

# It makes sense to share

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## Index

Foreword .....	1
About the author.....	2
Executive Summary.....	3
1. Airlines, IT and the world economy .....	5
2. The new generation of airline IT .....	5
• Creating a better customer experience .....	6
• The need for agility .....	8
• The dead weight of legacy systems.....	8
• Community platforms as the latest kind of partnership in IT.....	9
3. Outsourcing: not such a risk .....	13
• What thought leaders think .....	13
• Fears are overdone .....	14
• Doing it right.....	15
4. Shared services and community platforms .....	16
• Renewed pressure to differentiate.....	17
• Michael Porter: IT counterposed to management.....	18
• Nicholas Carr: IT as merely infrastructure .....	20
5. The sense in sharing .....	22
Appendix – A brief history of outsourcing in the airline industry. Timeline.....	25

## Foreword

The last five years have seen some of the most challenging times for the world's airlines. Increasing financial pressures, turbulent geo-political developments and more demanding customers have required airlines to look at a wide range of measures to increase cost efficiency, reduce capital expenditure, drive revenues and secure competitive differentiation.

The market environment has brought the role of IT into sharp focus. This paper explores the development of next generation outsourced community based solutions. The community platform for passenger handling is a shared system used by rival airlines for customer management processes and it represents a revolution in airline IT.

The decision to adopt a community IT platform for customer handling by the Star Alliance in August 2005, joining other airlines such as British Airways, Qantas and Finnair, epitomises the need for airlines of all sizes and across all geographies to look at how technology can help them unlock customer value.

This paper looks at the development of the community platform – as a pioneering concept for all sectors - in the context of general management and business theory. It offers a compelling insight into the issues and factors that airlines need to consider when planning for the future.

The airline industry has a significant opportunity to lead thinking across other sectors. It can be a beacon for those wanting to secure industry advancement whilst at the same time promoting individual competition that is crucial for innovations to be realised.

Winning airlines will be those which embrace agility and innovation in management, marketing and customer services. Adopting the right IT strategy will be the difference between success and failure.



**Frederic Spagnou**

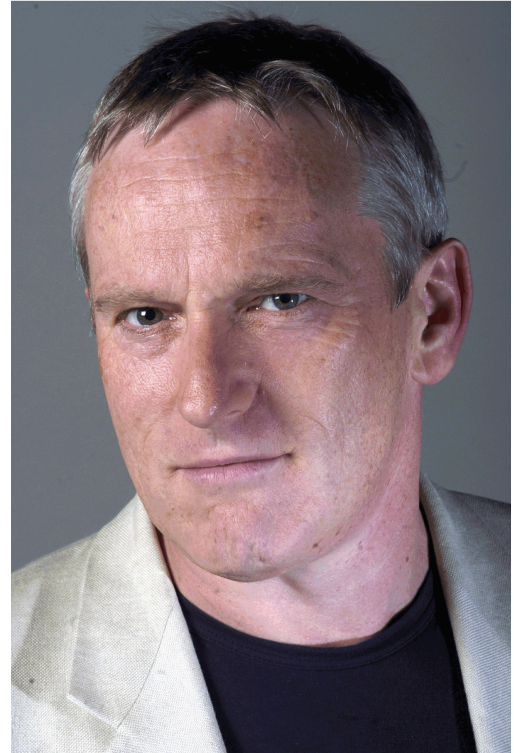
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*The views expressed in this paper are entirely those of the author, James Woudhuysen.*

## About the author

James Woudhuysen is a physics graduate, broadcaster, columnist for *IT Week*, and Professor of Forecasting and Innovation at De Montfort University, Leicester. He is leading commentator and writer on management issues; among his most recent works is *“The globalisation of UK manufacturing and services 2004-24: toward the agile economy”* (UK Trade & Investment, 2004). Woudhuysen has consulted for many of the world’s top companies including British Airways, General Motors, HP, IBM, Unilever, Motorola and Whirlpool.

In the 1980s he headed research at the international designers Fitch. In the 1990s he established an IT consulting division for the Henley Centre, one of Europe’s leading forecasting bodies. Woudhuysen also headed worldwide market intelligence for Philips consumer electronics, before returning to the UK as a director of product designers Seymour Powell. In this position, he worked on the future of technology and markets with Casio, Mars, McDonalds, Nokia and Yamaha Motor Europe.



## Executive Summary

A breakthrough new approach to outsourcing is now available to the airline industry which has the potential to transform performance in this sector, and also act as a leading example to other industries. This report looks at the development of the community IT platform in the airline sector as a pioneering concept capable of delivering not just radical cost savings, but also breakthroughs in differentiation and customer service.

### 1 Airlines could use IT to transform themselves and the world economy

Airlines have shown they know how to use IT to modernise in the face of adversity and with new developments such as online booking and e-ticketing, today's experience of air travel is more touched by IT than ever.

With the next generation of airline IT, the world's airlines could seriously improve their productivity – not just by cutting costs, but also by improving service quality and fully exploiting new channels. This is no mean feat, but if the global airline business can really transform itself, it could provide a tangible boost to the productivity of the world economy.

### 2 Airlines have traditionally pioneered the use of IT and recognised the benefits of sharing computer resources

Airlines have recognised the need to retain customers for the long term – they have begun to think about the travellers *complete journey* and their *past history* in order to estimate their future revenue potential. They moved from the narrow Passenger Service Systems (PSS) that emerged in the 1970s to the Customer Management Solutions (CMS) of today.

One of the greatest stumbling blocks for airlines wanting to use IT to drive innovation and differentiation is their legacy systems. Often based on code written over 30 years ago they have acquired much complexity and disorder over that time.

The new generation of airline IT – specifically new generation customer management

solutions - can deliver significant value to airlines both in terms of increased process efficiency and also in better customer service. One of the most significant new developments for airlines in developing better customer service and responding to the many business challenges that face them, has been the introduction of sophisticated new outsourcing services, based around a “community platform”. This is the idea that instead of developing their own individual systems for managing customers, airlines should share applications. Altéa CMS, Amadeus' Customer Management Solution is a leading example of this approach. Airlines are used to both the idea of outsourcing their computers and data processing to outside suppliers, and also having their individual business applications developed by third parties. The community platform marks a step beyond the outsourcing of an individual company's applications. It spans both the outsourcing of infrastructure and the outsourcing of tools and applications development. Business applications are developed and hosted by a third party expert and are then “shared” by many companies. Rather than owning the systems themselves, the airlines pay for them on a cost-per-use basis, almost like “renting time” on them.

As airlines deploy the new community-based systems approach, they do more than shrug off expensive legacy systems by outsourcing their IT to a third party. On top of that, participants join their partners and rivals in using an IT platform which is hosted by a third party, but which they all help govern.

### 3 Examining the perceived risks of outsourcing

It ought to make sense for airlines to adopt the next generation approach, embodied by the community platform, to outsource their increasingly complicated technology requirements. Yet we know that certain fears still accompany the outsourcing of IT.

But there is a need to get the risks of outsourcing into proportion. The outsourcing of IT processes or applications can, *if it is planned and managed properly*, free up clients

to be *more innovative, not less*, allowing top managers from IT director to CEO to concentrate on *customer service*, the brand-building that goes with that, and on *business agility*.

Fears, it should be remembered, bring their own costs and for many financially strapped airlines, outsourcing is a must – there is no alternative, but they have to do it right.

#### 4 There is more to inter-firm relations than naked competition

In the past, it was practical to join up the world's airlines in a way that most industries still struggle to achieve, resulting in the beginning of modern code share and alliance structures. Today's community platform approach to airline IT arises from those structures.

Why then do people think that cooperation *must* mean a failure to differentiate one's offer from those of others? On the contrary, airlines use of a common supplier is likely both to foster fresh competitive strategies, and renew pressure to differentiate.

In the airline business, rivalry has indeed intensified over customer service, sleeping facilities, food quality, cabin design, mileage benefits and brand presence. Despite the impact the Internet has had on airline pricing over the past few years, competitive differentiation across all these dimensions remains undimmed.

IT cannot naively be separated from the content-driven, human activity of management. IT is an integral part of how management is performed and it is an error to rid it of content and people.

While next generation customer management solutions in the airline sector do make much of the nitty-gritty of IT simply part of the furniture, the front end of IT – its interface with staff and travellers – is set, like IT directors, to become more vital to strategy.

#### 5 A glimmer of light has appeared

Confronting some of the airline sector challenges with the help of IT, may now set an example for other industries to follow. The new generation of airline IT should help provide more time for executives to bring about genuine innovations that enable differentiation and have a durable impact in the long term.

Both outsourcing and shared services contain benefits that go beyond the individual firm. And in the airline sector, the biggest advances for individual airlines, such as e-ticketing, have also been advances enjoyed by all.

Airlines will come to embrace shared systems that both enhance individual competitiveness and advance the interests of the sector more generally. The new generation of airline IT contains more potential than it does danger.

It makes sense to share.

Airlines have now begun to tackle the information-laden nature of the typical person's journey with a still more radical approach.

With the next generation of IT, the world's airlines could seriously improve their productivity – not just by cutting costs, but also by improving service quality.

## 1. AIRLINES, IT AND THE WORLD ECONOMY

Everyone knows about today's airline realities. But in recent years, airlines have shown they know how to use IT to modernise in the face of adversity. Online booking and e-ticketing have cut down the paper and costs involved in the customer experience of air travel. From better arrival and departure displays, through better self-service ticket kiosks, to the ability to send emails round the world at 30,000 feet, today's experience of air travel is more touched by IT than ever.

Airline IT benefits passengers. Airlines have now begun to tackle the information-laden nature of the typical person's journey with a still more radical approach. Research by McKinsey has identified six sectors whose use of IT has done much to raise US productivity: the manufacturing of semiconductors, PC assembly, telecommunications, wholesaling, retailing, and securities brokerage. There is now the chance that air travel can join those six. With the next generation of airline IT that has now become available, the world's airlines could seriously improve their productivity – not just by cutting costs, but also by improving service quality.

This is no mean feat, for it is harder to raise the productivity of a labour-intensive service like airlines than it is to transform a branch of manufacturing. A dramatic cut in operating costs and a just-as-dramatic improvement in the customer experience of airlines would also confirm that the sector had once again used IT to modernise in the face of difficult conditions.

## 2. THE NEW GENERATION OF AIRLINE IT

Airlines have traditionally been pioneers in adopting IT and early on recognised the benefits of sharing computer resources.

In the 1970s, major airlines developed their own computer reservation systems. The airlines then looked at shared systems to help reduce costs and also offered some of the smaller carriers the opportunity to 'piggy back' on them. At the same time, airlines were also conscious that the industry had to develop effective distribution channels. They therefore collaborated to create what became known as global distribution systems (GDSs) to integrating with the travel agency channels. GDS is the term used to describe the large and sophisticated electronic airline travel reservation systems currently in use throughout



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the world. There are currently four major GDS systems in operation Amadeus, Sabre, Galileo and Worldspan.

While these systems were extremely innovative when introduced, and though they continue to be the work-horses of the industry, there has not been a similar breakthrough in the use of airline IT for the past 20 years. However, three shifts in general business practice have begun to accelerate changes among airlines. The first and earliest was to do with a growing focus on the *loyalty and experiences of customers*. The second, later shift revolved around the increasing need for businesses to foster *agility in operations*, an increased and urgent need for IT to explicitly support changing commercial strategies. Last, in the world of computers and telecommunications, the *impact of the Internet* was to transform the relationship between airlines and customers.

In the 1990s, *IT convergence* also became a significant driver of purchasing decisions across most sectors of industry and services. However, the direct impact of this shift on the airline sector was to a certain extent limited, since airlines have been pioneering the use of shared systems for about 30 years.

### CREATING A BETTER CUSTOMER EXPERIENCE, FROM BOOKING TO BAGGAGE

During the recession of 1989-91, thinking about management defined a number of new, creative concepts that remain relevant today. One of those concepts was the need to retain customers for the long term. As manufacturers in industries such as cars strove for zero defects in their products, so service providers began to seek 'zero defections' on the part of their customers. It was argued that revenues from repeat business, rather than the growth of market share, should become the main event.<sup>1</sup>

The 1990s therefore saw a drive, on the part of multinational firms and others, toward trying to retain customer *loyalty*. But that was not the only instance of their following the immortal (1982) injunction of Tom Peters, to be 'close to the customer'. *Knowing who the individual customer is* also became important to corporations in the 1990s. Even today, many airlines, especially the smaller ones, have a hard time distinguishing which customers generate most of their revenues.

From knowing the customer, a new need became apparent to the airline industry: the need to understand every aspect of

- the airline passenger's *complete journey* – encompassing all stages from searching and pricing

1. See Frederick F Reichheld and W Earl Passer Jr, "Zero defections: quality comes to services", *Harvard Business Review*, Sep-Oct 1990; and also Reichheld, *The loyalty effect: the hidden force behind growth, profits and lasting value*, Harvard Business School Press, 1996.



flights, making a reservation (online/offline) through to check-in and departure. A complete journey that can include many incidents including upgrades, disruption, luggage problems.

- the passenger's *past history* with the airline, and thus his or her future revenue potential.

Altogether, airlines registered this new need by making a gradual move from the narrow Passenger Service Systems (PSS) that emerged in the 1970s to the Customer Management Solutions (CMS) available today.

PSS are the legacy systems built up by the airlines over the last 30 years and include inventory, reservation and departure control systems. With PSS, if exceptions arise, airline employees have to perform a lot of manual intervention, since both data and the identification of passengers is organised around the *flight*. These days, PSS have major limitations in terms of functionality, ease of use and maintenance.

The breakthrough represented by Customer Management Solutions is that the focus is now put not on the flight, but on the individual customer. Reservation, inventory and departure control become customer centric, not flight centric. Passengers are identified by name or some form of identity – ticket, bag tag, credit card, frequent flyer card. Customer Management Solutions enable carriers to influence the customer journey at every touch point to ensure the traveller experience is enhanced and loyalty created for the carrier brand.

The advent of next generation Customer Management Solutions represents an important step forward by focusing on passengers as 'customers' and understanding and identifying their value at every single step of their journey.

Take, for example, British Airways. In 2004, the company set up a fresh organisation, Product Management, to drive innovation across every part of the customer's journey: from browsing [ba.com](http://ba.com) through to arriving at his or her final destination.

The rising influence of new generation Customer Management Solutions in the airline industry is in line with overall trends in the business world. In general industry it has been matched by the widespread investment in Customer Relationship Management (CRM) systems, supplied by IT specialists such as Siebel, which are deployed across enterprises to integrate a company's processes around a focus on customers.

In and well beyond IT, the new orientation of the airlines toward the complete customer experience of air travel has begun to take root.

### THE NEED FOR AGILITY

In *manufacturing*, the vogue for agility began in the US in the early 1990s.<sup>2</sup>

Broadly, we could define design for agile *service* as

- a physical and/or electronic *reach* to users...
- that is *supple, rapid, and able to adapt the design of the interaction* it has with users...
- depending on what they are *sensed* to be doing now, or *anticipated* to be doing in future.

Airlines have long needed their operations to have this kind of agility. They run mixed fleets to try to maintain optimum levels of seat occupancy. But with the entry of low-cost airlines since the mid-1990s in Europe, and as far back as the 1960s in the US, the major carriers have been pressed more than ever to react quickly to changing market conditions.

Since 11 September 2001, the need for agility has been reinforced by major world events, tough competition and by operational disruptions. Tomorrow's new wave of aircraft designs, accompanied by multiple cabins, classes and subclasses, make agility still more essential.

### THE DEAD WEIGHT OF LEGACY SYSTEMS

In 1982 the American futurologist Naisbitt proclaimed:

"The combined technologies of telephone, computer, and television have merged into an integrated information and communication system..."<sup>3</sup>

How wrong he was to use the past tense! Today, however, some of the rocky path toward IT convergence has been conquered. In terms of data processing, we have seen the advent of open, service-orientated software architectures deploying Web services to allow different operating systems to work with each other. As for data transport, the rise of Internet Protocols in telecommunications has proved unstoppable.

To cut their costs, airlines have done much to promote customer self-service through IT. This has led to an explosion in transactions and required IT resources,

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2. For an overview of the theory and practice, see James Woudhuysen, *The globalisation of UK manufacturing and services*, 2004-24, UK Trade & Investment, 2004, on [www.invest.uktradeinvest.gov.uk/media/feature\\_articles.cfm?action=viewArt&artID=109](http://www.invest.uktradeinvest.gov.uk/media/feature_articles.cfm?action=viewArt&artID=109)

3. John Naisbitt, *Megatrends*, New England Libray, 1982

One of the greatest stumbling blocks for airlines wanting to use IT to drive innovation and differentiation is their legacy systems.

The investment required of an airline for it to move over to its own open systems is enormous. Nor are the barriers to investment just economic. Airlines often don't have the in-house expertise required to implement the complete overhaul of the systems that is needed.

One of the most significant new developments for airlines in this area has been the introduction of sophisticated new outsourcing services, based around a "community platform", or the idea that instead of developing their own individual systems for managing customers, airlines should share applications.

strengthening the demand for open systems. However, one of the greatest stumbling blocks for airlines wanting to use IT to drive innovation and differentiation is their legacy systems. Often based on code written over 30 years ago they have since acquired much complexity and disorder over that time.

This makes it hard for airlines to fund, and focus on, innovation. For even the largest carriers, the investment required of an airline for it to move over to its own open systems is enormous. Nor are the barriers to investment just economic. Airlines often don't have the in-house expertise required to implement the complete overhaul of the systems that is needed.

### COMMUNITY PLATFORMS AS THE LATEST KIND OF PARTNERSHIPS IN IT

As we have seen, for the first time in more than 20 years, a new approach to airline IT is being forged out of desire to put the customer at the centre of the business and the need to move from legacy systems. Next generation airline IT can lead to a step-change in productivity. That change could bring benefit to airlines, their employees, their passengers and to the world economy.

One of the most significant new developments for airlines in this area has been the introduction of sophisticated new outsourcing services, based around a "community platform", or the idea that instead of developing their own individual systems for managing customers, airlines should share applications. The community platform approach has the potential to enable radical change and free airlines of the need for a massive IT investment. To appreciate what a breakthrough this represents, a brief history of outsourcing is required.

#### Outsourcing options

Figure 1 shows the approaches companies can take to outsourcing and the way they have evolved.

#### Infrastructure (hardware, software, networking)

One of the earliest ways to outsource was handing over a company's computers and data processing to an outside supplier.

#### Tools and Applications (design and development)

One of the next key steps was to outsource the development of business applications to a third party. One of the main effects of this was to reduce the number of in-house development staff in application development.

As airlines deploy the new community-based systems, they do more than shrug off expensive legacy systems by outsourcing their IT to a third party. On top of that, participants join their partners and rivals in using an IT platform which is hosted by a third party, but which they all help govern.

### The Community Platform

One of the newest and most radical developments, this marks a step beyond the outsourcing of an individual company's applications. As seen in Figure 2, the community approach spans both the outsourcing of infrastructure and the outsourcing of tools and applications development. Business applications are developed and hosted by a third party expert and are then "shared" by many companies. This new approach is about "outsourcing" or renting the use of a business tool from a third party. It is being pioneered by the airline industry and will enable carriers, from large to small, to avoid each having to pour millions of pounds into the development of badly needed next generation IT systems. Instead they can use common applications and through economies of scale, get them at an affordable price.

For the airline industry, these new systems offer significantly enhanced integration and automation of existing functionalities - for both sales and airport environments. The systems handle such transactions as schedule, availability, inventory, reservations, fare quote and ticketing, as well as passenger check-in. The improvement in customer service will come through ease of use, as well as through the common and high quality data that airline service agents will be able to access when dealing with customers.

It is through the application of their own 'business rules' that the airlines can handle passengers in ways that continually support their business needs. In this new paradigm, operational staff can change and amend those rules. That means that the system is able to respond rapidly to both customer and market demands.

So, as airlines deploy the new community-based Customer Management Solutions, they do more than shrug off expensive legacy systems by *outsourcing their IT to a third party*. On top of that, *participants join their partners and rivals in using an IT platform which is hosted by a third party, but which they all help govern*. They share some common functions – principally, those that deal with regulation and with code-sharing. Yet they also build their own, private applications.

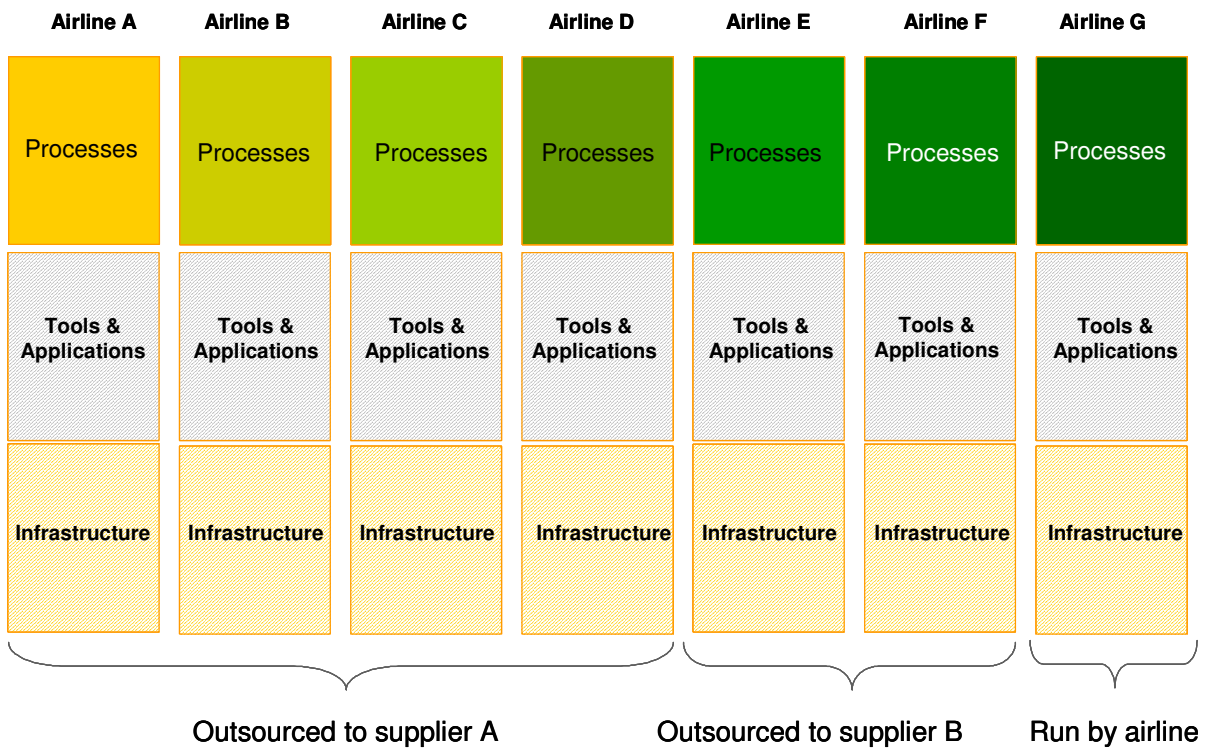
Outsourced IT governed by a community of competitors? It sounds so simple, doesn't it? But in fact its practical success is a poke in the eye to all those theorists who are too fearful of outsourcing. It is a riposte too to those sceptics who are too cynical about multi-firm cooperation. It is also a challenge to those unable to see, or unwilling to admit, that perhaps as much as 90 per cent of the basic operations of two companies operating in the same sector are often very similar, even if they compete with each other.

Far from forcing companies to be the same, the community platform approach boosts the potential for innovation and

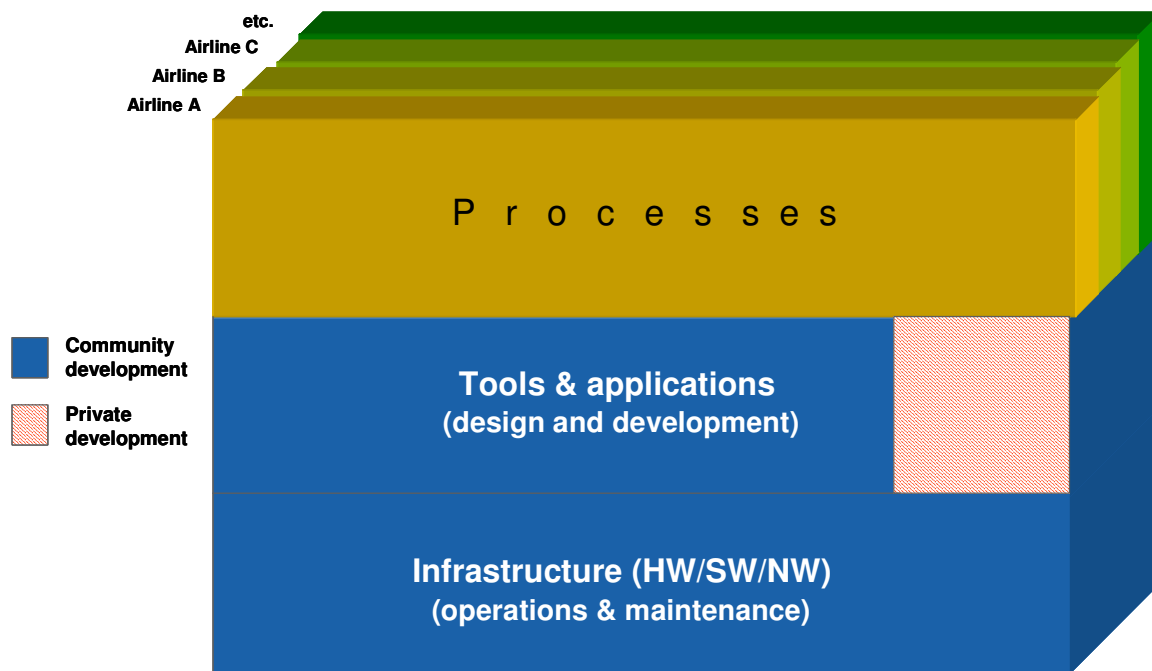
differentiation. It is true that airlines who use the system share the same tools. But they don't share the ways in which they use those tools. After all, the thousands of companies using SAP, or Microsoft Office, don't work identically.

Let's now look more closely at outsourcing and cooperation.

**Figure 1**



**Figure 2**



### **ALTÉA: NEXT GENERATION CMS FROM AMADEUS**

Altéa CMS, Amadeus' Customer Management Solution, is an interesting test case of what the IT world calls a 'community' model. In the Altéa case, the users are multinational companies that get together despite the fact that they can be fierce commercial antagonists.

In the rules of governance of Altéa, participants share the costs both of operational services, and of much new IT development. Each airline gets between one and five votes, depending on the number of their passengers. Each can then request that certain developments should be undertaken to benefit all participants. On top of that, however, each airline has the right to develop its own applications. Once implemented on Altéa, these applications remain the exclusive property of the developing airline for a period of 12 months, after which they become the common property of all participants. In practice, too, participants find that one of the major benefits of Altéa is that they get into productive dialogues with their rivals about new technology, best practice and – of course – regulation.

### **3. OUTSOURCING: NOT SUCH A RISK**

It ought to make sense for airlines to adopt the next generation approach, embodied by the community platform, to outsource their increasingly complicated technology requirements.

Today, the most advanced Customer Management Solutions provide the opportunity for airlines to use an outsourced process but with the benefit of applying their own rules. This allows individual airlines – while sharing the system, to unlock its potential to support their individual needs.

The August 25 decision by the Star Alliance to adopt a community platform for customer handling was a significant move for the industry. Shared systems enable individual airlines to unlock the benefits of alliances by reducing the IT integration time that historically accompanied commercial collaboration.

Yet we know that certain fears still accompany the outsourcing of IT. To see how well-founded such fears are, a little history is in order.

#### **WHAT THOUGHT LEADERS THINK**

In a famous article published in 1937, the Swedish economist Ronald Coase explored why modern capitalist economies consist of consciously organising firms, not just individuals contracting with each other by the use of the price mechanism. Concerned to uphold economic planning, Coase, a moderate socialist, pioneered the idea that firms exist for good reason. 'A firm will tend to expand', he wrote,



It became mainstream wisdom that companies should stick to what they had called their 'core competences'. And at one level all this made sense. Airlines, after all, no longer build aircraft. So why should an airline directly take on IT?

'until the costs of organising an extra transaction within the firm become equal to the costs of carrying out the same transaction by means of an exchange on the open market'.<sup>4</sup>

In 1960, however, Theodore Levitt, one of the founding fathers of American marketing, unwittingly appeared to fracture the kind of confidence about the corporation that Coase had exhibited. In a seminal article titled 'Marketing myopia', Levitt insisted that corporations consider much more carefully what business they were in.<sup>5</sup> Then, in 1990, the US management gurus CK Prahalad and Gary Hamel went a step further. They suggested that the business a firm was in was not defined by its particular constellation of subsidiaries, or strategic business units, but rather by what it was expert at. Not the price/performance ratios of products, but 'the collective learning in the organisation' became the criterion for success.<sup>6</sup>

Once Prahalad and Hamel grew in stature and prominence on the US scene in the 1990s, it became mainstream wisdom that companies should stick to what they had called their 'core competences'. And at one level all this made sense. Airlines, after all, no longer build aircraft, in the way that some did before the Second World War. So why should an airline directly take on IT? Why should an airline be expected to develop a core competence in, say, application software development for example.

It didn't take long, however, for commentators to have serious doubts about the touching language of 'mutual, shared-destiny partnerships'. In 1995 the *Economist* announced, in bold type: 'More and more companies are forming cosy partnerships with their suppliers. Such relationships can be risky'.<sup>7</sup> The magazine pointed out that it could be hard to be consistently collaborative with all suppliers. The supplier might unfairly take advantage of shared data or personnel. The customer might unwittingly lose a core competence to its supplier. Other, cheaper suppliers might come along – but it would cost a lot to switch to them. The *Economist* concluded: 'Trust is good. But for many companies, hostility may still be more profitable'.

But there is a need to get the risks of outsourcing into proportion.

## FEARS ARE OVERDONE

Too often, managers of all descriptions are deeply averse to taking risks today.<sup>8</sup> As a result, across many sectors beyond airlines, outsourcing has for some years come to be seen as suffused with risks that are, in fact, often exaggerated.

4. Ronald Coase, "The nature of the firm", *Economica* N° 4 1937, pp386-405, on [people.bu.edu/vaguirre/courses/bu332/nature\\_firm.pdf](http://people.bu.edu/vaguirre/courses/bu332/nature_firm.pdf)

5. Theodore Levitt, "Marketing myopia", *Harvard Business Review*, July-Aug 1960

6. C K Prahalad and Gary Hamel, "The core competence of the corporation", *Harvard Business Review*, May-June 1990

7. "Holding the hand that feeds", *The Economist*, 9 September 1995

8. Benjamin Hunt. *The timid corporation: why business is terrified of taking risk*. John Wiley & Sons. 2003

The outsourcing of IT processes or applications can, *if it is planned and managed properly*, free up clients to be *more innovative, not less*. By ridding itself of the need to give constant attention to the nuts and bolts of IT, top managers from IT director to CEO can get more time to concentrate on *customer service*, the brand-building that goes with that, and on *business agility*.

It can be argued that there are two main and contradictory risks in outsourcing - doing it, and not doing it. To some degree, when a firm outsources, it must take a leap of faith by opening up a part of its business operation to a third party. Fears can range from the loss of control and flexibility, to the depletion of in-house expertise. On the other hand, failure to pursue outsourcing can lock a company into mounting IT investments just to ensure that it is taking advantage of the most modern technology and management practices.

For the airline industry it has become almost mandatory to consider outsourcing. Every airline is obsessive about optimising its financial structure. A compounding factor is that the carriers' IT departments lack the critical mass to develop, operate and maintain next generation systems.

### DOING IT RIGHT

Fears, it should be remembered, bring their own costs. The first task with outsourcing is to keep low the amount of management time spent on deciding whether to make or buy, and on the contracts that ensue.

Second, the outsourcing of IT processes or applications can, *if it is planned and managed properly*, free up clients to be *more innovative, not less*. By ridding itself of the need to give constant attention to the nuts and bolts of IT, top managers from IT director to CEO can get more time to concentrate on *customer service*, the brand-building that goes with that, and on *business agility*.

Of course, clients can make foolishly generous decisions in relation to outsourced suppliers, just as foolish decisions occur all the time in business. Moreover, to outsource the generation and development of ideas and innovations – to start-ups, consultants and universities – is a move that deserves special care. But provided clear ground-rules are drawn up in advance, about what can and should be done in-house and what can be sent outside, there is no need to get obsessed with risk.

Outsourcing, like anything else, is not a panacea. Anxiety about it may say more about other nagging doubts on overall corporate direction than it does about the pitfalls of contracts entered into. As in personal life, business relationships with partners can end in divorce. But again as in personal life, the level of successful marriage and re-marriage remains pretty high.

For many financially strapped airlines, outsourcing is a must. There is no alternative, but they have to do it right.

## 4. SHARED SERVICES AND COMMUNITY PLATFORMS

Getting into a third-party bed in the form of a community platform with one's partners or rivals is supposed, if anything, to be even more fraught with traps than outsourcing. The view is taken that, in such arrangements, there are more people who could steal your secrets – and that they don't seek business from you, but rather to do you down.

But wait a minute. Although nearly all corporate communications include the cliché 'today's fiercely competitive commercial environment', there is more to inter-firm relations nowadays than naked competition. After all, cynics who ridicule the possibility of competitors *ever* getting on are often the same people who point a finger at trade associations or industry lobbies as obvious evidence of collusion, cartels or conspiracy.

In fact both these accounts lack nuance and specificity. Right now, in the airline sector, there are plenty of factors that carriers have in common: high fuel prices, growing regulation and heightened concerns about security, to name but a few. Of course, in other sectors and at other times, competition can really eliminate rivals. But we need to remember that

- in corporate real estate, and in accounting, the same facilities management provider or audit firm often works for several rivals
- in telecommunications, a single wholesale provider can often group together a series of retail adversaries
- in financial services, a common, outsourced payment system such as VISA has long been used by all kinds of rival banks
- even in pharmaceuticals, a sector in which competition has been intense and direct, there are signs that outsourcing specialists in India are able to win favour from a variety of players for the way they can now conduct parts of the drug development process.

Before and after the Second World War, the airline sector was a pioneer in the application of IT – however primitive by today's standards – to business on a global scale. At that time it was practical to join up the world's airlines in a way that most industries still struggle to achieve. More importantly, at that time, airlines started to develop common standards and definitions of the information they all used and needed to exchange to make the world's airline network mesh together. This was the beginning of modern code

share and alliance structures. Today's community platform approach to airline IT arises from those structures. It's the most efficient way to conduct business – and it still depends on agreed standards of information exchange.

After more than 30 years of legacy systems, all airlines have begun to embrace complete customer journeys, agility in operations, and convergence in IT. The need for airlines to increase efficiencies and deliver improved service to customers continues unabated. As such, innovations such as e-ticketing have transformed the airline industry as a whole. E-ticketing doesn't just deliver competitive advantage for just one airline. It has enabled the industry as a whole to make significant cost savings – and will continue to do so if the industry can rise to the challenge. It is these innovations that the industry as a whole needs to embrace and many of these will be underpinned by a shared and common approach to systems.

With the new generation of airline IT, the airline sector has an opportunity to shake off the malaise of the past few years.

Every carrier has an interest in that.

### RENEWED PRESSURE TO DIFFERENTIATE

The modern discussion about alliances with partners and competitors begins with a famous and mostly balanced article published in January 1989. With their title framed in the imperative – 'Collaborate with your competitors – and win', Gary Hamel, Yves Doz and CK Prahalad contended, quite rightly, that *collaboration was a new form of competition*.<sup>9</sup> It provided a way of getting close enough to a rival to estimate where he was better, faster or cheaper. This especially direct means of 'competitive benchmarking' ensured that, through collaboration but outside its formal terms, a firm offering to form an alliance could *learn* from its rivals.

The balance was there but so was a certain sensitivity to risk. Moreover, a subsequent, popular and more upbeat book about alliances, called *Co-opetition*, was overly exercised by John von Neumann and Oskar Morgenstern's post-war mathematical theory of games. Co-opetition failed to consider the effect of *cooperation* on inter-firm *competitive differentiation*.<sup>10</sup>

That's the key issue, and here we still need to begin from the Hamel-Doz-Prahalad framework of cooperation as a *new form of competition*. Cooperation does, as we have argued, bring common advance to different corporate interests. But it also ensures that *competition itself is prosecuted in new and*

9. Gary Hamel, Yves Doz and CK Prahalad, "Collaborate with your competitors – and win", *Harvard Business Review*, Jan – Feb 1989.

10. Adam M. Brandenburger and Barry J. Nalebuff, *Co-opetition* (1996), HarperCollins Business, 1997.

*different ways.* The advantage of this is that it can make more ubiquitous processes that are better and more efficient for everyone.

By sharing the services offered by a common supplier, firms by no means leave themselves bereft of competitive weapons. A firm may still cut prices, demand more of its employees, or pay over the odds to a supplier in a different field. The firm may also choose to lavish funds on innovative marketing campaigns. In addition, it may disrupt markets with products that are small, inexpensive, 'good enough' in performance and convenient to use.<sup>11</sup>

Why then do people think that cooperation *must* mean a failure satisfactorily to differentiate one's offer from those of others? Perhaps the answer is that it is not really cooperation that people worry about, so much as the inability of firms to avoid being samey, period – even without cooperating with one another. In this sense, cynics sense what can be a genuine corporate failure to innovate, but insist that this can be laid at the door of inter-corporate cooperation. Mistake!

In the case of airlines, use of a common supplier is likely to foster fresh competitive strategies.

In the case of airlines, use of a common supplier is likely both to foster fresh competitive strategies, and to throw differences between such strategies into sharp relief. There will be renewed pressure to differentiate. Those carriers with really distinctive directions will do well. As we have seen from the previous discussion of the community platform, far from imposing uniformity, this approach can liberate airlines to focus on their core competencies and on how they can differentiate themselves in their approach to customers.

### **MICHAEL PORTER: IT COUNTERPOSED TO MANAGEMENT**

So far, our treatment of cooperation hasn't dwelt much on IT. Let's now turn to that.

Since the collapse of the dot com boom, experts in management have fairly revelled in criticism of IT as hype. Dismissing the advent of the mobile Internet through 3G phones, for example, the *Wall Street Journal* proclaimed, in 2001, 'Combo gadgets don't measure up'.<sup>12</sup> Almost simultaneously, Harvard's Michael Porter counterposed obsession with the Internet to the development of corporate strategy.<sup>13</sup>

11. See Clayton M Christensen, *The innovator's dilemma: when new technologies cause great firms to fail*, Harvard Business School Press, 1997, and Clayton M Christensen and Michael E Raynor, *The innovator's solution: creating and sustaining successful growth*, Harvard Business School Press, 2003

12. "Combo gadgets don't measure up", *Wall Street Journal*, 25 April 2001

13. Michael Porter, "Strategy and the Internet", *Harvard Business Review*, March 2001

His first point was about industry structure. For Porter, the open nature of the Internet meant that 'companies have more difficulty maintaining proprietary offerings, thus intensifying the rivalry among competitors'. The Internet reduced barriers to entry, reduced differences among competitors and migrated competition to the flat terrain of price.

On one thing here Porter was right. The Internet certainly has reduced barriers to entry. The advent of low-cost airlines, for example, has been wholly facilitated by Internet booking. But to say that the Internet reduced everything to a price war was itself a reductionist argument. In the airline business, rivalry has indeed intensified, but not just over price. For full-service carriers particularly, customer service, sleeping facilities, food quality, cabin design, mileage benefits and brand presence are still vital. Despite all the impact the Internet has had on airlines over the past few years, competitive differentiation across all these dimensions remains undimmed.

Porter's second point was to attack what he called 'The Myth of the First Mover'. Individual companies swift to adopt the Internet were unlikely to gain from the economies of scale and network effects it offered. Such effects, through which a service becomes more valuable the more customers it signs up, were subject to diminishing returns and cost a lot to invest in, anyway. Pure-play Internet brands, too, had 'proven difficult to build', because they offered an intangible product.

However it can be argued there are flaws in Porter's arguments. The year 2005 has been precisely characterised by the titanic growth of Google and eBay, intangible companies which have made significant investments and succeeded, through that, in building massive brands on the back of network effects.

Porter is perhaps drawing a too black and white contrast between *management* and *IT*. Of course, in one respect information technology is just a technology in the sense of a thing, a means to an end, a bunch of electrons running round conductors and semiconductors. But in another respect information technology is about two other, rather important matters: information, its logic and its *content*, and the devisers and receivers of that content, namely *active human agents*.

Today as yesterday, technology always lays bare the mode of formation of social relations, and the mental conceptions that flow from these. IT is no different from other technologies in this regard. But in the 21<sup>st</sup> century IT cannot naively be separated from the content-driven, human activity of management. IT is a quite integral part of how management is performed.

With community IT platforms that are focused on customer handling, collaboration isn't a barrier to differentiation, but rather acts as an incentive to it.

Porter concluded his article by contradicting his earlier claim that the Internet dissolved competitive differences. He rightly insisted that the operational effectiveness offered by the Internet only underlined the need for companies to develop a differentiated value proposition and a tailored value chain. 'Without a distinctive strategic direction', he wrote, 'speed and flexibility lead nowhere'.

As we have argued, in community IT platforms, focused on passenger handling, collaboration isn't a barrier to differentiation, but rather acts as an incentive to it. Shared platforms enhance cooperation and are indeed, a platform from which to boost costs and improve customer service. A good example of the merits of a community platform is interline travel. This provides a customer benefit, because travelling is made easier, but it also provides a productivity benefit because there is less need for airline employees to facilitate journey through manual intervention. A shared system means that any airline joining it immediately gains the benefit for all journeys dealing with any other carriers that are already members. If the airline elected to build its own IT system, it would have to re-build it for each new airline with which they wished to collaborate

#### NICHOLAS CARR: IT AS MERELY INFRASTRUCTURE

In the wake of Porter, Nick Carr drew even more negative lessons from the collapse of the dot com boom. He argued that late 1990s spending on IT had led to 'enormous overcapacity, devastating whole industries'.<sup>14</sup> Yet the history of IT revealed 'one overarching truth': the time taken by rivals to copy a new technology always gets shorter. As a result, 'most IT-based competitive advantages simply vanish too quickly to be meaningful'.<sup>15</sup>

Carr compares IT with electricity. When a firm bought either in the early stages of their development, it gained a short window of opportunity over rivals. But once enterprise IT shifts from being a proprietary technology to playing an infrastructural role, Carr feels it no longer brings benefits to individual firms. They can gain an edge as little from IT today as they could from, say, factory lighting 100 years ago.

While innovation among suppliers speeds up as IT becomes commoditised and invisible, Carr says, the task for clients of IT products and services is simply to cut costs and end risks in IT. Firms should look forward to a future of purchaser power, low prices, Dell, Linux, old hardware bought on eBay, and standardised software made by Indians.

CSC chief technology officer Howard Smith cites the American IT experts Paul Strassman and Geoffrey Moore,

14. Nicholas Carr, "IT doesn't matter", *Harvard Business Review*, May 2003

15. Nicholas Carr, Does IT matter? Information technology and the corrosion of competitive advantage, *Harvard Business School Press*, 2004



among others, in resisting Carr's comparison with 19th century electricity. He rightly insists that, for the firm, it's not what IT you have, so much as what you do with it.<sup>16</sup>

In fact Carr recognises this. He notes that information and talent often form the basis of business advantage, but emphasises that his definition of IT relates only to its technological component.

Carr's error, like Porter's, is to rid IT of content and people. The result is that his historical judgements are flawed:

- *the late 1990s was a financial bubble, not a technological one.* CEOs felt that their share prices would be vulnerable if they underspent on IT. The only industry really devastated by the bubble was telecommunications – and the cost of acquisitions and spectrum licenses was a bigger cause of crisis there than the laying of too much dark fibre. Since the bubble, society's money has moved on into housing, both in the US and the UK. We have *underspent* on the *right kind* of IT – airlines included.
- *despite the speed with which some IT innovations are copied, what is striking is how others take years to replicate.* Who is going to crib from and undo Microsoft or Google overnight? There is a mountain of investment to climb first. And anyway, plenty of IT innovations are not even around to be duplicated.
- *the emergence of electricity for enterprises took place in a cultural context quite different from that which surrounds enterprise IT today.* There is much more pessimism about technology in the 21<sup>st</sup> century than there was in the 19<sup>th</sup>. The red flags that preceded the early horseless carriage are no match for the global panics generated by the 21<sup>st</sup> century virus.

Carr compounds Porter's technician view of IT with some questionable economics. 'What makes a business resource truly strategic', he says,

"is not ubiquity but scarcity. You gain an edge over rivals only by having something or doing something that they can't have or own. By now, the core functions of IT – data storage, data processing, and data transport – have become available and affordable to all.

"IT's very power and presence have begun to transform it from a potentially strategic resource into what economists call a commodity input, a cost of doing business that must be paid by all but provides distinction to none.'

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16. Howard Smith, *IT doesn't matter, business processes do*, Meghan Kiffer, 2003

In fact the scarcity of a business strategy is no guide to its value – some strategies are nonsensical, even if they are scarce. Moreover, storage, processing and transport are not affordable to all, as we have seen, airlines can no longer bear the cost of moving from a legacy based system to one which meets both their needs today and those in the future.

It is not IT that has become a commodity input to business, but instead a fear of risk. Carr himself expresses those fears. And to the extent that good business strategies are scarce, that is an opportunity for IT directors.

As Ian Benn and Jill Percy note,

“Could it be that IT staff with strong commercial acumen would be better placed to come up with new products to drive profitability? They may not have the direct customer contact, but... we all know the argument that radical business innovation never came out of a focus group.”<sup>17</sup>

While next generation customer management systems in the airline sector do make much of the nitty-gritty of IT simply part of the furniture, the front end of IT – its interface with staff and passengers – is set, like IT directors, to become more vital to strategy.

Executives spend much of the time controlling costs, worrying about risk, and fire-fighting in emergencies. They do not always get the time they would like to bring about genuine innovations – innovations that will enable differentiation and have a durable impact in the long term.

The new generation of airline IT should help provide more of that time. IT does matter. Indeed, it matters a lot.

## 5. THE SENSE IN SHARING

A glimmer of light has appeared.

The airline sector has been burdened with problems of productivity, regulation, supply chains and complex customer transitions in time and space. But by confronting those challenges with the help of IT, it may now set an example for other industries to follow.

In and beyond the airline sector, managers need to get their heads up above the usual mantras about seamless, global service level agreements based on that magical but evanescent quality, trust. The fact is that, in airlines as elsewhere, executives spend much of the time controlling costs, worrying about risk, and fire-fighting in emergencies. They do not always get the time they would like to bring about genuine innovations – innovations that will enable differentiation and have a durable impact in the long term.

The new generation of airline IT should help provide more of that time. IT does matter. Indeed, it matters a lot.

In their relentless focus on the competitiveness of the firm, critics of IT such as Porter and Carr share a mutual distaste

17. Ian Benn with Jill Percy, *Strategic outsourcing: exploiting the skills of third parties*, Hodder & Stoughton, 2002

for outsourcing. Porter believes it erodes company distinctiveness; Carr writes that its strategic risks may outweigh the cost savings it promises. What is missed is how both outsourcing and shared services contain benefits that go beyond the individual firm. And in the airline sector, the biggest advances for individual airlines, such as e-ticketing, have also been advances enjoyed by all.

The entire airline sector, as well as society at large, has an interest in IT systems that are collectively developed and collectively applied. Coherent, accurate and single-source data, speedily acquired and transmitted, intelligibly displayed, will make a big difference to every passenger – and, it should be remembered, to the passage of the world's freight, too.

Airlines will come to embrace shared systems that both enhance individual competitiveness and advance the interests of the sector more generally. In the process some of the needless hurly-burly of airline travel will be undone.

The new generation of airline IT easily contains more potential than it does danger.

It makes sense to share.

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## A brief history of outsourcing in the airline industry

<b>1920</b>	Boeing group runs airlines. Vertical integration, no outsourcing
<b>1930</b>	US antitrust laws break off the future United Airlines from United Technologies ( <b>1934</b> ) Swedish economist Ronald Coase endorses firms doing things themselves, and invents the concept of the transaction cost of dealing with external suppliers ( <b>1937</b> )
<b>1940</b>	American Airlines installs the first experimental automated booking system, with local human operators ( <b>1946</b> )
<b>1950</b>	Trans-Canada Airlines (TCA) develops a computerised system with remote terminals ( <b>1953</b> )
<b>1960</b>	Ted Levitt attacks US railroad for being 'railroad-oriented instead of transportation-oriented', Hollywood for 'making movies' rather than 'providing entertainment'. Implicit possibility of retaining marketing, but outsourcing production ( <b>1960</b> ) TCA's ReserVec terminals, with punched cards and transistors, take over all the airline's bookings ( <b>1963</b> ) American Airlines completes Sabre, its automated reservation network – the world's largest private data processing system ( <b>1964</b> )
<b>1970</b>	United Airlines offers its Apollo reservations system to travel agents ( <b>1976</b> )
<b>1980</b>	Air France, Lufthansa, Iberia and SAS form Amadeus GDS, as airline IT moves from proprietary to outsourced systems ( <b>1987</b> ) Gary Hamel, Yves Doz and CK Prahalad suggest that inter-firm collaboration can be a form of competition. Vogue for strategic alliances begins ( <b>1989</b> )
<b>1990</b>	Prahalad and Hamel call on firms stick to their core competences. Vogue for outsourcing begins ( <b>1990</b> ) <i>The Economist</i> warns about risks of 'cosy partnerships' with suppliers. Panics about outsourcing begin ( <b>1995</b> ) Adam Brandenburger and Barry Nalebuff still manage to popularise the idea of co-opetition ( <b>1996</b> )
<b>2000</b>	Michael Porter attacks outsourcing, plus the 'myth' of first mover advantage in IT; himself creates myth – that the Internet levels down inter-firm differentiation ( <b>2001</b> ) Nicholas Carr dismisses IT as the new electricity... but says it should not be outsourced ( <b>2004</b> ) Contradicting Porter and Carr in practice, Amadeus adds United Airlines and Lufthansa to its client base of 150 airlines. Competition between airlines remains undimmed ( <b>2005</b> )