

Airport Traffic Development



Understanding passenger flows and traffic development is the key to successful airport operations. Even if airport managers focus increasingly on non-aviation business and may refer to an airport as a 'shopping center with an attached runway', the concept will not deliver the expected results without a solid functioning of the airport's core processes.

Fraport, being an airport operator now for almost a century, has developed and promoted many different airports according to their (boosted) traffic development.

The portfolio ranges from primary hubs (Frankfurt Airport/Germany), secondary hubs (i.e. Lima/Peru or Xi¹an/PR China) over leisure airports (i.e. Antalya/Turkey, Varna/Bulgaria), Low-Cost-Airports (i.e. Frankfurt-Hahn/Germany) to Regional and O&D Airports (i.e. Hanover/Germany, Saint Petersburg/Russia).

With the experience of managing highly diverse airports in day to day business, combined with numerous due diligence projects, benchmarks and specific competition analysis, Fraport

accumulated a unique knowledge of the air traffic market and the driving mechanisms behind it.



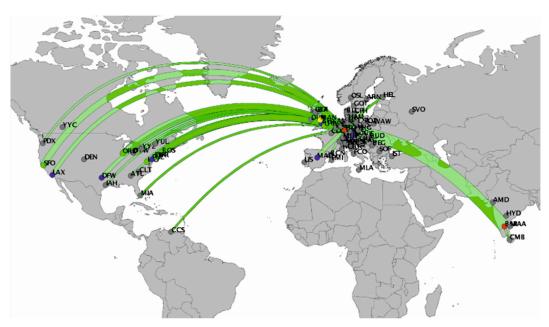
Your airport will benefit from our vast experience in the field of traffic development and our comprehensive analyzing methods. We deliver indepth studies and services in the following areas:

- •Traffic analysis & route development
- •Traffic forecasts & forecast assessment
- •Strategic airport positioning
- •Customer survey development along the whole traffic process chain
- •Passenger profiling and clustering, e.g. for retail

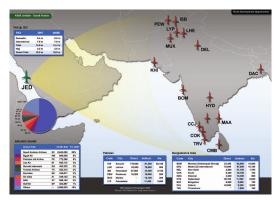
Traffic Analysis & Route Development

Given the uniqueness of every airport, it is essential to generate a sound knowledge of all traffic related patterns to identify the determinants and drivers of air service demand.

out potential operators, determine their interest and negotiate the best fitting flight schedule for the airlines' and airports' consistent network enlargement. This can include an airline approach with tailor made marketing and decision-making material as well.



This task goes far beyond a pure network analysis! It includes an assessment of the catchment area in the same way as an evaluation of the key players' strategy and capability. For any investigation, economical and demographical factors have to be considered in a holistic way along with political, regulatory, technical and ecological prerequisites. Special attention is required to assess the competitive situation, to respect market trends and to consider technical progress.



Strengths and weaknesses of the current route network are examined in great detail to understand the underlying primary causes.

The analysis is then followed by an identification of opportunities for further route development: On a route-by-route basis, Fraport will estimate the expected demand and set priorities, point

Traffic Forecasts & Forecast Assessment

A comprehensive evaluation of the historical traffic figures forms a solid base for any review of an airports' existing traffic forecast or for generating a new or updated version.

Fraport has the background, the methodology and the necessary tools to create customized forecast models for individual airports. Scenario analysis as well as probability density calculations are additional features of a profound assessment.

Part of the expertise is derived directly from Frankfurt Airport, where Fraport forecasts traffic demand (and supply) on a regular basis in several levels of detail, according to the diverse needs and requirements of the different interest groups within the company.

As a result, we are not only able to support in the technical preparation of a forecast, but also provide assistance in the appraisement or implementation of a tailor-made forecasting process itself.

Determinants:

- Traffic development
- Socio-economic data (national, international)
- Capacities
- Competition and "Neighborhood"development
- Airline fleets
- Airline strategy
- Technological progress
- Administrative influence (e.g. legal)
- Ecological requirements
- •

Methods:

- Intuitive:
 - · Delphi method
 - · Brain storming
 - · Dynamic modeling
 - Predictive analysis
 - ..
- Exploration:
 - · Regression analysis
 - · Correlation analysis
 - Trend extraploration
 - ..
- Projections:
 - · Econometric modeling
 - · Operations research
 - · Monte Carlo theory
 - ..

Choice, usage and weighting of method Scenarios Validation & verification process

Forecast

Strategic Airport Positioning

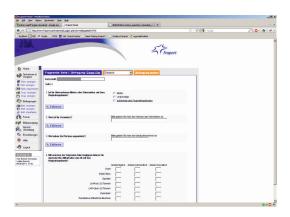
After analyzing the historical traffic development, the market situation as well as the key players and having identified future network development potentials, it is only a small step towards giving advice on the strategic positioning of an airport. The long-term concept is then broken down into precise action plans on working level to implement the agreed strategic positioning step by step.

Customer survey development along the whole operational process chain

Today, a customer centric approach is vital to succeed in the modern business world. Knowing your customer in detail and understanding her/his desires and wishes became an integral part of strategy development. Airports, however, have a broad range of customers in different business sectors, e.g. passengers, airlines, logistic companies, tenants, etc. Since all of them are directly or indirectly involved in traffic development, we have established multiple survey instruments for the past 25 years to gain reliable data which is not covered in any other available aviation statistic.



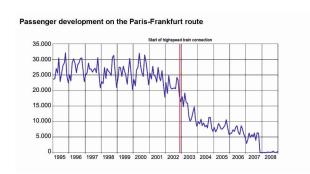
Fraport Monitor®, for instance, a standardized face-to-face passenger survey, interviews more than 25,000 passengers every year about their socio-demographic attributes, aspects of their recent trip, their likes and dislikes as well as their pattern of behavior during the journey (spending, way-finding, time management, mode of transport to/from the airport, etc.). The analyzed data is crucial information for management decisions to improve passenger related services and satisfaction levels at the airport.



In another example airlines are addressed twice yearly via a standardized online-survey to collect indications about any planned, but not yet publicly announced route changes and about their market interpretation. This information is used in multiple ways, like e.g. in short-term forecasts or staff planning, but especially by the sales and route development team.

These two examples give a brief insight into the experience and expertise Fraport offers in the design and execution of surveys. Furthermore we provide the analysis, reporting and derivation of concrete action recommendations.

Not to forget: As huge sample sizes are often very cost-intensive, Fraport has developed its own online-survey tool. This enables us to cope with small budgets and/or time-critical matters, too.



Passenger profiling and clustering



'Big data' became a key word when it comes to intelligent linking of different information from multiple sources with the aim of increasing service quality and easing life.

External data-bases and inhouse collected data saved anonymously facilitate Fraport to develop detailed representative profiles of "typical" passenger groups and numbers via a structured evaluation and cluster analysis. This information becomes extremely valuable e.g. in regard to retail spending, service offers or tenant's customer approach.

Reference Projects

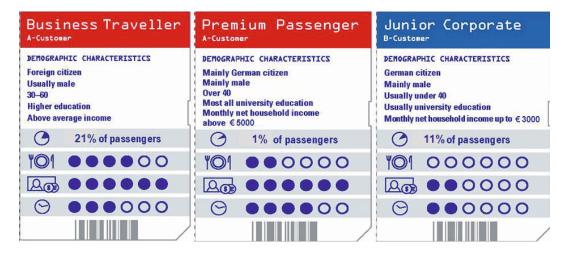
Traffic analysis and route development: Frankfurt Airport, Frankfurt-Hahn Airport, Jeddah Airport, Riyadh Airport as well as numerous airports worldwide within the scope of due diligences

Traffic forecasts & forecast assessment: Frankfurt Airport, Jeddah Airport, Xi'an Airport, Saarbrucken Airport as well as numerous airports worldwide within the scope of due diligences

Strategic airport positioning: Frankfurt Airport, Frankfurt-Hahn Airport, Hanover Airport, Tokyo-Narita Airport

Customer survey development: Frankfurt Airport, Jeddah Airport, Riyadh Airport, Frankfurt-Hahn Airport, Hamburg Airport

Passenger profiling and clustering Frankfurt Airport, Frankfurt-Hahn Airport



Contact

Fraport AG
Global Investments and Management
- Consulting 60547 Frankfurt am Main
Germany

Phone: +49 (0) 69 690 24089 Fax: +49 (0) 69 690 49524089 E-Mail: consulting@fraport.de Internet: www.fraport.com