1

Technology Companies, Services and Networks

INTRODUCTION

Most of the developed economies have strong and vibrant service sectors. In fact, it is surprising how much they are dominated by service businesses, as opposed to manufacturing or agriculture. In the USA and much of Western Europe, around 75% of economic activity is thought to be service; and emerging economies like India and China have announced their intentions to increase the size of their service sectors too. This category includes: professional services, financial services, consumer services and facilities services. Each has been tracked, analysed and researched. Academics have produced tomes on buying behaviour in consumer services, the marketing of financial services and the management of professional services. Yet one vast, neglected category is those services provided from, or embedded in, technology companies. These are offered on the basis of a common technology platform like a communication network, a set of airline slots, a pumped utility or a global broadband network. They are distinct from other services with unique issues and opportunities. This chapter explores the characteristics of those services and their unique dynamics.

THE GROWTH OF THE SERVICE SECTOR

For the past 50 years the service sectors of developed countries have been an increasingly important part of their economies. For instance, American manufacturing is, at the time of writing, 13% of GDP (a decline from 26% in 1970), whereas the service sector represents around 75% of economic activity, depending on definition. According to the British government's statistics (*source*: UK Office for National Statistics), 76% of the UK economy is services compared with around 40% in 1948; and the service sector has been increasing in importance for many decades. In all the years from 1992 to 2004, for example, the 'finance and business services sector' provided the largest contribution to the UK's economy, rising to £344.5 billion out of a total £1044.2 billion. The manufacturing sector, by contrast, contributed more than 20% until 1998, but has fallen, as a proportion of the British economy, every year since then to around 4%. There have been several reasons for this explosion in service activities.

The first is growing wealth, changing lifestyles and the increasing consumer aspirations that come with it. As people become richer they want more services that enhance their lives, like education, health and leisure. A symbiotic relationship develops between consumers and entrepreneurs, who see new demand patterns in society. In common with much of Europe, Britain was still devastated by war in 1948 when its government reported service to be less than 50% of its economy and manufacturing relatively dominant. As it emerged from austerity, though, its population's expectations and standards grew. In some cases, services that had been used by the wealthy for many decades became more economic and accessible to broader groups of people. Private education, foreign travel, sports, leisure and beauty services, for example,

are used by a much wider proportion of society today. In other cases, changes in lifestyle have given companies opportunity to create entirely new services. Self-service supermarkets and fast food chains are now very familiar but were created in the latter half of the 20th century as both disposable income and the pace of life increased. This pattern of rising standards, related to economic success and the expansion of service businesses, has been followed by other developed economies and is being repeated by developing nations today; prompting an explosion in service businesses around the world.

Not only has there been an increase in the number and variety of services, but a re-categorisation of large swathes of modern economies has caused competitive services to evolve. For instance, the service sector has been increased by the growth in 'outsourcing' (the tendering to external suppliers of services that were previously part of a company but are no longer considered to be the prime skill or a source of sufficient economic return for that business). These might include: security, reception, IT, secretarial services or staff catering. Activities that were previously part of a manufacturing company have been passed to companies that are expert in that field.

As a result, the service sector is thought to have grown and manufacturing declined; and, as this 'facilities market' is now thought to be worth over £100 billion in Britain alone, this is not an insignificant change. (Note, though, that the British Institute of Facilities Management is at pains to point out that estimates of this new market's size vary widely because definitions of it are also varied.) Yet, although the total value of economic activity has been relatively unchanged by these initiatives, the orientation of the service functions themselves has been transformed. Whereas they were once internal departments of large corporations, they became competitive service businesses in their own right and separately recorded as revenue-earning entities.

Privatisation has been another significant change in categorisation, which has increased service sectors throughout the world. This policy was pioneered by the 1980s British government (under Prime Minister Margaret Thatcher), and initiated a major turnaround of their economy using privatisation. Although several cultures are suspicious of it, the policy has been copied and adopted by many governments since. It is now, for instance, often a condition of lending from the World Bank and the International Monetary Fund that developing nations create programmes to open their economies to competitive forces.

The market introduces into privatised organisations the relentless drive for process improvement, cost reduction and innovation natural to competitive businesses. So, over the long term, privatised corporations have sought productivity improvement in response to pressure from shareholders, customers, competitors and public commentators. They have served customers better, raised needed capital to invest in infrastructure, created employment and paid handsomely in corporate taxation. One source (HM Treasury, 1992) estimates that the 11 major organisations privatised between 1979 and 1987 netted the British government a total of £11.8 billion; and, in the 1986/7 financial year, receipts from privatisation paid for 2.6% of government expenditure. In several cases the tax contribution after privatisation far outweighed the profit earned when these businesses were publicly owned.

It is the sheer size and diversity of the organisations moved into the private sector which is most striking. One academic (Parker, 2009) has pointed out that during the pioneering period alone, the British government sold, *inter alia*, organisations in*:* telecommunications (BT, Cable and Wireless); Energy (British Gas, Britoil, BP); Travel (BA); and manufacturing (Rolls Royce, Rover subsidiaries). The privatisation of these massive organisations has meant that a large amount of economic activity has transferred to the private sector and that entirely new enterprises have been created. Throughout the world, participants in the telecommunications,

water, gas, electricity and airline industries have all become competitive service companies who need to take their propositions to market in new ways. Vast areas of economic activity became subject to market forces for the very first time and the service companies in them, often engineering-dominated monopolies, needed crash courses in sales and marketing. They needed to learn to go to market effectively.

Another important influence on the boom in services has been the increasing international interdependence between countries and changes in the conditions of international trade. Huge and growing international service markets have tempted many firms to set up service businesses. According to the United Nations Conference on Trade and Development (UN, 2008), world trade in services grew 18% in 2007. This is comparable to the previous two years, in which growth rates jumped after a spell of annual growth at around 6% per annum (in every year, except one, between 1990 and 2003). The United States was the lead service exporter during that period and commanded just under 15% of world service trade. The results also show that services were one of the most important sectors for the European Union, contributing to around two-thirds of GDP and employment. As a result, 25 European countries together took around 50% of world service trade. However, international trade was also important to developing countries, where several were gearing up to tackle international service opportunities. In 2006, they accounted for around 25% of world export in services; up from 22.6% in 2004.

International success in service exports varies according to the development of an economy, government policy and the education of the population. India is a recent example of international service export success. In 2006 it had raised its share of world service trade to 2.6% from 0.5% in 1990, despite the massive growth in overall international service business during that period. For instance, the country used its developing international competitiveness in IT skills to plan an incursion into the business process outsourcing market. One estimate put the number of Indian firms providing international, IT-enabled, services, at over 200 in 2004 (Javalgi *et al*., 2004). As a result, its 'computer and information services' exports were 40% of its total service exports in 2006.

China too, at the time of writing, is starting to expand its service sector and to rival India as an outsourcing hub for routine tasks where conversational English is less of a requirement (like preparing tax returns and filing patents). In 2006, approximately 42% of its economy was officially recorded as service sector and it held 2.7% of world export in services. So, that year, it announced that it was planning to increase incentives and financial aid to boost service companies in a bid to increase the sector's contribution to 50% by 2020. The State Council said incentives (such as land approvals and capital bailouts) would be given to service companies engaged in logistics, information technology, software, electronic commerce, industrial design, law and accounting. This was driven by Beijing's eagerness to lessen its reliance on the manufacturing sector, which had led to problems such as energy shortages and pollution.

Services are and have been, then, a healthy and viable means of earning export revenues. Now, though, a combination of forces is making the international conduct of service business even easier and more attractive, stimulating further growth. As Professor Javalgi and his colleagues point out (Javalgi *et al*., 2004), they include:

- **New technology like the Internet and e-commerce**. Cross-border trade in a wide variety of services, such as professional advice and travel, can be delivered cost-effectively through modern electronic highways.
- **Increasing sophistication and the growth of middle classes in a number of developing nations**. This creates demand for services in different parts of the world and socialises new concepts to a wide international community, paving the way for suppliers.

- **The opening of trade through negotiations in forums like the GATT rounds**. These encourage focus on the competitiveness of specific service markets.
- **Regional trading blocs like the European Union and North American Free Trade Area**. These seek to bring down trade barriers between their members, stimulating international trade in services like air traffic or financial services and affecting demand by creating larger markets.
- **Government legislation and support**. Governments in countries like China, India, Singapore, Indonesia, Brazil and Mexico are, at the time of writing, actively promoting initiatives to encourage their service sector.
- **Easier transport links, efficient international postal services and cheap flights**. All make the cost of international services cheap and viable.

As a result of these dynamics, a wide range of businesses are planning international market penetration, hoping to repeat in service markets the success of, say, the Japanese in consumer products during the 1980s and the tiger economies in electrical components during the 1990s.

The effect of the service economy is most clearly seen in employment patterns. In the autumn of 2005 the *Economist* magazine published an analysis of the number of people employed in manufacturing as a percentage of the total workforce. It estimated that 10% of American workers were employed in manufacturing as opposed to 25% in 1970 (employment in services was 80%). The estimates for Britain (14% compared to 35% in 1970), France (15%) and Canada (14%) were similar; with other big economies, like Japan, at 18%. They found that the only big economy where more than a fifth of workers were in manufacturing was Germany (23%), which has a lot of innovative companies and a high content of capital goods that are not as easy to copy. Since a number of workers within manufacturing companies still occupy service roles (like marketing, design and facilities management), the actual employment in manufacturing roles among the developed economies could be much less.

So, over the past 50 years, the balance in many economically developed countries has shifted to the point where services account for almost three-quarters of their gross domestic product. This comprises a wide array of services, including financial, utility, professional and consumer services. As large manufacturing processes have become more automated, the developed economies have turned to human expertise to create wealth. Some bemoan the decline in manufacturing as a percentage of their country's economy and ridicule the service sector, as if services do not increase GDP or do not add value. They do. The growth in this area of economic activity is a valid contribution to wealth creation and to society as a whole. Whereas a manufacturing process uses physical resources to create wealth, a service process uses human skill, effort or knowledge to do so.

THE DIFFERENT TYPES OF SERVICE

As the service sectors have boomed, government economists and business thinkers have sought to categorise them and understand their contribution to the wealth of nations. There are several broad categories. Financial services, for instance, are based on money and, in the 20th century, have been subject to massive growth and changes in regulation. Institutions which had been working to similar procedures for many decades have suddenly been subjected to new forces. Although they are yet to get to grips with a number of important issues facing their industry (e.g. the bonus culture and its effect on risk, the fallout from combining investment and traditional retail banks, post credit-crunch regulation and the challenge of costly retail

premises), the marketing of their services has been researched and explored, if erratically applied. Thoughtful managers can easily find a body of work on the creation, positioning, selling and marketing of financial services. Science exists in this field if executives want to access it.

Professional services are, by contrast, based on the expertise of the service provider and participate in a market predicated on 'asymmetry of information' (the fact that the supplier knows more than the buyer). They include some of the most profitable, enduring and influential businesses that the world has seen. Vast international partnerships like Deloitte in accountancy and Clifford Chance in law are, for instance, in their second century of business. Throughout that time they have (in war, recession, depression and boom) returned to their owners very high net margins and routinely walk away with massive projects, resulting from high-level access to leaders of the world's most famous businesses.

This industry includes: consultancies, law firms, accountancy practices and architectural partnerships. Over time, they have raised a barrier to their market, and the value of their skill, by making their expertise complex. This has been done by creating standards, benchmarks and controls which aspirant suppliers have had to attain (and maintain) in order to participate in the market. These standards were set and controlled by representative bodies comprising members of the profession. Buyers tolerated the resultant higher price because they believed that it guaranteed quality. Experience of competition in this industry has, though, been patchy. Some professionals, like architects and consultants, have been competitive for a number of years and have had to market their services. Others, like the elite accountancy and law firms, have had more protected markets but, at the start of the 21st century, began to experience new competitive forces and have had to consider how to market themselves more systematically. Again, there is published and well-researched accumulated knowledge to help thoughtful practice leaders address issues of strategy, management and marketing.

Consumer services, by contrast, are a range of offers to individuals. They are normally based on high-volume distribution systems, some of which are amongst the most famous brands in the world. They include: fast food, travel, entertainment and leisure services. All have been studied and researched extensively by academics as part of the transition of modern economies from manufacturing to service dominance. Most of the work described in Chapter 2, which investigates the difference between product and service marketing, has been grounded in consumer services.

But there are some newer service categories where less is known. The relatively new facilities management market is one and the range of 'embedded services' is another. The latter are a highly specialised category connected with manufacturing or the processes of companies. They include maintenance, installation and various advisory services. In 2005, McKinsey estimated this sector to be worth $500 billion (Auguste *et al*., 2005). Along with them, newer services offered on a network by technology companies, such as the emerging cloud computing services, have experienced little analysis of their unique needs and perspectives.

SERVICES IN TECHNOLOGY OR ENGINEERING SECTORS: A NEGLECTED CATEGORY?

There are a group of service businesses that have common characteristics and challenges. They can be defined as:

> A service provided to buyers, based on a network of common technology.

The most aggressive members of this category are computer service companies like IBM, HP or Fujitsu, that have made great noise about their move into more service-based business over the past two decades. Also included are: telephone companies, electricity companies, gas companies, oil distribution, water companies and cable TV companies. It embraces a number of consultancies like Accenture and Booz Allen whose advice is based on deep technology knowledge. Companies that use technology to provide transport services (like airlines, rail, road management, freight distribution and courier services) should also tuck into this category; as should those that provide services based on medical technology, such as GE, and the distribution arm of the oil companies.

They exist to provide service to customers by exploiting an installed base or infrastructure of technology, usually composed of dispersed geographical units. The service may be conceptual (like consultancy) or may provide specific support to a set of physical products (like maintenance). There is usually a means of combining these technical resources into a network. Because of the underlying infrastructure, the provision of service access (or the remedial work of resumption in service) may include the supply of spare parts or replacement units to geographical locations within tight deadlines.

As the development and application of the core technology can involve the deployment of massive capital sums, many of these services were started as public utilities. The supply of water or electricity, for instance, was considered to be of sufficient social significance that, in most countries, governments invested in new organisations to provide these infrastructures. In some cases, though, governments left it to the private sector to develop networks. They framed helpful legislation and sponsored regulatory regimes but invested little. Both the early rail networks and the recent Internet infrastructure were created in this way.

ENGINEERING AND SERVICE

In 1850, the famously successful banker Lord Rothschild said:

> There are three ways of losing your money: women, gambling and engineers. The first two are pleasanter, but the last is more certain. (Friedel, 2007)

This is not only because, in his age, a number of ventures failed due to lack of acquired learning; nor was it because science was seen as new and adventurous as well as exploratory and risky. As an experienced and shrewd financier, he also knew, as others learned to their cost over the centuries, that engineering and technology progression tends to be incremental, carefully building on the back of other work. When, for instance, Robert Friedel (History Professor at the University of Maryland) set out to write his remarkable book on a millennium of technology development (Friedel, 2007), he called it *A Culture of Improvement*. He demonstrated that science, technology and progression tend to be incremental, building on the innovation of thousands of nameless technicians. This leads to an attitude of precision, care, repetition and calculation, reflected in large technology businesses. Yet it can also lead to the destruction of value.

Technology industries routinely fail to produce real value propositions that entice people to pay more for exciting products or services than they probably should. As a result, they are the complete opposite to the luxury goods industry which uses heritage, sex, design, distribution and celebrity to create aching desire for bits of leather and fragrant water imbued with a mystique by names like Gucci and Channel. The IT industry, for example, invests huge sums in science and research. Many companies have their own state-of-the-art laboratories and sponsor doctoral programmes across the world. They will announce new breakthroughs and excite the world with dreams of new, life-transforming technologies like, each in their day, broadband, cellular telephony and digital TV.

They then market and sell their offer through business organisations founded on the belief that everyone is changing very fast and wants to buy everything as cheaply as possible. They discount and throw away the value of their precious scientific advances because of the logical and systematic approaches that got them there in the first place. 'Moore's law', for example, is routinely quoted at IT conferences but there is no logical reason why the power of chips should continue to expand at such a rapid pace. It is probably not so much a scientific principle of physics, comparable to, say, Boyle's law. It is more a description of a worldwide social system with common beliefs and mind sets; an industry, behaving idiotically.

Yet, throughout history, there have been outstanding individuals who have applied art, intuition and insight to science and technology. Leonardo da Vinci, Thomas Edison, Isambard Kingdom Brunel and Albert Einstein are just a few famous examples of outstanding individuals who have applied creative and adventurous thinking to scientific problems in order to create profit. And there are many who are less famous. In Victorian Britain, for example, the city of Manchester had a problem in that it was overcharged by its nearby rival, Liverpool, for items shipped through its docks. It was a now relatively unknown engineer (Sir John Rennie) who originally proposed, in 1830, the outrageous idea of a canal capable of taking ships to Manchester. (It was dug by hand 50 years later.)

This phenomenon has led to some cultures of the world (Germany for instance) distinguishing between technical work and true engineering. The first is systematic, precise, process-driven and clearly defined whereas the latter is professional, insightful and science-based but also intuitive and creative. Careful, well-crafted technical work is important and essential. The basics have to work well. Yet a growing number of leading technology firms are now showing how important it is to engineer real magic into value propositions.

Steve Jobs of Apple is probably the most famous modern example of the application of design and insight to create real value from technology. Users of the Apple Mac computer tend to be loyal enthusiasts who laud its ability to process information 'as if it's designed for a human being'. This desire to create innovative and enticing technology-based products gave Apple a difficult and chequered history until it launched the iPod and iPhone. The industry had been talking for many years about one device to integrate computing, mobile telephony and email. There had been several PDAs designed and launched with mixed success. But it was the (at the time) radical design and innovative approach that made this product so sexy and appealing. Shops were mobbed for it and Apple became a byword for innovation.

Similar difficulties occur when technology firms turn to service. When they create a service it is normally crafted with precision and care. It is likely to reflect the latest thinking, to comprise well-considered, internally focused processes and to involve modern tools or technology. It is just as likely, though, to look exactly the same as competitors' offers and to be priced using a 'cost plus' approach. As a result, the maintenance service of IBM will be substantially the same as that of HP; or the 'managed service support' of BT will be very similar to that of

Orange; while the electricity, gas or water services of different utilities will be exactly the same as those of their peers.

Creating a service inside a technology firm is a little like high school biology. Students are given a lively green frog that jumps and croaks. They are taught about its physiology and evolution. They are then shown how to slap it down and dissect it. They can see how the tendons interconnect and where all the internal organs are. Yet they are left with a dead frog. Time and again, technicians inside some of the most famous technology firms in the world do exactly the same thing with technology-based services. They examine the offer of others and use different processes (like blueprinting and service mapping) to specify the detail of the proposed service. They know exactly how it will work and what customers will receive. Yet, when it is launched, it is a dead frog, lifeless and valueless, over which customers haggle about price and moan about tiny errors.

Yet, there are individuals who 'engineer' (in the true sense of that word) a sexy and appealing service experience. Some are driven individuals and entrepreneurs like Steve Jobs (the 'iPhone Apps' services), Richard Branson (Virgin Atlantic) and Hans Snook (Orange mobile phones). Others are organisations that steadily apply a skill to a service industry; as the design company Nokia did to mobile phones. While others are marketers (like Chris Gent who put Vodaphone on the world stage), applying marketing knowledge and principles to services which rely on technology or networks for their success. It is the thesis of this book that the learning, insight and approaches of these unusual technologists will help the marketing of all those trying to position a service based on a technology platform; that they not only need to recognise that they are part of a wide and valuable category of businesses but that they also need to move beyond dead-frog approaches to marketing.

COMMON CHARACTERISTICS AND ISSUES AMONG SERVICE BUSINESSES IN TECHNOLOGY SECTORS

The service businesses of technology firms have a number of characteristics in common which affect their approach to market. They influence the agenda and decision-making processes of top management and, as a result, create a group of businesses with a similar culture and similar set of challenges.

Common Characteristics

These businesses share a number of common characteristics that drive business priorities, culture and behaviours. The most important are the following.

A Technology Infrastructure

They have an infrastructure, a 'platform', which is constructed from some form of technology (like a computer network or a piped utility). This heritage was once a major innovation allowing a new industry to develop and to distribute a basic, 'core' service. In many cases, though, this basic service provision eventually became restrictive. For instance, the invention of the telephone was an innovation that allowed simple voice communication. For decades the industry was limited to this very basic use of the technology because of public sector controls, lack of investment and lack of competitive innovation. In Europe it was not until the 1980s that the industry could really begin to acknowledge that there were different service needs between different customer groups. Their public sector ethos meant that customers as

different as low-user residential customers and international financial traders were treated to the same standards of service. At the same time, new technologies were not fully exploited. Three decades later, there is now a dynamic industry seeking profitable return by meeting the varied needs of many customer groups. Other technology services have been through a similar evolution. In some (like rail and utilities), government policy has separated the operation of the technology infrastructure from the core service to customers in order to force management companies to improve the value and responsiveness to customers.

A Network

This is a similar point to the first, but subtly different because networks exist in other industries which are not based on technologies or on an engineering culture. The telecommunications, cable TV and electricity companies have a cable-based network. The gas and water utilities have a piped network. The airlines, freight, courier and road transport services have a physical distribution network. As such they are subject to similar dynamics which demand the attention of senior management, unique to this group of services, fostering similar activities and similar cultures. An example is traffic flow.

The networks of these service companies have items that flow through them, which are fundamental to their customers' service experiences. If there is congestion caused by, say, a drop of pressure in the wrong distribution point (or a bunching of messages due to inadequate switch capacity, or a tail-back due to a narrow road), quality of service will be affected. So, senior management needs to know where to invest in the basic infrastructure of the network in order to meet peak demands, and there is an emphasis on the forecasting of demand for access to the service, as a basis for resource allocation.

For many of the newly privatised utilities this process has been dramatically affected by the change from public to private sector. In the past their monopolies and universal service requirement had meant that they approached this by understanding the basic growth patterns in the population and projected the demand for service based on historical usage patterns. The move into the private sector caused, however, a re-evaluation of this very basic planning process. Management now had to take note of varying usage patterns between different customer groups, changing usage patterns as customers learnt new ways to apply the basic service, and the effect of competition. The methods of demand forecasting had to be radically changed and aligned with new ways of allocating capital expenditure, such as discounted cash flow analysis.

In addition, many of these industries have also changed in the past few decades to a point where they can, proactively, manage traffic flow through their network. By setting up a capability where they can intervene in real time to improve movement through their network, they can improve quality of service, overcoming congestion. Initiatives by many governments, at the time of writing, to introduce proactive road management to their transport network demonstrate how important this can be. By introducing technology, which monitors the flow of traffic, congestion can be eased and less investment in new roads becomes necessary. It does, though, require that the customers are educated in new habits and behaviours, such as variable speed limits and better lane discipline.

An Engineering Culture

Organisations tend to take top management from the most important or dominant function, usually reflecting the core competence of their business. In these service organisations the

dominant discipline has, historically, been technical. They tend to be run by engineers and this technical heritage creates common attitudes throughout their organisations. For instance, there is likely to be a hierarchical or complex matrix structure, with an emphasis on job descriptions, roles, responsibilities and internal stakeholders. They will often have a compartmentalised attitude to organisation design, breaking functions into departments (e.g. sales, human resources and operations). They are likely to emphasise detailed operational processes, be systematic in project and programme management, and be excited by the potential of new, or changing, technologies.

This engineering heritage means that there is a preponderance of people who prefer to have precise, measurable options to problems and opportunities; and such attitudes mean that these organisations tend to be risk adverse and slow to change. They also tend to be slow to accept new ideas into the infrastructure of the organisation and suspicious of the value of creativity, originality and individuality; particularly where this stems from intuition and not obvious logic. New business ideas often have to go through a period of secretive 'skunk works' for example, before they reach critical mass and are accepted into the organisation as a whole.

Social Significance

Many services that are based on a technical network have a significance to society that is greater than other forms of service. Water supply is self-evidently important, but only comes to the front of its customers' minds if it is interrupted or contaminated. Telecommunications is vital to business operations and essential in time of war. Gas and electricity are, similarly, important parts of modern society. Even computer service support is increasingly considered to be an important part of the social fabric of society, as computers play an increasing role in running key processes in the community.

Governments therefore tend to legislate carefully to ensure that these services fulfil their social obligations. Legislators require service providers to meet social needs such as the provision of service to remote areas, weaker members of society and emergency arrangements. Although these obligations might be funded by a government, they still demand the attention of management and affect the culture and strategy of the whole organisation.

As a result of their ubiquity, history and criticality, there is also a set of emotional expectations in the general public as to what these services should provide. These expectations are often unarticulated but, if unfulfilled, there comes a point where society begins to express, through public media, that a line has been reached. This happened in 2008 during a period of steadily increasing prices for utility services and fuel, which were met with demonstrations and strikes in several countries. So, senior management of these socially significant service companies cannot ignore the emotional expectations that their service creates in the general public.

The Importance of Logistics and Spare Parts

Unlike professional or financial services, services with a technical infrastructure comprise physical components. The provision and maintenance of service therefore depends on an efficient method of managing and distributing physical components. This means that physical distribution skills, with all their associated functions (buying, warehousing, replenishment, forecasting and geographical stock holding) are integral parts of the service. If firms are to provide service which meets their customers' expectations they must establish physical distribution systems and supply chains that rival the major retailers for their speed, cost and

efficiency. Many have, although as it is an adjunct to their business, this achievement is not generally recognised by their industry or, sometimes, by the companies themselves. Yet this ability is an important competence in the successful management of a competitive, network-based service.

Fundamental Changes in the Core Technology

These service companies periodically face a fundamental change in the core technology upon which their service is provided. There are many examples of this. For instance, at the time of writing, television companies are upgrading from analogue transmission to digital and telecommunications companies are upgrading their 'local loop' to broadband based on optical fibre. This change is not normally a complete surprise, because major breakthroughs in technology are normally brought into commercial use over a period of years. Each firm then faces a significant policy decision as to how to phase in the change. It involves decisions about capital investment, human resources, project management and customer education.

This phenomenon is becoming more complex as the development cycle of new technology speeds up and as the opening up of services to global competition increases. In protected markets, the development of a new technology occurs at a pace that allows the industry to assess it and apply it at leisure. Yet, although government policy might seem a benign way of protecting customer interests, it leads to delays in the deployment of enhancements. With the arrival of competition, however, management can no longer be assured that their competitor is not deploying the new infrastructure and giving enhancements to customers.

Safety

It is a simple fact that, in many of these businesses, it is possible for either employees or customers to be injured, or even die, as a result of neglect. Some have life-threatening substances as part of their core service. Others, such as airlines, cannot operate without rigorous adherence to safety standards in order to avoid major accidents. All have people engaged in potentially hazardous or life-threatening tasks. So, management and staff at all levels of the organisation must give careful attention to operating practices and procedures that are carried out on a regular basis. Failure to lay down a written safety procedure can involve management in criminal prosecution, and failure to adhere to it can affect all who work in the organisation. This makes attention to processes and procedures unavoidable, affecting the culture of the whole organisation. In extreme cases it can make people rule-bound and secretive.

Intimacy with Defence Organisations

A large number of these businesses have involvement with their government's defence and security services to some extent; from data access to the supply of specific services. This makes unique demands upon them. There are likely to be, for instance, specially vetted employees reporting through a separate management line to dedicated senior executives. In fact, some companies are almost completely reliant on defence revenues for their survival. It may be that only a very small percentage of revenue comes from commercial, private customers. The marketer's job in these circumstances is often to window-dress, to disguise the reality of defence dependence by creating high-profile campaigns alluding to commercial issues and communicating those private contracts it does enjoy. This intimacy with defence or security does not necessarily imply anything sinister or corrupt. It does, though, affect the culture and

style of the company. As there are very few technology services (including telecommunication networks, utilities and computer services) that do not have this dynamic, it is a characteristic of this category of businesses.

Common Issues

A number of issues have to be managed by these firms, mostly as a result of their common characteristics. The most significant are the following.

Managing Capital Investment

As services in the technology sectors are based upon a core network infrastructure, the management of capital investment is a major consideration and focus of business leaders. The fundamental access to the whole service relies upon the pace at which the core infrastructure can be grown, developed and renewed. So, senior management must set aside a proportion of earnings to invest in the development of the network. As a result, the judicious use of capital to keep pace with the needs of infrastructure development and the cost of capital are critical success factors for management teams competing in these markets.

In a government-owned utility, the requests for capital funding are made to the treasury where they are compared with other funding requirements. They queue for attention and the priority they receive depends on the policies of politicians. The funding decisions of these businesses are therefore based on the ability of the representative government minister or the ideology of the incumbent government (and the reality is that state industry is always behind either defence and law or social security and health in priority). When moving into the private sector, however, businesses have to raise their own capital, finding funds either from cash, equity or loans. So, the decisions to fund projects are much more closely related to the ability to earn a return on capital and that, of course, is dependent upon how closely they provide the benefits that customers are willing to pay for. As a result, the cost of capital, the lifecycle of capital assets and return on investment are important financial measures that affect the thinking and approach of top executives in these businesses. Many have massive investment programmes on which they have to report to investors and analysts. This affects the culture of these organisations, distinguishing them from other categories.

Facing a New Commercial Environment

Many of these organisations have experienced a radical change to their business and market during the past few decades, often prompted by government legislation. The most obvious example is the change from public to private sector ownership of many in Europe. This caused a fundamental change in the philosophy of senior management and in the way companies were run. The market began to dictate the priorities of the business, a more efficient mechanism for determining the profitable creation and distribution of product and service benefits.

Another major change for some has been industry maturity. When an industry reaches the maturity phase of its lifecycle it has to find new ways to present benefits to customers (see the Tools and Techniques appendix). The computer industry, for example, reached maturity for large mainframe systems in many of the developed economies at the end of the 1980s and the beginning of the 1990s. As a result it had to look for new ways to sell the benefits of its core product (processing power). It found that customers had sufficient installations

of computers to process the information in their organisations (in some cases organisations had more processing power than they needed; some more than twice as much). But they did need the ability to process information held in different databases, across different technology platforms. In short, they needed to apply their processing power to different, changing business needs. They needed to buy human skills. So, as the industry matured, the supply side turned to services to create profit. People who had previously been technical support specialists to products needed to sell their skills in new ways.

A further change is the creation of new markets or new forms of competition. Staying with the early computer industry; in the early 1980s, a small group of entrepreneurs bought spare parts and recruited engineers in order to take some of the lucrative maintenance contracts that computer companies had with their customers. As a result, the billion dollar 'third-party maintenance' market was created. It became possible for customers to buy maintenance for their computers from several different organisations, often at less cost. This simple but fundamental change of market conditions meant that very large revenue streams, which had previously been protected, were now subject to vigorous competition and many managers (who had built their careers as engineering support specialists within large computer companies) found themselves running competitive service divisions of considerable worth. This required new skills, new management processes and the application of a new business philosophy.

Another example of fundamental change affecting service firms in technology sectors has been the advent of serious global competition. In the world telecommunications market this has caused a considerable change in the way global organisations function. In the 1970s most of the world's telecommunications supply was dominated by nationally owned utilities and monopolies. Even in America, telecommunications was dominated by the mighty monopoly: AT&T. However, since then, the American telecommunications market has been the subject of deregulation legislation and many European telecoms suppliers have been denationalised. As a result, new network competitors have appeared, and a race is on to gain significant world market share. Similar international competitive changes have been affecting the gas and electricity markets. The management of these newly competitive organisations had to build up a worldwide distribution and network infrastructure, by either organic growth or acquisition. They had to recruit senior management with international experience and began to develop worldwide services.

Managing the Corporate Brand

As discussed later, the corporate brand of a service is an important component in its success. The association of emotional benefits with the company's name and corporate identity is absolutely critical to the successful marketing of services. However, the name and image of the service organisation has associations which may not suit its aspirations in the market. One of the very first actions must therefore be to change the corporate image into a viable and attractive brand.

This is a challenge that most services with a technical heritage have had to tackle. BA, for example, had to change from being the rather staid 'British Airways' when it decided to compete on the world stage with service quality. One of its first acts was to create a new corporate image and name to suit its aspirations. Similarly, large computer manufacturers, like HP and IBM, found that they had to develop a reputation for service which was different to their previous image, in order to compete effectively in the new computer market. Historically, they had manufactured their own proprietary machines and were perceived to be solely

interested in selling them. Now they had to take a stance that was genuinely in the interests of their customers, supplying skills that crossed over the technologies of other suppliers. IBM in particular invested heavily in initiatives to reposition itself around services, running a global branding campaign that featured its own employees, and then a series of initiatives to be seen as a leading technology consultancy and services supplier after its acquisition of PricewaterhouseCoopers' consulting business.

Maintaining Network Access

Access to the technology or network upon which these services are based is a fundamental requirement of the service. If access is not correctly priced, planned and managed, neither the core service, different versions of the service to different customers, nor added value services can be provided. Service providers must therefore place considerable emphasis on the planning of access to the technology and the handling of access interruptions. An example is broadband communications, where customers' tolerance to speed of access delays is, at the time of writing, changing to become more demanding. Similar efforts have had to be made with computer service companies giving remote diagnostic access to customers. In doing so, they build up a network of service support, which is of enormous benefit to both the supplier and its customers, but pioneering this concept takes investment, careful communication, time and costs.

Service providers must also place considerable emphasis on maintaining access to their network. They must dedicate staff, systems and procedures to restoring customers' access in the case of an unforeseen interruption of service. They can even use interruption of service as the ultimate sanction when customers are unable or unwilling to pay. Moreover, for many network providers, continuous access is now becoming a technical feasibility. It is possible to create, cost-effectively, network structures whereby, if a component fails, the service can be re-routed with minimal interruption. It is also possible to deploy technology that predicts network failures and isolates them before they become a problem to the customer. This capability means that users are increasingly unlikely to know, understand or care about the causes of failure in access. They are also unlikely to be knowledgeable about the processes and procedures used by the service providers to recover service. They will value and concentrate upon the use of the service and will be intolerant of interruptions.

So, a major cost and logistical problem to the service provider becomes an insignificant commodity to the customer. Some companies, such as Avaya in the telecommunications industry, have tackled this perception with 'value reports', which show customers the financial impact of downtime avoided through remote monitoring and preventative maintenance. Elsewhere though, this issue has given many of these businesses a major strategic problem: how to create and maintain the value of their 'core', basic service.

Making the Core Service Relevant and Valuable

Successful marketing is about identifying a group of customers with common needs and presenting them with a proposition in a way that creates profit. However, the heritage of many technology companies, like utilities or maintenance companies, is grounded in the supply of a "commodity" service based upon a general technology. The whole organisation assumes that their core service has low perceived value and it is therefore difficult for them to find ways to make that service more relevant or valuable to different groups of customers. Yet, businesses can only make substantial money by meeting a set of customer needs, and these

may be latent needs that customers are unaware of until the product or service is presented to them. Service firms must find out the latent needs they might meet in different customer groups and either tailor the core service to meet them, or create added value services upon their technology platform, customised to each groups' needs (as Interoute has done, see the case study in Chapter 6). Due to an ingrained belief that the core service is a commodity, it is often left to new entrants or challengers in a market to do this as they evolve their competitive strategy; as Sir Richard Branson's Virgin group has done numerous times. Yet the ability to innovate around the core service remains a significant source of profit and competitive advantage in many technology sectors.

25 YEARS WITH VIRGIN ATLANTIC

Over the past 25 years, Virgin Atlantic has lived up to our expectations of a Virgin company: the small newcomer taking on the giant and complacent establishment; the people's champion introducing better service and lower costs for passengers with a reputation for quality and innovative product development. It was developed as an offshoot of Sir Richard Branson's Virgin Group, better known at the time in the world of pop and rock music.

Virgin Music, famed for its megastores, grew by being the first to spot new trends and offering their customers an exciting and fresh environment in which to buy their records. They only had one rule, 'the Andy Williams rule', which stated that they never stocked an Andy Williams record because they just weren't in that market. Virgin Atlantic set out to bring the same innovative and fun atmosphere into what was at the time a very tired and dull, engineering-led airline sector.

Founded in June 1984 with just one leased Boeing 747, Virgin Atlantic has grown to be the UK's second largest long-haul airline with a fleet of 38 planes. In 2008 Virgin Atlantic flew nearly 6 million passengers to 30 destinations worldwide and over 63 million passengers have flown Virgin in the 25 years since it opened for business.

But how did it manage to thrive in such a cut-throat marketplace that has seen the demise of so many airlines? Laker Airways, Dan Air, British Caledonian, Zoom, XL, Skybus to name but a few. The answer lies in the way it has built on the Virgin principles of excellent customer service, high quality and value for money, while being adept at handling the perilous cash flow problems inherent in running an airline.

Bringing a Touch of Magic to Air Travel

On Virgin's first ever flight, Maiden Voyager, the celebrity-packed passengers were famously treated to a view of the cockpit during takeoff. It showed the two pilots and flight engineer sharing a cigarette and chatting nonchalantly whilst paying no attention to the controls or runway as the plane took off. As the nose of the plane lifted into the air, the pilots turned around to face the camera: they were Ian Botham and Viv Richards. The flight engineer was one Richard Branson. This publicity stunt, as well as other gimmicks like handing out choc ices in the middle of movies, earned Virgin the reputation as a youthful, fun airline, clearly different from its main competitor, the rather dowdy British Airways.

Before the maiden flight, five small planes wrote 'wait for the English Virgin' across the skies of Manhattan to raise awareness of the new service. Following the maiden flight, numerous branded cross-Atlantic challenges took place, in speedboats and hot air balloons to continue to publicise the service. There was even a round-the-world balloon trip.

In his 2005 autobiography *Losing my Virginity*, Richard Branson explains the rationale for this high-profile approach. 'I realised that I would have to use myself to raise the profile of Virgin Atlantic and build the value of brand. Most companies don't acknowledge the press and have a tiny press office tucked away out of sight. . .' (Branson, 2005).

Then, in 1990, Iraq invaded Kuwait. The price of aviation fuel doubled and people were more reluctant to fly, fearing terrorist attacks. Yet even in adversity Virgin kept its profile high by removing all the seats from one of its 747s and loading the plane with blankets, rice and medical supplies to help the refugees who had fled to Jordan. The return trip carried a number of British nationals who had been stranded by the conflict. British Airways followed suit the following week. A few weeks later into the conflict, Saddam Hussein was keeping British nationals as hostages (as a human shield) around vital Iraqi installations. Through a personal relationship with King Hussein of Jordan, Branson was able to broker a deal whereby a Virgin Atlantic plane would fly into Baghdad, a war zone at this time, with medical supplies, in exchange for some of the hostages. Another PR coup for the airline resulted.

In early 1993, more column inches were garnered when Virgin Atlantic won their court case against BA in the 'dirty tricks' legal action. The UK's *Sun* newspaper headline read 'Virgin screws BA'. Editor Kelvin McKenzie was disappointed, saying he would have preferred it if BA had won, since it would have resulted in a better headline! Branson divided the £500,000 personal payout between all his staff, so that each employee received £166.

Competing on Value and Service Innovation

From the outset, Virgin Atlantic decided that it wouldn't be an exclusively no-frills economy service, as this would leave it vulnerable to a simple cost-cutting attack by its more established competitors. So while a proportion of every plane would carry economy fares, Virgin also set out to capture the business traveller by offering a first-class service at business-class fares.

Upper class is the equivalent of other airlines' business class. At Virgin, it includes extras such as complimentary ground transfers, state-of-the-art clubhouses, an exclusive on-board bar and one of the longest fully flat beds in the air. It also boasts in-seat laptop power and power leads for IPods, as well as offering customers a limousine pick-up service. On arrival at Heathrow, Gatwick or Johannesburg by chauffeur-driven car or LimoBike, the chauffeur will check customers in at the unique 'Drive Thru Check In', so that customers can bypass the terminal and head straight for the clubhouse.

Virgin realised the value of innovation to both the core and added value services, and launched a series of firsts for the industry. It was the first to offer seat-back TVs for every seat. It was also the first airline to offer a premium economy fare with added leg room, meals served on china and priority disembarkation for only a little more on the price of an economy ticket.

In February 2008, it became the first airline in the world to operate a commercial aircraft on a sustainable biofuel blend. This built on its 2007 environmental policy, which featured a carbon offsetting scheme as well as an order for 15 B787–9 Dreamliners that will burn 27% less fuel than the older planes they will replace.

Nearly all of these firsts are achieved through excellent investment in staff and training, which stems from Virgin's belief that if you look after your employees, they will look after customers and everyone will benefit. In 2005 VA became the first airline to be accredited by the Chartered Management Institute to provide its own Diploma and Certificate qualifications.

Outside of the core service, Virgin Atlantic has developed an industry-renowned 'Flying without Fear' programme. It has helped thousands of people overcome their fears, ranging from anxiety at takeoff, to a complete inability to board an aircraft, and customer feedback shows a 98% success rate. The programme is now supported by a new book, called *Flying Without Fear, 101 Fear of Flying Questions Answered*, for which Sir Richard Branson has written the foreword.

In true Virgin style, the programme's website announces that by special request, the Flying Without Fear team travelled to America to help actress Whoopi Goldberg overcome her fear of flying. She hadn't flown for a decade, but the opening of her new musical production *Sister Act* in London meant that she had to get on a plane again, which she was dreading. Whoopi received a lot of media attention both in the USA and UK about the help she received from Virgin Atlantic's Flying Without Fear programme, and this is what she said about it on British television's GMTV in April 2009: 'Virgin does this amazing program here in the UK and I'm begging them to bring it to the States where they can get people over their fear of flying. . . There are too many fail safes. . . Just knowing that was enough to sort of get me humming in the car on the way to the airport – something which used to get me clawing at people and scratching.'

Celebrating 25 Years in the Air

In June 2009, Virgin Atlantic unveiled a £6 million advertising campaign designed to beat off the credit-crunch blues and highlight why it's still red hot after 25 years of flying. The high-profile campaign, including press and TV ads, featured cheeky slogans such as '*More experience than the name suggests*', '*Extra inches where it counts*', '*Fly a younger fleet*' and the simple '*Hello Gorgeous*'. The campaign also featured Austin Powers with '*There's only one Virgin on this T-shirt baby*'.

In the TV ad, the cast is seen walking through the airport before boarding the airline's inaugural flight to New York. The advert features iconic images of the 1980s, such as the Rubik's Cube, brick-sized cell phones and the Asteroids video game.

Steve Ridgway, chief executive of Virgin Atlantic, said: 'When our competitors are feeling down in the dumps, and we enter into a year of economic uncertainty, you can always trust Virgin Atlantic to raise spirits and stare into the future with as much optimism as we did back in 1984.'

And there's much to be optimistic about. The airline was voted 'Best Transatlantic Business Class' by *Conde Nast* readers in 2009, on a wide variety of criteria including its in-flight service and efficiency of service. It beat off stiff competition from Singapore Airlines and Emirates to the top spot, with British Airways back in fourth place. It also won 'Best Long-Haul Airline' at the *Sunday Times Travel Magazine* Readers' Awards 2009.

In the midst of all this success the airline keeps its feet on the ground with a simple mission statement that keeps it focused: to grow a profitable airline where people love to fly and where people love to work.

Creating Added Value

When, in the 1970s, Gene Lodenberry launched his morality tale, *Star Trek*, he foresaw Captain Kirk talking into his wrist communicator throughout his 23rd century adventures. Yet, even he, a creative force, could not imagine loading 'Apps', like light-sabre battles, into IPhones, or many of the other applications being developed on mobiles at the time of writing. The fact that this has happened only 40 years later shows the power of numerous entrepreneurs, engineers and buyers interacting to create unimagined opportunities.

People have similar difficulty seeing the added value applications to be gained from the services which could be built on other technologies and networks. It seems that human beings have to first become accustomed to an innovative form of technology before they can really start to apply it to their life. Moreover, customers are not often able to imagine added value opportunities before they are presented to them, which means that traditional market research will not uncover their need. For instance, many adults, at the time of writing, have not spent the hours that their children have playing computer games. So, they find it difficult to understand the value of these programmes to future applications such as education and training.

In an environment that is dominated by engineers, it can be difficult to champion a new creative concept based on intuition and not hard data. As customer research often does not substantiate an innovative idea, innovators are often ignored or undermined. Yet, once concepts become familiar to an industry, they are then exploited by all. This tends to make these technology-based companies slow to reach for radical ways of bringing customer innovation into their organisation and to force them into creative partnerships; like Ericsson's with Sony in mobile phones.

Measuring Service Performance

There is a similarity of operational service measures amongst technology companies. These are produced at varying frequencies but have a fundamental purpose that is the same in each firm: to allow senior management to ensure that the operations of the company are in line with what it considers to be the key factors of success. Strangely, though, these measures might not be checked against the priorities of customers. Even more strangely, they might be changed at the whim of senior leaders without any real attempt to research customer needs or to calculate the consequences to massive complex organisations.

Typical measures include:

1. Provision of service access compared with demand.
2. Frequency of interruptions to service (mean time between failures).
3. Remedial actions taken within contact time or customer's expectation (mean time to repair).

Handling Catastrophe

Most services which rely on a technical infrastructure experience catastrophe. So, as these services are dependent upon physical networks and are so critical to society, they must have systems in place to handle unusual and devastating events. Experience in different disasters shows that the public will tolerate an interruption to service resulting from catastrophe if it is informed of what is happening, directed to emergency procedures and restored to service access in what it considers to be a reasonable time. However, as with the massive failure of emergency support in New Orleans after Hurricane Katrina, if the service provider fails in

any of these areas at the time of catastrophe, customers will be unforgiving. It may be that the organisation responds to the operational problems quickly but does not direct customers to emergency procedures during the catastrophe or to alternative service provision afterwards. In this case, customers will resent and remember this for some time, affecting reputation, revenues and costs. So, managers must give real attention to planning and practicing disaster recovery.

Each of these characteristics affects the style, structure, culture and commercial priorities of service firms built on a network or technology platform. Each produces an environment that sets them apart from consumer product, manufacturing, professional service or financial service companies. The characteristics, and the issues they generate, give the marketers within these businesses some unique considerations. Moreover, the difficulties and unique challenges faced by this category of service companies have not been thoroughly explored by academic writers or specialists, so there is little useable science or substantiated accumulated knowledge on how to market them.

IS THIS REALLY A DISTINCT MARKET OR CATEGORY?

Service companies in technology sectors have many significant dynamics and characteristics in common. People, who move from one to another, find that there are real similarities in approach to work, even if the underlying technology is very different. Executives within them have very similar outlooks, beliefs and attitudes to work.

A market is not just about impersonal economic forces. It comprises numerous people taking decisions in competitive companies and in buying groups that will eventually develop common reference points. These service companies tend to believe, for example, that customers care about the technological infrastructure as much as they do, and that longstanding customers remain with them out of loyalty, rather than simple inertia (often the effort to look for a new supplier can outweigh the benefits of finding one).

The participants in these service businesses tend to see their own industry as uniquely complex; a narrow view which comes from their technological heritage. For instance, the telecommunications companies see the provision of competitive modern communications, particularly through the 'local loop', as uniquely complex and a balance of safety, technological excellence and return on capital invested. However, the safety requirements in balancing the different pressures, say, in the gas distribution network against the need to invest in modern plant are very similar. Also, the development of the electrical distribution infrastructure has similarities to the network of remote diagnostic access common in modern computer service contracts. Participants in these service industries are therefore grappling with similar issues, going through similar development, and finding similar solutions. There are lessons and insights that participants in these companies can learn from each other.

VICTORIAN JIM REFORMS THE MIDLAND

It is very hard for modern people to really understand (especially any who have been stuck on an Amtrak train during a snow storm) just how revolutionary, scientific and advanced the railways were when they first appeared. This was the first time in human history that mankind could travel faster than a galloping horse, and it is no exaggeration to say that they transformed society.

The first real railway line went operational in Britain (Darlington to Stockton) in 1825 and proved to be a fabulous investment for its Quaker owners (returns of 15% between 1839 and 1841). It prompted a railway mania and investment boom. By 1840, 200,000 people were involved in railway construction in the UK alone. British iron output doubled as a result of it and, by 1850, £240 million had been invested. By 1869, the first trans-continental railway had been completed in the USA and, by 1890, the massive trans-Siberian railway was finished in Russia.

The railways created new towns, new concepts and new jobs. In London, for instance, a young insolvency specialist called William Deloitte created a new system of accounting for these industrialised service businesses and, through such advanced thinking, created the major accounting firm that still bears his name today. The railways introduced consistent time, holidays, commuting and new concepts like the word 'class'. Historian Eric Hobsbawm says of them (Hobsbawm, 1999):

> By 1850 the railways had reached a standard of performance not seriously improved upon until the abandonment of steam in the mid twentieth century, their organisation and methods were on a scale unparalleled in any other industry, their use of novel and science-based technology (such as the electric telegraph) unprecedented. They appeared to be several generations ahead of the rest of the economy, and indeed 'railway' became a sort of synonym for ultra-modernity in the 1840s, as 'atomic' was to be after the second world war. Their sheer size and scale staggered the imagination and dwarfed the most gigantic public works of the past.

Despite the work of novelists like Thomas Hardy and Charles Dickens, it is also hard for modern audiences to understand the attitude of educated and wealthy people to the poor during that period. Many resisted, for example, any educational initiatives because they feared that it would cause unrest. There were, though, a number of enlightened souls pushing for reform. Victoria's Prince Albert caused outrage and concern, for instance, when he insisted on there being days when the poor and uneducated could visit his Great Exhibition. Another reformer was James Allport, who ran the Midland Railway in the mid century.

His first significant act caused as much outrage and concern as Prince Albert's. At the time, 'Third class' was for the poor and working people. It normally consisted of simple open carriages with wooden benches, which were given low priority. There are reported instances of Third class trains being shunted into sidings to let even cattle or freight pass them by. Allport abolished this. He had covered carriages, all of which had upholstered seats, partitioning and more leg room. His peers in the industry hated him for it because (as BA did with flat beds in business class a century later) he set a new standard for the basic service offered on this new and exciting network of technology; and they had to keep up. For him, it was not enough just to offer carriage any more. He wanted to serve people.

He contracted with a successful catering company, Spiers & Ponds, to ensure that wealthier travellers could enjoy a food service. They had begun their business with sporting events like Wimbledon and opened the Criterion restaurant which still operates in London's Piccadilly. Passengers could buy one of their hampers at one station and drop it at another after eating it on the train. Their service became a social occasion, famous in Victorian

England. In his extensive history of advertising (Sampson, 1875), Victorian author Henry Samson could have been describing the answer to airplane food:

> Ten years ago no man in his senses would have dreamt of applying for food or drink at a railway buffet while he could go elsewhere; now Spiers & Pond daily serve thousands who desert the old familiar taverns and crowd the bars at the various city stations. . . the old regime of mouldy pork-pies and stale Banbury cakes has made us feel very well disposed to a firm whose name has already passed into a proverb.

The following personal advert from the *Daily Telegraph* of 1874 shows how much this service had become part of social life:

> The lady, who travelled from Bedford to London by Midland train on the night of the 4th inst, can now meet the gentleman who shared with her the contents of his railway luncheon basket. She enjoys the recollection of that pleasant meal, and would like to know if he is going on another journey. Will keep any appointment made at the Criterion in Piccadilly.

Allport's other remarkable innovation was to create a premium service on his railway. He constructed an outsourcing contract (yes, an outsourcing contract in the 1870s!) with America's famous Pullman trains. They provided a 'hotel standard service' for an extra fee, using their own carriages and attendants. In fact, Allport had been so effective at increasing the return on the basic rail service that he was eventually asked to run another innovation, the railway clearing house, which handled ticketing and pricing across the whole national network. He repositioned the value of the core service based on a novel network infrastructure and created attractive added value services. An outstanding services marketer.

SUMMARY

In the past few decades, services and service businesses have become more and more important to developed economies. Economists have recognised several sectors of the service economy but those built on technology or networks, despite being a recognisable market, are a neglected category. This is a unique market with common attitudes, benefits and behaviours. Marketers in this field need to understand and allow for the unique characteristics of this market whilst deploying state-of-the-art marketing techniques. In particular, they need to create attractive, enticing services.