Table of Contents

Executive Summary ............................................................................................................ 3

Background ......................................................................................................................... 3

Government Owned and Operated Airports ..................................................................... 3

  Federal Ownership ......................................................................................................... 3

  Localised Ownership ...................................................................................................... 4

  Commercialisation ......................................................................................................... 4

  Under Pressure ............................................................................................................... 5

  Figure 1.0: Excerpt from the world’s top 25 fastest growing airports (2007) ................... 5

Concessionaire Operated Airports ..................................................................................... 5

  Public-Private-Partnership ............................................................................................. 6

  Figure 2.0: Sources for funding concessionaire operated airports ................................. 6

  Case Study: Abu Dhabi International Airport ................................................................. 6

  Case Study: India ........................................................................................................... 7

Partial and Wholly Privatised Airports ............................................................................ 7

  Figure 3.0: Continuum of private involvement at airports .............................................. 8

Competition Laws and Economic Oversight ................................................................. 8

New Business Models and The Future ............................................................................ 9

  The Aerotropolis ............................................................................................................ 9

  Economic, Commercial and Sustainable Advantages ..................................................... 10

Conclusion ......................................................................................................................... 11

References ......................................................................................................................... 13
Executive Summary

Airports are no longer the simple infrastructure providers that they once were. Evolution of airports from being a necessary part of air-transportation into multi-modal businesses relying on commercial revenues has introduced the need to closely examine the models behind their management, operation and infrastructure.

Airport business models in the current climate range from traditional public service organisations to self-sufficient, independent, corporate entities and everything in between. But what determines the business model chosen by any airport and should there be a continued global trend towards airport privatisation?

The economics shaping airports today are fundamentally changing the way we do business. To remain competitive, new management strategies must be developed and instigated to help successfully position organisations for the future.

Background

Up until the late 1980s, almost all airports were owned and operated by the public sector. Airports in Europe including Paris, London, Copenhagen and Madrid were owned by national governments as were many in what is now Australasia including Tokyo, Singapore, Sydney and Bangkok. In the US, the majority of airports were owned by local governments, either on a regional or municipal level, as was also the case of Manchester Airport in the United Kingdom and Dusseldorf Airport in Germany.

Most of the world’s airports remain government owned and operated, though a trend towards full or partial privatisation began in the 1990s. This trend has continued, with occasional periods of inactivity, until today. Airport privatisation can at one end of the scale mean merely ‘corporatisation’, where a government department is run along commercial, private sector lines, and at the other an Initial Public Offering (IPO); a stock market flotation of equity. In between, it may take the form of a lease, a trade sale, a franchise, a public-private-partnership, a private finance initiative, a management contract or a management buy-out. The main element in a government’s decision making on the method of privatisation is often the degree of control it wishes to continue to operate, which can vary from zero to almost total. As with privatisation in other sectors, new and innovative methods are being introduced all the time and an airport may change hands several times by different methods.

The main goals of privatisation are different for existing and emerging markets. For the latter, the ability to tap into domestic and foreign capital markets and to provide independent financing for large scale projects is necessary, as well as the need to reduce the financing requirement of central government. In existing markets, the goals lie in the avoidance of additional debt and transfer of responsibility or risk. Privatisation models in existing markets are also much more likely to introduce commercial efficiencies and therefore hopefully an improvement in financial performance. The period 2009-10 has been one of the quietest for airport privatisations in the last two decades, largely due to the global financial crisis. Governments may be expected to unlock a flurry of privatisation activity in coming years as they aim to restore health to public sector finances in the wake of the economic downturn.

Government Owned and Operated Airports

Forms of ownership and management of airports differ as widely as the functions carried out by airport operators. However, the majority of airports worldwide remain directly owned and operated by central or local government.

Federal Ownership

In many countries, the Department of Civil Aviation, under the Ministry of Transport or the Ministry of Civil Defence would operate all or most of a country’s airports, as is the case with all 85 airports of the Philippines, where the airport sector is state-dominated, with the Air Transportation Office, under the
Department of Transportation and Communication, managing the country’s airports. All 18 of Taiwan’s airports are currently government owned and operated by the Civil Aeronautics Administration.

In most cases such as these, the government department which operates the airport will frequently also have responsibility for related services such as air-traffic control or meteorological services. In most of the Third World, airports are run by Civil Aviation Departments, but this model is also found elsewhere such as in Norway, Sweeden and Greece. In most countries, there will also be some airports open to both civilian and military use which are owned and sometimes managed by the military authorities.

Localised Ownership

The alternative to centralised government control is localised ownership, either under regional or municipal governments. All the airports, each airport and in some cases groups of two or three airports would be owned and operated by one or several regional or municipal entities, a model which has been popular in the US, Germany and the United Kingdom.

Some governments or municipal entities have felt that their airports would be better operated and managed if those airports had greater autonomy. This has been achieved by setting up Airport Authorities with a specific brief to manage one or more airports. While the legal form of the Airport Authority varies from country to country, its primary aim is to set up an administration with greater professional skills to undertake and implement long-range plans, while central or local political control is only exercised at the strategic policy level.

The creation of individual airport authorities also allows each authority to have more control over the collection and distribution of revenues earmarked for airport development. This is advantageous to the airport operator and in some cases to the city or county.

In either case, government policy makers would agree that their long term objectives are essentially two fold: to attend the needs of consumers (the travelling public and air cargo shippers), and to ensure a strong viable airline industry within the country.

Commercialisation

The operational aspects of airports had traditionally overshadowed other areas and while most Civil Aviation Departments offered expertise in airport operations, many commercial opportunities within the airport sector had previously been overlooked. However, during the 1970s and 1980s, the commercial functions of airports were gradually recognised and operators expanded their resources and staff in these areas.

In many countries, government owned and operated airports are limited as to the range of commercial activities they can take part in, usually limited to operating airports. Hand in hand with this is the limited range of financial freedom and responsibility that falls on civil service sectors. A more businesslike approach to airport management coupled with a more commercially driven and competitive airline industry has encouraged airports to take a much more active and proactive role in accounting, marketing and serving customer needs.

Similar to the practice in many government owned and operated airports, a major restructure of Dubai Airports in 2007, formerly operated by the Dubai Civil Aviation Authority, saw the typical functional organisation structure, with individual departments for finance, operations and administration, replaced by individual business units more focused on commercial and customers’ needs, such as Marketing, Commercial and Airline and Passenger Services.

The airport industry is capital intensive and is relying more and more on the generation of commercial, non-aeronautical revenues. For some of the more advanced airports in the Asia-Pacific region, such as Hong Kong and Singapore, non-aeronautical revenues account for over 60% of total airport revenue.
Under Pressure

Airports incur a high proportion of fixed operating cost to maintain high standards of safety, security and customer service. Airports also require a high level of ongoing investment, for instance to cope with increasing demand and more stringent security regulations. They are also under considerable pressure from users and competitors to constantly optimise efficiency.

Of the top ten fastest growing airports of 2007, only one was a semi-privatised airport. The remaining top nine airports are public entities which will require a high level of investment for expansion and development to meet demand if growth trends for these airports persist.

The Airports Authority of India, which operates the majority of India’s airports (albeit the lower-traffic airports), for example needs to restructure at a corporate level to develop a more commercial approach to its work, helping it compete for traffic with the five major privatised airports, reducing the concentration on major hubs. The AAI has also not investigated fully the commercial opportunities and potential for growing non-aeronautical revenue which would further support the funding required to develop many of its airports.

With this in mind governments are often left managing the challenge of sustaining commercially successful operations while competing with legislation and national policy. Financing and operating airports is a highly complex business. Airports are wedged between different and often divergent economic, ecological and structural-policy interests. These are represented by various groups of stakeholders, including the shareholders, local residents and governments.

Concessionaire Operated Airports

Concession arrangements are the most popular form of privatisation for developing countries. There are several examples of concession agreements for airport operations including one of the earliest concession agreements for the three main airports of Bolivia, namely La Paz, Santa Cruz and Cochabamba. The 30-year concession was awarded to Airports Group International, during which time it agreed to upgrade all three airports and pay an annual fee of 21 percent of gross revenues.

When Aeropuertos Argentinos was awarded the concession for 33 Argentinian airports, annual fees of USD 171Million were agreed for the first five years along with an investment of USD2Billion. Subsequent to the privatisation, Argentina entered a period of severe economic and political crisis and it was later agreed in 2007 that the fees payable should be revised to 15 percent of revenues.
There are many reasons why a government would select a concessionaire arrangement rather than an outright trade sale. With this type of arrangement, the concessionaire assumes all risks and is responsible for all operations and future investment. Since the privatised airport will only be handed over for a fixed period of time, the government has a greater element of control than with complete privatisation, and will also receive a regular income. Many concessionaire agreements take place these days under the form of Public-Private-Partnerships.

Public-Private-Partnership (PPP)

The most significant criteria for a continued growth rate of any economy lies in its ability to provide quality infrastructure. In order to meet such demands, various Public Private Partnerships or PPPs are being promoted for implementation of infrastructure projects. A PPP is often described as a private business investment where 2 parties comprising of the government and a private sector company undertaking form a partnership.

With this type of arrangement, an airport management company or consortium will purchase a concession or lease to operate the privatised airport for a defined period of time, usually between 20 to 30 years. Financial terms and the types of lease vary from concession to concession, but typically involve an initial investment and a guaranteed level of investment and/or payment of an annual fee. The PPP is a complex approach, which has high transaction costs and needs to be carefully designed and implemented to ensure that the private contracts achieve the government policy objectives.

A PPP model opens up a range of alternative funding options and offers the government access to private sources as an alternative to government funding for modernization, development and expansion of the airport infrastructure. Funding may come in the form of debt or equity or both.

The PPP model also allows for enhanced risk allocation and mitigation as the project risks are allocated to the public or private entities that are best qualified to manage those risks. In many cases the private company will assume all risks associated with the project. Another key highlight of the PPP model is the ability to maximize airport potential, not only in terms of the lifespan of the airport, but also with regards to optimizing the use of available land and facilities, development of a coherent and comprehensive phasing strategy and also in balancing airside and landside demand and capacity in each phase of the development.

Case Study: Abu Dhabi International Airport

Abu Dhabi International Airport recently entered into a public-private partnership agreement. The motivation for this partnership was not purely financial, but stemmed from the desire to see an overall
improvement in the development of airport infrastructure, services and management. Objectives were specifically laid out for the partnership which included:

- Deliver an iconic piece of airport infrastructure on a timely basis that will improve the competitive position, growth prospects and service standards of ADIA for the benefit of the Eithad Airways, the national economy and the travelling public;
- Select a global leader in airport operation and expansion to assist in achieving: (i) procurement best practice and operational efficiencies; (ii) appropriate design, phasing and development; and (iii) continuous improvement in management quality at ADAC;
- Minimise the amount of Government financial support and associated risks for the Project;
- Ensure a smooth transition from public sector to private management, whilst maintaining a high level of stakeholder support for the Project; and
- Provide an attractive investment opportunity for both equity and debt providers.

The need for this partnership would suggest that from a commercial point of view, Abu Dhabi Government itself lacked the commercial expertise that was required to compete with other airports in the region, both in terms of the airport buildings themselves, and on the subject of running the airport as a competitive business.

The partnership was limited to the passenger terminal only as the airport itself is considered a critical infrastructure for defense reasons and for this reason would never likely be fully privatised.

While the move from a government owned and operated model for Abu Dhabi International Airport would appear to be motivated by commercial and operational needs, each PPP process and model is different in as much as every airport has different needs. In India, although there are significant requirements to develop infrastructure, commercial activities and operational efficiency, the PPP process is generally focused on cash inflow to meet the funding requirements of an emerging economy, movement away from government bureaucracy, and being a fast track means to modernise the country’s airports.

Case Study: India

Prior to the country’s air transport boom, India’s airports had suffered decades of neglect and underinvestment. When traffic growth took hold in earnest, several major airports were quickly pushed way past their design capacity, causing congestion in terminals, on runways and in the air. As a result, passengers suffered and the airlines found their operating environment becoming increasingly inefficient and costly.

As a result, in 2005, the government announced a five-year plan for upgrading and modernising airports, requiring investment of about US$10 billion and further investment from 2010 – 2020. The government recognised that it lacked the expertise and capital required to complete the upgrade and invited private sector participation. As a result, joint venture operators are now in place in six of India’s biggest airports: Ahmedabad, Delhi, Mumbai, Bangalore, Hyderabad and Cochin, while all other airports remain under the control of the state-owned Airports Authority of India (AAI).

While the private operators of Delhi and Mumbai airports are focusing on achieving their goals for the phases of their upgrade projects, they are also being hurt by the high proportions of their revenue that they agreed to hand over to the government which has been exacerbated by the slump in travel demand at a time of high capital expenditure.

Partial and Wholly Privatised Airports

Although airport privatisation began in the mid-late 1980s with the privatisation of BAA, only a few airports worldwide are completely privatised. Only approximately 20 airport companies are publically listed and traded on stock exchanges around the world.
Britain’s BAA, perhaps the most famous of all privatisations, was privatised directly by way of an IPO. BAA has since been acquired by Ferrovial, one of world’s leading groups specialised in developing, financing, maintaining and managing transport, urban and services infrastructure.

The part-privatisation model on the other hand takes place where governments are reluctant to privatize their airports fully, for example as in Vienna, Copenhagen and even some New Zealand airports. By retaining majority public ownership, there may be an intention to moderate the use of market power, while sharpening the incentives to achieve productive efficiency.

Privatised or public/private owned airports are often motivated by commercial business models in order to establish and maintain their reputation for the long term. Should the industry require amendments to the business model, fully privatised airports may find themselves in a better position to adapt their models without the interference of government bureaucracy.

For governments, privatization of airports is an attractive option. Airports are highly attractive assets which may be sold off for very high premiums. Sales of airport assets at a considerable premium demonstrate the high regard that financial markets have for the earnings potential of airports.

However, full privatization effectively means that the government loses control of the airport and its development. The activities of private firms working to maximize their shareholder value may conflict with the needs of the community from a social, economic and environmental perspective.

**Competition Laws and Economic Oversight**

Today’s airport operators are focused on serving passengers and communities, and are recognised for the important contribution they make to national and local economies. Airports have evolved as self-sufficient entities financing themselves with the need to generate profits.

As part of the aviation system, airports connect and advance the global economy, contributing heavily to the success of the tourism industry. In line with estimates on the growth of aviation traffic, airports are preparing for future demand and adding capacity to the air traffic system. Looking ahead, airports need to ensure that they have the financial ability to invest, plan, develop and grow in line with demand.
Airports are subject to the IATA Policy on Economic Oversight, which highlights the need for balance between the efforts of private entities and public policy objectives, in particular highlighting that privatized airports should not abuse their dominant position and should act for the common good of the travelling public.

Whilst there is a strong need for competition law and economic regulation within the commercial sector, airports are competing for passengers, airlines and traffic as Origin/Destination or Hub Airports. Additional commercial pressure has been added from new airline business models such as low cost carriers and alliances, as well as from passenger expectations of facilities and services. As such, the operational and financial implications for the airport operator with regard to developing terminals and investing in services are frequently accepted in order to retain or expand the airline operation and not to lose it to competing airports.

Therefore, whilst regulatory intervention in the form of economic oversight is important and should not be overlooked, it is widely recommended that this intervention should be kept at a minimum and should be determined on a case-by-case basis depending on the degree of competition, taking into account the national legal, institutional and governance framework, and competition law.

New Business Models and the Future

It is often the case that privatized airports do not restrict their operational involvement only to the airports which they own. Further extending their corporate reach, some airports are even buying and/or operating other airports through special management divisions. ADPI, Incheon International Airport Corporation, Malaysia Airports Holdings Berhad and the Ferrovial Group (and its subsidiary BAA) are among those pursuing cross border airport ventures.

These new operational structures and cross border ventures offer testimony that airports are evolving from basic aeronautical infrastructures into multi-functional extended enterprises serving both aeronautical needs and profitable commercial development world-wide. This enterprise model might appear to be a deviation from the norm, but it is fast becoming the 21st century way forward for large and mid-size airports.

Airports are incorporating a broadening range of traditionally urban economic functions to diversify their land use and revenue streams and in doing so are creating additional rewards for airport operators, their development partners, businesses, and the flying public.

Airport master planning is shifting focus towards commercial layout and efficiencies and aeronautical layout and efficiencies. Larger holding companies owning and operating airports are creating the infrastructure of the future of aviation in the form of airport city development.

The Aerotropolis

Much airport area development is being underpinned by improving ground transportation. Highways have been developed and widened and brought closer to terminals. Metro, light rail and suburban lines serve airport terminals, and airports in Amsterdam, Frankfurt and Paris are directly connected to the European high speed rail networks.

Airport edge cities are evolving along these corridors and in their surrounding areas. The largest of these airport edge cities have become globally significant destinations in their own right. Amsterdam Zoedas, located six minutes from Schiphol’s terminal, houses the world headquarters of ABN Amro and ING banks, along with numerous European corporate headquarters. It has more than 150,000 square meters of Class A office, retail, and hospitality real estate. Nearly 9,000 multifamily residences are in the works.

New Songdo International Business District, located near Incheon International Airport, is being developed by New York City-based Gale International and South Korea’s POSCO E&C as a 1,500-acre (600-ha), global business and trade center. The size of downtown Boston, this US$35 billion mixed-use project, is
currently the largest private sector development in the world. Much of this ‘Instant City’ is already built with the final phase scheduled for completion in 2015.

Using New Songdo as a model of planned aviation-linked urban mega development, Gale International, in partnership with Cisco Systems, is considering similar scale airport cities in China, India, and Southeast Asia. These are being designed to be among the most electronically networked and environmentally sustainable cities in the world, in addition to their aviation connectivity.

Airport edge cities, together with other commercial and residential development are creating a unique 21st Century urban form – the Aerotropolis. Similar to the traditional metropolis made up of a central city and rings of commuter-heavy suburbs, the aerotropolis is formed from an airport city and clusters of aviation-oriented businesses and their associated mixed-use residential developments.

Dubai World Central (DWC) is one of the strategic and most ambitious initiatives of the government of Dubai, and strongly positions the emirate as a leading international trade center and a global fast-cycle logistics hub. The Dubai World Central aerotropolis comprises the new Al Maktoum International airport, set to be the world’s largest in volume and size upon completion, and the adjacent specialized free zones focused on fast-cycle logistics and aviation industries.

It is one of the most ambitious projects of its kind in the world, occupying an area of 140 square kilometers in Jebel Ali, next to the UAE’s largest free zones (JAFZA) and the Jebel Ali Sea Port, the sixth largest container terminal in the world. In addition to the dedicated link to Jebel Ali Sea Port, DWC’s unique multimodal capabilities are supported by links to all main motorways in the country, the upcoming GCC high speed rail network and the Al Maktoum International Airport, which once complete will handle up to 120 million passengers and 12 million tons of air cargo per year.

The airport will also serve as the main gateway to aviation and logistics companies that have already chosen DWC as their base for fast-cycle logistics. Phase 1 of DWC is fully completed and operational. This includes the first stage of DWC Al Maktoum International Airport Cargo, with a capacity to serve 5 million passengers and handle over 600,000 tons of cargo annually. Additional areas to be developed include a Residencial City, Logistics City, Global Technologies City, Aviation City, Commercial City and a Golf Resort.

**Economic, Commercial and Sustainable Advantage**

The Aerotropolis will provide advantages to businesses and business travelers, being an attractive location for regional corporate headquarters, conference centers, trade representative offices, and information-intensive firms that require executives and professional staff to travel frequently around the world. In particular, firms specialising in information and communications technology and other high-tech industries consider air accessibility to be especially crucial. Quick access to hub airports which offer a greater choice of flights and destinations along with more flexibility in rescheduling help minimise the expense and stress of travel.

For the goods processing sectors, there will be the increased ability to source parts and ship assembled goods in a ‘time-definite’ manner. Today’s most competitive manufacturers use advanced information technology and high-speed transportation to provide fast and flexible responses to customers’ unique needs. A manufacturer’s ability to meet customer demand also depends on the existence of a comprehensive ground-to-air shipping network of air cargo carriers, trucking companies, freight forwarders, and logistics providers.

The economic advantages are many, for example, Memphis International Airport (world headquarters of FedEx) has helped create over 160,000 jobs in its metropolitan area, more than 12,000 of whom work at the airport’s FedEx facility each night. One in four jobs in the Memphis region is tied to the airport which had an annual economic impact of US$29 billion in 2007. FedEx’s growing European regional hub employing 2,500 at Charles de Gaulle is likewise beginning to have a major economic impact attracting a range of time-critical goods-handling businesses to the Roissy area.
Further encouraging the development of the aerotropolis, restaurants, superstores, factory outlets, and consumer services of all types are locating along airport corridors to meet the demands of local residents and travelers alike. For example, Athens International Airport has a large IKEA and a Kotsovolos megastore, as well as a major factory outlet complex in an airport retail park located less than 3 kilometers from its main terminal. The majority of their shoppers are locals, who prefer the expressway-access to the retail zone and the reduced congestion of the area.

The Aerotropolis aims to be a preferred business location, commercial destination, and branded area. However, much aerotropolis development to date has been spontaneous and poorly planned, creating congestion and environmental problems. Strategic infrastructure and urban planning can assist in improving the development, as in the case of Dubai World Central.

In short, aerotropolis development and sustainable "smart growth" can and should go hand-in-hand. Many mixed-use residential clusters along airport corridors, for example, can be designed under new urbanism guidelines emphasising the sense of community. Others, such as Amsterdam Zuidas or New Songdo International Business District, though of immense scale, can be designed for improved sustainability as well as economic efficiency, benefitting both place and region.

As inter-modal transportation and advanced communications infrastructure further develops at and around airports, the commercial real estate value of areas surrounding them will increase as the land value and lease rates will be a reflection of the cost of moving people and products to and from the airports, via the airport and to distant markets.

Looking ahead, local and regional planning constraints will exist, especially at and around older airports situated in already congested areas. It will take many decades of future planning and coordinated stakeholder efforts to adapt surrounding land-uses to such principles of urban development. In cases where space is already constrained, planning must be strategic with a view to how a particular development will support and be supported by the airport and the development of the region overall.

Unfortunately, many current airport area planning approaches are politically localised, functionally fragmented, and often conflicted, hindering the development of the aerotropolis. A new approach is needed, which brings together airport planning, urban and regional planning, and business site planning. Governments and private companies can cooperate to ensure that the future of airport development is more economically efficient, aesthetically pleasing, and socially and environmentally sustainable. The real issue for the public sector and the private companies is whether they can collaborate efficiently to form and grow aerotropolises in an intelligent manner, minimizing problems and bringing about the greatest returns to the airport, its users, businesses, surrounding communities, and the larger region and nation it serves.

Conclusion:

For many airports, privatisation is not an option. Government policy determines that airport ownership should always remain with the state. However, for airports and countries which are earmarked to reach overcapacity in the coming years, in particular in emerging markets, and with the increasing availability of investors and investor consortiums, such as pension funds, hedge funds and consortiums, tapping into these opportunities for limited-risk development and expansion could offer governments a welcome relief from the financial burden that their airports have already, or very soon will, become.

Many airports worldwide have relatively low volumes of traffic and would benefit greatly from the introduction of the entrepreneurial culture that is linked with privatisation and in addition, the sources of private capital that it brings.

Wholly privatised entities with interests in a range of aviation related fields should direct efforts now to liaising with governments on urban planning and ensuring that the airports, airport cities and aerotropolises that are being developed are done so in a ‘smart’ manner, for the benefit of the community.
Competition is a vital requirement in any global industry and encourages innovation across a whole plethora of activities. Governments in Singapore, China, India and the Middle East have shown great support for industrial growth and have proactively promoted new prospects. Other governments should now take note of these energetic approaches and make efforts to reduce the lengthy approval processes that hinder the development, progress, growth and creation of their airports.
References


Dubai World Central. (n.d) [www.dwc.ae](http://www.dwc.ae) [accessed on 28th November 2010]


