokia phones going forward.³⁰ With that, the Windows Phone operating system was chosen as the new platform for Nokia smartphones.

So why did Nokia abandon the operating system? In part, Symbian had originally been designed to run on phones with modest technical requirements and it had not been designed to support touchscreens.³¹ As Elop observed in his "Burning Platform" memo, Symbian "has proven to be non-competitive in leading markets like North America. Additionally,

Symbian is proving to be an increasingly difficult environment in which to develop to meet the continuously expanding consumer requirements, leading to slowness in product development and also creating a disadvantage when we seek to take advantage of new hardware platforms.”³²

But none of this was a surprise, which was why Nokia had started to develop a new operating system called MeeGo in 2007. MeeGo was to be a Linux-based, open-source operating system that could support a variety of platforms including mobile phones, tablet computers, entry-level desktops, and even in-vehicle infotainment devices. MeeGo supported Nokia’s N9 mobile phone, released in September 2011, which received the strongest positive reviews of any Nokia phone ever and which actually bested Apple’s iPad for the Best Product Design of 2012 in the Yellow Pencil awards (known as the “Oscars for design”).³³ But the N9 would be the only MeeGo-supported phone Nokia ever produced, with the company switching to the Windows Phone OS in 2011.³⁴ As Sampsa Kurri, founder of the respected Finnish technology blogsite *Muropaketti* concludes, “In the end, Nokia tried to get other manufacturers on board in developing the MeeGo ecosystem. However, there were no interested parties and Nokia was left alone. In the war of the ecosystems, breaking into the North American market without LTE support and proper support from other manufacturers and operators would have been an impossible task for Nokia.”³⁵ While Kurri praised the MeeGo development team’s work, he noted that “MeeGo development had been disorganized” for several years and that “the technology was developed in various teams, which did not communicate with one another.” In short, while MeeGo could have been a game-changer, it got to market too late, full of “good ideas that were too late to implement as compared to products from more nimble competitors.”³⁶ Put simply, perhaps Nokia’s biggest strategic blunder lay in not transitioning quickly enough from its Symbian to its MeeGo operating system, and then subsequently abandoning its own platform and moving to Microsoft’s operating system. Further, in part because Nokia’s operating system was in flux, application developers had been slow to develop applications for Nokia phones, helping to explain why Nokia’s Ovi (its version of Apple’s AppStore) consistently lagged in the number of applications available for download. On May 16, 2011, Nokia announced it would discontinue the use of the Ovi brand, the name it has used for its services offerings since 2007.³⁷ Many of the application developers moved on to developing applications for Google’s Android – and Apple’s iPhone/iPad.

Whereas Nokia’s business model predominantly centered on selling mobile devices (whether “smartphones” in developed economies or

“feature phones” in developing ones), Apple distinguished itself by building a comprehensive product-service ecosystem featuring the iPod, iPhone, iPad, iTunes, Macintosh computers, and the AppStore, which encourages cross-sales and enables Apple to earn revenues from both products and services. Apple’s compelling product-service ecosystem has enabled it to maintain a consistently profitable price point for its series of iPhones and iPads. For example, Apple earned gross margins of 49–58 percent on its US iPhone sales from April 2010 to March 2012, while it enjoyed gross margins of 23–32 percent on sales of iPads in the United States over that time.³⁸ (The main difference in profitability between the iPhone and iPad tends to be the cell phone contract and the subsidies the mobile phone networks pay Apple for each handset; in contrast, the mobile phone operators don’t subsidize iPad sales.³⁹) For the 2013 fiscal year, the iPhone generated astounding net sales of \$91.3 billion, accounting for 53 percent of Apple’s revenues (iPads contributed 17 percent), up from 51 percent in 2012, and 43 percent in 2011.⁴⁰ iPhones contributed more than half of Apple’s revenues in every quarter of 2013.

But, of course, Apple does not just generate profits from the sale of high-margin-generating devices. Apple’s “open innovation” approach to iTunes and the AppStore – Apple permits AppStore application developers to net 70 percent of the revenues they generate while keeping just 30 percent for itself – allows others to monetize the Apple platform and in the process generates more revenues for Apple itself. In fact, there are now over 1 million AppStore applications.⁴¹ In 2013, Apple’s customers spent \$10 billion through the AppStore, with the company now generating roughly \$1 billion in customer spending per month through the AppStore.⁴² Apple reports that its developers have earned over \$15 billion since the AppStore was launched in July 2008, while *Forbes* estimates that Apple has recognized \$6.4 billion in profits since the AppStore’s launch.⁴³ More than 60 billion applications have been downloaded from the AppStore.⁴⁴ For its part, iTunes controls a 63 percent share of the US digital music market.⁴⁵ Users have downloaded 25 billion songs from Apple’s iTunes, 15 billion of those in the past three years.⁴⁶ Apple’s iTunes/Software/Services revenue line has grown every single quarter but one since 2011, with Apple doubling its quarterly revenue from iTunes/Software/Services from \$2.15 billion in the first quarter of 2011 to \$4.26 billion in the last quarter of 2013. Apple generated \$16 billion from this business line in fiscal year 2013.⁴⁷

Apple has also achieved an advantage by producing just one phone model at a time (akin to Southwest Airlines, which reduces aircrew

training and maintenance costs by flying a single type of aircraft), in contrast to competitors such as Nokia that have introduced and had to support multiple devices simultaneously. As Matt Murphy, a partner at the Silicon Valley venture capital firm Kleiner Perkins Caufield & Byers, notes, “Going all in one product and executing flawlessly has been a huge advantage” for Apple.⁴⁸

Another often overlooked element of Apple’s business model (elaborated on in more detail in the Tangible Assets section) has been its path-breaking success in introducing a direct-to-consumer retail channel through its Apple stores. Amazingly, Apple generates more revenues per square foot in its retail stores than does Tiffany’s.⁴⁹ Apple’s 432 global retail stores hauled in \$20 billion in revenue in fiscal year 2013, atop \$19 billion the prior year.⁵⁰

One final point about Apple’s business model: the company has more direct customer billing relationships than any other company. As of June 2013, Apple boasted 575 million iTunes accounts, was adding a half million new accounts on average each day, and was on track to add 100 million new iTunes accounts in the year 2013 alone.⁵¹ By July 2014, iTunes reached 800 million global account holders.⁵² As Morgan Stanley analyst Katy Huberty points out, Apple’s number of global accounts is now second only to Facebook’s 1.3 billion – but Apple has their credit card information (since users provide it when registering for iTunes), meaning that Apple has more direct customer billing relationships than any company in the world.⁵³ In terms of revenue per account, Morgan Stanley found that Apple generates an average of \$329 per user, placing it first among technology companies, ahead of Amazon’s \$305 per account, and eBay’s third-place \$125.⁵⁴ Moreover, Apple generates \$95 of free cash flow per account, almost five times larger than the \$23 eBay generates and ten times more than the \$9 Amazon generates.⁵⁵ Huberty argues that this impressive install base will enable “Apple to roll out new platforms in the same vein as iTunes” in coming years. She suggests that Apple could generate more than a billion dollars per year with an “iRadio” service and notes that the potential inclusion of a fingerprint sensor in Apple’s next iPhone could set the stage for e-wallet payments.⁵⁶ In other words, Apple’s tremendous install base of customers now represents a tremendous platform for innovation. Finally, it’s worth noting that, at Apple stores, Apple now uses the iPhone to process credit card purchases of Apple products. When your firm has literally invented a device that sells itself, that’s an impressive business model.

In conclusion, as noted at the outset of this section, today’s smartphone business is less about specific devices than about

ecosystems – combinations of hardware, operating systems, and applications. Nokia fell behind because its ecosystem was bested by Apple's iPhone and Samsung/Google's Android, as these ecosystems attracted the most developers, users, and investors.⁵⁷ Apple has since leveraged that ecosystem to build a *variety* of profitable business models, including high-margin sale of digital devices and the creation of an iTunes/AppStore platform that allows musicians, application developers, and other content developers to make money alongside Apple.

Technology

Nokia always offered fantastically technologically feature-rich mobile phones: in fact, Nokia invented the smartphone. But one of Nokia's challenges was always that too much of its technological attention was devoted to the features of the phone itself. To be sure, Nokia's list of technological feats in mobile phone technology was remarkable. As Tomi Ahonen noted, "Between 2005 and 2008, Nokia's top end E-Series and N-Series phones, such as the N93, which came out with a QR reader, TV-out, and a 3x optical zoom, astonished the industry with phenomenal technology."⁵⁸ Nokia actually offered a touchscreen smartphone two years before Apple's iPhone. It offered the world's first mobile phone connected to the Internet, and it offered the first mobile phone outside of Japan to include Wi-Fi connectivity. And Nokia was actually the first mobile phone manufacturer to offer a gaming-oriented app store, bypassing the carriers – something that was actually the prototype for Apple's AppStore. Later, Nokia's Lumia 920 phones were among the first to offer wireless charging.

Yet, despite these strengths, by the late 2000s, Nokia began "to lose out on the innovation front" to Apple. As Ahonen notes, "while Nokia's N8 might have been attractive next to a[n] iPhone 3GS, it wasn't against the retina display iPhone4 ... a phone that (then) had the sharpest phone screen ever produced."⁵⁹ At the same time, in later years, Nokia phones that "once stood for exceptional quality that were durable, robust, reliable, and operationally sound" began to experience quality issues after Nokia's decision to outsource production to Eastern Europe resulted in "delays, problems, and dissatisfaction."⁶⁰

As noted, the groundwork for the success of Apple's iPhone truly lay in the technologies, user experience, and business model that Apple had cultivated with the iPod/iTunes system. As McCray, Gonzalez, and Darling write, "iPod/iTunes was a revolutionary Internet content platform that would provide books, music, movies, news, financial analysis,

college lectures, TV programs and other content.”⁶¹ Apple built upon these with the iPhone. The principal initial advantages of the iPhone were its overall breakthrough design, touchscreen, ability to leverage software applications through the AppStore, and ability to download content directly from the Internet. Of course, subsequent versions of the iPhone would introduce more breakthrough features such as the retina display and AirDrop.

In short, technology was a strength for both companies, but Apple did a better job connecting its technology to an ecosystem.

Service system

Though not without its fair share of hiccups, Apple has performed much better than Nokia at coordinating service operations behind the launch of its new iPhones and iPad products. Apple has made it a point to disclose price, carriers, and availability dates at the same time. Those details let consumers plan purchases, carriers plan marketing programs, and application developers schedule release updates.

In contrast, as it scrambled to catch up with Apple, Nokia took to announcing new smartphones (such as the Lumia 820 and 920) without stating when they would become available, where they could be purchased, or what they would cost.⁶² That frustrated mobile network carriers, consumers, and applications developers, for those details were vital to enabling consumers to plan purchases, carriers to plan marketing promotions, and applications developers to schedule application updates.⁶³ In 2013, Nokia also suffered from supplier shortages for key components in its Lumia line of mobile phones. As Ahonen writes, unfortunately Nokia became “[l]ate on delivering new products [with constant] apologies and delays.”⁶⁴ As Hakan Wranne, an analyst at Swedish banking group Swedbank, noted, “For Nokia, it is all about distribution now, and we get no answers on when these new devices will sell and which U.S. operators will market them.”⁶⁵ In part because some of the products were late in getting to market, in July 2012, Nokia announced it would take an approximately \$270 million “inventory allowance” related to excess component inventory, future purchase commitments, and an inventory revaluation related to its Lumia, Symbian, and one MeeGo device, the N9.⁶⁶ In his “Burning Platform” memo, Elop expressed frustration with Nokia’s delays in getting technologies to market, writing, “Chinese OEMs are cranking out a device much faster than... the time it takes us to polish a PowerPoint presentation.”⁶⁷ In short, as the *Wall Street Journal* pointed out, Apple was forcing the

mobile industry to operate at much faster speeds, and firms such as Nokia had been unable to keep up.⁶⁸

Tangible assets

According to Steve Jobs, Apple initially became a retailer to increase its 5 percent market share of the US personal computer industry.⁶⁹ At the time, Jobs cited a study reporting that 95 percent of consumers did not consider Apple when purchasing a personal computer. As Jobs reasoned, “if only five of those remaining 95 people switch, we’ll double our market share,” and this actually led Apple to start planning a newspaper advertising campaign entitled “five down, 95 to go.”⁷⁰ Jobs felt he knew what customers wanted and that “the masses would turn to Apple, but only if he could speak directly to them” and that became an important impetus for Apple’s aggressive retail strategy.⁷¹

Yet Jobs embarked on Apple’s retail strategy “with a nervous board [of directors],” recalls Bill Campbell, a former Apple executive and later CEO of Intuit.⁷² To be sure, no consumer electronics manufacturer had previously built a successful direct-to-customer retail presence for itself. Critics derided Apple’s strategy of launching company-owned retail stores, the first of which opened in 2001, as a “risky cash drain.”⁷³ Analysts cited the high retail lease costs in major US cities like Chicago, New York, and Los Angeles, estimating that Apple would have to sell at least \$12 million worth of products per year at each store, an amount three times greater than then-competitor Gateway was generating per store. Moreover, Apple’s retail stores were expected to cannibalize business from resellers, leading to a potential channel rift between the company and its resellers.⁷⁴ As David Goldstein, President of the Channel Marketing Corporation, derisively commented at the time, “I give them two years before they’re turning out the lights on a very painful and expensive mistake.”⁷⁵

But Apple’s retail strategy has been wildly successful – and on a global scale. As of January 2014, Apple operates 432 retail stores in 14 countries and an online store (available in 39 countries), which together generated sales of \$20 billion in 2013. On average, each Apple store generates \$51.5 million in profit per year. Apple stores actually generate twice as many sales per square foot as Tiffany’s stores do, and they lead the US retail market in terms of sales per unit area.⁷⁶ So successful have Apple stores been that Chinese “entrepreneurs” even opened 22 fake Apple stores, unlawfully mimicking Apple’s brand and logo, to the extent that their employees wear (fake) Apple-branded shirts.⁷⁷

People

It's difficult to overstate the transformational role that Steve Jobs played in resurrecting Apple and conceiving the vision and strategy to bring the iPod/iTunes/iPhone/iMac/iPad ecosystem to reality. As Walter Isaacson writes in the biography *Steve Jobs*, Jobs was a true technology visionary who transformed at least six industries: personal computers, animated movies, music, phones, tablet computing, and digital publishing.⁷⁸ As University of Pennsylvania Wharton Business School Professor David Hsu argues, "In order to really come up with the radical innovations, there has to be some personality and vision as to what is the world going to look like in some five, ten years from now," and that's what Jobs excelled at.⁷⁹ Indeed, Jobs "humanized technology and made it work in wondrous ways that genuinely improved our lives."⁸⁰ At the same time, as Jeff Kowalski, the CEO of design software firm Autodesk, observes, while certainly Jobs managed a very difficult and challenging work environment, his managerial style often brought out the best work in his people. As Isaacson writes, Jobs was renowned for hiring only "A" performers and the very best IT personnel.⁸¹

But Apple's success was not Jobs' alone. Apple relied on a team of talented engineers, designers, and managers. And it's clear that Apple's location in the heart of Silicon Valley – along with a culture of experimentation and risk-taking – made it easier to acquire the very best software and engineering talent. In fact, at one point, Nokia had nearly as many engineers working on its smartphone software platforms as Apple had working on its entire product line.⁸² But Apple's ability to attract superior software engineering talent to Nokia wasn't confined only to its location in Silicon Valley. Indeed, there was a perception in the high-tech community that Apple offered a superior environment for risk-taking and financial reward, which "posed a challenge for Nokia's management in [their] attempts to hire software engineers."⁸³ As McCray, Gonzalez, and Darling elaborated:

Unfortunately for Nokia, the perception among individuals in the high-tech community was that firms such as Apple, Google, Yahoo, and the new Internet startups provided the best opportunities. The best and the brightest of these individuals were very astute, and very knowledgeable of new, emerging technologies and new product developments by various high-tech organizations. They preferred to work in an environment where personal and financial rewards were the greatest. They also desired a sense of excitement in their tasks and

activities, and were both collaborative and competitive in their quest to be at the forefront of technological innovation.⁸⁴

They continued:

The shift to smartphones that used an Internet platform similar to iTunes that would make Internet content available was not a good fit with the traditional Nokia corporate culture. Because of the need to develop software similar to iTunes, applications and smartphones, Nokia needed to compete in the overall high-technology community, where the best and brightest talent had always been attracted by organizations on the “cutting edge” with unsolved technical challenges.⁸⁵

Moreover, Nokia appeared to suffer from a risk-averse, consensus-based culture that lacked sufficient innovative and entrepreneurial spirit that left it simply unable to keep up with the rapid pace of digital innovation. As Lawrence Hrebiniak, a management professor at the University of Wharton noted, “Nokia was about consensus building and the boardroom is conservative.”⁸⁶ Indeed, Nokia had a complacent, overly bureaucratic structure with poor accountability. Strategic decisions made by senior managers in one part of the firm were often canceled out by decisions made by other managers, and this left Nokia ill-prepared to develop a coherent response to the challenges posed by competitors like Apple, Google, and Samsung.⁸⁷ As Kurri explained in his account of the history of MeeGo, “Everyone inside Nokia had their opinion on MeeGo...towards the end the individual developers had no say in, or even worse, no knowledge about, the decisions and changes taking place in the background.”⁸⁸ Elop picked up on these themes in his “Burning Platform” memo, stating, “I believe we have lacked accountability and leadership to align and direct the company through these disruptive times. We haven’t been delivering innovation fast enough. We’re not collaborating internally.”⁸⁹

When it came to retail, Apple was also thoughtful to create a unique approach to hiring talent in its retail stores. Apple tended to hire employees who were already enthusiastic fans of Apple’s brand, and sought to hire individuals who were very passionate about what they were selling.⁹⁰ Apple also carefully trained its employees, assigning new sales associates to watch podcasts explaining sales techniques and to shadow more experienced salespeople while they executed the company’s three-step sales process: position, permission, and probe.⁹¹ Apple’s

retail workforce was also taught to work together as a team, recognizing that dissension among sales associates provided a poor sales experience for customers. Finally, “Apple flooded the retail zone with employees,” knowing that sales and profits were lost with every minute customers spent waiting for help.⁹²

After picking up the reigns from Steve Jobs, Apple CEO Tim Cook has implemented new employee retention mechanisms in the company. For example, Apple’s “BlueSky” program allows engineers to work on their own favorite projects on company time.⁹³ It also implemented a dividend on unrestricted stock units awarded to employees.

Intangible assets

According to Interbrand, as of September 2013, Apple moved past Coca-Cola to become the world’s most valuable brand, valued at \$98 billion.⁹⁴ Nokia is now part of Microsoft, which checked in with the world’s fifth most valuable brand in 2013.⁹⁵ But it’s clear that Nokia’s once powerful brand in later years became somewhat of a liability. As Kartik Hosanagar, an operations and information management professor at the University of Pennsylvania’s Wharton Business School, noted in 2010, “When you think of Nokia, you think of reliable but somewhat boring phones. Cool smartphones with great apps don’t come to mind at all. Nokia needs to rebrand itself.” As his colleague Hrebiniak noted, “The Nokia brand doesn’t imply smartphones. It’s that simple. Nokia has to figure out how to add value [in a market where] user experience is the differentiator.”⁹⁶

Value

Apple has delivered tremendous value for customers, shareholders, and society. From 2005 to 2012, Apple’s sales increased 11-fold and its profit 31-fold.⁹⁷ In 2011, Apple’s revenue of \$76.4 billion was so large that it surpassed the US government’s operating cash balance of \$73.7 billion.⁹⁸ But what of Apple’s future in the post-Jobs era? And can Apple put its tremendous cash reserves to the service of future innovation, or will the reserves be consigned to stock repurchases (Apple’s \$60 billion stock buyback in 2013 was the largest in history) and acquisitions of smaller innovators (such as Apple’s \$3 billion acquisition of Beats Electronics)? As Figure 9.2 shows, Apple has long been one of the least R&D-intensive of the leading information technology companies. In fact, with an R&D/sales ratio of just 2.8 percent from 2007 to 2012, Nokia was actually

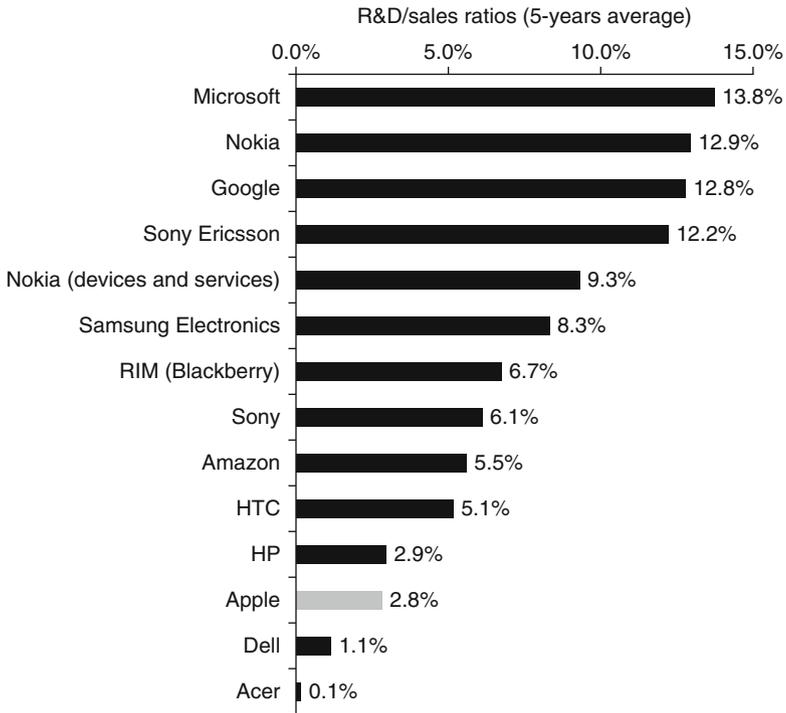


Figure 9.2 Leading ICT companies' R&D/sales ratios⁹⁹

Source: Mazzucato, M. (2013). *The entrepreneurial state: debunking public versus private sector myths* (London: Anthem Press).

three times more R&D-intensive than Apple. Amazon has invested much more in R&D as a percentage of its sales than Apple.

What explains Apple's ability to outpace competitors in introducing innovative products despite its relatively low rate of R&D? While some have argued it's a result of superior R&D productivity, the reality is that Apple's strength has lain not in *developing* new technologies and components, but in *integrating* them into an innovative architecture and connecting them to a powerful product-services ecosystem.¹⁰⁰ As Mariana Mazzucato writes in *The Entrepreneurial State*, the iPod, iPhone, and iPad were made possible by 12 key enabling technologies: (1) microprocessors or central processing units (CPUs); (2) dynamic random-access memory (DRAM); (3) micro hard-drive storage disks; (4) liquid-crystal displays (LCDs); (5) lithium-ion batteries; (6) digital signal processing; (7) the

Internet; (8) HTTP and HTML; (9) cellular technology and networks; (10) global positioning systems (GPS); (11) click-wheel technology; and (12) artificial intelligence with voice user interface (e.g., Apple's SIRI).¹⁰¹ As Mazzucato argues, most of these technologies were developed not by Apple but by government-funded research at universities and national laboratories; Apple just did a phenomenal job of integrating (and improving) core technologies originally developed by others.

So the question is: Can Tim Cook's Apple continue to turn out category-defining products that maintain double-digit sales growth? Many are skeptical that Apple will be able to develop a new, must-have product in a fresh leap of innovation.¹⁰² Trip Chowdry, a managing director at Global Equities Research, argues that "The next ten years in the industry will be about people who have an idea and the ability to execute and defy odds. This belongs to people like Jeff Bezos, Elon Musk, and Larry Page – not Tim Cook. Apple cannot compete with Google. Apple lives in a mind-set that their main competition is still Google – they live in a relaxed environment."¹⁰³ For Apple's part, Eddie Cue, who runs Apple's iTunes division, argues that, "Later in 2014, we've got the best product pipeline I've seen in my 25 years at Apple."¹⁰⁴ Indeed, CEO Cook has promised that Apple will launch "amazing new hardware, software and services" and "exciting new products in 2014."¹⁰⁵ In March 2015, Apple introduced the iWatch, which featured a number of novel applications including the ability to make phone calls from the watch, an ApplePay mobile wallet, and a variety of personal health and fitness applications.¹⁰⁶ Some speculate that Apple may be preparing to make a major play in the automotive industry, with Apple's senior vice president of Operations Jeff Williams noting in May 2015 that "the car is the ultimate mobile device, isn't it."¹⁰⁷ Apple's potential opportunities in the automotive sector range from delivering content and entertainment solutions to the vehicle to even producing electric vehicles that could rival those of Tesla.¹⁰⁸

Will Apple be able to avoid Nokia's fate – or even a repeat of its own near-death experience in the late 1990s – in the future? Complacency is perhaps Apple's biggest threat, should it fail to continue to innovate and instead rely largely on milking revenue streams from already-developed products and services, protecting its margins while kicking back cash to investors. Maintaining one's position as the world's largest corporation is something that no corporation has ever been able to achieve. But if Apple holds true to its core tenets over the past decade – an intense focus on producing compelling, beautifully designed products that provide seamless and delightful experiences with a business model that

monetizes content and application delivery over these platforms (often enrolling third-party partners to cocreate the value added) – then Apple’s future remains very bright.

Conclusion

Apple developed a powerful product-service ecosystem connecting portable music players (iPod), mobile phones (iPhone), and mobile computing (iPad) with entertainment content (iTunes) and powerful applications (AppStore); whereas Nokia fundamentally proved unable to move beyond developing technologically feature-rich mobile phones and their operating software and a business model that focused predominantly on selling devices. Apple bested Nokia on eight of the nine elements of the Service Innovation Triangle – Customer Experiences, Business Model, Technology, Service System, Tangible Assets, People, Intangible Assets, and Value. Only with regard to Financial Assets were the two companies at parity.

10

Amazon and Borders: From Sector Focus to Competence Focus

In the 1990s, Borders, along with Barnes & Noble, pioneered the retail book megastore business to become America's dominant booksellers, together accounting for 40 percent of books sold in the United States.¹ Brothers Tom and Louis Borders opened the first Borders bookstore in Ann Arbor, Michigan, in 1971, and the company grew rapidly through a combination of a superior inventory and distribution system and aggressive acquisitions. Jeff Bezos founded Amazon.com in Seattle, Washington, in 1994, choosing the name Amazon because it was the biggest river in the world, and he wanted his business to become the world's biggest store.² Now at just over 20, Amazon has gotten there by becoming "a serial business model innovator"³ that not only disrupted the bookselling industry but transformed the entire world of retail as the original electronic commerce (e-commerce) pioneer. In essence, Amazon turned the traditional retail model on its head, moving from a "sector retailing" approach to a retailing-for-all-sectors approach.

As this case study describes and Figure 10.1 shows, Amazon bested Borders on every single one of the nine elements of the Service Innovation Triangle. Thus, the Service Innovation Triangle can be used as a lens to see how Amazon was able to innovate to radically transform not only the book retailing marketplace but ultimately merchandise retailing and e-commerce in general, while Borders failed and went bankrupt. This case study examines each of the nine elements of the Service Innovation Triangle in turn, comparing Borders' performance with Amazon's, and telling the tale of how Borders went bankrupt while Amazon thrived.

Tangible assets

One of Borders' original strengths – before the Internet's emergence obviated it – had been its large assortment size, with Borders superstores

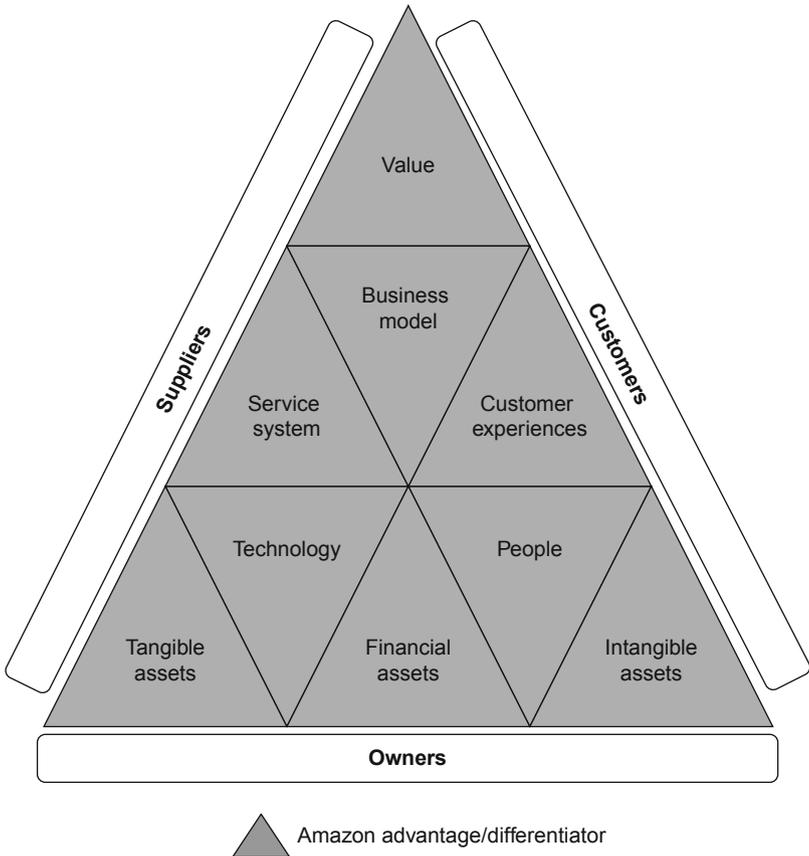


Figure 10.1 Comparing Amazon to Borders on the Service Innovation Triangle

carrying on average 140,000 titles. But Borders needed very large brick-and-mortar retail stores to support such a large assortment of book (and CD and DVD) titles, and this initial core asset quickly became a liability during the 2000s, as Borders' stores came to carry high levels of unproductive inventory. Borders' reliance on physical retail space was further compounded by a very poor real estate strategy, as it often: picked locations with a "B-level" quality and tried to turn them into "A-level" performers; leased space that was too large (in part to accommodate a large music selection); and entered into "unproductively long" leases on its stores, making it difficult for Borders to buy its way out of leases that still had seven or eight years remaining on them.⁴ In fact, even after

Borders' last year of profitability in 2006, it continued to expand into new 30,000 square foot retail locations "right into the Internet boom," even as the sales per square foot of its superstores plummeted from an average of \$261 in 1997 to \$173 by 2009.⁵ Moreover, Borders overexpanded and invested in too many stores. By the time Borders declared bankruptcy in February 2011, only half of its 400 stores were profitable, and several of its stores were costing the company \$2 million a week just to keep running.⁶

In contrast, Amazon eliminated the need for expensive tangible retail storefronts by going virtual. Amazon could offer customers 3 million book titles alone, while even the largest Borders bookstore could offer only 150,000. By mid-2014, Amazon would carry 230 million items for sale – in America alone – some 30 times the number sold by Walmart, still the world's biggest retailer by sales.⁷ Moreover, where Amazon needed to make investments in physical assets – primarily in its fulfillment centers (i.e., warehouse and distribution centers), data centers, and the information technology (IT) equipment needed to support them – Amazon's costs were variable while Borders' were fixed. Amazon could expand its warehouse and distribution system (and later scale Amazon Web Services' data centers) as increased customer demand warranted, whereas Borders was saddled with fixed assets in both the inventory it carried in its stores and the leases it held for its properties. In recent years, Amazon has invested heavily in and now operates 96 fulfillment centers as it pushes toward evermore real-time delivery of goods, understanding that "increasing the speed of shipping items to customers is like a shot of adrenaline to customer's propensity to buy from Amazon."⁸

Financial assets

Even in good times, Borders was often "in arrears and undercapitalized."⁹ Much of this owed to the book industry's archaic credit system, with booksellers at any moment indebted to publishers for more than the value of the books on their shelves. In fact, at the time of its bankruptcy, Borders owed \$130 million to just four book publishers alone – \$36.9 million to Hachette, \$33.8 million to Simon & Schuster, \$33.5 million to Random House, and \$25.8 million to HarperCollins. As Mike Edwards, Borders' last Chief Executive Officer, lamented, "the company was too saddled with debt to navigate properly. It had no capital to invest in online retailing or to separate its good stores from its bad ones."¹⁰

In contrast, Amazon stole a page from Dell's PC-built-to-order approach and organized its business so that (in many cases) it initiated a purchase

order with suppliers only after customers had placed their order. By collecting from the customer immediately but paying their suppliers 15–30 days in the future, Amazon was able to achieve a quite rare feat for retailers: negative days' working capital.¹¹ As Henry Chesbrough of Berkeley's Haas School of Business notes, "This allowed Amazon to finance much of its growth directly from customers, and what seemed like slim margins to many became more attractive once the cash flows were factored in."¹² Today, as market analyst Jean-Louis Gassée notes, "Amazon's daily revenue [in the third quarter of 2013] were about \$200 million. If it waits just 24 hours to pay its suppliers, the company has \$200 million to play with. If it delays payment for a month, that's \$6 billion it can use [to reinvest] in developing its business."¹³ So while Amazon was monetizing its float (the money a customer paid for a book or other product before Amazon purchased it from a supplier), Borders was saddled with debts to book publishers for the books sitting on its store shelves.

Intangible assets

Brand is one of an organization's most important intangible assets. Amazon founder and CEO Jeff Bezos famously branded the company as "Earth's Biggest Store." In fact, Amazon's logotype, which has an arrow pointing from A to Z, is intended to represent the fact that Amazon carries every product, from A to Z.¹⁴ In 2010, Amazon was rated "the most trusted brand in the United States" and, like Apple, its brand has become virtually synonymous with innovation.¹⁵ With all the consumer fears that attended e-commerce as it first arose in the 1990s (e.g., security and privacy concerns), who would have imagined that by 2010 an online retailer would be deemed the most trusted brand in America? By the end of 2013, Interbrand ranked Amazon as the 19th best global brand.¹⁶ Meanwhile, Borders' brand steadily decayed with consumers. As Borders' former Director of Merchandise Planning & Analysis Mark Evans noted, "Borders never reached the branding mindshare that [competitor] Barnes & Noble did." For example, Barnes & Noble, not Borders, secured an exclusive partnership with Starbucks in the United States, which "was a major branding and traffic-driving win for them."¹⁷

People

Over time, Borders' personnel assets also transformed from a core asset to a liability. When it started in the 1970s, Borders offered the "knowledge and the feel" of an independent bookstore, with stores carefully

screening and training their employees, paying them relatively well, and offering health benefits and a generous merchandise credit, among other perks.¹⁸ But toward the end, Borders “continued to hire people who had little interest and knowledge about books and authors... including four CEOs who lacked any book-selling experience.”¹⁹

Of course, Amazon didn’t need to employ knowledgeable retail staff who could recommend books to customers. Rather, by enabling online reviews and implementing a “collaborative filtering” system that could intelligently make recommendations to customers about books, movies, or music they might like based on their own past purchases and similar ones of other customers, Amazon used a clever combination of technology and their own customer base to fulfill this recommendation function that Borders needed people to meet. Like Facebook, Amazon’s customers created unique content (i.e., reviews) that attracted other customers. In fact, what Amazon has most needed regarding personnel is “top-flight engineering and technical talent” and it has proven able to attract this on a consistent basis. And as Amazon has now itself directly entered the publishing business, it has made it a priority to hire key New York publishing talent to staff its publishing units.²⁰

As Amazon CTO Werner Vogels explains, Amazon’s innovation approach is actually quite decentralized and centers around small, independent, customer-focused teams. Indeed, Bezos’ vision was to create “a decentralized, disentangled company where small groups can innovate and test their visions independently of everyone else.”²¹ Hence, Bezos’ notion of the “two-pizza team,” which holds that all teams and task forces should be comprised of no more than five to seven people that can be fed with two pizzas. Jeff Bezos’ managerial style is quite similar to the one Steve Jobs exemplified – driving his people hard but getting the best out of them. Amazon also takes pains to align compensation of its senior executives with the interests of its shareholders: the highest salary Amazon pays is \$175,000, with senior executives paid largely through stocks and options.²²

Customer experiences

Borders began with an appealing customer experience, but unfortunately this steadily deteriorated over the company’s four decades in existence. To be sure, most Borders stores offered distinctive architecture, comfortable chairs, and reading nooks, and for many

customers – especially those in smaller and mid-sized American towns where a Borders bookstore was the only credible bookstore in town – Borders effectively created an attractive third space.²³ But as Borders' fortunes faded, "many customers complained about an inferior user experience – difficulty finding books, long lines, higher in-store prices, and less knowledgeable sales people."²⁴ Borders management further damaged the customer experience by making frequent changes to the Borders loyalty program and subsequently by closing the video and music sections of many stores. In fact, "music had been a large part of what made Borders a destination" for many customers – it got customers through the doors – and when CD sales tanked as the music industry digitized, other product categories at Borders began to suffer as well.

In contrast, from the beginning, Amazon has distinguished itself by "continuing to focus relentlessly on our customers," as Jeff Bezos famously wrote in his 1997 Letter to Shareholders (part of Amazon's first annual report), a letter which the company has reprinted in every annual report since. As Bezos wrote then, "We first measure ourselves in terms of the metrics most indicative of our market leadership: customer and revenue growth, the degree to which our customers continue to purchase from us on a repeat basis, and the strength of our brand."²⁵

Today, Amazon services 225 million customers as it "seeks to be Earth's most customer-centric company for four primary customer sets: consumers, sellers, enterprises, and content creators."²⁶ Indeed, 15 years later, customer centricity remained the defining message of Jeff Bezos's 2012 Letter to Stakeholders. As Bezos writes:

Our energy at Amazon comes from the desire to impress customers rather than the zeal to best competitors. One advantage – perhaps a somewhat subtle one – of a customer-driven focus is that it aids a certain type of proactivity. When we're at our best, we don't wait for external pressures. We are *internally* driven to improve our services, adding benefits and features, before we have to. We lower prices and increase value for customers before we have to. We invent before we have to. These investments are motivated by customer focus rather than by reaction to competition. We think this approach earns more trust with customers and drives rapid improvements in customer experience – importantly – even in those areas where we are already the leader.²⁷

Of course, Amazon's early success arose largely from its ability to generate a compelling online shopping experience, offering customers at least four attractive reasons to shop online at Amazon.com:

- (1) selection (a database of over 3 million titles);
- (2) convenience (shop anytime, anywhere, with ordering simplified by Amazon's patented "1-click" express shopping technology);
- (3) price (free shipping on orders over \$25 and discounts on bestsellers); and
- (4) service (e.g., automated order confirmation, tracking and shipment confirmation, etc.).

Moreover, Amazon embraced the key service innovation principle of "cocreating" its offering in conjunction with customers, as evidenced by providing a platform for online review and feedback, making it possible for customers to create wish lists, and refining its collaborative filtering feature that suggests books, movies, and music a customer may be interested in based on their past purchases and those of others. In essence, Amazon built a viable online community, initially for book enthusiasts, and then expanded it by creating communities for movies, music, and so forth.

Critically, Amazon continues to innovate the customer experience (which is of course enabled by its technology and service system, as explained subsequently). For example, Amazon has built automated systems that seek occasions in which it has provided a poor customer experience (such as a garbled download of a video to a Kindle), and its systems proactively send refunds to customers.²⁸ In 2012, Amazon started building shipping centers in US metro areas to dramatically speed up shipping times, with the ultimate goal of making next-day shipping its default offer and same-day shipping a cheap add-on in many places. In fact, Amazon now offers same-day delivery service in ten American cities, including Boston, Chicago, New York, Seattle, and Washington, DC.²⁹ In 2015, Amazon expects to be able to offer same-day delivery service to 28 percent of the North American population. And as part of its constant drive to get products to customers faster, Amazon has begun leveraging data-mining practices to anticipate and pre-position products they expect customers will buy based on their past purchase history. In fact, in December 2013, Amazon received a patent for what it describes as "anticipatory shipping," a "method to start delivering packages even before customers click 'buy'."³⁰ In other words, Amazon intends to box and ship products it expects customers in a specific area

will want – based on previous orders and other factors – but haven't yet ordered. Also, as revealed in a December 2013 *60 Minutes* interview, Amazon's R&D department is working to develop automated "octocopters" (i.e., drones) that can pick up packages from a nearby Amazon fulfillment center and deliver them to customers within a ten-mile radius. Bezos notes that the drones could enable delivery within a half hour of customer purchase, with the drones able to cover 86 percent of the items that Amazon delivers.³¹

It's also important to note that Amazon doesn't only recognize the end consumer as its customers but also the publishers and content creators the company collaborates with. Amazon designs compelling customer experiences for these stakeholders as well. For example, the industry standard in book publishing is paying authors royalties twice a year, but Amazon has started to pay authors their royalties monthly, 60 days in arrears.³² Amazon's book publishing value proposition also entails giving all authors, whether it publishes them or not, direct access to highly coveted Nielsen BookScan sales data, which records how many physical books authors are selling in individual markets.³³

Technology and service system

In the 1970s, Borders founders Louis and Tom Borders developed a "then-revolutionary" expert system to track book sales and inventory. Their "Book Inventory System" could oversee the flow of a tremendous number of titles broken into thousands of different subject categories across multiple stores and – by evaluating sales data – the system could understand local tastes and predict demand in specific communities. So powerful was Borders' initial Book Inventory System that for many years Borders executives called it the company's "secret sauce." Its ability to help Borders understand and predict local customer interest and tastes was largely responsible for helping Borders force out many independent bookstores and fueling the company's growth (in conjunction with the company's 1992 acquisition of competitor Waldenbooks) to the point where, by the early 1990s, Borders had stores located all over the United States and, together with Barnes & Noble, controlled 40 percent of the US bookselling market.³⁴ In other words, Borders was pioneering innovative data-mining techniques as early as the 1980s.

But Borders' "secret sauce" soured as the company failed to continue to invest in IT platforms and keep its business processes and supply chains up-to-date. As Mark Evans explains, "While Borders' legendary 'expert system' was considered cutting-edge and an advantage early

on, the company failed to successfully build on this foundation and create new, better assortment, replenishment, and supply chain systems and processes to keep pace with the changing state of technology and efficient retail operations.³⁵ Competitors Barnes & Noble and Amazon invested considerably more money and energy in developing their systems and processes throughout the 1990s than Borders did. By then, a lower-ranked title that sold out from a Barnes & Noble bookstore could be replenished from a central warehouse within two or three days, while the same process could take up to 16 weeks for Borders to execute.³⁶

In the 2000s, Borders tried to catch up with a large effort to upgrade its IT systems called “Common Systems.” In particular, since its 1992 merger with Waldenbooks, the two chains had continued to operate separately, each with its own system for ordering books, monitoring inventory, and restocking shelves.³⁷ Though the company invested millions of dollars and countless hours to unify the IT systems of Borders and Waldenbooks chains through the “Common Systems” effort, Evans calls the system that was eventually implemented “worse than useless,” noting that the effort was such a spectacular failure that, “[i]t destroyed the Waldenbooks chain.”³⁸ In contrast, Amazon has invested over \$1 billion since its founding in 1994 to ensure that it has and maintains the world’s most sophisticated e-commerce/e-retailing platform. Perhaps one way to summarize the contrasting approaches would be to say that Borders focused on books, while Amazon focused on logistics and built its service system accordingly. Indeed, as *The Economist* points out, perhaps one of Amazon’s greatest strengths is its “ability to switch [seamlessly] between the real world of atoms and the digital world of bits: Amazon has one of the world’s most impressive physical distribution systems, even as it has branched out into cloud-computing, e-books, video streaming, music downloads, and mobile phones.”³⁹

But as bad as Borders’ efforts were to keep the IT systems running its inventory and distribution network up-to-date, the company’s failure to address the Internet sales channel and the subsequent e-book market were even worse. While Amazon launched its online bookstore in 1994, and Barnes & Noble did so two years later in 1996, it wasn’t until 1997 that Borders launched its own website, which has been described as “a money-losing dog from the start.” Yet with Borders.com costing the company millions of dollars in losses each year – almost \$20 million in the year 2000 alone – in 2001 the company made the decision to outsource its website, Borders.com, to Amazon.⁴⁰ Yet as Peter Wahlstrom, an analyst for investment research firm Morningstar, explains, “In our view, this was like handing the keys over to a direct competitor.”⁴¹ Though

outsourcing its Web presence saved Borders considerable money in the short run, allowing its competitor to manage its online sales business handicapped Borders' branding and multi-channel strategy in the long run, and its customer base suffered accordingly. In 2008, Borders ended the outsourcing relationship and reclaimed ownership and operations of the Borders.com website, but by then it was too late; the company's e-commerce strategy was in shambles, its Web experience and functionality were far inferior to Amazon's, and customer loyalty had eroded.

In contrast, Amazon has turned its Web expertise into a platform for commerce, adopting an "open platform approach" with its Fulfillment by Amazon (FBA) service that allows third-party merchants to sell their products via Amazon's website. In fact, most of Amazon's profits come from the independent vendors who sell through Amazon's marketplace.⁴² Yet Amazon didn't stop at just letting third parties sell products on Amazon's site. As with Borders.com, Amazon further monetized its online retail expertise by becoming an infrastructure supplier, managing the online websites of thousands of third-party retailers.

Ultimately, Amazon disintermediated brick-and-mortar book retailers such as Borders through its online book retailing approach. Yet the next wave of technological evolution threatened to imperil this business model as well by digitizing books, transforming them from printed paper to atoms. However, Amazon was at the forefront of – if not itself the key driver of – this revolution as well, spearheading the shift to digital books by launching the Kindle e-reader. As *The Economist* summarized, "Amazon has changed publishing twice – first by making any book in the world quickly available, and then by making e-books mainstream."⁴³ In fact, as Bezos once noted, "Amazon is in the business of putting Amazon out of business," meaning that he wants to be the one disrupting Amazon's existing business model (i.e., selling physical books over the Internet) before a competitor comes along and does it with a technology such as digital books and e-readers. In contrast to Amazon, Borders' e-reader, Kobo, failed spectacularly, never gaining traction in the marketplace.⁴⁴

Business model

Ultimately, Borders pursued a single business model: selling books (alongside some CDs and DVDs) through brick-and-mortar retail stores to the North American marketplace. And although Amazon began life as an (online) bookseller, from the beginning its vision was more ambitious in both scale – to serve the global market – and scope – to sell much

more than just books. Both the scale and scope vision have come to fruition. Not only is Amazon America's largest online retailer – today it's also the leading online seller in Europe and Japan and is making significant inroads into the Chinese market.⁴⁵ At the same time, as Berkeley's Chesbrough notes, "Amazon would be a much less important company today if it had contented itself with just selling books."⁴⁶ Today, Amazon has become what (the innovation consultancy) Innosight's Scott Anthony calls "a *serial* business model innovator."⁴⁷ As Mark Johnson writes in *Seizing the White Space: Business Model Innovation for Growth and Renewal*, one of the secrets to Amazon's success has been its constant willingness to pursue growth in its "white spaces" – the range of potential activities not defined or addressed by the company's current business model.⁴⁸ And in fact, Amazon does not have a single business model; it has a number of business models that it has innovated over time. As market analyst Benedict Evans puts it (and this section subsequently elaborates), Amazon is actually "a portfolio of businesses of varied maturity. These are in different industries, at different stages of development, in different markets, with different underlying economics."⁴⁹

Nevertheless, Amazon was initially known for its long-tail business model that made the online bookselling approach so powerful. Chris Anderson coined the term "long tail" in his eponymous 2006 book, *The Long Tail: Why the Future of Business Is Selling Less of More*.⁵⁰ As Osterwalder and Pigneur write, the long-tail business model recognizes that "aggregate sales of niche items can be as lucrative as the traditional model whereby a number of bestsellers account for most of the revenues."⁵¹ Successful long-tail business models leverage low inventory costs and strong platforms to make niche content readily available to interested buyers.

Amazon sold its first book online in 1995. In its early years, Amazon concentrated on selling books and refining its internal processes for processing orders in its computer order entry systems. As Chesbrough notes, "once these processes were up and running and beginning to achieve significant economies of scale," Amazon started looking for new sources of growth. In 1998, it added music CDs and videos to its website; in 1999, toys, electronics, tools, and software; and, in 2000, cell phones, kitchen products, and lawn and patio products.⁵²

But Amazon was already looking to diversify its business model beyond simply selling goods online. By the late 1990s, Amazon realized it could monetize the e-commerce platform it had created through third parties. In 1999, Amazon's business model morphed from direct sales to sales-and-service, as the company launched commission-based brokerage

services to buyers and sellers of used books and started allowing third-party sellers to sell products on Amazon.com.⁵³ In 2002, Amazon introduced its Web services platform: low-cost and reliable online services for other sites and web developers. Today, Amazon's FBA service allows independent merchants to not only sell their products through Amazon but also to ship them through Amazon's supply chain. With these moves, Amazon began monetizing "the platform for commerce" it had created by managing the e-commerce websites of other companies, including competitors such as Borders.

In 2007, Amazon launched its Kindle e-reader, hastening the rapid emergence of e-books. Today, e-books account for more than a tenth of all spending on books in North America, and Amazon.com sells half of its book titles electronically.⁵⁴ The Kindle also enabled a new form of business model for Amazon by enabling transaction-based content delivery and a subscription model for periodical content.⁵⁵ In 2011, Amazon entered the tablet market with the Kindle Fire, which it views as an "advanced mobile portal" to Amazon's cloud service, and a key channel for Amazon's Prime Service, which offers unlimited streaming of its library of movies and TV shows and the right to "borrow" a digital book once a month.⁵⁶ Amazon has pursued a razor-and-blades business model with the Kindle, selling its hardware at roughly breakeven prices while seeking to monetize through customers' purchase of media content via the device.⁵⁷

In 2006, Amazon began renting computing capacity by the hour as a pay-as-you-go, cloud-based service. That offering, which grew into Amazon's Web Services (AWS) division, today delivers a set of services that together form a reliable, scalable, and inexpensive cloud-computing platform, which became an estimated \$5 billion business for Amazon.⁵⁸ In November 2012, Amazon introduced a new data warehousing service at one-tenth the cost of existing solutions.⁵⁹ AWS has unleashed the innovation potential of thousands of start-up (and existing) companies by dramatically reducing the cost of computing, enabling companies to consume information technology and computing capacity on a variable rather than fixed-cost basis.

In late 2010, Amazon launched Amazon Studios, which develops original feature-length films and episodic television shows on a crowd-sourced basis from online submissions. The content is distributed through Amazon Instant Video, and as of April 2013, Amazon studios had 14 pilot shows in production. Amazon is betting it can leverage its extensive data mine to improve on the traditional TV development

process by collecting viewer feedback in unprecedented ways and using it to make less risky bets on which shows to produce.⁶⁰ Amazon Studio's first series, *Alpha House*, was selected from thousands of scripts with the help of Amazon customers who reviewed the shows. And in 2012, Amazon entered the content-generation side of the business by launching its own book-publishing business.

And as *The Wall Street Journal* noted in July 2014, Amazon's "boundless ambition" continues in "an exceptionally busy year" that has seen "the Seattle retailer launch a set-top box for home video streaming, a wand for shopping for groceries from home, a document-sharing service for businesses, a music-streaming option, an unlimited e-book subscription, and an Amazon-branded smartphone."⁶¹

Involved in so many different businesses, Amazon clearly does not appear to operate a single, unifying business model. Nevertheless, Amazon's unifying business strategy has been to continually reinvest revenues into the next generation of products and services, an approach that has rankled some investors by consistently curtailing Amazon's profits, particularly recently with the company's multibillion-dollar investment in new fulfillment centers. As Matthew Yglesias of the online magazine *Slate* recently wrote, "Amazon, as best I can tell, is a charitable organization being run by elements of the investment community for the benefit of consumers."⁶² Or as Forrester Research analyst Sucharita Mulpuru put it in a *New York Times* article, "There is no other company in the entire world that has the consistently abominable rate of profitability they do and yet has the stratospheric valuation they do."⁶³

Yet, as Jeff Bezos articulated as early as his 1997 Letters to Shareholders, in which he noted that "the fundamental measure of our success will be the shareholder value we create over the long term," it's this long-term thinking – all too rare in American industry today – that's actually at the core of Amazon's business model. As Bezos elaborated for *60 Minutes*, "The long-term approach is rare enough that it means you're not competing against very many companies. Because most companies want to see a return on investment in one, two, three years, while I'm willing [to wait to generate profits] for five, six, or seven years... just that change in timeline can be a very big competitive advantage."⁶⁴ Complementing Bezos' long-term strategy has been his willingness to invest in very low-margin (or in some cases even no-margin) businesses (e.g., cloud-computing services), recognizing that if Amazon can achieve vast scale in those sectors it can create high barriers to entry for potential competitors, allowing it to gain substantial market share

and eventually turn even low-margin businesses into highly profitable ones.⁶⁵

Or, as Bezos summarized Amazon's strategy in his 2012 Letter to Shareholders, actually quoting and responding directly to the Yglesias critique:

Our heavy investments in Prime, Amazon Web Services, Kindle, digital media, and customer experience in general strike some as too generous, shareholder indifferent, or even at odds with being a for-profit company... [But] more fundamentally, I think long-term thinking squares the circle. Proactively delighting customers earns trust, which earns more business from those customers, even in new business arenas. Take a long-term view, and the interests of customers and shareholders align.⁶⁶

Value

Borders endured for 40 years, but it could not adjust its business model to the digital age (which is particularly ironic since information technology management was once one of Borders' core competencies), the company liquidating its last 200 stores in bankruptcy in September 2011. Yet as Jeff Bezos notes, "Amazon has not happened to book selling, the future has happened to book selling."⁶⁷ Successful innovators must stand in the future and craft a vision of a world transformed, but Borders' managers failed to successfully address the challenges the digital age posed to Borders' business model.

In contrast, Amazon has succeeded through constant reinvention, reinventing itself through at least five major transformations over the past 15 years. Intel's Andy Grove once commented, "only the paranoid survive," and this is certainly the mindset with which Jeff Bezos has operated Amazon. As Bezos explains Amazon's approach, "We are culturally pioneers. We like to disrupt even our own business. Other companies have different cultures and sometimes don't like to do that. Our job is to bring those industries along."⁶⁸ Amazon recorded \$78 billion in revenue in 2013 and is now valued at over \$140 billion. Its price to earnings (P/E) ratio has exceeded 3500 at times and in the past five years it has produced \$10 billion in free cash flow.⁶⁹ It's clear that Amazon has forever changed the way in which we purchase, consume, read, watch, and listen to books, movies, music, and even Web services.

Conclusion

In summary, Amazon bested Borders on every one of the nine elements of the Service Innovation Triangle, outperforming Borders at each layer of the SIT – innovation capacity, innovation ability (i.e., management), and value. There are many lessons to take from Amazon. Amazon is a serial business model innovator, relentlessly focused on the customer, that has truly set the pace for innovation in the modern knowledge economy. Amazon has redefined the modern understanding of retailing, transitioning from a sector- or product-specific retailing approach to a “retailing-for-all-sectors” approach. Amazon has been unafraid to disrupt established industries, to not just enter but even create new markets, and to constantly experiment with new product offerings and business model approaches. Yet Amazon’s success in the future is no more assured than its success was in the past. Its profit margins are slim and it faces hungry competitors in not just Alibaba, Ebay, Google, and Walmart, but scores of start-ups such as Instacart, looking to chip away at Amazon’s fortress. It must continue to relentlessly innovate and hungrily compete. As Bezos confided to Charlie Rose in the December 2013 *60 Minutes* interview, “Amazon will be disrupted one day. I don’t worry about it because I know it’s inevitable. Companies come and go. And the companies that are the shiniest and most important of any era, you wait a few decades and they’re gone ... But it’s my job is to delay that date for as long as possible.”⁷⁰

11

Facebook and MySpace: The Importance of Social Networks

In the mid- to late-2000s, Facebook and MySpace competed to be the leading social networking destinations on the Internet. Chris De Wolfe and Tom Anderson launched MySpace in August 2003, originally conceiving the site as a way for friends and fans to connect with one another as well as with their favorite bands and artists.¹ Founder Mark Zuckerberg launched Facebook about six months later, in February 2004, and though it initially grew more slowly than MySpace, it soon shot past MySpace with a spate of key innovations. In fact, in 2006, MySpace controlled 80 percent of the weekly share of visits to social networking sites in the United States, compared to less than 10 percent for Facebook. Yet today, Facebook has attracted over 1.3 billion users – one-fifth of the world’s population – becoming the busiest and most-visited website on Earth. MySpace has clearly been eclipsed by a rival that Rupert Murdoch (whose News Corporation acquired MySpace in August 2005) once dismissed as “a communications utility.”² With social networking now the most popular activity on the Internet, this case illustrates the importance of social media to the modern economy and explains how Facebook beat MySpace to become the most popular social media destination on the Internet.

Facebook bested MySpace on at least seven of the nine elements of the Service Innovation Triangle, and in particular with regard to the Customer Experiences, Technology, People, Business Model, and Value elements. In fact, it was precisely because Facebook was able to effectively leverage technology in order to create a superior customer experience – for both its members and advertisers, thus enabling it to craft a bi-directional business model that created meaningful value for all stakeholders involved – that Facebook was able to beat MySpace and experience such tremendously rapid growth. This case study begins by examining the customer experience offered by Facebook and MySpace, then explains

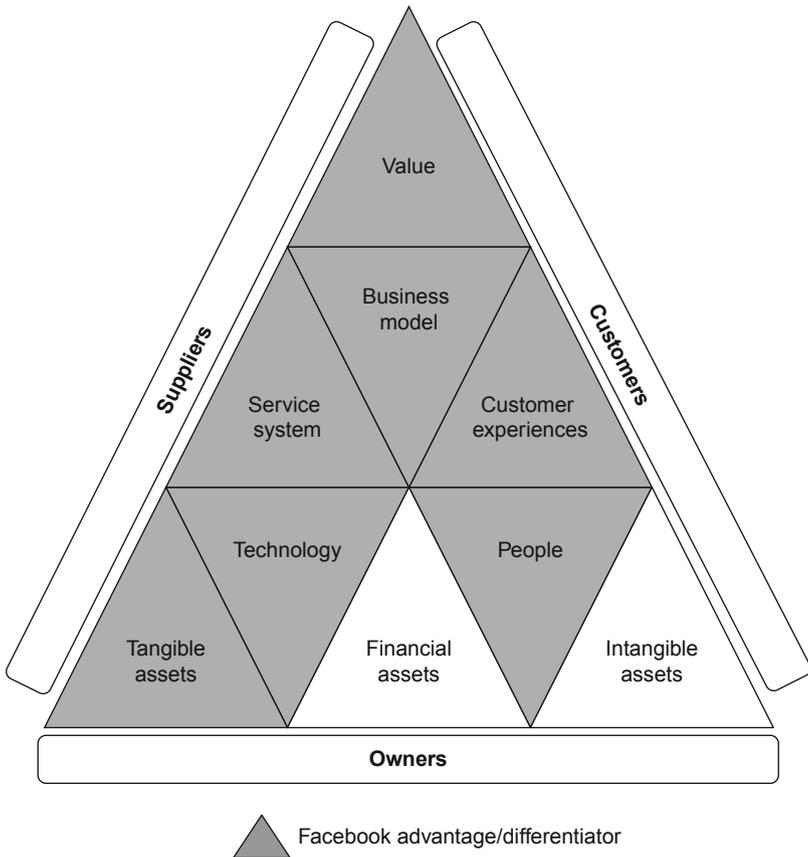


Figure 11.1 Comparing Facebook to MySpace on the Service Innovation Triangle

how this customer experience was enabled (or compromised) by technology and people, and finally articulates how – at least in Facebook’s case – this all came together in an effective social networking business model that created value for all parties.

Customer experiences

MySpace was actually the second significant social network to go online (and Facebook the third). The first significant online social network was Friendster, which went live in March 2003, about six months before

MySpace. But Friendster was a closed network – each person could only see the profiles of their friends – and it was slow, its pages taking as long as 40 seconds to load. This created an opening for MySpace, which offered an open system where any member could see everyone else's profile, and this led to MySpace's early explosive growth, as its unique visitors rocketed 155 percent to 55.8 million from July 2005 to July 2006.³ MySpace also found quick early success as independent bands used the site to interact with their fans, with MySpace becoming widely known for its many fan pages (filled with tracks, videos, blog postings, fan commentary, and artwork) linking the bands with their audiences.⁴

MySpace let members design their own unique pages with widgets, songs, videos, etc. in whatever design format they pleased. But as *CNN Money's* Kevin Kelleher observed, this resulted in “a vast wasteland of cluttered and annoying pages that were as garish as the self-designed home pages on MySpace's 1.0 predecessor, Geocities.”⁵ Moreover, because MySpace had not designed an attractive advertising interface on its pages or given advertisers the capability to effectively target their advertisements, members were “constantly bombarded by ads” and these factors combined to create an inferior user experience.⁶ In 2005, *The New York Times* described MySpace as having the personality of an online version of a teenager's bedroom, a place where the walls are papered with posters and photographs, the music is loud, and grown-ups are an alien species.⁷ Indeed, MySpace's “aesthetic came to be seen as cluttered and unwieldy, like a locker door.”⁸

In contrast, Facebook created a dominant theme of a “cleaner, Google-like interface that resonated with a broader audience” and the structured, uncluttered design of Facebook's Web interface quickly created a superior experience to that offered by MySpace. (At the time, Facebook placed four ads per page displayed, but unlike the large, animated banners on MySpace and most other sites, they were presented as thumbnail-sized images next to the text). As Facebook expanded, “new features appeared piecemeal: email, instant messaging, and then live feeds of their activities.”⁹ This design structure continued to appeal to the mainstream public, allowing Facebook to transition from an exclusive college-only subgroup to anyone with an email address.

Noteworthy about Facebook's customer experience development process (like that of Amazon's and Google's) has been the company's constant focus on experimentation to simultaneously improve the experience for its members and advertisers alike. As Kelleher notes, “It took Facebook several site redesigns that gradually altered user behavior until

they consented to share more private details and even began to treat advertisers like friends.”¹⁰

At the same time, Facebook has concentrated as much attention on the advertiser’s experience as the consumer’s experience, recognizing that the advertiser’s experience is just as important. As Kelleher explains, “Facebook didn’t just collect user data to target ads, it studied how people interacted with their Facebook friends, how companies could design ad campaigns that could allow them to interact with consumers in similar ways, and how some ad campaigns take on a viral appeal.”¹¹ A good example of this was Clorox’s success in attracting widespread participation to its Clorox “Green Works” marketing campaign. Clorox marketed its new line of Green Works cleaners by asking Facebook members to nominate and vote on “green heroes” in their community who would receive grants. The campaign drew 400 entries and 20,000 votes.¹² By 2014, Facebook’s Chief Operating Officer Sheryl Sandberg boasted that Facebook ads “were the most efficient” in a test conducted for Coca-Cola, which pitted Facebook ads vs. Coca-Cola’s national television ads.¹³

Service system

As noted, when evaluating the customer experience provided by Facebook and MySpace, it’s vital to consider the experience of both members *and* advertisers. Here, too, advertisers encountered a much better experience using Facebook. Facebook allowed basic advertisements to be placed in under ten minutes and helped advertisers target their ads to the exact audience they desired. Moreover, Facebook made it easy for its advertisers to learn how to use and get the most out of their advertisements. For example, Facebook provided tutorials to help advertisers design more effective ads and get “customizable, granular data that encouraged them to experiment with their advertisements.” In contrast, MySpace’s cluttered pages weren’t particularly attractive for advertisers, and MySpace’s process for loading advertisements and targeting them to specific members was neither easy nor user-friendly. Put differently, Facebook created a superior service system for its advertisers.

Technology

Facebook far outpaced MySpace in leveraging technology to enhance the features and functionality of its website and subsequently in supporting mobile device interfaces. For example, Facebook was the first to introduce “newsfeeds” that automatically sent a member’s content entries such as

updates, comments, links, and likes to friends and vice versa. Critically, this meant that a member didn't have to visit everyone else's pages to discover what was new. It would take MySpace 18 months to introduce a similar newsfeed feature after Facebook had first done so.¹⁴ Another critical Facebook innovation was allowing users to tag each other in photos. Launched in 2006, it was photo tagging that caused "user engagement to take off like a rocket. Suddenly, 70 percent of users started coming back every day, 85 percent every week."¹⁵ Likewise, in May 2007, Facebook opened its network to third-party developers who created applications such as *Farmville*, greatly expanding the range of social networking activities available to its members. In contrast, though MySpace executives repeatedly promised the site would open its platform to developers, a series of missteps and missed deadlines caused MySpace to lag one year behind Facebook in opening its system to third-party application developers. As *The Globe and Mail's* Yinka Adegoke noted, "In hindsight, this was a key turning point: Facebook quickly became the place for people to play games like *Farmville* with their friends, as well as share photos and communicate."¹⁶ Another challenge for MySpace was that the Web development platform it coded on wasn't the most stable and developer friendly. As one former MySpace executive admitted, "There was a tremendous platform stability problem with the site."¹⁷ In fact, it took a developer ten to fifteen times longer to code an application on MySpace than on Facebook.

Ultimately, Facebook was able to design simple, wildly popular features even as MySpace's platform became "overwhelmed and buggy" and this increasingly attracted ever more third-party developers to Facebook over MySpace. In summarizing Facebook's technological lead over MySpace, one former MySpace executive asserted, "Zuckerberg's great strength was that he and his team were focused on product development and innovation while MySpace had become too concerned with revenue and meeting traffic targets of its Google deal."¹⁸ As Jeremiah Owyang, an analyst at Altimeter Group, frames it, "MySpace was clearly the dominant player, but unfortunately never innovated and got complacent."¹⁹ Or, as Michael Saylor, CEO of enterprise platform software provider MicroStrategy, explains it, "Facebook outpaced MySpace [and other social networks] by understanding what makes a social network work, and by creating a technology that could scale to massive levels."²⁰

Today, Facebook's platform supports more than 1 million developers hailing from more than 180 countries, with more than 550,000 applications operating on Facebook's platform.²¹ More than 150 million members now access Facebook through mobile devices,²² and the

company works with 200 mobile operators in 60 countries to deploy Facebook's mobile products.

People

Facebook proved consistently able to attract more superior talent than MySpace. MySpace was located in Los Angeles, which “was not a hotbed for developer talent” and in part because of this MySpace “had difficulty attracting top-flight engineers.”²³ MySpace's difficulty in attracting talent only worsened over time, particularly after its 2005 acquisition by News Corp, which had difficulty offering attractive incentives or stock options in recruiting (due to News Corp policies). Another problem for MySpace was News Corporation's decision to move MySpace's offices from Santa Monica to a building in Beverly Hills (that was originally intended to be a medical facility) and where there were many fewer restaurants nearby, a consequence of which was that MySpace employees started leaving work early to eat and did not return until the next day.²⁴

In contrast, Facebook, located in Silicon Valley – perhaps the world's leading technology cluster for innovative information technology firms – has become “a magnet” for top-flight engineering and technical talent. Tucked away in Los Angeles, MySpace simply didn't have access to the best talent flowing out of universities such as Stanford and Berkeley that permeated the Silicon Valley innovation ecosystem. The innovation culture of the Valley simply flowed through Facebook in a way it didn't in Beverly Hills. One way Facebook gets engineers integrated into its culture is through its “Engineering Bootcamp,” where every new engineer goes through six weeks of training to get familiarized with Facebook code, information architecture, products, and culture. Though there is a separate engineering bootcamp, all new Facebook hires go through some version of the introductory bootcamp.²⁵

Business model

Facebook has been able to successfully deploy what Osterwalder and Pigneur in their book *Business Model Generation* call a “Multi-Sided Platform” business model. The authors note that multi-sided platforms bring together two or more distinct but interdependent groups of customers and create value by *facilitating interactions* between the different groups. Such platforms are of value to one group of customers *only* if the other groups of customers are also present. Multi-sided platforms can be particularly powerful because their value grows to the

extent they attract incrementally more users, a phenomenon known as the network effect.²⁶

Facebook's business model – just like MySpace originally intended – is predicated on generating revenues from advertisements sold through its social networking platform. Facebook leverages aggregated information about the lives of its hundreds of millions of users to help advertisers place relevant advertisements next to pictures and stories posted by members. In fact, in 2011, 85 percent of Facebook's revenues were generated from advertising.²⁷ (Facebook also generates revenue by selling to advertisers aggregated personal data shared by users.)

Of course, the network effect is essential here, as Facebook becomes a more compelling platform through which advertisers can connect with customers, the larger the number of members Facebook attracts. However, this “economies of scale” dynamic applies in attracting not just advertisers, but members as well: people don't want to check multiple social networks everyday when one will do, and they're likely to choose whichever one appears to be the most popular.²⁸ This “economies of scale” dynamic creates a tremendous lock-in effect for Facebook, as users have the “install base” of their history (and that of their connections) on their Facebook profile (or “social graph”).

And this was a key difference between Facebook and MySpace. MySpace was never able to attract a critical mass of users, its base topping out at the 100 million users per month it reached in 2006.²⁹ And, as noted, MySpace was never able to offer an attractive environment for advertisers. Its advertising management system didn't effectively capture the data necessary to enable advertisers to launch targeted marketing campaigns. In part as a consequence, MySpace's advertising click-through rates, at just 4 in 10,000, were but one-fifth the industry average (for online search engines).

Paradoxically, MySpace also became hamstrung by a seemingly breakthrough deal it brokered with Google in 2007. Google agreed to pay MySpace \$300 million a year for three years for MySpace generating a specified number of user visits from its site to Google. Naturally, this seemed to be a tremendous win for MySpace at the time. But, ironically, entering into the relationship actually ended up compromising MySpace's ability to innovate, for it had to meet its commitments to Google, and this constrained MySpace's opportunities to experiment with new designs and interfaces without forfeiting revenue. As a MySpace executive close to advertising sales explained, “It was a good deal in the short-term, but in the long-term it ended up not being so good. We were incentivized to keep page views very high and ended up

having too many ads plus too many pages, making the site less easy to use than a site like Facebook.” As Adegoke explains, meeting “quarterly revenue targets for the parent company [News Corp] was simply too pressing to lose advertising dollars while engineers tinkered with the site.”³⁰ MySpace then-CEO De Wolfe noted how difficult a conundrum this presented for MySpace at the time: “The paradox in business, especially at a public company, is: when do you focus on growth and when do you focus on money? We focused on money and Facebook focused on growing the user experience.”³¹ Still, it would have been better if MySpace had reached a deal with Google similar to the flexible deal Facebook negotiated with Microsoft, which was based on revenue sharing rather than revenue guarantees.³² As *Time*’s Ben Bajarin aptly concluded, MySpace’s “monetization strategy was poor and because of that the site went downhill.”³³ MySpace’s revenues, which peaked in 2008, would never exceed \$900 million. One other challenge for MySpace’s business model was that it was never able to tap into a more affluent user base. In fact, MySpace’s main demographic was consistently Americans earning less than \$25,000 a year.³⁴

In contrast, Facebook’s business model leverages a powerful combination of network effects, economies of scale, switching costs, and mass customization appeal. One way Facebook’s model is particularly compelling is that it permits users to do much of the work. Indeed, it is Facebook’s 829 million active daily users – of those in the United States, 10 percent of whom update their status daily – who generate the meaningful content and value for each other.³⁵ More broadly, Facebook’s business model is compelling because Facebook provides a *platform for commerce* that enables its partners (the third-party application developers whose applications Facebook members use as well as the businesses advertising on Facebook’s site) to make money alongside Facebook. Facebook takes 30 percent of the revenues generated by third-party companies leveraging Facebook’s platform, such as online games developer Zynga, which earned 10 percent of its revenues from Facebook in 2011. Facebook’s revenue from third-party partners reached \$500 million in 2011.³⁶

The power of Facebook’s business model is apparent in its earnings. It took Facebook just six years to go from zero to \$1 billion in revenue. Facebook’s revenues reached \$3.7 billion in 2011, with the company earning enormous margin, as its cost of goods sold, at \$860 million, were just 22 percent of the firm’s revenues that year.³⁷ In FY 2013, Facebook posted \$1.5 billion in profits on revenues of \$7.87 billion, an increase of 55 percent year over year.³⁸ From the second quarter of 2013 through

the second quarter of 2014, Facebook generated \$10 billion in revenue.³⁹ Facebook's market capitalization stood at \$194 billion as of August 2014. And Facebook is drawing revenues from around the world, as 50 percent of Facebook's revenues in the first quarter of 2012 were generated outside the United States and Canada. (Of monthly active users, those outside the US and Canada represent 80 percent of the total.) One additional advantage for Facebook has been its ability to reach more of a professional/middle-class audience than MySpace proved able, giving Facebook access to a demographic more heavily prized by advertisers.

Ironically, one of the keys for Facebook has been learning from MySpace's mistakes.⁴⁰ Back in 2007, Facebook was deemed the "worst-performing site" for advertisements, with click-through rates of 0.04 percent, or 4 clicks per 10,000 page views, just as bad as MySpace's record.⁴¹ But Facebook's constant efforts to improve social advertising methods started to generate success. By 2009, companies that could entice users to their wall pages started seeing click-through rates as high as 6.5 percent.⁴² Some companies, such as Japanese airline ANA, which targets its ads to travelers who like Japanese culture, have achieved ad click-through rates as high as 25 percent.⁴³ Under pressure to increase revenues since going public, Facebook recently changed its online advertising approach from displays on the right-hand side of the screen to integration of 20 advertisements per page within the user's "newsfeed" view.

Indeed, advertisers are spending dollars to reach the commercial base inside Facebook. A 2010 presentation by Shop.org claimed that 68 percent of North American business-to-consumer companies have acquired at least some customers through Facebook.⁴⁴ That's possible because 90 percent of corporate websites now link to their social media accounts.⁴⁵ One million websites have integrated with Facebook. Facebook has also become an important traffic driver for many retailers' websites. For instance, in September 2010, just 1.9 percent of traffic to clothier Burberry's website originated from Facebook; a year later, 29.1 percent of site traffic originated from Facebook's social network.⁴⁶ Maureen Mullen, Director of Research and Advisory Services at luxury research and consulting firm L2, notes that, "[Burberry is] using the platform to drive traffic at a fraction of the cost of what it would have to pay on Google and other search engines." She also notes that half of shoppers are logged in to Facebook while they shop on third-party e-commerce sites, which lets retailers "capture the massive amount of user data Facebook has."⁴⁷ In January 2011, Booz & Company predicted that what it calls "social commerce" – physical goods sold through social networking sites – will

only continue to grow, ballooning from \$5 billion in 2011 to \$30 billion by 2015, with Facebook contributing a majority of sales.⁴⁸

And Facebook is increasingly trying to make shopping a social experience. As Facebook's Director of Global Communications and Public Affairs Debbie Frost argues, there have been three paradigm shifts on the Web since the 1990s. The dominant model in the 1990s was using the Web to browse, through portals or directories; in the 2000s, it was using the Web to search; and, Facebook argues, the Web in the 2010s will be about discovery, and in particular helping people to discover new things in part through the wisdom of their friends, who are capable of making more personalized recommendations.⁴⁹ Such "social shopping" has become increasingly popular. For example, a study published by eMarketer.com showed that 81 percent of teenage girls use their friends and peers as a source of trend information and 45 percent seek the opinions of those same groups when purchasing clothing or footwear.⁵⁰

However, three key challenges for Facebook's business model going forward will be whether it can monetize users accessing Facebook through mobile devices, including smartphones and tablets; whether it can continue to truly help tailor advertising to users' desires and needs; and whether it can maintain its lofty image with younger consumers. Regarding the first, an ever-increasing percentage of Facebook's over one billion users – upwards of 70 percent – access Facebook through mobile devices, and the limited screen space on mobile applications makes this a more difficult environment for advertisers.⁵¹ As *Forbes* contributor Christopher Versace writes, "the increasing shift to mobile from desktop is a critical one for Facebook and the inability to overcome it could threaten long-term prospects for its revenues, profits, and shares."⁵²

But Facebook appears to have risen to the mobile challenge. From only having begun to start placing ads on its mobile website and applications in 2012, by 2014 Facebook has produced "one of the best mobile products in digital marketing."⁵³ In the second quarter of 2014, 62 percent of Facebook's total revenues were generated by mobile advertisements.⁵⁴ Today, Facebook commands 18 percent of the almost \$18 billion US mobile advertising market (second only to Google), doubling its share over the past year.⁵⁵ As RBC Capital Markets analyst Mark Mahaney contends, "What Facebook has done with mobile is one of the most impressive things I've seen an Internet company do in recent years."⁵⁶

A second potential challenge is that over the past several years Facebook has been hit by an increasing number of companies, including Gap, J.C. Penney, Nordstrom, and Gamestop, that have all opened and closed storefronts on Facebook's social networking site.⁵⁷ As Professors

Peter Fader and Stephen Hoch of the Wharton Business School at the University of Pennsylvania argue, "Allowing users to shop while engaging in social media sounds good in theory, but the results have been poor."⁵⁸ They point out that many retailers' merchandise selections on Facebook are the same as on their own sites, offering little incentive for users to engage in shopping while socializing online. That said, the professors acknowledge that many retail brands still believe Facebook retains an incredible "reach" that allows them to "engage with a larger audience than the one already engaged with the brand's internal website."⁵⁹

Finally, Facebook will be challenged to maintain its status as a hip destination for the trendsetting young consumers that powered Facebook's rise in the first place (and whom access to is coveted by business marketers). For example, an extensive 2013 Global Social Media Impact Study conducted across eight European nations found Facebook "dead and buried" to older teenagers, as they moved to services such as SnapChat, Instagram, Twitter, and WhatsApp. Ironically, this trend among teenagers appears to be not driven by their concerns about privacy or the commercial use of personal information, but by their dislike of being on the same social media platform as their parents. As Daniel Miller, a lead author of the European study, framed it, "What appears to be the most seminal moment in a young person's decision to leave Facebook is receiving a friend request from their parents."⁶⁰ Disconcertingly, more than 11 million young people have left Facebook since 2011, with Facebook having 4.3 million fewer high-school-aged users and 7 million college-aged users in January 2014 than it did at the end of 2011.⁶¹ A January 2014 Princeton University research study, "Epidemiological Modeling of Online Social Network Dynamics," starkly presents the challenge by comparing the "adoption and abandonment dynamics" of social networks using epidemiological frameworks.⁶² Tracing the rise and fall of MySpace, they argue that if "idea manifesters ultimately lose interest with the idea and no longer manifest the idea" (i.e., young influencers losing interest), then "Facebook will undergo a rapid decline in the coming years, losing 80 percent of its peak user base between 2015 and 2017."⁶³ Nevertheless, the *Wall Street Journal's* Reed Albergotti contends that Facebook's strong Q1 and Q2 2014 earnings, especially through mobile advertising, have "put to rest, at least for a while, concerns about whether teens are abandoning Facebook for what they consider hipper services."⁶⁴ Moreover, Facebook has co-opted some of the "defectors" through its \$1 billion 2012 purchase of Instagram's photo-sharing application and through its February 2014 \$19 billion purchase of instant-messaging service WhatsApp, in a play to dominate instant messaging on the phone and Web.⁶⁵

Still, for all these challenges, MicroStrategy CEO Michael Saylor maintains Facebook is only starting to reach its stride. He points out that, “Facebook holds the world’s richest repository of consumer demographic and psychographic data. Businesses will tap into that data to create an array of new ‘friendly applications’ that tie businesses to consumers in more rewarding and loyal relationships.”⁶⁶ For example, Gartner Vice President of Research Doug Laney estimates that by 2011 alone Facebook collected over 2.1 trillion pieces of “monetizable content” such as “likes,” posted material, and comments.⁶⁷ And as Forrester Research analyst Nate Elliot argues, “Facebook knows more about their users than any company has ever known about a population.”⁶⁸ For his part, Saylor further argues that:

Going forward, Facebook is poised to benefit from the confluence of two of today’s major technological currents: the universal access to mobile computing and the pervasive use of social networks. Social networks radically increase the use of computing devices, while mobile computing simultaneously increases the usefulness of social software. It’s a virtuous cycle that magnifies the impact of both waves.⁶⁹

Financial assets

Financial assets do not seem to play a significant differentiating role in explaining the success of Facebook vs. MySpace. If anything, especially after its acquisition by News Corp, MySpace had access to significantly greater financial resources than Facebook did. MySpace could probably have benefitted from some extra money in its scale-up phase (e.g., to purchase additional servers to better handle site load), but, in the end, both firms had access to the capital they needed, and capitalization does not play a significant role in explaining why Facebook succeeded where MySpace failed.

Tangible assets

As with financial assets, access to or leveraging of tangible assets does not play a significant role in explaining the differing levels of success between Facebook and MySpace. As digital companies offering their services in an online, virtual environment, these companies were less reliant on tangible assets. However, one way MySpace was disadvantaged with regard to tangible assets is that at times it wasn’t able to quickly enough bring on information technology equipment to scale-up. As one

MySpace executive admitted, “There was tremendous trouble scaling. We couldn’t get servers into the building fast enough.”⁷⁰ However, this appears to have been more of an operational (i.e., a service system) challenge than a capital or tangible assets challenge.

Intangible assets

Over time, Facebook has come to build a strong brand presence, but certainly initially Facebook’s brand was no stronger or more distinguished than MySpace’s brand. In terms of intellectual property, Facebook’s success hasn’t so much rested on designing highly sophisticated algorithms, such as Google did with its search engines. So while certainly Facebook’s brand has since become quite recognizable and valuable – in fact, Interbrand ranked Facebook as the 52nd best global brand in 2013⁷¹ – in terms of intangible assets, Facebook and MySpace competed from an initial position of parity.

Value

At the end of the day, there’s little debate that Facebook has generated tremendous value – for members, advertisers, and shareholders alike – fulfilling its mission “to make the world more open and connected.”⁷² Early social networks were largely hangouts, but Facebook has become a social universe – a site for pastimes, albums, viral marketing, public announcements, autobiographies, and epitaphs.⁷³ It’s become nothing less than a broadcast medium for members, for everything from births, marriages, and deaths to members sharing their favorite videos, music, books, and photos.

So powerful has Facebook become in its members’ lives that, in 2011, Facebook accounted for 16 percent of the time the average person spent online (an eight-fold increase from the 2 percent of total minutes spent online it commanded in 2007).⁷⁴ According to *Mashable*, Facebook is the third most popular Web application after email and Web browsing. In fact, the average Facebook user spends 29 minutes per day (700 per month) on Facebook.⁷⁵ What’s more, an astounding 50 percent of Facebook’s users visit the site at least once each day, generating over 55 million status updates daily. Facebook users generate 4.5 billion likes and upload 300 million photos daily. One-third of Americans are Facebook members, as are one-fifth of the world’s population.⁷⁶ While MySpace persists and has retrenched and rebranded itself as a “social entertainment site” focused on harnessing digital distribution platforms

for the company's vast news and entertainment content,⁷⁷ it's clear that Facebook has become the modern Web's most dominant – and profitable – social networking site.

Conclusion

This case study has demonstrated how Facebook leveraged the power of modern social networks to build a multibillion-dollar company, creating value for its corporate partners and consumer end users in the process. Facebook bested MySpace on seven of the nine Service Innovation subtriangles: Customer Experiences, Service System, Technology, People, Business Model, Intangible Assets, and Value. Facebook and MySpace stood at parity with regard to Financial Assets and Tangible Assets, and MySpace did not best Facebook with regard to any of the elements of the Service Innovation Triangle. As with the other case studies, Facebook showed particular strength in the Innovation Ability, or management, layer. Facebook translated innovation resources and innovation management into superior innovation outcomes, or value, for clients.

Whether hundreds of millions will log on daily to update their Facebook status two decades hence is difficult to predict; however, Facebook's dramatic growth does highlight the power of social networks while revealing some enduring business lessons. Among these are the importance of an intense focus on creating seamless customer and partner experiences, the effectiveness of information technology-mediated bi-directional business models, and the power of creating platforms for commerce that allow others to make money alongside your firm. Moreover, though a young company that just hit ten years of age in 2014, Facebook has already had to adapt and thoroughly remake itself once, with regard to making itself relevant for mobile business advertisers. And still, for all this and despite its seemingly impressive track record of innovation, *The Wall Street Journal* critiques that, "If there is any other worry about Facebook, it is the company's inability to innovate. It has launched several stand-alone applications, including Poke, Paper, and Slingshot, all of which have received a lukewarm response from users."⁷⁸ Indeed, Facebook's acquisitions of Instagram and WhatsApp were in part an admission that Facebook hadn't adequately organically innovated photo-sharing and messaging services. Which makes a final lesson clear: Competition never ceases, and an innovator's job is never done; a company unwilling to constantly innovate and remake itself, in tune with constantly evolving customer and market demands, is the one not likely to endure.

12

Tesco and Sainsbury's: The Need to Turn Ideas into Action

The world of supermarket grocery shopping may appear to provide a contrast to the high-tech world of Apple, Nokia, Amazon, Facebook, and MySpace. However, the apparently stable low-tech grocery sector is actually hugely competitive and constantly looking to adopt new innovations. This chapter presents an analysis of the components of the Service Innovation Triangle for Tesco and Sainsbury's, two UK supermarket operators that have both gained and lost their competitive advantage over the years. This chapter focuses on service innovation in the UK grocery sector during the 1990s and early 2000s.

Sainsbury's opened its first store on London's Drury Lane in 1869 and has grown to become one of the UK's largest retailers.¹ Sainsbury's grew in the first half of the 20th century to become the leading UK grocery retailer through constant innovation. In the 1950s, they opened the UK's first self-service supermarkets; the 1960s saw them become the first food retailer in the UK to computerize distribution; the 1970s saw an ever-expanding range of food and non-food products and services; the 1980s saw innovations in the introduction of organic products and carrier bags made from recycled material; in the 1990s, the supermarket continued to change but often was behind the market (and Tesco in particular) rather than leading innovation. Thus, Sainsbury's went from being the UK's largest retailer to falling behind an innovative and spectacularly growing Tesco, as the following diagram illustrates.

Tesco, on the other hand, went from strength to strength in the 1990s. Tesco was founded in 1919 by Jack Cohen from a market stall in London's East End.³ Under Cohen, Tesco grew to become a public company with a focus on "pile it high, sell it cheap." This was a differentiated strategy to the more quality-focused Sainsbury's. However, during

Trolley wars

% share of spending in British supermarkets

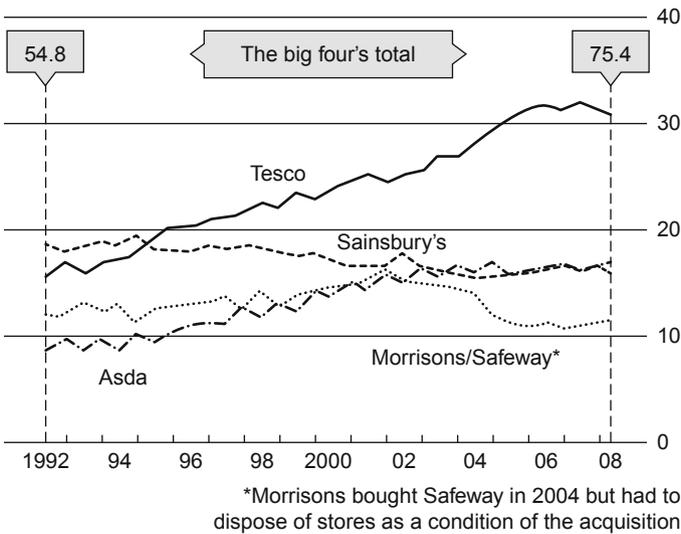


Figure 12.1 Comparing Tesco and Sainsbury's market share, 1992–2008²

Source: Anon (2008). "Briefing: fighting in the aisles." *Economist* (TNS data), May 22, 2008.

the postwar period of the 1950s and 1960s, Sainsbury's was still very good at negotiating with suppliers to keep prices low for consumers but at the expense of profitability.

At the start of the 1970s, the innovation capacity of both retailers was strong, thanks to good underlying resources and assets; however, the innovation ability of Sainsbury's under John D. Sainsbury, later Lord Sainsbury of Preston Candover, was generally stronger leading to better innovation outcomes, most notably in terms of market share.

In 1973, Lord Sainsbury floated the company on the London Stock Exchange to raise more money for investment in the business: all the remaining counter-service stores were replaced with modern supermarkets, the number of UK grocery stores was increased by a third, and the average size of new stores increased by over 400 percent, with a similar quadrupling of product lines available, including increasing the proportion of more profitable private-label (own brand) products from one-third to half of all products. Sainsbury's moved into the US market through the purchase of Shaw's, and more importantly moved

heavily into non-food products through the development of Sava Centre, initially with BHS, and in DIY products through the development of Homebase. The company's market capitalization in 1992 was 70 times the float value in 1973. Sales had grown on a similar scale and profits at almost double the rate. By 1992, Sainsbury's market share had increased from 2.5 percent to 10.4 percent, and it was now the UK's largest retailer.⁴

In 1985, Ian MacLaurin, later Lord MacLaurin of Knebworth, took over the Chairmanship at Tesco. During the late 1980s and early 1990s, Tesco rapidly expanded their number of out-of-town sites, especially on well-connected bypasses and helped by the conservative government relaxing certain planning constraints.⁵

As well as innovating in format expansion, Tesco began to lead the market in other innovations, most notably through the use of customer information. Following the appointment of Terry Leahy, now Sir Terry Leahy, to the Tesco Board in 1992, the loyalty program clubcard was launched in 1995, collecting detailed data on customer purchases that could be used to support decision making within the business. Leahy became chief executive in 1997 and continued to innovate, especially in format development, non-food products, opening hours, internationally, and online, while all the time retaining a perception of low prices relative to the competition.⁶ In 2002, Leahy was quoted as saying:

To foster creativity you have to be able to accept failure. If you find it difficult to accept failure, then you simply won't get any innovation because employees will be too frightened.⁷

In the meantime, Sainsbury's appeared to copy the leader, Tesco, rather than developing unique products and services. Leahy retired from Tesco in 2011, having taken a 20 percent UK grocery market share to 30 percent, as well as expanding internationally. As this case study describes and as Figure 12.2 shows, during the 1990s and early 2000s, despite not having any advantage in the key customer-facing assets of people and brand (Intangible Assets), Tesco beat Sainsbury's on almost every other one of the nine elements of the Service Innovation Triangle. Thus, the SIT can be used as a lens to see how Tesco was able to innovate radically to transform not only the grocery retail sector but ultimately UK retailing in general. This case study examines each of the nine elements of the Service Innovation Triangle in turn, comparing Sainsbury's performance with Tesco during this period.

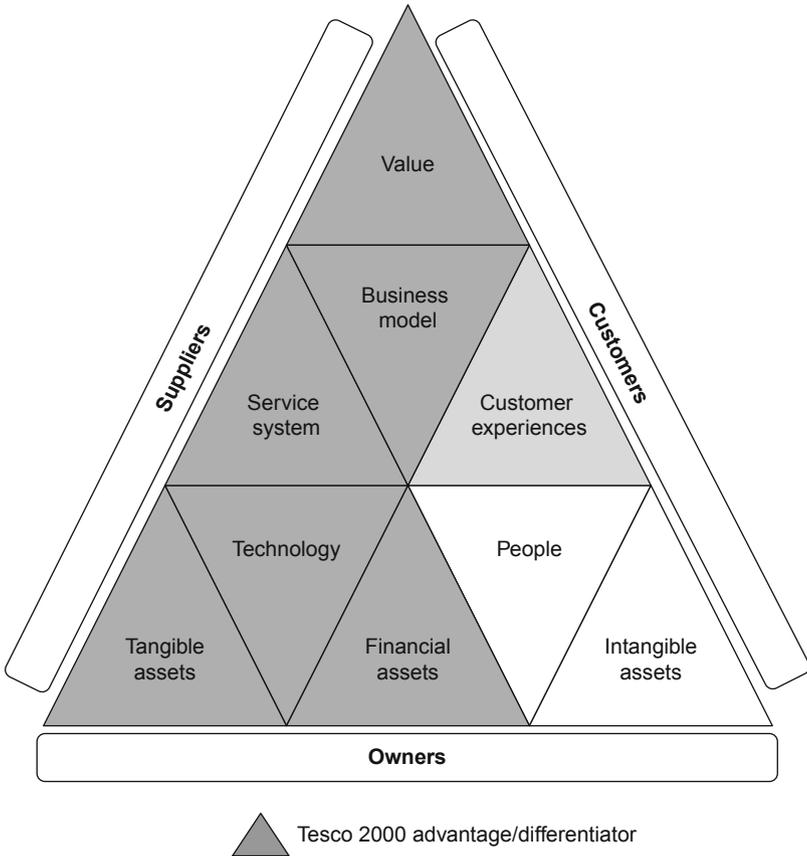


Figure 12.2 Comparing Tesco to Sainsbury's on the Service Innovation Triangle in the early 2000s

Tangible assets

In the 1970s and 1980s, Sainsbury's was the number one grocer in the UK, famed for its continual radical innovation, especially in supply chain management and integrated information technology systems that benefited customers through better availability. Sainsbury's was the first UK grocery retailer to recognize that they could manage their distribution and supply networks better if they integrated them. Their distribution network became the standard for all their competitors to try to match. From a VDSI perspective, Sainsbury's focused on their network

to restructure their organization and so provided a much better service system for their stores and hence their paying customers, with higher availability, lower out-of-stocks, and less stock that was lost, damaged, or out of date. However, in the period under consideration (1990s and early 2000s) for this analysis, Tesco developed their out-of-town stores and other formats and channels to create a much bigger and broader retail infrastructure than Sainsbury's.

Technology

Tesco has similarly developed a competitive advantage through its online grocery service in the UK. In 12 years, Tesco went from zero to around \$3 billion annual sales online of grocery products, providing a profit of almost \$200 million per annum. Each week, 850,000 active customers place more than 300,000 online grocery orders.⁸ This radical innovation came about through the simple organization of managing grocery orders through the extension of adding vans to the existing store infrastructure and supply chain network. Once implemented, several iterations of incremental innovation have grown the service; for example, economically through the provision of more accurate stocking systems and socially through greener deliveries using more environmentally friendly transport and bagless deliveries. Tesco now has sufficient scale within the London area to radically innovate again and reduce the impact on busy stores by centralizing the picking system and moving to a central warehouse rather than an individual store environment.

Process

Innovation as a function of time can be emphasized in three areas. In the pre-launch phase there are issues relating to idea generation (e.g., origin of ideas, quality of ideas, number of ideas, filtering of ideas). At launch, issues relating to the process of innovation are paramount. In the post-launch phase, there is a continuing focus on improving and innovating to offset competition and extend the service life cycle. While the pre-launch phase may lead to disruptive or incremental innovations the post-launch phase is a process of incremental innovations.⁹ Sainsbury's continued to be productive in the pre-launch phase, generating new concepts, but not productive in the launch phase, actually realizing those new concepts. Similarly, they continued to innovate post-launch, incrementally improving the existing products and services but never radically.

Sainsbury's ended up creating lots of new ideas internally but became cautious about innovating until crisis and then innovated in the wrong way focusing on internal issues rather than the external marketplace.

People

It is also worth emphasizing that during Tesco's innovations, its competitors, such as Sainsbury's, often had the same ideas and relevant technology but apparently did not have the management ability within their networks and organizations to successfully implement innovations within the same time frames.

Financial assets, business model, and value

Thus, such competitors, despite their large resources and strong positioning, end up chasing the market rather than leading it because they are either unable or unwilling to develop the necessary innovations on which new value can be created for all customers, suppliers, and owners.

Conclusion

This chapter discusses the situation in the UK grocery market in the 1990s and early 2000s. It is important to note that since 2000, Sainsbury's, through the leadership of Peter Davis and then Justin King, has been much more innovative. However, the innovation under Davis focused inwardly on improving IT and distribution, and proved to be ultimately unsuccessful, while King focused outwardly on the customer.

From the mid-2000s, Sainsbury's started to act more effectively, firstly by focusing on the basics of business through their strategy for "Making Sainsbury's Great Again," and then by focusing on new initiatives for store growth.

To begin with, Sainsbury's cut costs, closed several stores, and refurbished many others. As King said at the time: "Retail is a simple business; we've made it much too complicated."¹⁰ Sainsbury's communicated more with customers, moved away from the technology-focused developments of previous management (e.g., in automated warehouses), and moved back to investing in people, especially at the store level.

After three years of consolidation, Sainsbury's then went on the offensive, opening new stores, extending others, and introducing new non-food products while keeping focused on being a food store, as

well as improving the convenience offer. Sainsbury's innovated within marketing, including the highly successful "Feed Your Family for a Fiver" campaign, while changing their business model in relation to real estate costs.

This conclusion highlights that, over time, winners can become losers and vice versa. It also recognizes that innovation must be based on firm foundations. Throughout Tesco's period of great innovation, there was still a focus on low price; similarly Sainsbury's, under Justin King, could not initially innovate, as basic operations (e.g., putting stock on shelves) were not working.

As the Service Innovation Triangle suggests, successful innovation should produce value-adding activities that balance the business model between service system and customer experiences, while making the best combined use of technology and people, rather than relying on one or the other. Innovation is less about technology and much more about how people employ technology to change the business model, service system or customer experiences. Hence, in a competitive environment with two well-resourced organizations, management ability to innovate is far more important than the actual resources available to innovate. Sainsbury's and Tesco often had similar resources but did not have a similar ability to innovate – and this must be led from the top to enable success.

Therefore, this is a story of the importance of leadership and balance in managing innovation. In such a competitive market, innovation is vital to success. However, it must be innovation that benefits all sides of the triangle: customers, suppliers, and owners. While Peter Davis showed innovative leadership at Sainsbury's, it was not balanced. The focus was on improving the service system for the owners but with a negative impact on customers.

13

Kodak and Xerox: How High Risk Aversion Kills Companies

Kodak and Xerox remain iconic American industrial companies, both founded in Rochester, New York. George Eastman founded Kodak in 1880, while Xerox, originally named The Haloid Photographic Company, was founded a quarter century later in 1906 as a photographic paper and equipment manufacturer. While Kodak and Xerox were not direct competitors (although Kodak did introduce a copier business in 1976 that briefly competed with Xerox), a comparative case study offers a story of two product-centric companies where one survived and proved able to adapt to the digital age by transitioning its business model to a more services-oriented one, while the other could not. As Figure 13.1 shows, when Xerox is compared to Kodak through the prism of the Service Innovation Triangle, Xerox proved able to differentiate itself from Kodak – particularly with regard to its business model, its customer experiences, its management, and ultimately the value it creates for customers, with the companies at parity on other elements of the Service Innovation Triangle, and Kodak at best leading on one of the elements, intangible assets (due to its once world-renowned brand and enviable stable of patents and other intellectual property).

The Kodak versus Xerox case study shows how high aversion to risk – and change – can cripple companies. It illustrates the perils of a company, Kodak, that became defined by its dominant technology and the underlying business and operating model with which Kodak took it to market. And it shows how the inability to adapt to changing technologies, customer needs, and modern business models can doom even a company that once boasted one of the world’s five most-recognized brands. As Larry Keeley, president of the innovation consultancy Doblin, once noted, “Innovation is risky... But what’s really risky is not innovating” – a truism certainly borne out in Kodak’s experience.¹ This

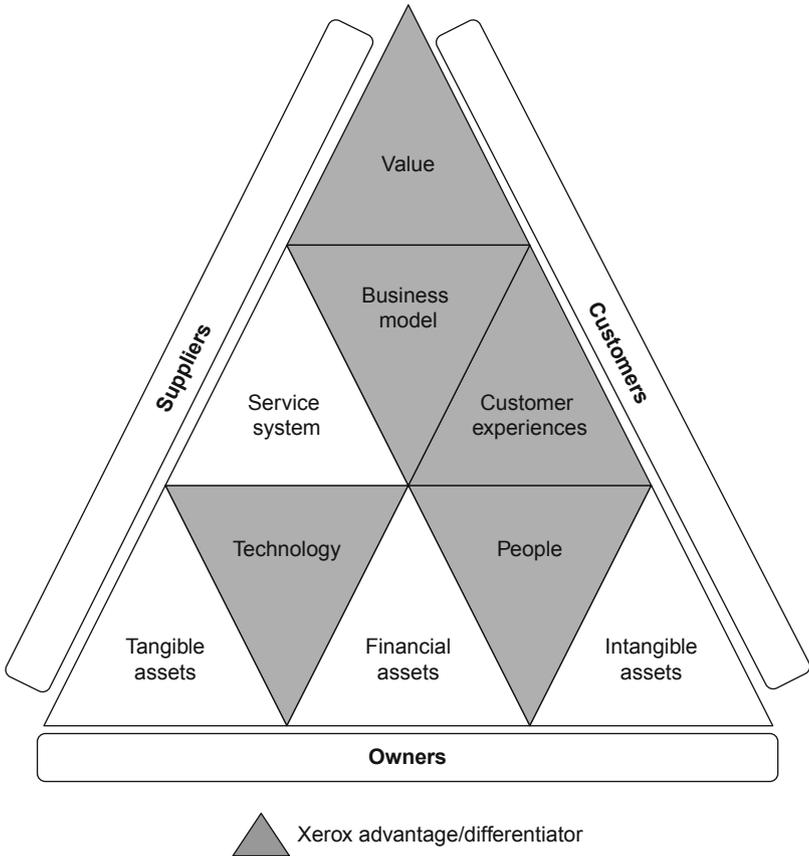


Figure 13.1 Comparing Kodak to Xerox on the Service Innovation Triangle

case study begins with the business model, which appropriately lies at the center of the Service Innovation Triangle, because the business model ultimately proved to be the fulcrum that decided the two companies' fates.

Business model

Throughout the better part of the 20th century, Kodak was one of America's – and the world's – leading corporations. By 1976, Kodak accounted for 90 percent of film and 85 percent of camera sales in the

United States. By the late 1990s, Kodak's business looked to be at an all-time high. Kodak's revenues peaked at nearly \$16 billion in 1996, its employment at 145,000 in 1998, and its profits at \$2.5 billion in 1999, as Kodak benefited immensely from globalization and the emergence of large new Asian markets with billions of customers snapping up its cameras and film products.² Yet, within a decade, Kodak's share price would collapse, and by January 2012, the company would file for bankruptcy.

Ultimately, Kodak's failure lay in its inability to adjust its business model. A company that had once been known for its pioneering technology and innovative marketing just couldn't make the leap into the digital era. Led by George Eastman, Kodak actually had a history of embracing disruptive technologies, notably when Eastman abandoned the profitable dry-plate business to transition to film and again when Kodak invested in color film even though (at the time) it was demonstrably inferior to black-and-white film (which Kodak then dominated).³ But the great irony for Kodak would be that, even at the height of its success, it was sowing the seeds of its own demise, inventing the very digital-imaging technologies that would ultimately undermine it. Specifically, in 1975, Kodak engineer Steven Sasson created the world's first digital camera, unwittingly inventing the very transformative technology that would one day contribute to the destruction of Kodak's own business. As one observer wrote, "Little did anyone suspect at the time that this odd-looking, ungainly 8-pound box would eventually be Kodak's undoing."⁴

Kodak's story is a classic example of what Innosight's Scott D. Anthony terms "the innovator's paradox." When times are good, companies have the resources and ability to pursue different technologies or business models, but not the urgency or desire; when times are bad, companies urgently need to innovate and adopt different approaches, but it's punishingly hard, expensive, and often too late.⁵ In fact, Kodak President Philip Faraci would later reflect on the innovator's paradox that had ensnared Kodak, stating at a 2008 industry convention that "Kodak was well aware of the transformational potential of digital imaging," but Kodak didn't react adequately to it in the late 1990s and early 2000s because "the core business [film and photography] just kept growing."⁶ In other words, as Anthony puts it, "Everything looks OK, until the day it doesn't. And when that day comes, the degrees of freedom to do things differently have markedly decreased." Or as Clayton Christensen et al. put it in *Seeing What's Next*: "by the time the writing is on the wall, everyone can read it."⁷

Kodak's central challenge was that it was never willing to risk adjusting its business model to accommodate the very digital technologies it had invented. Fundamentally, Kodak never abandoned the dominant logic of its "razor-and-blades" (e.g., camera-and-film) business model. In other words, Kodak made margin not on the sale of the core product – the camera – but rather in customers' recurring purchases of expensive film. In fact, Kodak generated 70 to 80 cents in profit for every \$1 its customers spent on film. But as photography increasingly went digital and print film was rendered increasingly obsolete, Kodak's business model became increasingly imperiled. In a prescient 1979 internal memo, former Kodak executive Larry Matteson predicted how various segments of the photography market would increasingly switch from print film to digital, starting with government reconnaissance, then professional photography, and finally the mass market. But as Matteson wryly lamented at the time, "wise businesspeople concluded that it was best not to hurry the switch from making 70 cents on the dollar on film to maybe five cents at most in digital."⁸ As Sasson, the Kodak engineer who had invented the first digital camera, characterized the initial corporate response to the technology for *The New York Times*: "But it was filmless photography, so management's reaction was, 'that's cute – but don't tell anybody about it.'"⁹ And it was this fear of cannibalizing its monopoly profits from film that directly led Kodak to slow-play its introduction of digital cameras, explaining why Kodak didn't bring its own true digital cameras to market until 2001.¹⁰ This despite the fact that Kodak ultimately invested some \$4 billion developing digital camera and photographic technology, much of it during the 1980s and 1990s. In other words, Kodak was investing in game-changing technology but leaving it on the shelf because it didn't want to disturb its dominant business model.

In fact, the lengths to which Kodak went to stifle the advent of digital camera technology were astounding and permeated many of the management decisions the company made in the 1980s and 1990s, including Kodak's selections of CEOs and choices in product development. For example, when then-CEO Colby Chandler stepped down in 1989, the choice for the successor came down to Kay R. Whitmore, who had risen for three decades through the traditional film side of the business, and Phil Samper, who was steeped in digital technology. As *The New York Times* reported about Whitmore's selection at the time: "Mr. Whitmore said he would make sure Kodak stayed closer to its core business in film and photographic chemicals."¹¹ Consider the Kodak Advantix Preview camera, which launched in 1996 after an investment

of \$500 million. The Advantix had key features of a digital camera – it allowed users to preview their shots on a digital screen and indicate how many prints they wanted – yet the system still used film and emphasized print. As *Forbes* contributor Chunka Mui notes, in essence, Kodak was using “digital as a prop for the film business...but why buy a digital camera and still pay for film and prints?”¹² Kodak would ultimately write off almost the entire cost of development of the Advantix. As George Fisher (who became CEO after Whitmore stepped down in 1993) explained to *The New York Times*, when he took the reins he found a management culture that “regarded digital photography as the enemy, an evil juggernaut that would kill the chemical-based film and paper business that fueled Kodak’s sales and profits for decades.”¹³ Shockingly, Kodak’s ambivalence toward digital technologies would last well into the 2000s.¹⁴

To be sure, entrenched leadership often finds it difficult to break old patterns that had once produced success.¹⁵ But just because a company is unwilling to disrupt its own business model does not mean that there’s not a competitor willing to come along and do so, and this lag allowed competitors to get a jump on Kodak in the digital camera market, meaning that both Kodak’s print film *and* camera businesses increasingly deteriorated throughout the early to mid-2000s. And by the time Kodak did begin to build and introduce a profitable digital camera line in the mid-2000s, it lasted only a few years before another technology shift – the emergence of camera phones – undermined Kodak’s digital camera business line as well.

Throughout these years, Kodak needed to somehow diversify its business (particularly if it wasn’t inclined to embrace digital technologies). For its part, Kodak’s foremost competitor at the time, Japanese firm Fujifilm, developed a three-pronged strategy to respond to the emergence of digital photography: squeeze as much money out of the film business as possible, prepare for the switch to digital, and develop new business lines.¹⁶ For example, Fujifilm analyzed its library of 200,000 chemical compounds and found that over 4,000 were related to antioxidants (because film is like skin since both contain collagen). So the company launched a line of cosmetics, called Astalift, in Asian and European markets. Fuji also successfully expanded into making optical films for LCD flat-panel screens.¹⁷ But despite the fact that Kodak invested in a wide range of businesses and technologies since the 1970s – including copiers, camcorders, batteries, and pharmaceutical drugs – few of these investments paid off. For instance, Kodak bought Sterling Drug for \$5.1 billion in 1998 but “soon learned that chemically treated photo paper

isn't the same as hormonal agents and cardiovascular drugs" and ultimately sold Sterling off in pieces at half the original purchase price.¹⁸ Clearly, Kodak was never able to articulate a similarly comprehensive strategy as Fuji to address the coming digital wave.

Subsequent steps Kodak tried to take to diversify its business yielded insufficient results. Late in the 2000s, Kodak attempted to purchase ready-made businesses instead of taking the time and expense to develop technologies in-house, but most of these failed to gain traction.¹⁹ Kodak was able to successfully diversify into "infoimaging" businesses in the 2000s and did develop several profitable new business lines (e.g., in medical and dental imaging), but it wasn't enough. From 2003 to 2010, Kodak closed 13 manufacturing plants and 130 processing labs and reduced its workforce by 47,000.²⁰ In 2012, Kodak conceded, declaring bankruptcy. As *The Economist* notes, "Even when technology trends are clearly visible, it is exceedingly hard to change a company."²¹ But ultimately, Kodak was felled by an unwillingness to embrace risk and an inability to experiment with new business models.

Like Kodak, Xerox stood as one of the titans of American industry throughout the 20th century. Indeed, as one commentator observed, "Xerox's Palo Alto Research Center (PARC) helped define America's business culture in the second half of the century."²² PARC researchers were responsible for reeling off a string of breakthrough innovations throughout the 1960s and 1970s that laid the foundational elements of information technology.²³ These included the personal computer, laser printing, bitmap displays, the graphical user interface, desktop publishing, object-oriented programming, the Ethernet, peer-to-peer and client server computing, and inter-networking.²⁴ As Mui notes, "It's safe to say, nearly four decades later, that most of the information technology industry and much of global commerce still depends on these 8.5 inventions."²⁵ Technology companies and many others in downstream industries have collectively realized trillions of dollars in revenues and tens of trillions in market value from these innovations.²⁶ Unfortunately, as Henry Chesbrough describes in *Open Innovation*, Xerox was unable to commercialize or monetize the vast majority of the breakthrough technologies its PARC labs invented, including the personal computer, as recounted in Douglas K. Smith's book *Fumbling the Future: How Xerox Invented, Then Ignored, the First Personal Computer*.²⁷ Despite these stumbles, in fairness, Xerox's invention of laser printing is estimated to have generated over \$100 billion for the company.²⁸

Nevertheless, by the late 1990s, competition (much of it foreign) had cut into Xerox's core copier and printer business, and the company found

itself teetering on the edge of bankruptcy. As *Fast Company* writes, “Xerox was sputtering in the face of Japanese competition. At the same time, the digital world’s ascendance over Xerox’s empire of paper, and paper copiers, seemed inevitable.”²⁹ As *The New York Times* wrote at the time, “Xerox was in turmoil, the result of misguided strategy shifts, a bloated bureaucracy, a boardroom drama, mountains of debt, a plummeting stock, bankruptcy rumors, and the Securities and Exchange Commission crawling all over the company about accounting irregularities.”³⁰ But whereas Kodak was unable to, Xerox risked branching out and diversifying its portfolio, ultimately navigating a successful shift from a product-dominant to a services-dominant business model. *Money* magazine would call Xerox’s rebound, “the great turnaround story of the post-crash era.”³¹

Indeed, the key reason Xerox proved able to “pull back from the brink of bankruptcy in the 2000s” was by transitioning to a more services-oriented business and servicizing its product lines. In large part fueled by Xerox’s 2009 acquisition of Affiliated Computer Services (ACS), Xerox began to diversify into a range of services businesses, including health IT consulting, electronic health record (EHR) management, business process/IT outsourcing, toll transactions automation, government transactions processing for student loans, and IT and back-office support operations management for a variety of US government programs, including Medicaid and child support programs. Today, Xerox specializes in “document technology, document services, business processes, and IT outsourcing” and over half of Xerox’s \$22 billion revenue comes from business services. In 2012, Xerox’s Services unit generated \$9.6 billion in revenue, with 34 percent coming from outsourcing, 16 percent from healthcare services, 12 percent from government solutions, 10 percent from commercial IT, 8 percent each from transportation and human resource services, and 6 percent each from customer care and financial services.³² By November 2013, Xerox’s CEO Ursula Burns noted: “Fifty-six percent of our revenue now comes from services and we’re on track to grow that number to 66 percent by 2017.”³³ Burns estimates that the “business services” market that Xerox currently serves has a potential “\$500 billion marketplace” globally.³⁴

It’s also important to note that during its recovery, Xerox made a difficult decision to shed its consumer business and instead focus solely on the B2B market.³⁵ Xerox also introduced a radically new business model, in particular transforming its core copier and printer business from a product to a service by introducing a services program called Managed Print Services, through which the company offers to manage all of a

customer's copiers and printers. The customer pays only a fixed price per page of output, while all of the acquisition, installation, operation, maintenance, and replacement activities are managed by Xerox.³⁶

Customer experiences

Part of Kodak's challenge was that not only was its thinking dominated by a camera-and-film business model, it was also dominated by an engineering culture that was "completely technology push, completely technology-centric." That is, Kodak focused intensely on technology and products, and by not being sufficiently people-centric, the company missed the opportunity to create compelling customer experiences and craft a tremendously profitable business model. No opportunity missed was greater than Kodak's failure to turn its 2001 purchase of Ofoto – then one of the leading online photo album providers – into a potential Facebook.

Kodak's famous tagline had been "sharing memories, sharing lives." As Scott Anthony notes, "It wouldn't have been hard for Kodak to say, 'Why don't we simply let people share album pictures? And while we're at it, we can create a feature that allows people to share news items as well.' The idea was two steps away from Facebook."³⁷ James Joaquin, the cofounder of Ofoto, knew it. But as he explains, Kodak wasn't able to make the transition to enable sharing and social elements because, "What Facebook did was people-centric, not photo-centric, and that was the huge shift. We couldn't make that leap."³⁸ As Harvard Business School's Rosabeth Moss Kanter adds, Kodak constantly "suffered from a mentality of perfect products, rather than the high-tech mindset of make it, launch it, fix it." In other words, Kodak was built from the inside out; not the outside in. It focused on camera and film technology, not on having a deep psychographic understanding of what its customers wanted and what capabilities it needed to assemble to deliver such products – or services.

One area in which Xerox significantly differentiated itself from Kodak was in maintaining high levels of customer centricity and remaining focused on developing compelling customer experiences. As Xerox's then-CEO Anne Mulcahy noted, "In trying to rebound, we spent the vast majority of our time talking to customers."³⁹ As current CEO Burns elaborated, "We were being dragged by our customers into managing large, complex business processes for them."⁴⁰ This also required Xerox to change its organizational structure to become more customer-centric. In the 1990s, Xerox had become a highly matrixed company, organized

by product, geography, and segments. As Mulcahy explained, “It all looked good on paper, but in reality it was a nightmare. You couldn’t find anybody who had clear responsibility for anything. [We had to] peel it all back and create clear accountability.”⁴¹ Accordingly, every Xerox executive is now tied to specific key accounts for which they are responsible, “and this [has helped] build a culture of connectedness.”⁴² Xerox is also working to enroll its customers in the innovation process, leveraging a core tenet of “cocreating” solutions with customers. In fact, many of Xerox’s recent innovations have sprung from “customer dreaming sessions” the company regularly holds with customers at its PARC labs in Palo Alto.⁴³

People

Over the course of more than a century, both Kodak and Xerox had access to some of the best engineering and technical talent in their respective fields, in no small part thanks to their proximity to the Rochester Institute of Technology (RIT), which to this day offers among the world’s best programs in fields such as engineering, graphic communications, and computer sciences. So access to talent really wasn’t the issue for either company.

Rather, as Vince Barabba (who served as manager of market research for Xerox and director of market intelligence for Eastman Kodak) writes in his book *The Decision Loom*, it was the failure of Kodak’s management to effectively make strategic choices that felled the company.⁴⁴ At Kodak, Barabba recounts undertaking a very extensive research effort that examined the core technologies and likely adoption curves for silver halide film versus digital photography in 1981.⁴⁵ The study’s projections were based on a multitude of relevant factors, including: the cost of digital photography equipment; the quality of images and prints; and the interoperability of various components, such as cameras, displays, and printers. The study produced the “bad” conclusion that digital photography had the potential to replace Kodak’s film-based business, but also included the “good” news that Kodak had roughly ten years to prepare for the transition.⁴⁶ But as Mui notes, despite having a “10-year window of opportunity, Kodak did little to prepare for the later disruption.”⁴⁷

In *The Decision Loom*, Barabba explains that there are four interrelated capabilities necessary for organizations to achieve effective enterprise-wide decision making, none of which were exemplified by Kodak management in their response to the digital challenge. The capabilities

include: having an enterprise mindset that is open to change; thinking and acting holistically; being able to adapt the business to changing conditions; and making decisions interactively using a variety of methods.⁴⁸ Across all these, Kodak management's "unwillingness to change its large and highly efficient ability to make-and-sell film in the face of developing digital technologies lost it the chance to adopt an 'anticipate-and-lead design [approach]' that could have secured for it a leading position in digital image processing."⁴⁹

In 2002, Chesbrough wrote that the culture of Xerox can be described as an appreciation of the struggle to create value propositions for new research outputs.⁵⁰ While certainly such a culture has strengths in its deep focus on technologies and business models, as noted, Xerox's recent CEOs, Anne Mulcahy and Ursula Burns, have worked hard to also add a customer-centric focus to Xerox's culture. And as *The New York Times* wrote in "Xerox's New Chief Tries to Redefine Its Culture," CEO Burns has worked to instill a performance-oriented culture that asks Xerox's 130,000 employees to "get over the past, take more initiative, become more fearless, and be more frank about ratcheting up performance."⁵¹

Technology

Clearly, Kodak and Xerox made their mark as technology-based companies that grew to become Fortune 100 businesses thanks to their breakthrough camera, film, and xerography technologies. Yet, as noted, Kodak's technology-centric focus led it to miss out on opportunities for customer-centric innovation. And, of course, the great irony is that Kodak invented the very digital technology that ultimately led to its demise. Which raises the central point that technology is not useful only for technology's sake; technology is only useful if effectively deployed to solve a business problem or to address customers' needs.

Another key distinction between Xerox and Kodak's responses to the challenges they faced in the 2000s lies in their differing commitments to invest in technology and innovation during the crisis. As Xerox CEO Mulcahy notes, "even in our leanest years, we refused to cut research and development (R&D) funding." Meanwhile, as Kodak's downturn accelerated, Kodak CEO Antonio Perez announced large cuts in R&D and the closure of innovative units geared toward new technologies. In contrast, Xerox's commitment to continued investment in R&D bore such fruit that, by 2011, two-thirds of Xerox revenue came from products or services it had introduced within the last two years.⁵²

In fact, as Xerox attempted to rebound, the role of its research laboratories at PARC and at the Xerox Research Centre Europe (XRCE) near Grenoble in the French Alps played pivotal roles. As *Fast Company* notes, XRCE was founded in 1993 to help Xerox prepare for a future when its technology products (printers and paper copiers) would become a commodity and when business services (to help Xerox customers work faster and cheaper) would chart the way forward.⁵³ As XRCE's Director Monica Beltrametti notes, "We were a document company at the beginning and it was very important to figure out how we could extract what was in the documents to automate certain things."⁵⁴ Indeed, the ability to discern the underlying content, meaning, and metadata of the printed page, or photo, or license plate has been key to Xerox's turnaround and has opened up new lines of business for Xerox in fields as diverse as litigation services, mortgage processing, and vehicle toll payment processing. As *Fast Company* notes, "Xerox machines have increasingly learned to understand languages, analyze photos, and route data in a fraction of the time that it takes error-prone humans."⁵⁵ Indeed, the big-data revolution has come at the perfect moment for Xerox, bringing new tools and approaches that have enabled Xerox to leverage information technology to create new value-added services for customers that unlock the value of customers' information streams, data stores, and printed documents. Put simply, Xerox has embraced the digital era and developed a host of technologies enabling the firm's transition to a services business – in contrast to Kodak, which tried to delay that transition as long as possible.

Intangible assets

Brand was one of Kodak's greatest strengths. In fact, well into the 2000s, Kodak was regularly rated as one of the world's five most valuable brands.⁵⁶ But while Kodak had a relative brand advantage over Xerox, Xerox's brand recognition is quite impressive itself. In fact, Xerox boasts the world's 59th most-recognized brand. Moreover, like Google, Xerox's brand name was so ubiquitous that it became synonymous with the service its products provided (i.e., xerography, or reproduction of the printed page). Later, Xerox effectively rebranded itself as "The Document Company," a brand that has proven effective to its modern services business model by being able to unlock the intelligence in their customers' documents.

Intellectual property has been a core intangible asset for both firms. In fact, Xerox held a monopoly on xerographic technology until the United

States' Federal Trade Commission forced Xerox to license its patents and lease as well as sell photocopiers.⁵⁷ Today, Kodak retains some valuable intangible assets as part of its patent and intellectual property portfolio. In fact, Kodak generated \$1.9 billion from 2009 through 2011 through patent-licensing fees. But this was not nearly enough to make up for losses in its core photography and film business.

Financial assets

In general, availability of financial assets does not significantly explain why Xerox was able to transform its business model whereas Kodak was not. Both were Fortune 100 companies for decades and had access to debt and equity markets to raise necessary capital. To be sure, as Kodak's downward spiral accelerated, budgets tightened and this contributed to Kodak's underinvestment in research and development into new technologies. But this was very late in the game, and it certainly wasn't a lack of access to financial assets that had prevented Kodak from more aggressively adopting the digital technologies and business models that could have saved it.

Value

Xerox's current Managed Print Services business model allows it to deliver unique value to both customers and its own employees. Not only is this a new business model for Xerox, but its Managed Print Services offering unlocks new forms of value for clients as well. As Chesbrough notes, Xerox's offer "changes what was previously a fixed cost into a variable cost for the customer." It's also more capital efficient for the customer and provides a better career path for employees previously charged with managing copiers and printers. At the same time, customers using Managed Print Services don't need to retain staff specialized in copying and printing, so they can streamline and reduce overhead, saving money. In fact, one client, Procter and Gamble, estimates that Xerox's Managed Print Services have helped it reduce paper use by 40 percent and cut costs by up to 25 percent.⁵⁸

As Chesbrough notes, managed print services are a good deal for customers, but also beneficial for Xerox, for three key reasons:

First, Xerox knows more about copiers and printers than even the most sophisticated of its customers, so its specialized knowledge allows it to manage resources more efficiently. Effective practices

that Xerox observes in one managed service customer can readily be brought to bear on subsequent customers. Second, Xerox can develop, install, and operate the most efficient equipment over the life cycle of print services. For example, it often uses multifunction devices... that are more expensive initially but last longer, use cheaper supplies, and perform more functions, so that more users can be serviced with fewer machines. Third, Xerox manages all of the print devices under these agreements, not just those of its own manufacture. Xerox therefore sees the entire organization's printing and copying needs.⁵⁹

Today, Kodak has retrenched itself predominantly as a business-to-business "technology company focused on imaging for business," organized around three core business lines: product goods packaging, graphic communications, and functional printing.⁶⁰ Its functional printing business focuses on printing to deliver functionality beyond visual communications, leveraging technologies such as touch panels, smart packaging, and printed electronics in what Kodak views as a \$28 billion market. Its product goods packaging division leverages digital imaging science and advanced printing technology to service an estimated \$247 billion global market.⁶¹ Kodak currently serves over 25,000 customers and earned \$2.7 billion in revenue in 2012.⁶² In many ways, Kodak is now trying to make the transition to a services company that Xerox successfully navigated half a decade earlier.

Conclusion

This case study has shown how an intense corporate aversion to risk – and change – can leave a company unprepared to adapt to the rapid changes in technologies, customer demands, and business models roiling the modern global innovation economy. Xerox bested Kodak on at least five of the nine elements of the Service Innovation Triangle – Business Model, Customer Experiences, People, Technology, and Value. The two companies were at parity with regard to their Service System, Tangible Assets, and Financial Assets, while Kodak had a slight advantage with regard to one subtriangle, Intangible Assets. With the companies at rough parity on the base level of the Service Innovation Triangle, their Resources (or Innovation Capacity), it's truly at the Management level of the Service Innovation Triangle that these companies' differing outcomes – Xerox's ability to right itself whereas Kodak slipped into bankruptcy – can be explained. To be sure, Xerox has come a long way

in transforming itself from an enabler of making paper copies into a digital-era business that helps customers unlock the value of their documents and information streams. However, Xerox will have to maintain this willingness to innovate, to adjust, and to constantly update its business model if it wishes to continue this successful transformational story into the future.

Part V

Summary and Conclusion: The Use and Value of This Book

The final section of this book reflects on the overall lessons from the case study analyses as well as the interviews with leading thinkers and practitioners.

14

SIT Methodology

In this final chapter, we conclude on how practitioners, in private firms as well as in public organizations, can develop innovation potential. Although we note that there is no single model or approach that a firm can or should use to frame its innovation activities, through the SIT methodology we deliver on our promise to show in a concrete and specific way how organizations can leverage the Service Innovation Triangle to become more innovative.

So, we conclude this book by articulating a step-by-step approach for firms that can increase their successful innovation activity. As noted above, it is important to remember that there is no single model a company can or should use to frame its innovation activities. Equally, there is no single starting point for innovation activities. However, we demonstrate below one specific approach that organizations may take to leverage the Service Innovation Triangle and so become more innovative.

Positioning the firm

What is (are) the value(s) you wish to create?

The value proposition of the firm should be defined in order to understand what success should look like. Any value proposition could include social, ethical, and environmental aims, as well as the more obvious commercial aims. A complete value proposition would normally include consideration of all three major external relationships: with customers, owners, and suppliers, as well as reference to the firm itself, often in the form of the major internal relationship, with employees.

SIT methodology

Positioning the firm

- What is the value created by your firm?
- What are your plausible futures?

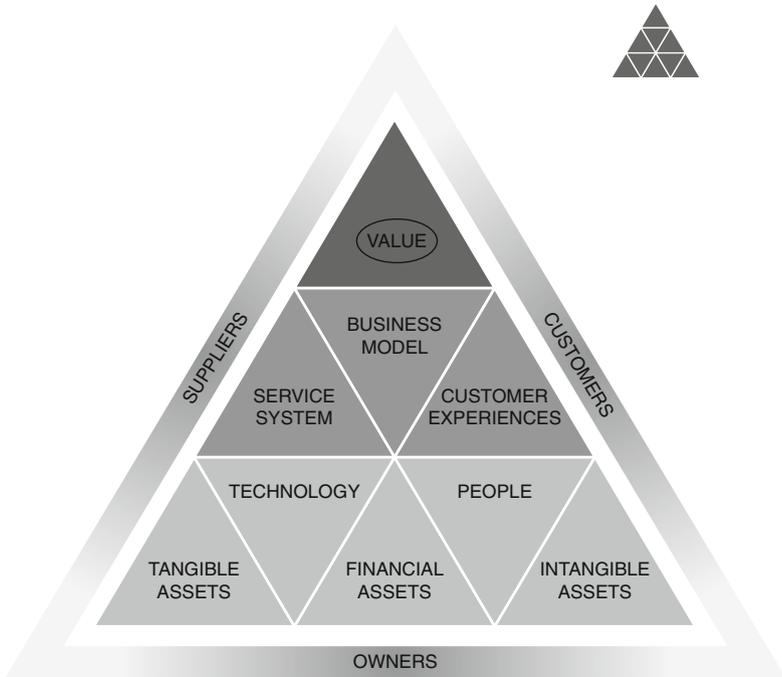


Figure 14.1 Positioning the firm using the Service Innovation Triangle

Source: Service Innovation Triangle: the building blocks for innovation, OXIRM, BI, Jan 2013.

What are your plausible futures?

Given the value proposition, the future context of the marketplace should then be considered. More than one scenario on the future development of the marketplace should be identified. By considering more than one scenario for the future, the firm is better able to understand the common strategic elements in all scenarios, as well as considering possible outlying events that may create substantial risk, and so the firm can plan for mitigating the impact of such events.

Designing the future

Who are your future customers?

Given the value proposition, the target customer groups should be identified. The groups should be brought to life through personifications of their key characteristics to help create a common language for future discussions around customer experiences and possible innovations.

What future customer experiences do you want to provide?

Given the target customer groups, the ideal customer experiences can be considered for each future scenario. This enables the firm to identify the common ideal customer experiences across customer groups and scenarios, as well as considering distinct experiences that exist only for (a) particular combination(s) of customer groups and scenarios.

How can you provide the necessary service operations?

Given the common elements of customer experiences identified, a core service system can be designed. This service system can then be adapted to include distinct customer experiences.

How can you ensure the new business model creates value for all parties?

Given the core service system, a business model can be developed to create value (in all its forms) for all parties: customers, owners, suppliers, and the firm. Distinct elements of the service system may then be added, but only where it is possible to create further value for one or more parties without reducing the value to another party.

Planning the changes

Do you have the financial assets to fund the new service?

Given the business model, the relevant financial assets must be identified and agreed upon.

SIT methodology

Designing the future

- Who are your future customers?
- What future customer experiences do you want to provide?
- How can you provide the necessary service operations?
 - How can you ensure the new business model creates value for all parties?

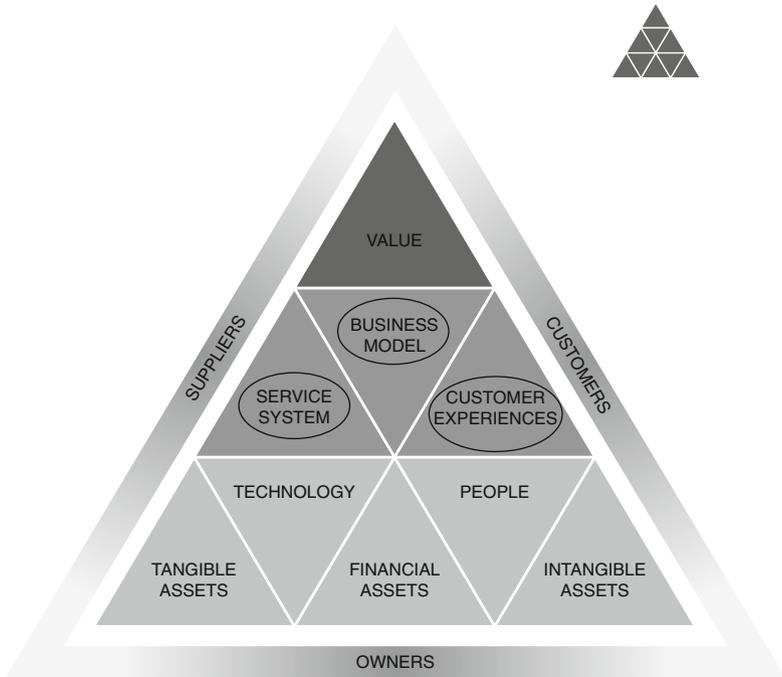


Figure 14.2 Designing the future using the Service Innovation Triangle

Source: Service Innovation Triangle: the building blocks for innovation, OXIRM, BI, Jan 2013.

Do you have the tangible assets to support the new service?

Given the service system, the relevant tangible assets must be identified and obtained.

Have you created the intangible assets to protect the new service?

Given the customer experiences, the relevant intangible assets must be identified and developed.

Have you developed the technology to deliver the new service?

Given the service system, the relevant technology must be identified, acquired where necessary, and implemented.

Have you developed the people to deliver the new service?

Given the customer experiences, the relevant people must be identified, recruited where necessary, and trained.

Making the changes

Test and revise

Given the planned changes, a pilot service can be tested and revised based on relevant feedback. The pilot should be brief and provide feedback that fits with the intended customer experiences for different customer groups.

Decide and review

Given the results of the pilot, a decision should be made as to whether to proceed with a full-scale launch or not. This should be a real decision. It should be possible to kill a planned innovation at this stage without negative consequences for employees. However, it should also be possible to launch a planned innovation based on a future scenario rather than initial results. In any event, the innovation should be reviewed for possible improvements on a mass launch.

Scale and renew

Given a positive decision on a pilot, the innovation should be rolled out to the mass market. The results should continue to be reviewed and the service renewed as the market develops.

SIT methodology

Planning the changes

- Do you have the financial assets to fund the new service?
- Do you have the tangible assets to support the new service?
 - Have you developed the technology to deliver the new service?
- Have you developed the people to deliver the new service?
 - Have you created the intangible resources to protect the new service?

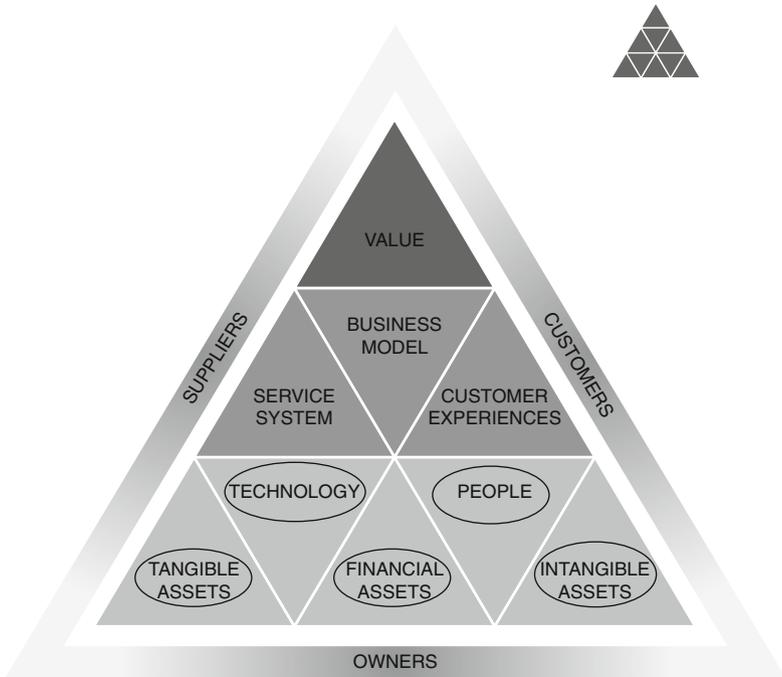


Figure 14.3 Planning the changes using the Service Innovation Triangle

Source: Service Innovation Triangle: the building blocks for innovation, OXIRM, BI, Jan 2013.

SIT methodology

Making the changes

- Test and revise
- Decide and review
- Scale and revivie

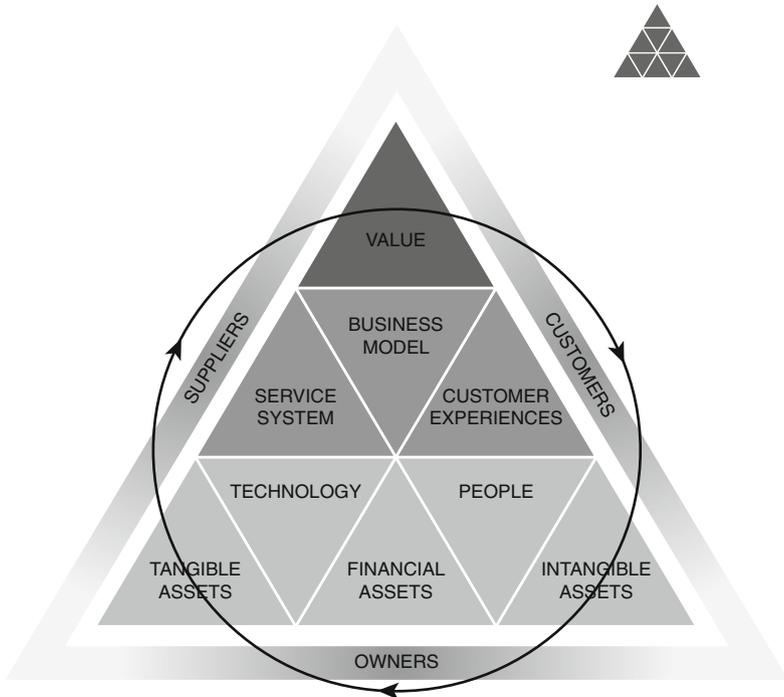


Figure 14.4 Making the changes using the Service Innovation Triangle

Source: Service Innovation Triangle: the building blocks for innovation, OXIRM, BI, Jan 2013.

Summary

This book has discussed innovation in an *Amazon economy*, where globalization, digitization, and the dominance of services over products in creating value are prevalent. We have argued that we need a better understanding of service innovation in such an advanced consumer society.

In Part I of this book, we defined an *Amazon economy* as encompassing five connected trends: value creation has shifted increasingly from products to services; driven by a competence across sectors rather than a knowledge of one sector; using social networks to drive scale in both mass and niche markets; quickly turning ideas into action; and minimizing risk aversion. We then presented a new model of the firm and innovation: the Service Innovation Triangle (SIT) (Furseth and Cuthbertson, 2016).

In Part II, we provided insights from leading thinkers and practitioners on what is most important for innovation to succeed, suggesting that firms need to broaden their view when it comes to innovation and growth, viewing themselves more in terms of service competence than product focus. We concluded that there is no silver bullet for successful innovation, but rather that firms need to broaden their views. Companies also need to turn ideas into actions. For companies to move beyond what is here today they also need to expand their networks. Companies need to focus more on services than on products. All products will be judged by the service they perform, or by the problems they solve for customers.

In Part III, we developed further insights about the SIT model. In an *Amazon economy*, value creation has increasingly shifted from products to services such that the whole experience is more important than any individual element. It is the overall service experience that ultimately counts with a customer. This requires diversity within the firm, interactions between different people, leading to broader thinking and variety in practice. This digitally interconnected world helps integrate the networked relationships necessary to launch new products and services. However, any service system requires clear guidance, management, and leadership. Proactively leading innovative service design implies constant experimentation, early piloting, bold (but not reckless) decision making, and quick rollout. The market does not wait for perfection.

In the Service Innovation Triangle, Management Ability (the middle layer) is more important than Innovation Capacity (the lower layer) in creating Value (the upper layer). The spark for an innovation can come from the development of any new resource, whether in technology, people, finance, or tangible and intangible assets. However, the

realization of such an innovation cannot be fulfilled without the relevant business model, service system, and customer experiences. Competence across these integrative elements, rather than superiority in one element of innovation capacity, such as technology, is key to success. As one element of the Service Innovation Triangle changes, then the other elements will have to adapt accordingly. All the interviewees stress the importance of being future focused. What do customers really want? Not, what do we, competitors included, provide them with today?

For innovation to be sustainable, all three parties (customers, owners, and suppliers) must enjoy a share of the value created through the innovation, whether economic, social, or another kind of value. Successful innovation clearly drives value, by definition. On the other hand, the search for value can also drive the innovation process, especially at the level of the firm.

In Part IV, we demonstrated how the SIT model is applied to ten varied corporate case studies. The comparison of Apple and Nokia highlighted that it is the customer experience that sells a service, not the concept. The Amazon-Borders comparison demonstrated the dominance of service over product. The analysis of Facebook and MySpace highlighted that in a digital world, the physical world cannot be forgotten. Companies have to have a broader conceptualization of who are their most important customers and stakeholders. Assets and resources, especially people, are hugely important in providing a relevant service system. The Tesco and Sainsbury's case studies illustrated the need to turn ideas into action. Innovation is the action of innovating; it is not the idea of innovating. In contrast to Xerox, the Kodak case study shows how an aversion to risk not only kills innovation, but also eventually killed the company.

In the final section, we articulated how practitioners, in private firms as well as in public organizations, can develop innovation potential by using a step-by-step approach for firms that can increase their successful innovation activity – though we also made it clear that this approach has many starting and end points depending upon the market, firm, and strategy under consideration.

Conclusion

The SIT methodology provides an approach for firms to increase their innovative value, ability, and capacity. By focusing on aligning the firm's strategy with possible plausible future scenarios, firms can identify areas for increasing value. By focusing on aligning customer experiences with the identified strategy and understanding how this may be provided through the service system, firms design their future rather than leave

it to their competitors to lead the way. This provides an understanding of the changes required for the innovation to be successful, and thus the business model and related assets and resources can be assessed and developed. Finally, action is required, firstly to test the market, and then to quickly revise, kill, or scale depending upon the results. This overall approach provides a step-by-step process for service innovation.

To reiterate, there is no magic formula for innovation, and certainly no single starting point nor method for innovation activities. This book contributes to the literature on how to effectively conceive and execute service innovation. It summarizes our insights on innovation provided through the unique combination of interviews with leading thinkers and practitioners alongside the analysis of successful and unsuccessful approaches to service innovation.

Our emphasis in this book has been on how practitioners can *do* innovation rather than just *think* about innovation in an *Amazon economy* where a new digitally enabled global consumer society seeks new services through new channels while informing one another and so bypassing traditional marketing channels.

The *Amazon economy* is a paradigm shift that businesses and governments must now embrace or they will wither away. Value-driven service innovation has become the new catalyst for economic growth and social change.

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