

Contemporary Airline Business Practice

PECC

November 2003

**Air Transport & Tourism in
The South Pacific**

Introduction

Management

Management is defined as “the way airlines are operated in the implementation of strategic goals”.

Four Areas of Review

1. Alliances & Code Shares
2. Networks & Hubs
3. Yield Management
4. The Low Cost Phenomenon

1. Alliances and Code-Shares: the boundaries between collaboration & competition

- Alliances are common in other sectors: telecommunications, automobiles, pharmaceuticals, oil.
- Alliances management literature:
 - Svein Gudmundsson, “Interconnection of Airline Alliances, Networks and Transaction Sets” – 10 page paper, 11 pages of references – 116 in total. The focus of the paper was the relationship between networks and branding.
 - Hamel & Prahalad, “Competing for the Future” and Hamel & Yves Doz, “Alliance Advantage” both address the boundaries between competition and collaboration.
- Researched by the ACCC when it approved the Joint Services Agreement between Qantas and British Airways.

1. Alliances and Code-Shares:

capital 'A' Alliances and small 'a' alliances

Capital 'A' Alliances:

- Star
- **oneworld**
- Skyteam

Small 'a' alliances – e.g. equity, code-share and FF:

- Air Pacific & Qantas
- Air Caledonie International and Air France

Perception of alliances:

- Star – couldn't run a sandwich shop
- **oneworld** – not robust, if Qantas joined Star it would benefit everybody except the customers

1. Alliances and Code-Shares: implications for the tourism industry

Fiji

- Qantas and Air Pacific (which is 46.2% owned by Qantas)
- two flight numbers but one airplane
- lack of competition on fares?

Vanuatu

- Qantas and Air Vanuatu
- code-share: no price or schedule competition
- restricted promotion
- Air Vanuatu not in Frequent Flyer program – this directs passengers to Qantas seats

the illusion of competition may deter other operators

1. Alliances and Code-Shares: consumer issues in code-shares

- Is there a real or perceived equivalence of service?
- There are forced indirect routeings:

e.g. Qantas used to operate a code-share from Sydney to Vienna with British Airways via London (a two hour backtrack) but the consumer had a choice of Lauda Air's direct service which operated four times a week. In addition, Singapore Airlines and Malaysian Airlines offered a daily one-stop sixth freedom service. The distance Heathrow – Vienna is 687 nautical miles and so the return journey Sydney – Heathrow – Vienna is in the vicinity of 2,750 nautical miles further than necessary. Lauda now operates daily and soon 9 times.

1. Alliances and Code-Shares: why do airlines code-share?

- network expansion without the cost of own aircraft operations
- network consolidation
- achievement of a reduction in actual & **potential** competition
- controlled growth of market

1. Alliances and Code-Shares: code-share problems in practice

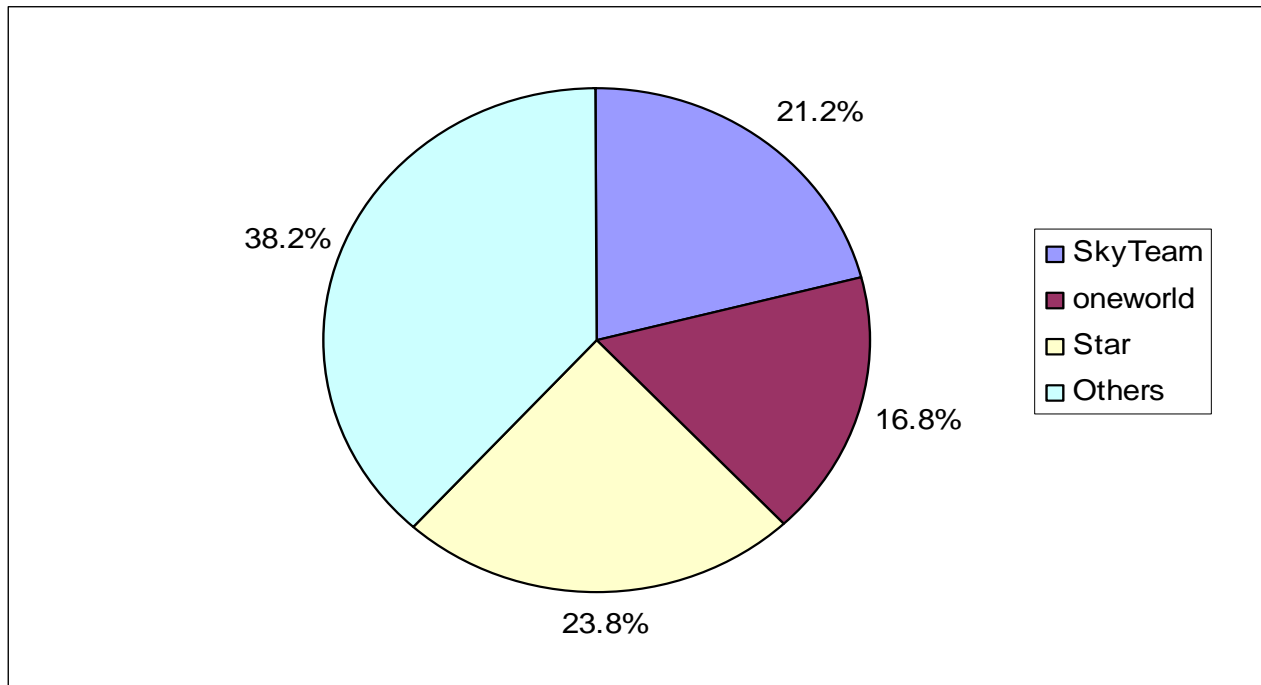
OAG Survey:

- over 50% of flight numbers have code-share indication
- 20% of code-share flights have data mismatches
- 32% were time mismatches
- 31% were terminal mismatches
- 15% were also equipment mismatches

1. Alliances and Code-Shares: equity in alliances

- it is not a recipe for survival
- as far back as 1996 – 62 equity alliances
- the very large number of equity alliances shows two problems: alliances in airlines have low survival rates – low commitment
- Air France had 24 alliances at one point but is now more focused and has created a new form of alliance in its “merger when you are not having a merger” with KLM.

Alliances: share of world traffic, July 2003



Sky Team – Air France, Delta Airlines, Aeromexico, Alitalia, CSA Czech Airlines, Korean Air, Northwest, Continental, KLM

oneworld – American Airlines, British Airways, Aer Lingus, Cathay Pacific, Finnair, Iberia, LanChile, Qantas

Star – United Airlines, Lufthansa, Air Canada, Air New Zealand, ANA, Asiana, Austrian, bmi British Midland, LOT Polish Airlines, Mexicana, SAS, Singapore Airlines, Spanair, Thai Airways, Varig, US Airways, TAM

1. Alliances and Code-Shares: rationale for alliances

- network expansion/consolidation at minimum costs (with and without code-shares)
- revenue enhancement
- cost reduction through:
 - joint crewing
 - joint ownership and use of aircraft
 - joint engineering
- circumvention of ownership and control regulations

1. Alliances and Code-Shares: alliances & governance

- few rules – management of alliances varies
- linkages across alliances: Cathay Pacific in **oneworld** but with Lufthansa for cargo and United Airlines for aircraft and parts. Thai International in Star but with Air France for cargo.

1. Alliances and Code-Shares: alliances and public policy

- alliances are fundamentally anti-competitive
- in Australia, approval by competition authorities requires competition
- **Kangaroo route:** there is a high level of sixth freedom and some fifth freedom competition on this route.
- **Singapore route:** there is fifth freedom competition, especially by Emirates but also by others including formerly Gulf Air.
- **Hong Kong route:** there is no fifth freedom competition. There is limited sixth freedom competition over Manila and by Singapore Airline and Malaysian Airlines between Perth and Hong Kong.

1. Alliances and Code-Shares: alliances and the future

- evolutionary process
- to survive, needs to be an equivalence of benefits.
- one of the strongest reasons for alliance is to circumvent ownership and control rules: if greater cross border investment is allowed through multi-lateral solutions
- alliances may change but airlines have not demonstrated success in cross airline investment or value to share holders from same source
- airlines will continue to search for meaning in alliances.
- **anti-competitive within the alliance, but competitive between alliances**

2. Networks & Hubs: networks & logistical systems

Physical location

- **Michael Porter:** physical location can be a strategic advantage but the globalisation that has flowed from the use of the web for sourcing almost anything does not create strategic advantage “if I can get it on the web and have it delivered by FedEx in 36 hours, then you can”. Globalisation among roughly equivalent locations is neutral but raises the competitiveness of the disadvantaged.
- Cathay Pacific and Singapore Airlines have strategic advantage arising from physical location but Qantas doesn't: notwithstanding globalisation, Australia is locationally disadvantaged because it is a long way from its tourism markets and this does impact on our tourism competitiveness. To some extent, this disadvantage is overcome by the airline networks, hubs and complexing points that have been developed.
- South Pacific even more locationally disadvantaged.

2. Networks & Hubs: networks & logistical systems

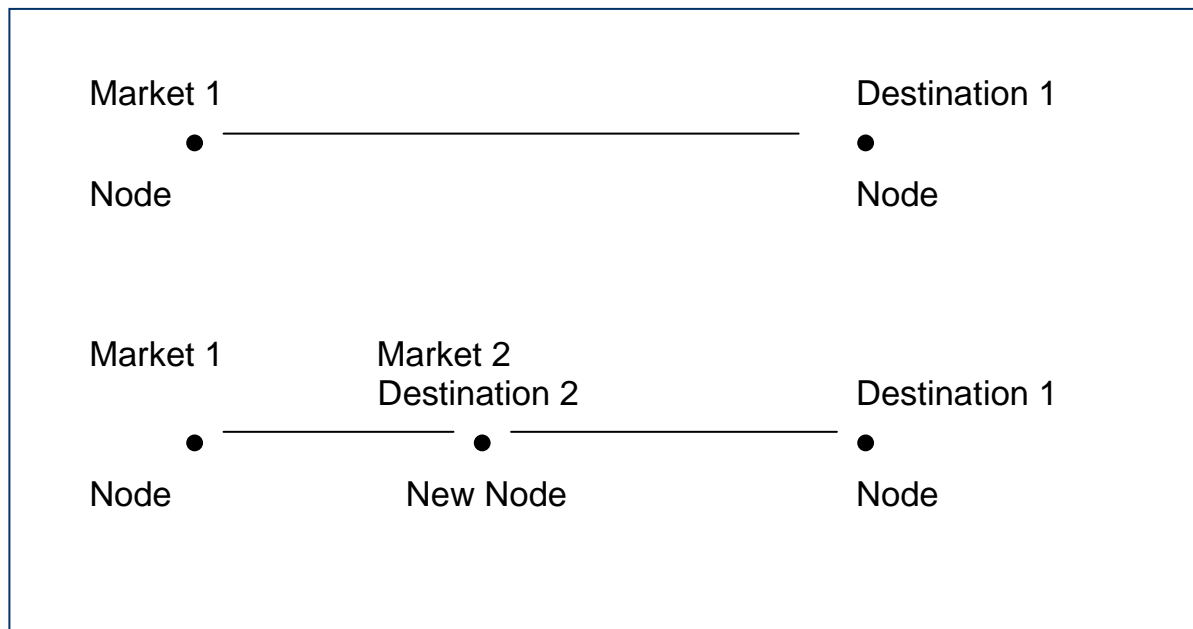
- Discussion of nodes and links: in aviation, nodes are the markets and destination, the links are the air routes.
- Alternative modal links increase as the distance increases for a given set of geographic conditions but as distance increases a new economic factor comes into play: the money value of time or alternative consumption value applies.
- Adding nodes to routes enables load building, increasing markets and destination. If capacity is increased, it is done through aircraft size, or preferably, frequency – then the “S” curve kicks in and as the share of total flights in market increases, the share of traffic available increases but NOT at constant rates.

2. Networks & Hubs: networks & logistical systems

- simple hubs and complex hubs – increased linkages of nodes
- also about connectivity of the temporal aspects – airlines achieve complexing by operating in waves or banks where all flights connect to each other
- two impacts:
 - hell for passengers - connecting
 - hell for airline - staffing
- but gives enormous destinational choice

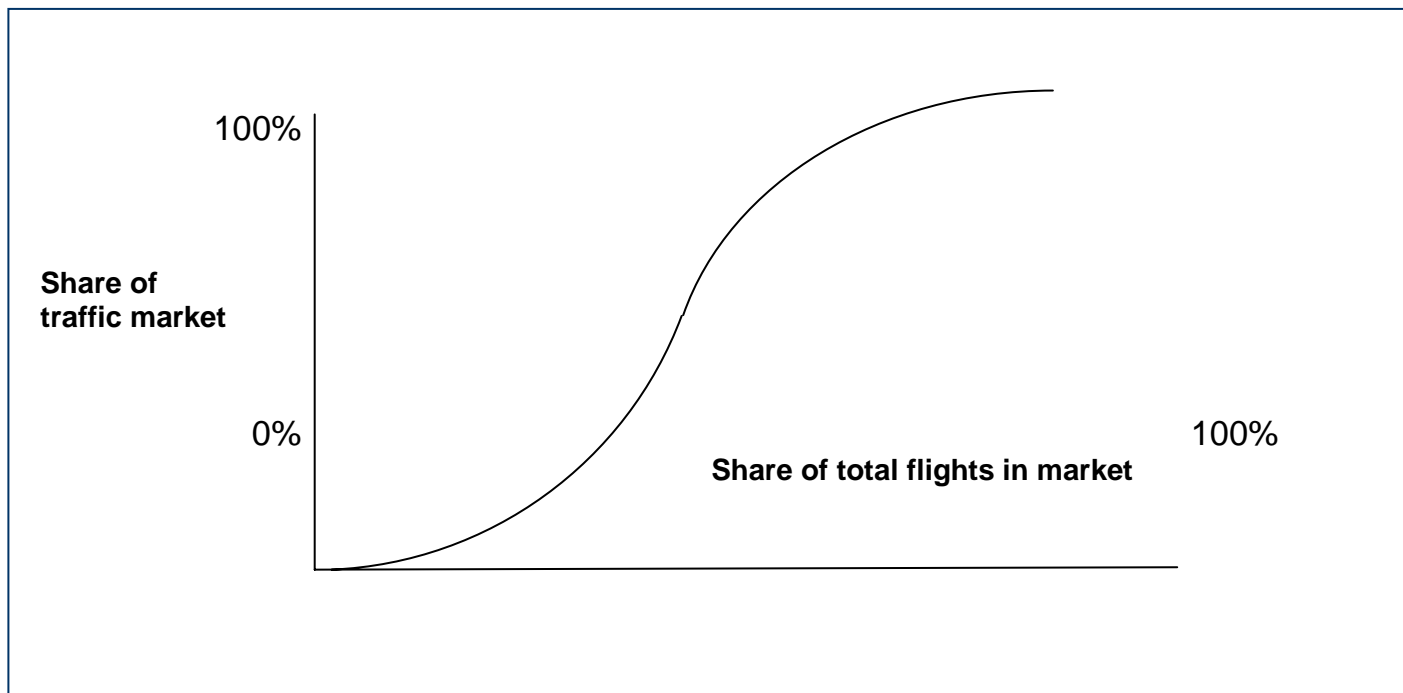
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Destinations & Links



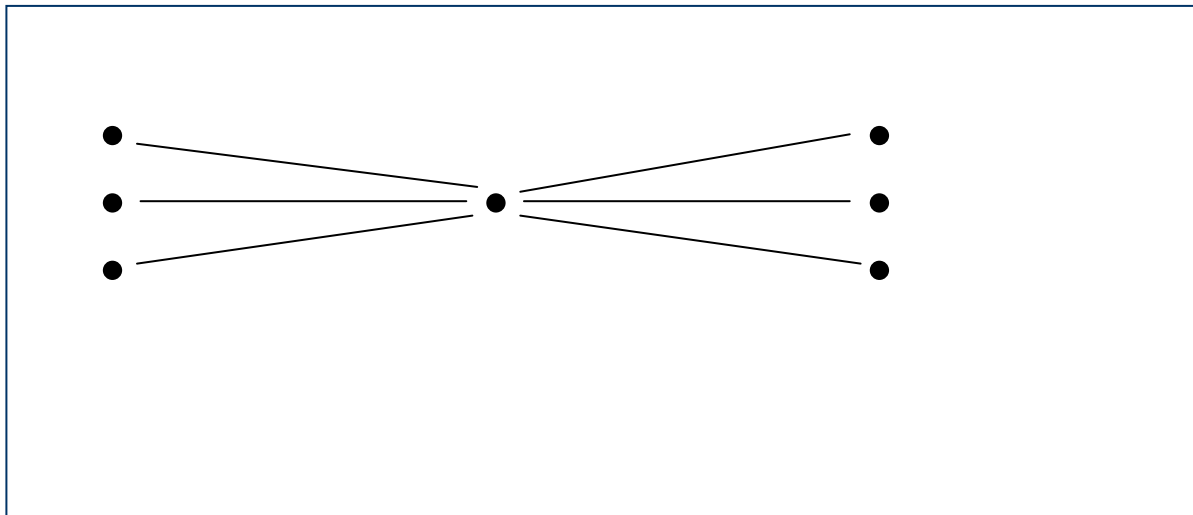
2. Networks & Hubs: networks & logistical systems

Flight Frequency 'S' Curve



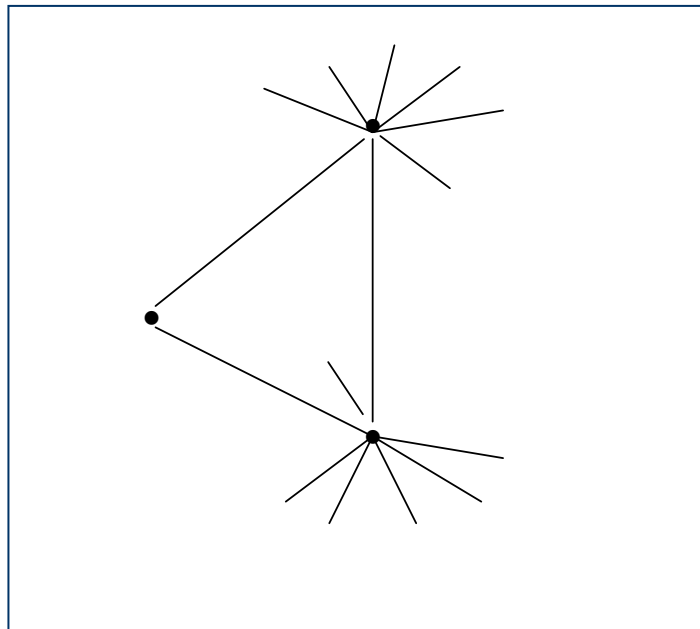
2. Networks & Hubs: networks & logistical systems

Simple Hubs



2. Networks & Hubs: networks & logistical systems

Multiple Hub Network System



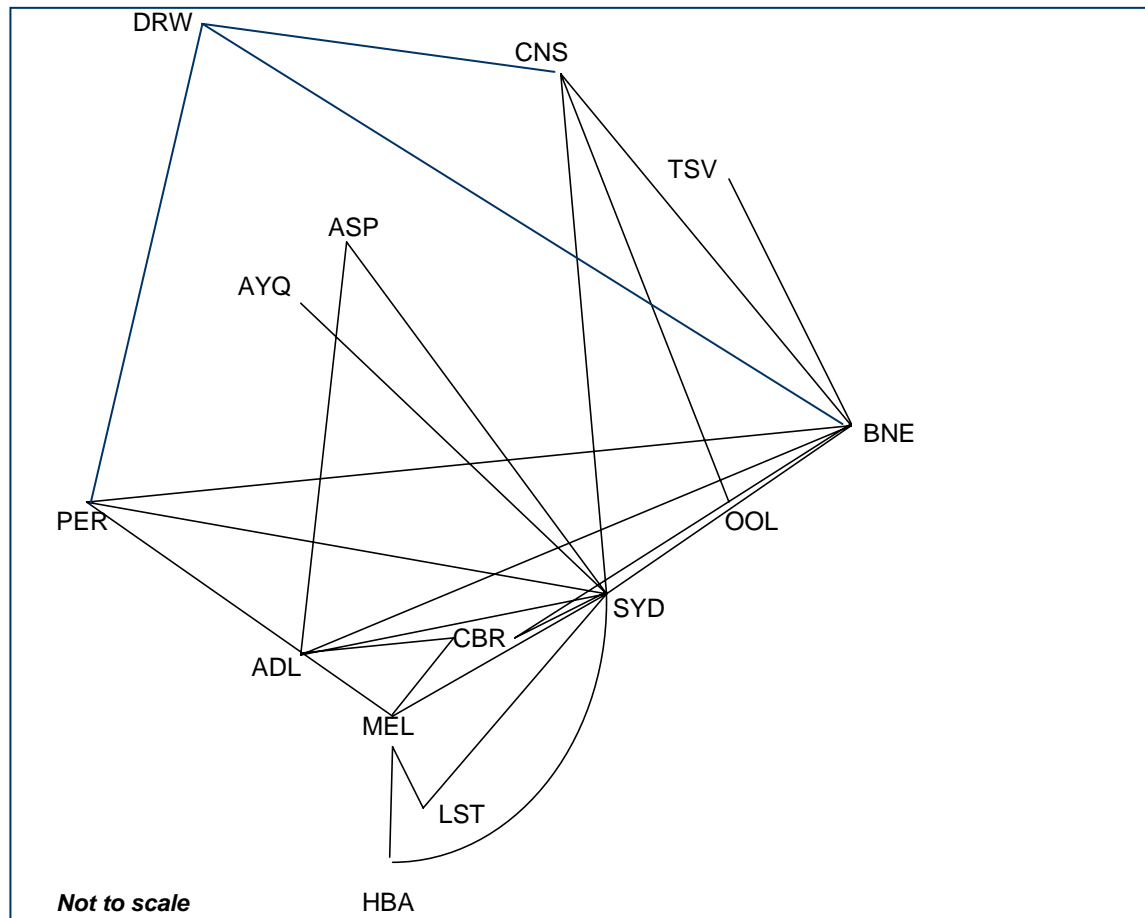
2. Networks & Hubs: Qantas networks

- **domestic:** pretty linear with some complexing – function of population distribution
- **international:** little scope for hubbing and complexing of flights due to absence of markets and destination south and east of Sydney
- **lessons for tourism:** serving two points via a third doesn't mean connectivity, e.g.

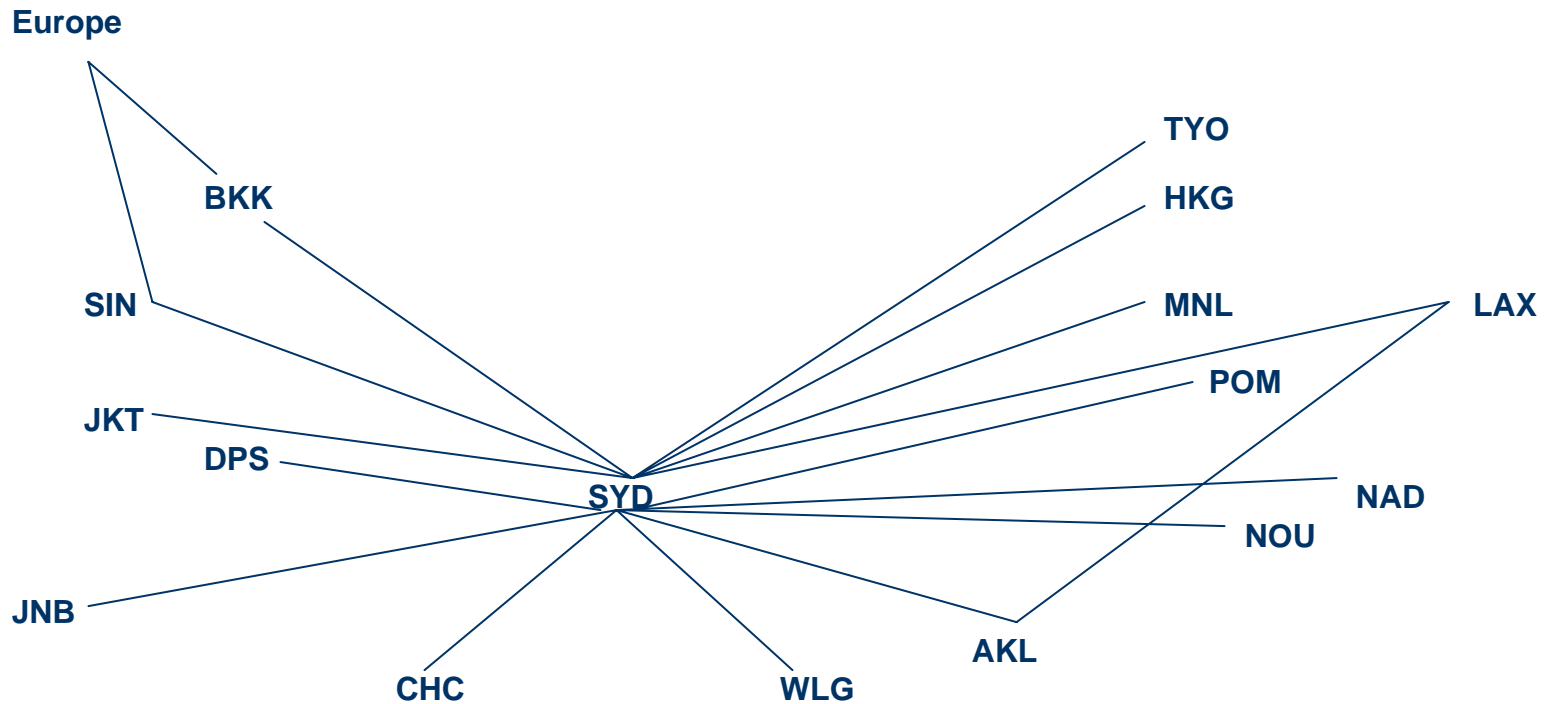
CX: JNB – HKG
 HKG – SYD

This is not a contestable route for CX and so there is no product. Also note PAR/FRA and Fukuoka – its necessary to read the nodes and the temporal aspects together.

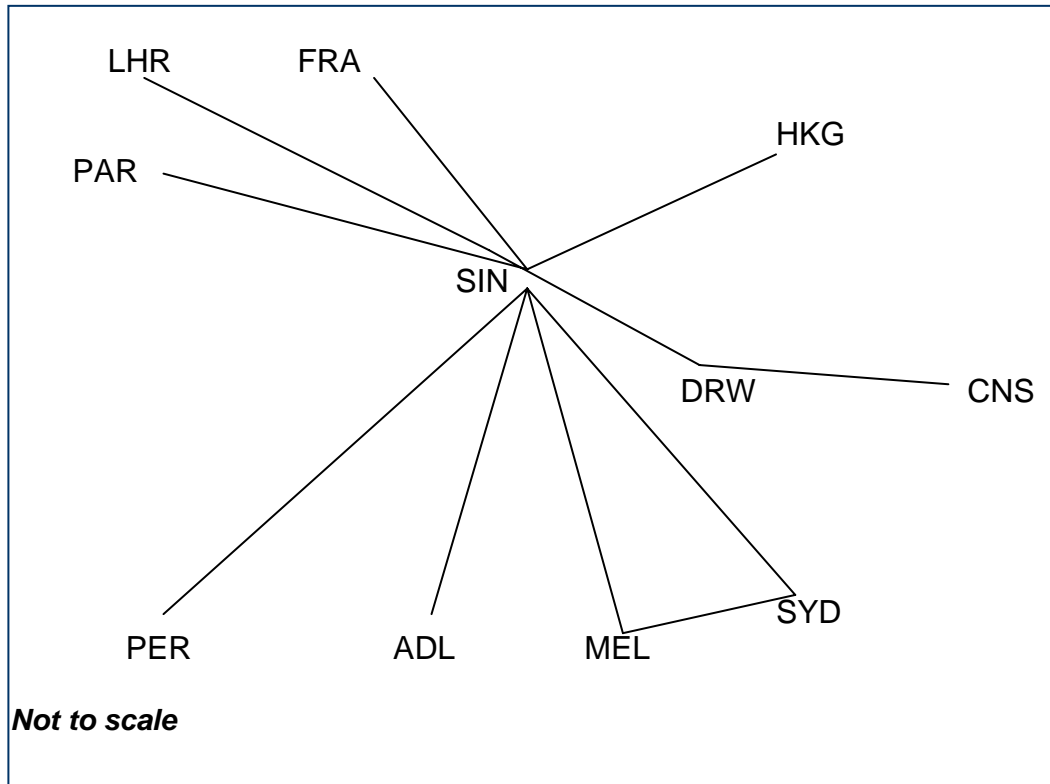
2. Networks & Hubs: Qantas domestic network



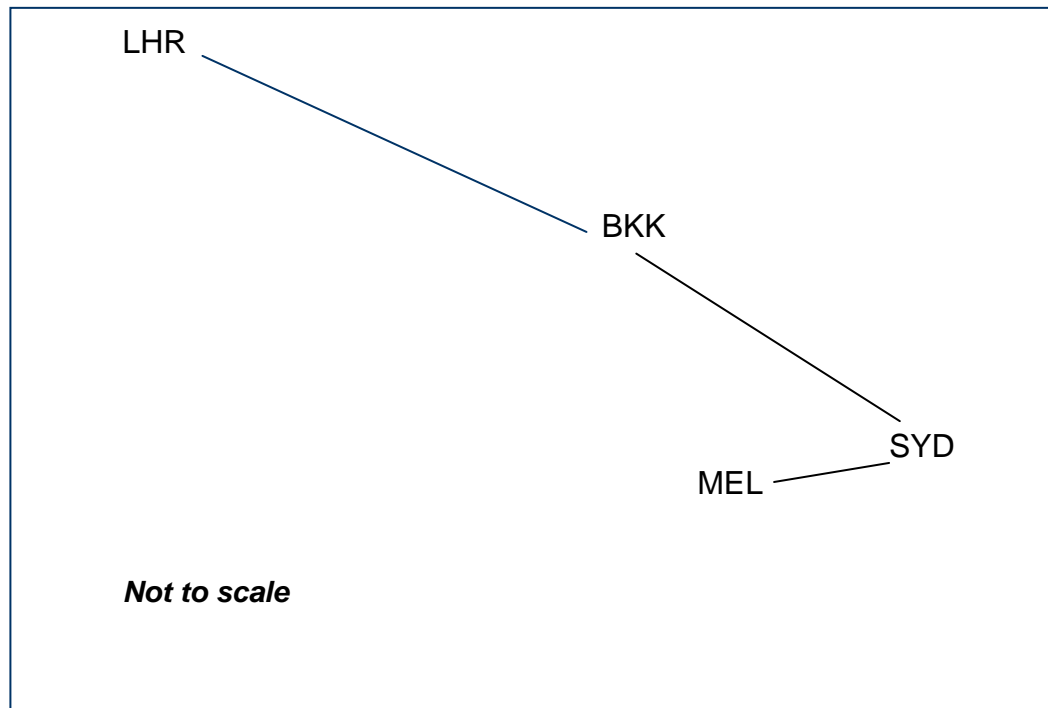
2. Networks & Hubs: Qantas international network



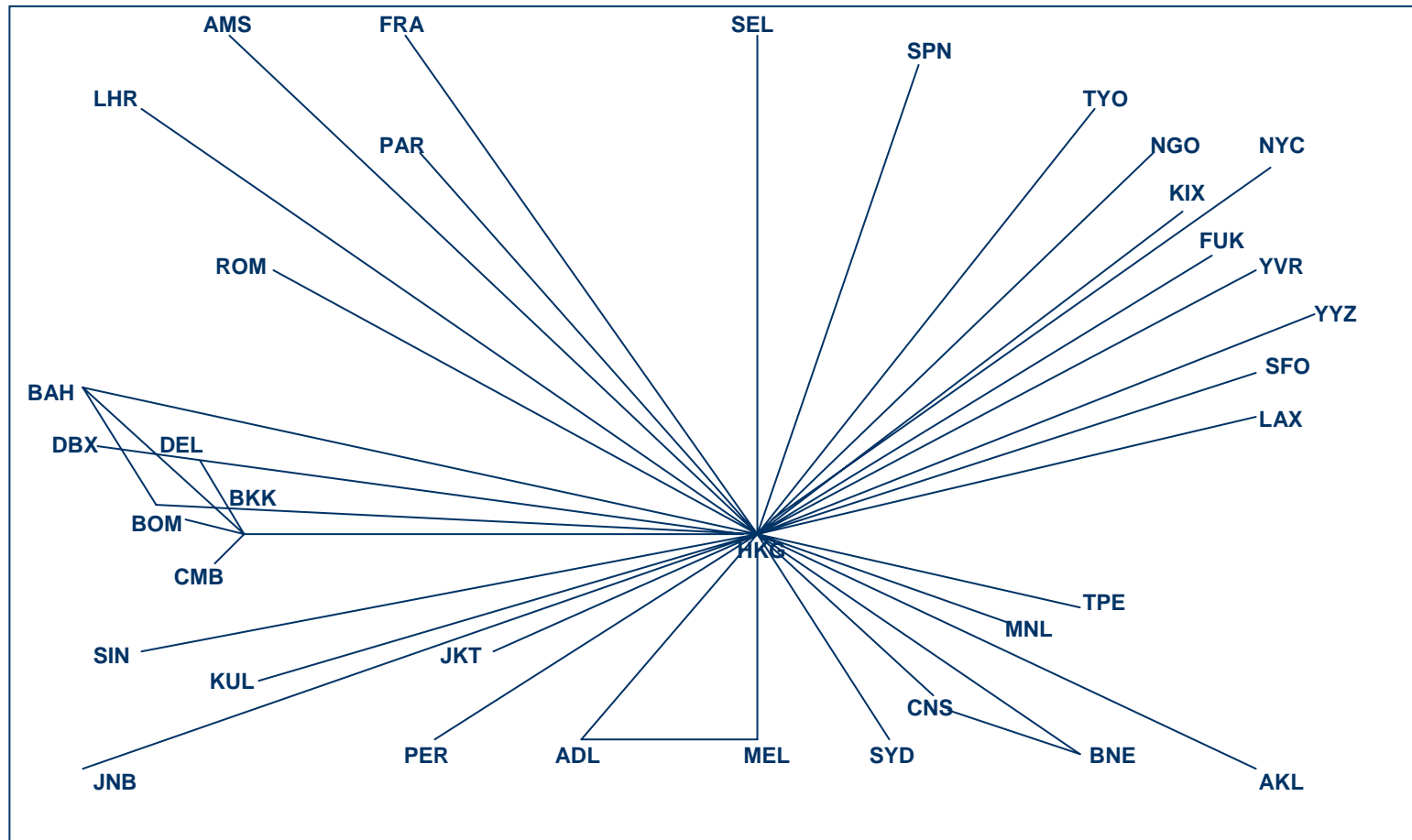
2. Networks & Hubs: Qantas Singapore complexing point



2. Networks & Hubs: Qantas Bangkok transit point



2. Networks & Hubs: Cathay Pacific network



3. Yield Management: deregulation and airline pricing

Deregulation has meant significant changes in airline pricing:

- **Regulation (previously)**
 - IATA had a cartel-like role in the international context
 - Australian domestic fares used to be approved directly by government and then by the Independent Air Fares Committee
 - Airfares were essentially cost based although there was minimal reference to the market with limited group and tour basing fares.
- **Deregulation (now)**
 - There is no regulation, other than the almost impossible to enforce predatory pricing powers of the ACCC.
 - Deregulation has allowed the application of technology to fares (i.e. yield management). Airlines have massive computing power which is very competent at forecasting the number of seats sold and unsold on any flight.

3. Yield Management: yield management techniques

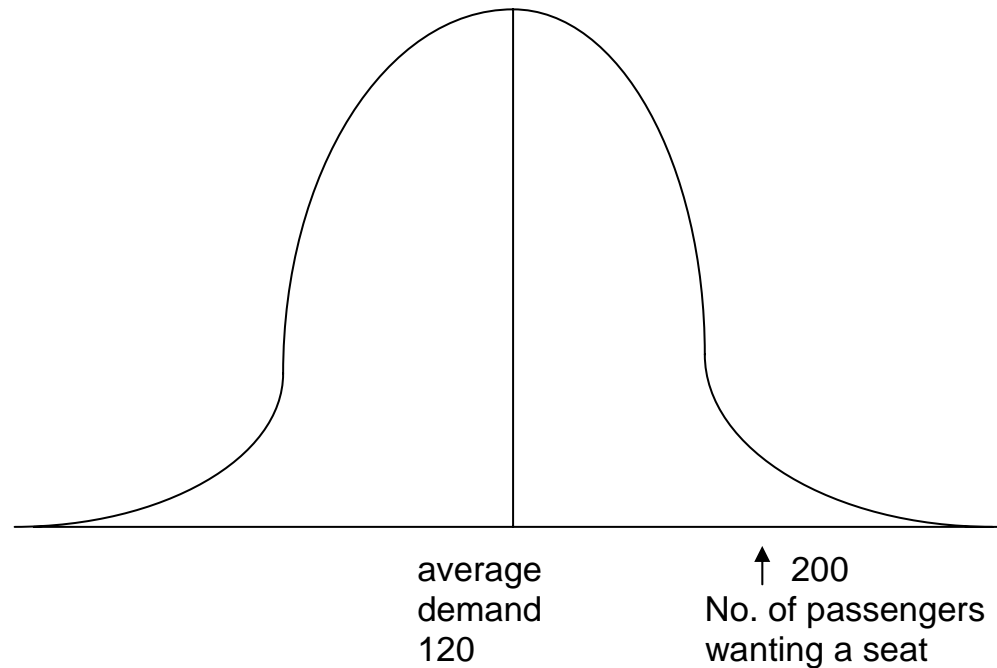
Probability Distribution Curves

- Used for estimating number of seats to be filled by attracting new passengers
- Achieved by forecasting number which will be sold in various fare and service classes
- Probability curve is one of fundamental tools of yield management and its use leads to fare discounting

3. Yield Management: yield management techniques

Probability Curve for Passenger Numbers – 10.00 hr MEL-SYD

Probability of
the indicated
number of pax
for the flight.



3. Yield Management: yield management techniques

The steps involved in the yield management process are:

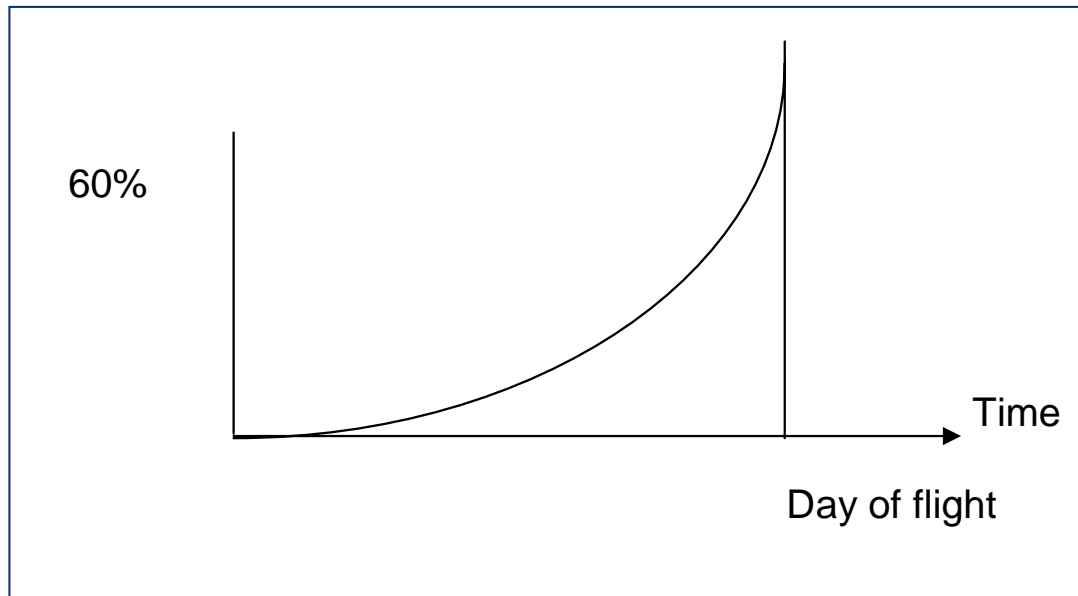
- Estimate the number of seats to be offered. We could take Sydney (SYD) – Perth (PER) as an example: since the demise of Ansett, Qantas operates either a B.747-300, a B.767-300, or a A.330-200 or a B.737-400 with 422 seats, 238 seats or a variable number around 140 seats depending upon the business class/economy split (this in itself will be part of the forecast). On the larger aircraft the configurations are inflexible.
- Forecast the number of full fare passengers in each class and the probability distribution of the forecast.

3. Yield Management: yield management techniques

3. Determine the spill rate. If the spill rate is set at 5% then 95% of the time all full fare passengers seeking to travel on a particular flight will be accommodated. Those who are spilled will probably, thanks to loyalty programmes, not be lost to the airline but will transfer to a later or earlier flight or may even upgrade (or downgrade).
4. Surplus seats are allocated to discount fare classes, i.e. the difference between the capacity of the aircraft and the forecast full fare passengers are now allocated to discount fare classes.
5. For every flight, it is necessary to determine the number of discount fare classes, the fences around them and the number of seats for each class. All of these elements relate to the amount of revenue the airline can obtain for these seats: if demand is high, the discounts will be low, and vice-versa.

3. Yield Management: yield management techniques

The Booking Curve



3. Yield Management: discount impacts

- *stimulatory* – people fly who wouldn't

BUT also has counter productive impacts:

- *dilutionary* – people who would fly, pay less

Economists see the relationship between full and discount fares as a positive cross elasticity of demand: diversion is predictable. Diversion quantum is positively related to the size of the discount and inversely related to the severity of the 'fences' around the fares.

3. Yield Management: dynamic seat allocation to fares

- Not easy to make such adjustments on international services.
- Observing the booking curve of flights allows dynamic adjustment of fares for domestic services: classes, aircraft size and frequency.
- Multiple fare classes exist simultaneously: return to journalists' question - consumers behave differently and some will pay more than the lowest but less than the highest.

Back to the beginning:

- A complicating factor is the node between the original market and destination: it makes 1 route into 3 routes and then there are seasonal and directional imbalances. Finally, the sum of the sectors may vary from the through fare, $1 + 1 =$ does not equal 2. It may vary positively, negatively, directionally and seasonally or even daily!

3. Yield Management: implications for tourism

- airlines are optimising trip revenue
- tourism demand in regions is for low fares
- higher load factors are needed when fares are low and when are extra flights to be put on?
- spreading of demand
- yield management is a device invented by Airlines for airlines – now hotels do it – maybe other operators need to do it, as well
- airlines are not going to abandon it: the rest of the tourism sector needs to adapt to it – and it is a device used by all airlines – low cost as well as full service.
- For low cost, it is just simpler.

4. The Low Cost Phenomenon: low cost and low fares

- e.g. Compass Mk I
- Characteristics of low cost airlines:
 - operations are from secondary airports
 - single aircraft type fleets
 - simplicity of product: no seat allocation
 - food service is purchased in addition to fare, or is not offered
 - reduction of distribution costs through reduced reliance on intermediaries, i.e. non or very limited use of travel agencies.

4. The Low Cost Phenomenon: low cost and low fares

Successful low cost carriers – emulate the ten commandments of Southwest:

1. use secondary airports wherever possible
2. serve only areas with high population densities (a commandment Virgin Blue is yet to obey)
3. use a single airplane type
4. focus on staff: happy staff give good service
5. ensure stable management and promote from within

4. The Low Cost Phenomenon: low cost and low fares

6. Keep fares low but have a narrow discount range. (Southwest sells more full fares than any other carrier in US – 32% of ticket revenue is earned on full fares).
7. Turn airplanes around quickly, work them hard and keep fleet young.
8. Invest in I.T. – Southwest was the first carrier to have ticket-less travel
9. Sell as much online as possible and in own call centres
10. Keep service simple and of low cost, even on trans-continental routes

4. The Low Cost Phenomenon: low cost and low fares

The 10 commandments have been successfully adopted in the UK:

- Ryanair has achieved extraordinarily low costs (4.8 Euro cents per available seat kilometre and 43 staff per aircraft (and efficient number used to be thought to be 100 per aircraft). Has two secondary airports at Charleroi (40 km from Brussels) and Hahn (100km from Frankfurt). The CEO, Michael O'Leary says of Ryanair, "The plane has to be safe, on time and cheap. It is transport."

On the Continent – 2 problems:

- high social costs of labour
- efficient train services. Since the high speed line opened in June 2001 on the Paris-Marseille route, Air France has lost 27% of its market on the route as the best train travel time is 196 minutes versus 225 minutes for the flight (including check-in and travel to and from city centres to airport).

4. The Low Cost Phenomenon: low cost and low fares

Importance:

- Low cost is 11% of the world's fleet and growing

Implications:

- Travel agents – bad news, low cost is about disintermediation and full service ones are doing it too
- Tour operators – low cost airlines are not interested in packaging or interline
- Tourism operators need multi-channel distribution strategies
- For destinations:
 - Airlines change routes – cannot assume a service is for good, you cannot even assume airline is for good.
 - Airlines will only provide potential customers: the conversion will have to be made by the accommodation provider OR tour operators.
 - “Low cost airlines provide transport” only

Conclusion

- “Secret airline business”
- Other issues in aviation management:
 - the regulatory context for ownership and control
 - the impact of multi-lateral open skies agreements

Selected References
