

Overview

Strategic decision-making represents a particular challenge for airports. Strategic decisions determine the direction for future developments, and entail committing resources over time. The airport can then evolve methodically based on explicit strategic targets that are both desirable and practical. Critical planning tasks, including the Masterplan, can then follow according to a specific and advantageous path for the future activities and developments, providing tremendous benefits. As a result, a number of strategic issues – expansion, restructuring, privatization, etc. – can be effectively managed.

Requirements

As major strategic decisions regarding the future of the airport are being considered, the impact of such decisions, individually and accumulatively, has to be evaluated from the financial and operational perspectives. In effect, as the airport reshapes over time, the structural changes to the basic financial statements and key operational statistics need to be identified. Since such strategic decisions are made over a planning horizon, the expected effects have to be evaluated periodically – for every quarter over a number of years. Consequently, an analytical tool is needed to support responding to the fundamental strategic questions: where does the airport want to be at a specific time in the future, and how does the airport plan to get there? The application of such an analytical tool provides a set of key data and indicators needed for developing the Masterplan.

Approach

Airport Analysis Method (AirportAM) is the principle approach for accurately capturing the dynamics of airport management by quantitatively modeling the market environment, the operation settings, and the financial and operational consequences of strategic decisions. Consequently, AirportAM can be used to simulate business and operations strategies under different market conditions. A closely similar approach, named Airline Analysis Method (AAM) was successfully used in restructuring of a major international airline.

Airport Analysis Method (AirportAM)

AirportAM abstracts the airport into two separate modules: Market Scanner and Airport Scanner. Market Scanner includes the revenue-generating components of the airport, while Airport Scanner entails the operational and cost elements. As major strategic decisions are considered, changing the values of the appropriate items in these two modules allows accurately evaluating such decisions. The Optimization Module then restructures the operations processes by allocating available resources and recapturing the impacts of that redistribution of resources. After that, the Evaluation Module takes the results and prepares a set of standard financial statements and operational statistics to illustrate the impacts of decisions that are made and are incorporated in Market Scanner and Airport Scanner. As a result, AirportAM provides a means to identify the key areas for major development or restructuring and the extent of needed changes for a successful strategic plan that yields a sustained prosperity. In effect, AirportAM contributes to the development of a new business model for the airport and the accompanying strategic plan to integrate that model, which in turn can be used for developing the Masterplan.

CA Advisors

1250 Aviation Avenue
Suite 200M
San Jose, California 95110
USA
Tel: 408-295-7730
Fax: 408-280-5700
www.ca-advisors.com

GMS

Gesellschaft fuer Markt und Strategieberatung
Sonnenberger Strasse 52
65193 Wiesbaden
GERMANY
Tel: 0611-37577-39
Fax: 0611-37577-40
www.gms-beratung.com



Airport Analysis Method (AirportAM) Structured Approach

AirportAM modules...

Market Scanner This module of AirportAM contains information regarding the airport attributes and the values that drive the demand. Market Scanner includes a market model that computes potential airport customer traffic by compounding market size and customer preferences.

Airport Scanner Airport Scanner keeps information about the operations and corresponding expenses in an organized framework. The airport is divided into major operating units, and each unit is modeled individually. The operating costs are pragmatically divided into meaningful categories. Provisions for capital spending for all units of the airport are also added.

Optimization Module The Optimization Module assigns available resources to cover the requirements for operating the airport in a way that the benefits are maximized. The module also includes auxiliary models, as needed, that consider the excess demand versus available capacity, and distribute the resources accordingly. The objective is to come up with a set of processes that meets the requirements while lowering the costs.

Evaluation Module After all elements of the operating processes are identified, the Evaluation Module calculates the standard financial statements and operational statistics. The items that are included in *pro-forma* statements and statistics of AirportAM are those typically appearing in the publicly-disclosed periodic reports of airports.

AirportAM decision-support system...

AirportAM can be developed in the PC system environment with Microsoft Windows operating system. As a PC-based, decision-support tool, working with AirportAM becomes very easy, which facilitates its introduction to users. Training time is significantly low, allowing AirportAM to contribute immediately to the airport development. AirportAM uses three different software platforms. Market Scanner and the Optimization Module applications are developed in Delphi Version 4.0, and are in the executable version. Airport Scanner and the Evaluation Module are developed in Microsoft Excel Visual Basic Application (VBA). The Optimization Module also uses CPLEX Version 6.5, the deployment version, which is delivered as a software component of AirportAM with the appropriate usage license.

Benefiting from experience...

The contributions of CA Advisors and GMS to the AirportAM development combine extensive experience in strategic planning, airport strategies, and business development with knowledge of advanced quantitative planning and management science techniques.

Jahan Alamzad

Email: jahan.alamzad@ca-advisors.com



Jahan Alamzad is president of CA Advisors. He has served as advisor to Applied Decision Analysis (ADA), a unit of Standard & Poor's Corporate Value Consulting, where he was previously director of aviation practice. (ADA was a wholly owned subsidiary of PricewaterhouseCoopers LLC between 1998 and 2001.) Mr. Alamzad has been a management consultant in the aviation and related industries for the past sixteen years. Before his consulting career, he worked at American Airlines and United Airlines. Mr. Alamzad holds a masters in operations research from Stanford University, as well as a masters in industrial and systems engineering from the University of Southern California, and bachelors degrees in civil engineering and electrical engineering from the University of Illinois. He has served on the faculty of the Department of Aviation at San Jose State University, lecturing various aviation management classes including airport management.

Maciej Mazurowicz

Email: maciej.mazurowicz@gms-beratung.de



Maciej Mazurowicz is managing partner of Gesellschaft fuer Markt- und Strategieberatung (GMS). Prior to GMS, Mr. Mazurowicz worked at Lufthansa German Airlines in different strategic management positions. At Lufthansa Consulting, he managed a variety of business development projects for aviation organizations worldwide. Mr. Mazurowicz holds a Master of Business Administration and bachelors in business from the University of Kiel. His publications include articles on behalf of the German Ministry of Economics concerning product development and management of innovations.

About CA Advisors...

www.ca-advisors.com

CA Advisors is a management consulting firm dedicated to providing state-of-the-art analytical services. By applying powerful and practical tools, the firm helps its client understand their business positions and improve their strategic and operational decisions. To ensure the success of its work, the firm is committed to collaborating closely with its clients, communicating clearly about its approach, and delivering valuable results that are logically sound. For many years, the work of CA Advisors professionals has spanned a wide range of projects. The firm has a focused and dedicated practice in aviation, with a breadth of expertise in aerospace. The experience of the firm's professionals extends from traditional applications in logistics and resource allocation to more innovative applications in strategic planning.

About GMS...

www.gms-beratung.de

GMS is a management consulting company supporting clients in strategic planning and business development. GMS focuses in planning, marketing and sales, and assists clients in developing and implementing business strategies. GMS experts facilitate the evaluation of the business environment, forecast and analysis of market scenarios, and development of organizational structures by applying a wide range of state-of-the-art analytical tools and business methods, resulting in optimized financial and operational performance of clients. GMS ensures efficient project realization through a network of cooperation partners – from complete IT solutions up to personnel training.