CORPORATE PLANNING AND MANAGEMENT CHALLENGES TOWARDS BUSINESS DEVELOPMENT OF EUROPEAN AIRPORTS

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ABSTRACT

Since many decades, the airports remained public monopolies with large economies of scale. Only recently and after the privatization, airports come under economic regulation. Particularly, during last few decades the nature of the airport industry has undergone a change. The corporate planning and management challenges objectives have been adopted by almost all airports worldwide including especially airports in Europe. Aiming at the business development of European airports management and business challenges objectives, various effective regulation and different types of privatization have been dynamically encouraged by public authority with the informed and planned aim of increasing airport business performance and management. A conceptual decision-making framework is depicted that links airport different ownerships and airport business performance and management challenges. To develop this framework all the economic and social objectives for well-functioning air transportation infrastructure are considered, a tool available to stakeholders and decision makers..

Keywords: Transport infrastructure management, airport ownership structure, quantitative analysis, business performance

INTRODUCTION

Airports traditionally formed part of the public sector, being developed either by national or regional governments. Consistent with this, airport management was traditionally undertaken by the state, either directly or through public sector civil aviation administration. Over the last four decades, since the 1980s, with the first privatisation of the British Airports, there has been progressive movement globally towards both commercialisation and corporatisation of airport management and private sector involvement. Taking into account the profit-maximizing behaviour of private companies working in a natural monopolistic environment, the majority of privatized airports in Europe remain subject to economic regulation [1].

Deregulation and technical change in the airline industry and rising income led to the dramatic growth of air traffic during 70s and 80s. Last decades the number of passenger rapid growth of air transport has been one of the most significant landmarks in transport services, both in the EU and all over the world [2]. The limited government fiscal resources, however, has led to a wide-scale private sector role in financing airport investments. This increased role is leading to significantly more cases of private sector participation in airports management and operation and governments around the world have been making changes in how their airport are owned and managed.

Aviation is a strategically important sector that makes a vital contribution to the EU's overall economy and employment, aviation supports close to 5 million jobs and contributes €300 billion, or 2.1% to European GDP. Despite the current economic crisis, global air transport over the long term is expected to grow by around 5% annually until 2030 [3]. The aviation market was gradually liberalised through three successive packages of measures adopted at EU level which covered air carrier licensing, market access and fares. So, decades of restrictions that had limited air transport markets in Europe and prevented cross-border investment by European airlines have been removed. The gradual development of a more coordinated EU external aviation policy over the past decade has been the logical consequence of the creation of the EU internal market and associated common rules, having generated significant economic benefits.

Private sector involvement in airport ownership and management is fasting widespread, although the extent to which and nature of private sector involvement in airports varies greatly between countries. There remain some important jurisdictions where many airports remain in the public sector. In the United States, that most airports remain in the public sector under the administration of the City or County in which it is located, in Canada most airports are owned by Transport Canada, with a more locally based administrator, in France, a large number of regional airports remain under public administration, in India, where apart from five important privatised airports , the remaining airports are run by the Airports Authority of India and finally the main Gulf airports: Dubai International, Abu Dhabi International and Doha Hamad International, as well as airports in a diverse range of countries such as Israel and Sri Lanka.[4]

However, corporatisation of airport administration is common at airports which remain in the public sector, or which have majority public sector ownership and hence control, reflecting a general move away from pure public administration. Important examples are several major airports in several European countries, including France, Germany, the Netherlands, Spain and Italy, all involving a mixture of public and private sector ownership but public-sector control. In France, Aéroports de Paris has majority public ownership but is run on a fully commercial basis; a process of part-privatisation of regional airports is underway, with Toulouse already placed under a concession agreement and similar processes at Nice and Lyon ongoing. In Germany, Frankfurt is corporatized with majority public ownership while Munich and the Berlin airports are corporatised with full public sector ownership; Düsseldorf and Hamburg have close to equal

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private and public ownership. In Italy, most airports are corporatized with majority public ownership, but the private sector has majority ownership at the Rome airports, Naples and Venice. In Spain, AENA, which manages all the major Spanish airports: 49% of its share capital was sold in 2015 to private sector investors? [4].

In addition to fully private investors, many of the major "corporatized" airport groups with significant or majority public sector in their home country act as entirely private sector investors in foreign markets, often in partnership with financial institutions or investment funds. Aéroports de Paris (owner of the Paris airports) and Fraport (owner of Frankfurt airport) are good examples of this. Five major airports in India are run as PPPs - Delhi (operated by GMR and Fraport), Mumbai (GVK), Hyderabad (GMR), Bangalore (GVK, Siemens, and Zurich Airport) and Cochin (Non-resident Indians); all have minority public sector ownership. As a consequence of this trend towards private sector participation, 15% of airports around the world are fully privatised, 18% are in public-private partnership with the remaining 67% in public ownership. However, the privatised or commercialised airports now account for 50% of airport passenger traffic. The existing trends towards greater private sector involvement are expected to continue, but with significant variation between jurisdictions. The private sector is now also sufficiently large and mature that an important part of transactions are likely to be sales of shares between private sector entities, in addition to financing and refinancing transactions [4].

Especially in Europe on the other hand the increase in private investment at Europe's airports over the past six years has been significant. According to ACI 2016 Last six years, 19% of total airports European airports has moved from public ownership to mixed and fully private schemes. Specifically the amount of in 2010 only 9% of total airports was fully private and 13% mix public and private and in 2016 the 15.6% of total airports was fully private and 25.2% mixed public and private. Concluding today over 40% of European airports have at least some private shareholders – and these airports handle the highest share of air traffic, [5]. This continues to be some movement towards additional private sector involvement, including: The ongoing programme of sales of stakes of French regional airports, with Toulouse already sold to a Chinese investor (minority stake) and sales of Nice and Lyon in process (majority stakes); In Greece, the privatization of 14 regional airports[6]; a potential new airport at Kastelli in Crete [7] is also being considered. This trend is driven by a mix of nation's budgetary constraints, and the need to promote air connectivity by investing sufficiently in the development of airport infrastructure that is critical for national economic development, by driving GDP per capita, creating employment and improving financial returns.

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Airport ownership schemes

Fundamentally, the process of privatization refers to the transfer of ownership from the public sector (e.g. local, regional or national government) to the private sector (e.g. private investment and/or management groups). Despite this simple definition, privatization and more specifically airport privatization can cover a wide range of forms (i.e. from partially privatized to fully privatized entities). In addition, there is a key distinction that needs to be emphasized between the privatization of the entity owning the airport (i.e. owner) and the privatization of the entity managing the operations of the airport (i.e. operator). As a result, the ownership and management of airports can take several forms. Different types of privatization methodologies are observed when looking at the literature on airport privatization [8],[9], such as; -management contracts, -long-term contracting (leasing) and -full or partial privatization.

Concerning the airports infrastructure management, there can be accounted several models, namely, state-owned airports, airports managed by public entities through public-private partnerships (PPPs) (contractual types (mainly concession contracts) and partially or fully privatized airports (PPP institutional type) as analytically Ferreira et.al 2016[10] describes. ACI 2016 [5] the different schemes on full or partial privatisation are defined as (i) Full private ownership (ii) Mixed public-private ownership and (iii) Full public ownership

- **Full private ownership airports (FPR)**

The full private ownership of an airport operator involves a commercial company wholly owned by private individuals or enterprises. Any ownership by entities which are themselves completely or partially owned by public authorities will only be considered as 'private' if these entities originate from a different country or region than where the airport in question is located.

- **Mix public private ownership airports (MPUPR)**

The Mixed public-private ownership of an airport operator involves an independently acting enterprise, structured according to and complying with normal commercial law, whose shares are owned by a combination of private investor(s) and public authorities of the country where the airport is located.

- **Fully public ownership airports (FPU)**

The Full public ownership of an airport operator involves a public authority or mixture of public authorities, at a local, regional, national or trans-national level, completely owning the airport operator. A public airport operator is considered to be 'corporatized' if it is an independently acting economic enterprise, structured according to and complying with normal commercial law, whose shares are completely owned by public authorities of the country where the airport is located. Typically, such operators will have a designation in their name, indicating that they are autonomous or have limited liability, which will vary according to national jurisdiction (e.g.

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'Ltd', 'GmbH' or 'SA'). A degree of subjective judgement is unavoidable when assessing whether to classify some of these airports as 'corporatized' or 'part of the public administration'. An airport operator is considered 'part of the public administration' if it is functionally dependent on the national and/or regional/local administration (e.g. Ministry of Transport, Regional and/or City Councils).

Management risks and uncertainties

Governments continue to look for ways to make their airports as efficient, competitive, and financially viable as possible, as well as ways to maximize the social return from their airport assets. The problem is complex because the decision-makers must balance the multiple objectives: minimizing costs, increasing capacity, enhancing safety, promoting airline competition, mitigating environmental impact, and enabling regional development. Many airports worldwide currently face these challenges at different stages of their lifecycle. Consideration by governing boards, airport officials, airlines, investors, and other stakeholders and decision makers on whether to privatize or expand private sector participation in an airport is a significant decision with long-term consequences.

The business model of airports has fundamentally changed. Airports have moved away from being infrastructure providers to full diversified business. The assessed risks need to be allocated appropriately to the party best able to bear it and obligations need to be clearly defined upfront. However, there will probably always be some degree of 'public involvement' – not only at the smallest airports, which act as a lifeline for their regional communities and are often structurally unprofitable, but also at the largest airports, which are strategically essential assets for national economies. The challenge and the question is to ensure that there is in place a regulatory framework that enhance all stakeholder values through risk mitigation.

Investors are attracted to realistic market projections including management risks and financial performance. In terms of risk assessment airport stakeholder's value can be enhanced through appropriate risk mitigation measures that cover financial, strategic and operational activities. Consequently, the airports risk managing airports is of importance to all stakeholders in the industry. Privatising airports should not be viewed simply as a short-term revenue raising option for governments. It must be seen as part of a long-term vision for economic development. The aim of this paper is to give the conceptualization of an associated dynamic, complex integral airport risk managing decision-making framework for different ownership structures.

Airports face a wide range of internal and external sources of uncertainty, both opportunities and threats that may affect achievements of their milestones and objectives. Airport management face inherent risks in all their strategy setting, operation and financial management. Risk management assists airports in making informed decisions about:

- the challenges and objectives they want to achieve
- the level and amount of risk and uncertainty that they want to assume in those objectives and
- the regulation required to achieve their objectives

This paper highlights that all the challenges and objectives that airports dominate and their internal control is best achieved when it is considered to be part of a risk management process as depicted in figure 1.

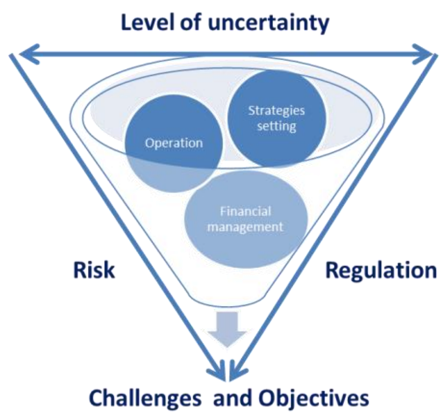

Fig.1: Combination of Strategic, Operation and Financial and Risk Management Triangle

The first step in the management framework is the identification of the key objectives and challenges that are dominated by airports in order to improve business of aviation, and monitor the airport system performance with desirable economic and social outcomes for different ownership structures. Several different parameters and structural features of airports as systems conceptually represent how those features can cover the challenges and milestones. The next step is the identification of the risks faced by different stakeholders in the airports. The different parameters that are critical to airport performance are identified. The aim is to analyse the risks that stakeholders of airports face worldwide by a holistic approach analysis.

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Challenges and performance objectives in airport management

The process for considering various forms of privatization involves a multi-step process starting with identification of the different stakeholder's goals and objectives. Stakeholders want to ensure the airport is developed in a manner that promotes regional economic development and create an operating environment that encourages increased passenger traffic and market development. Different key stakeholder groups have different issues and concerns regarding privatization and their perspectives on the potential key parameters.

To develop and manage a sustainable airport by strong financial returns for shareholders and generating regional wealth and employment; mitigating the environmental impacts; and ensuring safety and security, capacity for growth, a range of milestones to guide airports stakeholders in its planning and decision-making reflect this vision. The essences of these milestones that are presented in figure 2 are outlined below.

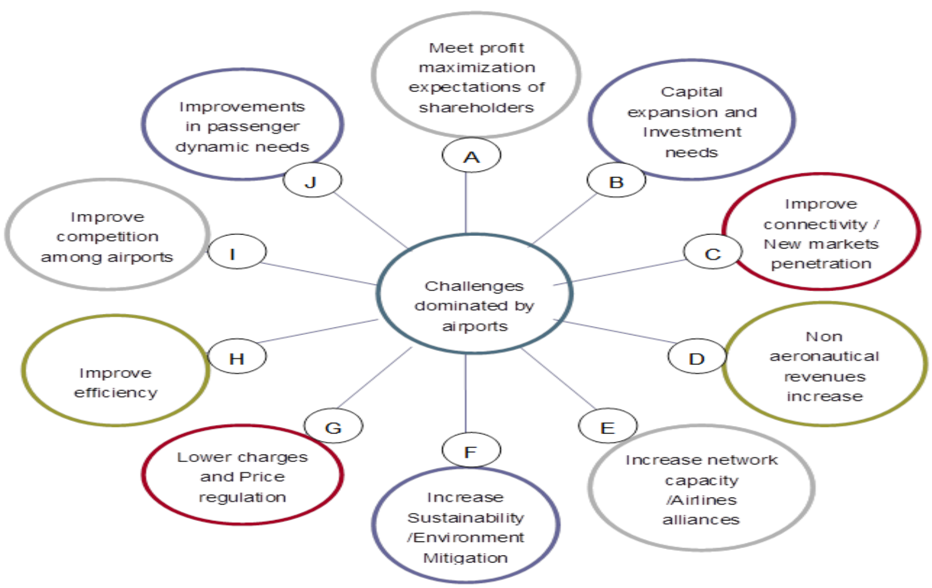

Fig.2: Challenges and Objectives faced by airports

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With the expansion of the aviation industry, airport shareholders are demanding for more value and this is a key challenge for the airports. The key parameters of business planning issue are to adopt a strategic and business approach to long-term needs, align actions with the needs of different market segments (e.g., low-cost carriers), provide opportunity for long term operational

efficiencies and revenue development, enhance non-aeronautical revenues, and cost savings through optimized use of facilities and right size the Capex. In addition, as airports are not pure infrastructure providers but economically driven entities, a key parameter of the business planning is also and provides access to private capital for airport improvements and development.

Market liberalization caused considerable pressure on aeronautical –related revenues, which has been the main traditional revenue source of airports. On one hand, growing competition among airlines is forcing them to operate on limited margins and on the other there is stagnation of regulated airlines and emergence of LCC. Additionally, the privatization of airports coupled with a decline in public control and funding is pushing the need to generate additional revenue for business sustainability.

Key variables in Business planning

Key variable for airports stakeholders and decision makers is to adopt a strategic and business approach to long-term needs, align actions with the needs of different market segments (e.g., low-cost carriers), provide opportunity for long term operational efficiencies and revenue development, enhance non-aeronautical revenues, and cost savings through optimized use of facilities and right size the Capex. In addition, as airports are not pure infrastructure providers but economically driven entities, a key parameter of the business planning is also and provides access to private capital for airport improvements and development. Because no two airports are alike, each airport will have different strengths and weaknesses. For example, small hub airports cannot expect to realize the same level of concession revenues per passenger as that of a major international gateway. Airports with less efficient terminal are not able to provide the concession space needed to take full advantage of the market. Airports that are well run are weaker candidates for privatization because there is less value to be derived unless there is collateral land for development. But in virtually all cases there are structural inefficiencies inherent in government operation that could be improved by the private sector.

Different stakeholder groups present different issues and concerns regarding airport corporate development and the privatization aspects into airport territory subject to the business

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perspectives to meet better financial performance and operational quality. Table 2 summarizes the key interests of each key stakeholder group involved in decision process.

Table 1: Stakeholders and decision maker's priorities and challenges at airports

Decisions	Prioritiesin corporate planning and management challenges
Government and Authorities	▪ Ensure developed in a manner that promotes regional economic development ▪ Create an operating environment that encourages increased passenger traffic ▪ Use the benefits of national fundsto infrastructure project financing ▪ Provide access to private capital for airport investments and development ▪ Conduct the transaction under a transparent process ▪ Retain a degree of control over the airport assets and regulation (e.g., prices, Capex, levels of service, noise mitigation, etc.)
Airlines and Travel agents	▪ Reduce airline costs to operate at the airport ▪ Ensure efficient airline operations ▪ Provide sufficient capacity to accommodate demand ▪ Provide quality level of service for passengers ▪ Prevent monopolistic actions ▪ Permit consortiums for airline terminal equipment maintenance and fuel systems
Private Investors	▪ Earn a high return on investment, which is dependent on the amount of risk ▪ An appropriate balance between equity and debt to maximize returns ▪ Minimize exposure to political and regulatory risk invest ▪ Have access to relevant data to conduct due diligence ▪ Minimize the cost of participating, especially in the initial round
Airport Operator	▪ Promote safety, security, airline service, customer service, ▪ Promote financial stability and compliance with laws and regulations, ▪ Non-aeronautical revenue development, ▪ Operational efficiencies and labour stability, ▪ Provide for the best interests of the tenants, passengers, and community ▪ Maximize the value to all stakeholders

Analysis Results and Conclusions

Key objective of this paper is to present the results of a quantitative analysis towards efficient airport corporate planning that supports government authorities, airport shareholders, decision makers, and other entities involved in decision process. The paper intended to be a comprehensive resource that summarizes in a concise and easy-to-understand format the various options for private sector involvement in the operation, management, and financing of airports and provide the tools necessary to evaluate such options to make sound decisions about potential privatization initiatives. Goals, objectives, opportunities, strategic priorities, and challenges differ from one airport to other and the decision to privatize is often made in a broader context by the decision makers.

The analysis based on the airport corporate outputs for a sample of representative European airports in the small-medium size category (15-25million passengers),having deferent ownership schemes and management structures. The effects of ownership on airports productive efficiency suggest that ownership influences airport performance because different owners pursue distinctive goals and possess diverse incentives. For example, under government ownership, the airport is facing strong bureaucracy maximize an objective function that is a weighted average of social welfare. Under private ownership, by contrast, the airport is run for the maximization of profit (shareholder value). Further complicating the ownership-performance debate is the presence of a mixed ownership regime embodying elements of government and private ownership. The analytical interaction of each ownership form on different parameters as well as the different strategies are analysed in Table 3.

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Table 3: Interaction of ownership form and corporate strategy key drivers

Management power	Business effects (financially) Positive (+ low to high ++) Negative (- low to high - -)		Corporate strategy (key drivers for action)
Public Ownership	**35≤Public Share≤70**		▪ Stimulate Demand ▪ Barriers to entry ▪ Merge/Acquisition ▪ Network concept ▪ Optimization ▪ Industry marketing ▪ Demand value chain ▪ Impact on other sectors
	-	PL/carriers	
	±	PL Airports	
	+	Competition	
	--	Prices	
	-	Investments	
	-	Regulation	
	75≤PublicShare≤100		
	--	Prices	
	±	PL Airports	
	--	Competition	
	--	Prices	
	--	Investments	
	++	Regulation	
Private Ownership	**25≤Private Share≤35**		▪ Maintain Demand ▪ New routes/orders ▪ Synergies ▪ Hub and spoke concept ▪ Differentiation ▪ Product Marketing ▪ Aviation value chain ▪ Impact on economy
	+	PL/carriers	
	++	PL Airports	
	+	Competition	
	++	Prices	
	++	Investments	
	+	Regulation	
	75≤Private Share≤100		
	++	PL/carriers	
	+	PL Airports	
	++	Competition	
	+	Prices	
	±	Investments	
	--	Regulation	

In light of the discussion provided, we can draw several recommendations towards a systems approach to the problems of planning, managing and operating airport infrastructure under different ownership structures. The effects of ownership on airports productive efficiency suggest that ownership influences airport performance because different owners pursue distinctive goals and possess diverse incentives.

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