Optimising Airport Development for Profitability

GAD World

Introduction to Business and Finance Seminar

11th November 2019

York Aviation

Introduction to York Aviation

York Aviation is a specialist air transport consultancy that focusses on airport planning, demand forecasting, strategy, operation and management. York Aviation offers a broad range of services to airports, airlines, governments, economic development organisations, and other parties with an interest in air transport. Our team is a mixture of experienced air transport professionals and economists.

Our clients include airport operators, airlines, financial institutions, government agencies, and regional authorities.

Why we are qualified to speak about this?

- Work across the whole airport business
- Significant experience in real world airport development across the team, ranging from small regional airports to new terminals, runways and infrastructure at major international airports

Richard Connelly
Principal Consultant and Business Development Director

- 15 years experience with York Aviation
- Wide experience in demand forecasting, aeronautical revenues, business planning, airline strategy, airport planning and aviation policy

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Themes

- Understanding the Need
- Delivering the Capacity
- Optimising the Value
- Reconciling Conflicting Objectives

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Understanding the Need

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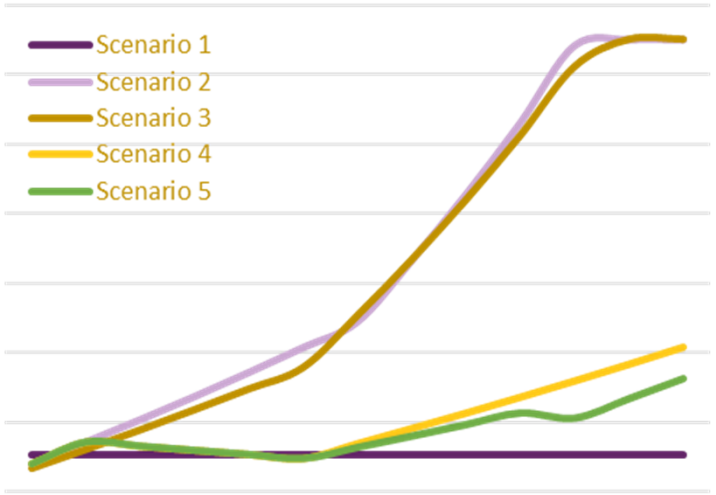
Demand Forecasting

- Start point is robust forecasts of demand BUT important to recognise that forecasts will always be wrong to a greater or lesser degree due to the dynamics of the industry
  - Airports that have overbuilt well ahead of demand
  - Airports that have not built quickly enough, although there can be many reasons for this

- Getting the Forecasts right means understanding the specific nature of the local market
  - Top-down – May suit larger, more conventional assets
  - Bottom-Up – May be more suited to smaller or more complicated assets

- Key factors to consider
  - Highly likely will not be a single forecast trajectory
  - Local economic conditions
  - Past performance
    - Existing capacity constraints and underperformance
    - Unsustainable growth (buying traffic)
  - Airline strategies
  - The effect of competition from other airports or from rail



Detail Matters

- Headline Passenger Forecasts don't tell you what to build
  - Airport capacity is a series of different components
    - Airfield and Runway
    - Stand
    - Security
    - Check-in
    - Arrivals facilities
- Interpreting the forecasts for planning
  - Busy Hour Rate/Ratio based and IATA based
  - Busy day timetable based – seeing this being increasingly used
- Need to understand specifics – is capex driven by factors other than direct passenger growth
  - Fleet mix changes
    - A380 Experience
    - London City Airport
  - Regulatory requirements
    - Revised security arrangements
  - Technological changes
  - Passenger behavioural switches

Understanding User Requirements

- Engaging with users
  - Matching facilities to users' requirements
  - What are users willing to pay for? – regulated and non-regulated assets
  - Gold plated assets
- Ignore users at your peril – making the wrong decisions and assuming you can increase prices simply leads to a slowing or even reversal of growth:
  - The effect of airport development fees
  - RAB based regulation can be used to justify a price increase above that which users will pay
- Differentiate between airline operational requirements – they will always want everything – and the commercial perspective of what they are willing to pay for
- BUT remember airlines do not necessarily have long term planning horizons consistent with long term airport investment so ultimately the airport will need to determine what to build
  - Birmingham Eurohub
  - Berlin Brandenburg
  - Milan Malpensa
- Designing for flexibility can help

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Delivering the Capacity

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Optimise Existing Capacity

- Optimise existing before building new BUT consider whether this results in a loss of service quality or compromises ability to expand efficiently

- Optimising current airport infrastructure
  - Lower cost solution
  - Provides some scope for growth, particularly in more complicated planning regimes which can delay new build
  - Needs to be offset against quality of service, may not have space for regulatory changes (e.g. security) and could impact on revenue streams through overcrowding
- Have all steps been taken to optimise the use of existing capacity?
  - Airspace/ATC improvements can delay or prevent the need for new runways – no automatic presumption that new runways are the solution (Belgrade and Mauritius), plenty of examples of high intensity use of single runways (LGW,LCY)
  - Have technological solutions been exploited to the full, e.g. automated bag drops, E-Passport Gates
- Is there scope to forego some retail and catering space to increase passenger throughput – balance of revenues? – danger of other way around
- Role for schedule coordination – does formal slot allocation provide a means to control and 'ration' capacity as an interim step until new capacity can be provided – undesirable for a/l seen as interim step but can ration capacity when too costly to build
- Can pricing be used to encourage spreading of the peak?

Keep Plans Flexible

- Avoid architect-led design concepts as these can be inflexible when changes are required, e.g. Paris Terminal 1,
  - Function before form
  - Decide what is essential and what are 'nice to haves'
- Flexibility in design
  - Keep layouts simple – rectangles are easier to expand than curved designs
  - 'Stage set' concept – allows for easy changes of layout
  - Avoid fixed and inflexible structures (Berlin Brandenburg)
  - Have a Master Plan layout in mind
  - Can adapt to future growth
  - Meet requirements of changing regulatory requirements
  - Adapt to the changing needs of airline and passenger users
  - Optimisation for business planning over time
  - Risks of designing for single carriers – Berlin, LH and then Air Berlin, neither have bases now
  - Being able to adapt to technologies which can improve efficiency and improve returns

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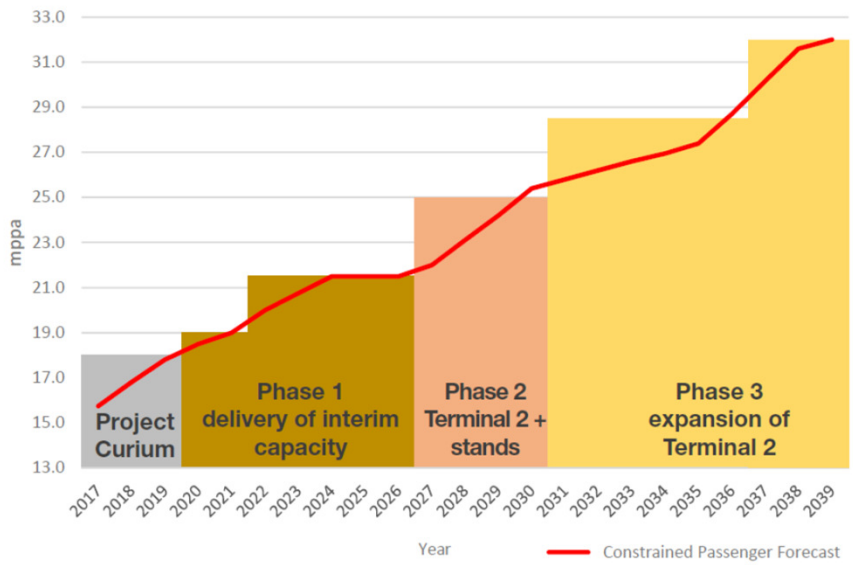
Optimising the Value

Just in Time Delivery

- Consideration should be given to the extent of building in phases to meet demand vs. a need to develop large scale facilities in a single build
- Phased approach can allow adaption of facilities if the need changes
- Has impacts on returns, value and fundability
- Prevents overspending, particularly if demand slows
- Requires close monitoring

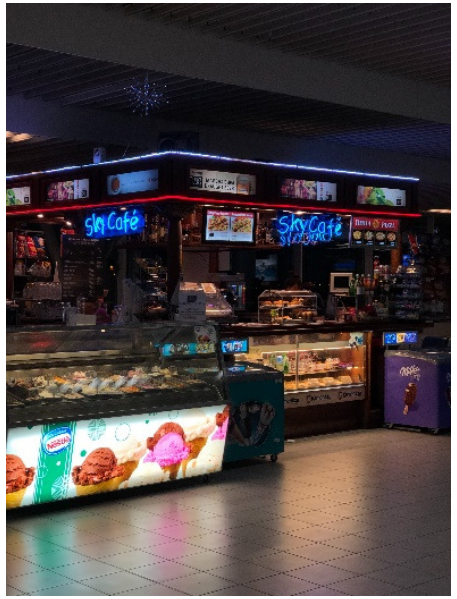
Potential phased delivery of incremental airport capacity



Source: York Aviation

Maximising Commercial Income

- Maximising retail and catering floor area does not necessarily increase spending – find the 'sweet spot'
- Remember that it's not just cost of fit out that needs to be considered in terms of retail revenue, but the cost of building in the first place
- Caution in assuming retail and catering areas should always be maximised – there may be a ceiling on spend per passenger which means that returns to floor area may not be achieved
- Consider what you are providing space for and make sure it will provide retail facilities to match your projected passenger profiles
  - Luxury Goods
  - Inbound/Outbound mix
  - Airline mix
- Are there alternatives to building more space?
  - Tailoring shop offers by day of week, time of day etc.
- When space is limited, what balance is needed for passenger handling vs. commercial outlets
  - Having insufficient seating in a terminal can turn off the commercial revenues



Remember the Cost of Operation

- It can be easy to focus on the revenue potential of growth and neglect true analysis of the on-going costs of operation
- Costs of operation
  - Inefficiencies in multiple terminals
  - Central vs De-Centralised Security
  - Staff costs
  - Utilities – electricity, water, other
  - Scale of bussing
- Maintenance capex
  - Runways and taxiways
  - More complex buildings and technologies
- Does the design lead to higher costs for users too?
  - Aircraft taxi times
  - Airbridge and bussing charges

Maximising Value

- There may be times when the cost of building cannot be recovered through charges so accepting some constraint on growth may be the most cost effective solution
- The right development path will generate revenue growth concurrently to facilities opening – a further consideration in phasing
- Development needs to be subject to rigorous business planning and making a business case for each aspect of growth
  - In some cases, phased development could cost more over time – NPV analysis will be key to comparing schemes and phasing
  - Revenue streams and opex, as well as capex need to be carefully considered. Business planning forecasts may differ from the main facilities planning forecasts – or at least downside flexing may be required
- Critical point for consideration of construction techniques and degree of 'gold plating'

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Reconciling Conflicting Objectives

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Public Vs. Private

- Ownership of the airport can be an influencing factor on the approach to development
- The public sector may have wider aspirations – 'architectural monuments' or level of service aspirations in support of wider economic goals that users are not willing to pay for
  - During airport privatisation this is often a factor in the type of development required by bidders, particularly in concessions
  - This can lead to 'White Elephants' – Montreal Mirabel
- Private sector should typically take a more pragmatic approach
- To the extent that the public sector have aspirations for a privately owned airport, there may be opportunities for joint working
  - The public sector may be willing to make some form of contribution, either directly or through broader policy decisions or funding which can help underpin air service growth
  - Any public support will need to be considered in relation to state-aid in certain areas of the world

Shareholders

- Shareholders have different appetites for risk and expectations of reward – short v. long term
  - This could depend on the nature of drivers for airport ownership
  - May be influenced by aspirations to dispose of an airport asset
- Critical for shareholders to fully understand the business to make informed decision
  - Also critical to ensure they have a good understanding of options around development
- An important aspect in airport transactions to make sure buyers don't overpay for an asset

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About York Aviation

York Aviation is a specialist firm of air transport consultants providing a complete consultancy service for a wide range of clients from the air transport industry.

We are a boutique strategy consultancy combining the knowledge and expertise of highly experienced air transport professionals with the high level analytical skills and economics acumen of our career consultants.

York Aviation engages with its clients to develop their business strategy, grow their businesses, manage their external relationships, understand and mitigate risk, and ultimately to implement their plans.

We add value for our clients in many ways:

- we provide expertise that is not available 'in-house';
- we offer a separate view and act as a critical friend;
- we bring broader market experience and intelligence to bear on problems;
- we provide an independent voice to the outside world.

York Aviation was established in 2002 and has successfully grown its reputation and client base ever since, achieving exceptional levels of repeat business.

York Aviation Core Skills

York Aviation delivers for its clients by applying a wide range of core skills.
Each of our projects is different and each of our clients has different needs. Each project is therefore bespoke and tailored for each client. There are, however, common themes and issues that enable us to apply the skills and techniques that have been developed by our team over their careers.
At the same time we innovate. Our comprehensive knowledge of existing techniques and methods enables us to push boundaries and develop new ideas and new approaches increase understanding and provide insight for our clients. Ultimately, the breadth of our skills base enables us to provide the complete range of services that York Aviation prides itself on.

Our Clients

York Aviation works with a wide range of clients. The common theme is an interest in air transport and the need to understand that market.

We work with airports, airlines, central and local governments, economic development organisations, regulators, business representative groups, owners and investors.

Our clients originate from across the UK, Europe and further afield. Some recent examples are shown here.

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