



COMPETITION ISSUES IN THE DOMESTIC AIR TRANSPORT SECTOR IN INDIA

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Hyderabad**

Competition Issues in Air Transport Sector



Study focuses upon:

-analysis of the nature and degree of competition in the passenger segment of the domestic air transport sector.

-provides recommendations to CCI for appropriate action to foster a more competitive environment

Methodology

- Primary data analysis, secondary data analysis, analysis of information collected from stakeholders
- Competition Assessment Framework used as the basis as far as possible.

TOR 1



- **The history of evolution of the aviation industry in India will be traced from 1953 onwards. Also, this section will look at the growth of the industry in terms of passengers, number of flight operators, etc on a macro level.**

1953: Nationalization of Aircraft Industry

Consequently, assets of 9 existing companies transferred to two entities in the aviation sector controlled by the Government in

- a) **Indian Airlines**, primarily serving domestic sectors
- b) **Air India**, primarily serving the international sectors

Implication

- Aviation became a preferred mode of transport for elite class
- Restricted Growth of Aviation Industry

1986: Private Sector Players permitted as Air taxi operators

Players including Jet, Air Sahara, NEPC, East West, Modiluft,etc started service

1994: Private Carriers permitted to operate scheduled services

Six operators granted license however

only Jet and Air Sahara able to service

2003: Entry of low cost carriers

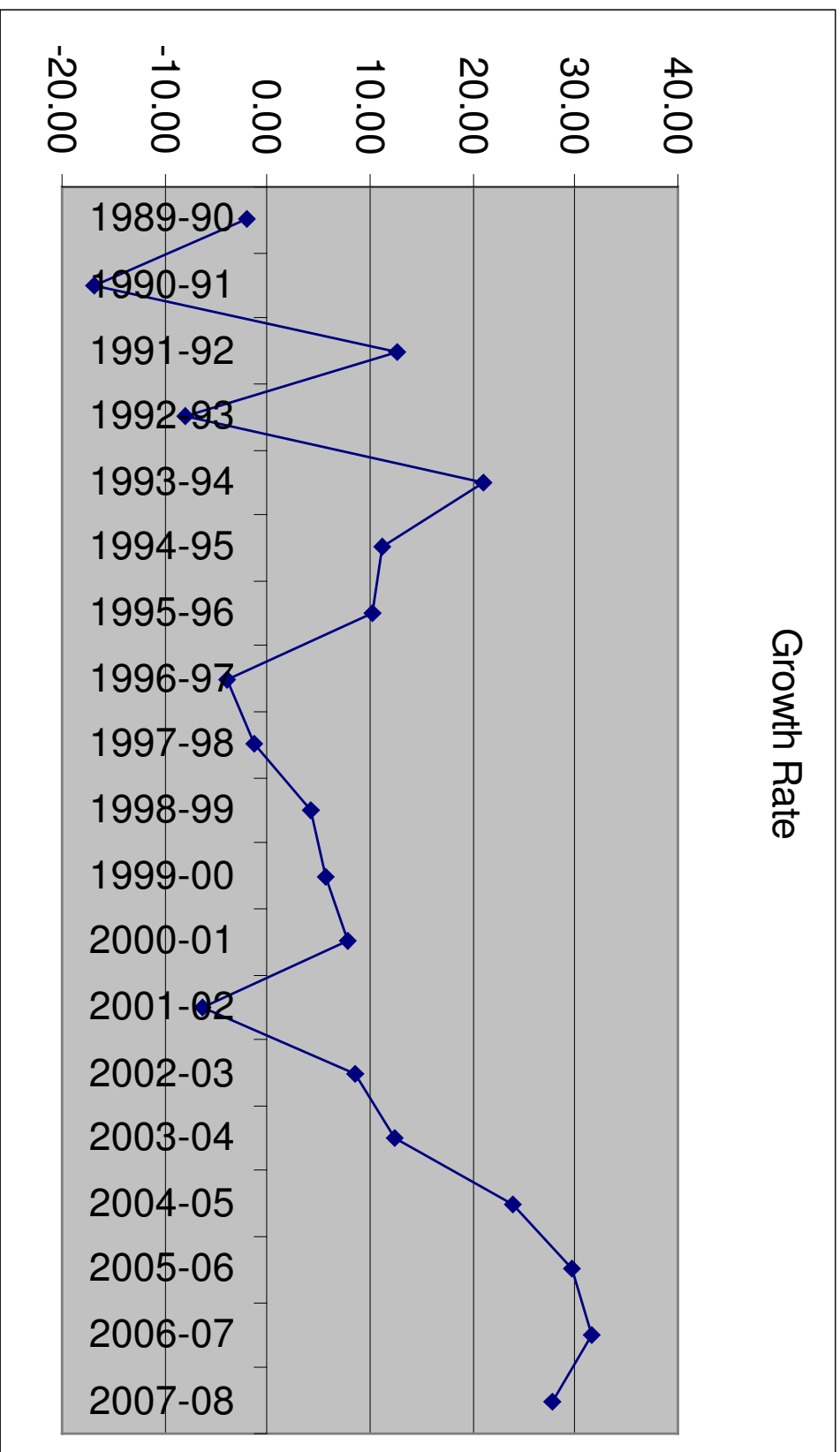
Air Deccan, Spice Jet, Go Air, Indigo

Route Dispersal Guidelines



- Government issued Route Dispersal Guidelines on 1.3.1994
- In accordance with Route Dispersal Guidelines, all routes were divided into Category I, II, IIA and III

Growth in Passengers



Players



- Air India/ Indian
- Jet
- Jet Lite
- Kingfisher
- Deccan
- Indigo
- Go Air
- Paramount
- Spice Jet

Dynamics of the market

Airline	2006 (Oct-Dec)	2007 (Oct-Dec)
Jet Airways	27.0	22.8
Jet Lite	8.8	7.7
Air Deccan	19.1	14.8
Spice Jet	7.5	10.4
Paramount Airways	1.1	1.0
Indigo Airlines	3.7	8.8
Go Air	4.1	3.9
Kingfisher	9.7	13.0
Indian / Air India	18.9	17.2
Others	0.1	0.4
Total	100.0	100.0

TOR 2 & 3



- The study is expected to concentrate upon the concept of the relevant product and geographic market in the passenger segment of the air transport sector and also provide an assessment of the degree of competition in the relevant market in terms of key features such as time slots, space etc.

Relevant Product and Geographic Market



❖ In the air transport sector , relevant market is defined as the route between city pairs at a particular time on a particular date.

Methodology

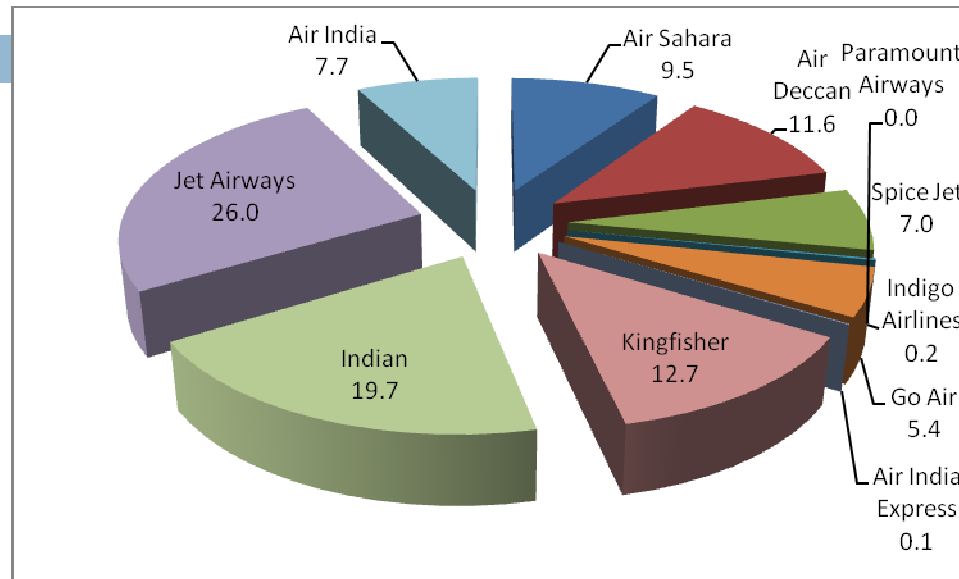
- ❖ Assessment of percentage of traffic in selected routes on specific dates and time slots.
- ❖ Share of airlines in above routes.
- ❖ Computation of concentration ratios.
- ❖ On the basis of the above, analysis of whether there is evidence of dominance in certain routes.
- ❖ Analysis of time slots available to airlines.
- ❖ Factors governing allocation of time slots
- ❖ Slot arrangements between merged airlines.

Assessment of degree of competition

Data description

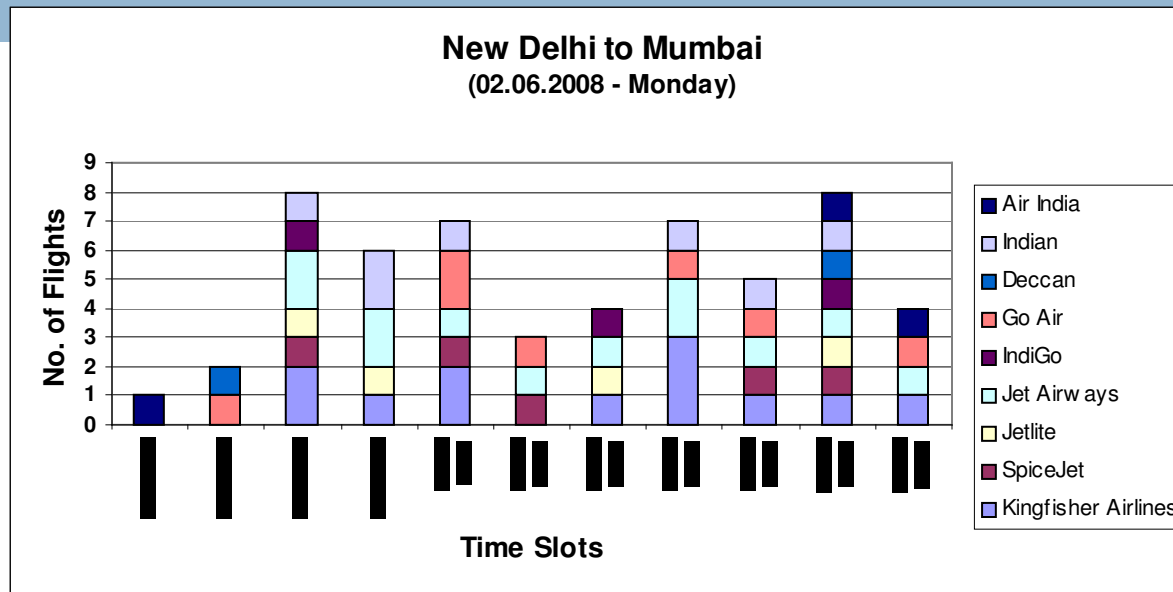
- Monthly passenger wise data for 30 city pairs has been collected .
- Of these, city pairs chosen for analysis comprise of Delhi, Mumbai, Bangalore, Hyderabad , Chennai and Kolkata.
- Data analysis shows that index of concentration is high and raise competition concerns for 17 city pairs out of 30.
- Three city pairs-Delhi- Mumbai, Delhi -Chennai and Bangalore-Chennai chosen for further analysis

Route: Delhi-Mumbai-2006/07



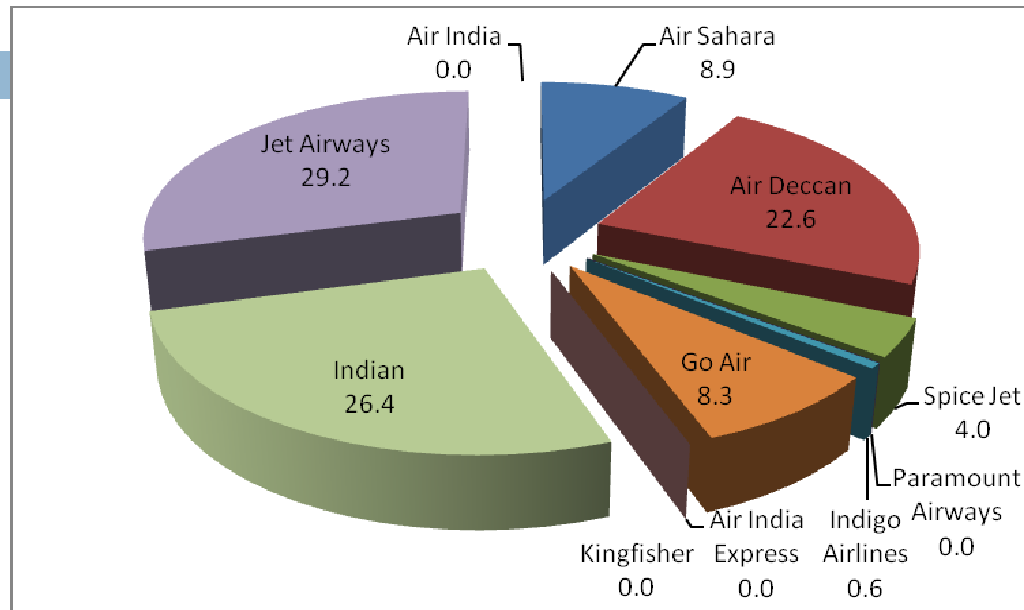
- Jet has highest market share(26%), followed by Indian (20%) and Kingfisher (12.7%).
- Index of concentration moderate between 1500 and 1600.
- But post mergers, index of concentration is 2681.3 and raises competition concerns.

Route: Delhi-Mumbai-Slots in June 2008



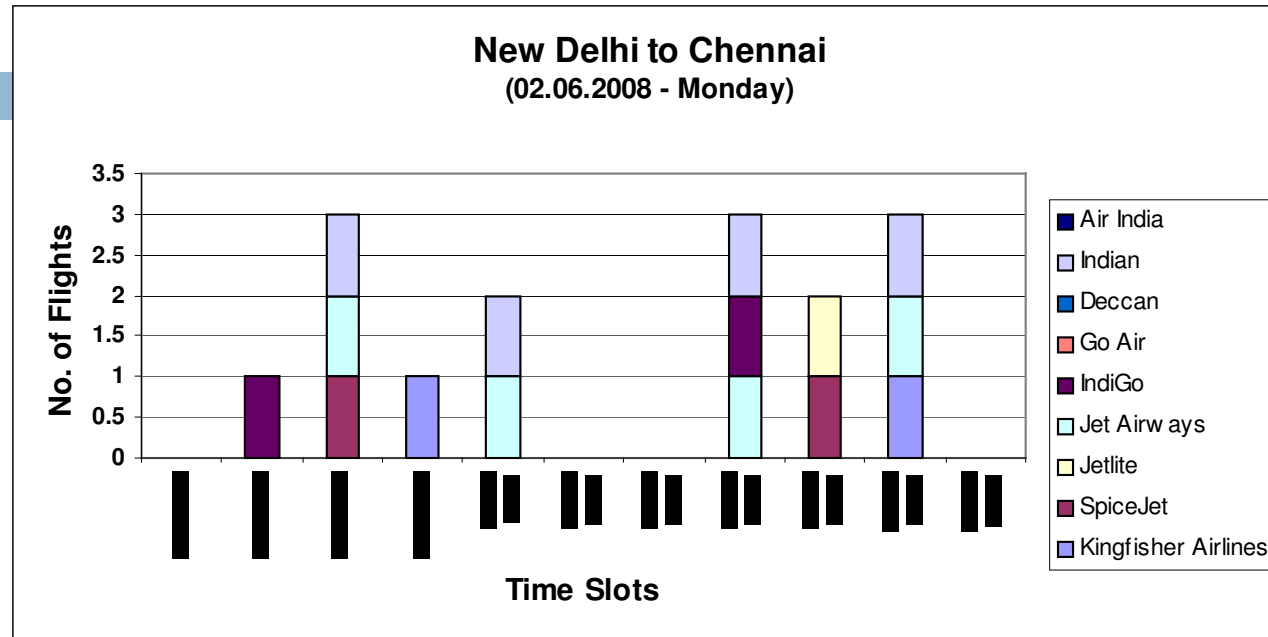
- Post merger, Jet controls around 29% of the market, Kingfisher has around 25% and Indian-Air India has 20%.
- Even in the peak hours, of 15 slots, Kingfisher has 5, Jet has 4, Indian has 2, and Jet lite has 1 slot.
- So Jet and Kingfisher have major share of slots even in the peak period.
- Post merger, Jet and Kingfisher have major share of slots. Indian has lost out.

Route: Delhi-Chennai- 2006/07



- Jet holds 29%, Indian holds 26.4% and Deccan holds 23% of market. Kingfisher has no share.
- Concentration index is high at 2224.5.

Route: Delhi-Chennai-slots in June 2008



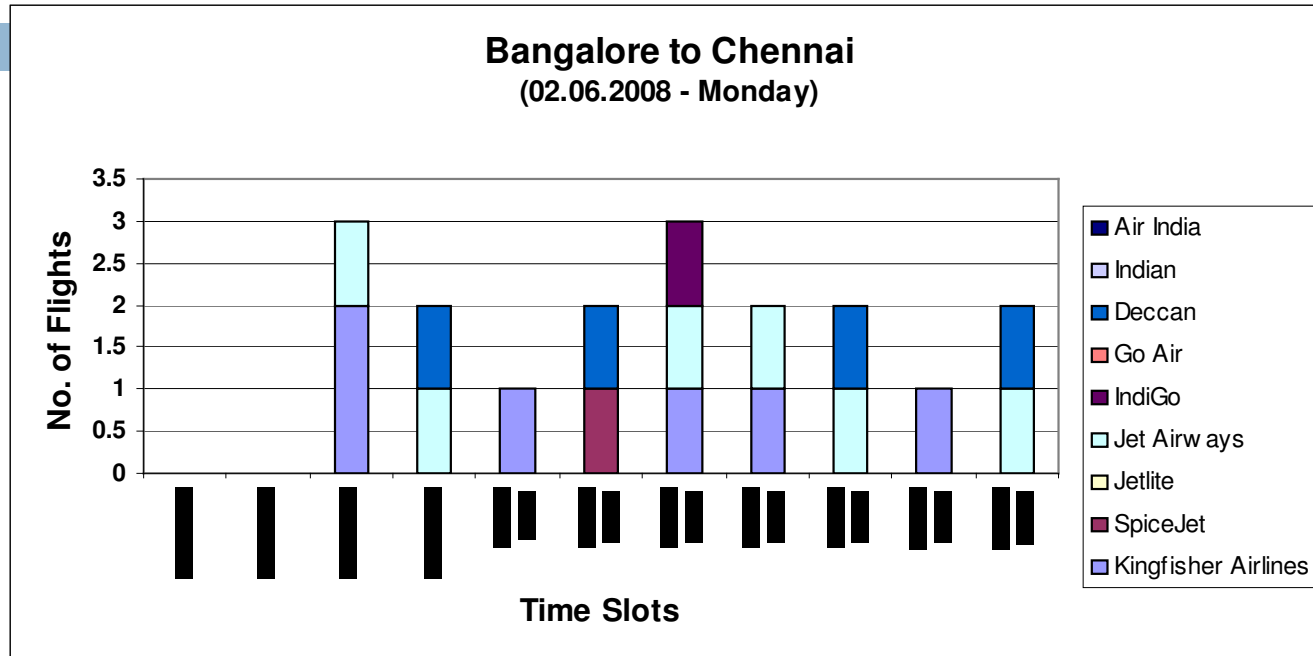
- Post merger, Jet controls 33% of the slots, Indian controls 27% and Kingfisher, which had no market share earlier, now controls 13.33%.
- In the peak hours, of the nine flights available, Jet has 3 slots, Kingfisher has one slot and Indian has 1 slot. So major share of slots controlled by three large players.
- Deccan slots have been taken over by Kingfisher, post merger.

Route: Bangalore-Chennai- 2006/07



- Jet holds 42% of the market, Kingfisher and Deccan each hold around 15% while Indian holds only around 9%..
- Concentration index is high at 2475

Route: Bangalore-Chennai-slots in June 2008




- Post merger, Jet has 33% , Kingfisher has 55.5% and Indian-Air India does not own any slots at all.
- Jet and Kingfisher together own 70.9% of the slots on the market. Indian has lost out.
- Similar picture prevails in the peak hours also.

TOR 4



- **To provide an assessment of the significant anti competitive practices in the air transport sector on the lines of India's Competition Act 2002**



- Horizontal and Vertical issues are examined in the context of the sector.

- **Price Discrimination**

- On Delhi-Mumbai route, price of a ticket indicates high degree of parallelism in Jet and Kingfisher flights that operate in morning and evening peak hours.-similar trend for Deccan and Jet lite also.

- Dominant market shares of Jet and Kingfisher along with price parallelism may indicate tendency for price collusion. May lead to overpricing later, given the tendency of concentration on this market

Relevance of India's Competition Act 2002



We look specifically at Section 20(4) on Regulation of Combinations

Actual and Potential level of Competition through Imports on the market:

- Increase in concentration index, post merger, for two out of the three routes selected . There is cause for concern in terms of actual level of competition in post merger scenario.
- No question of competition through imports since Policy does not allow foreign airlines to pick up equity in this sector.

Relevance of India's Competition Act 2002



Degree of countervailing power on the market

- While there are a number of players operating on the three selected routes, three major players hold large shares. We doubt that there is a substantial degree of countervailing power on the market.
- Analysis of other routes also require to be made.

Relevance of India's Competition Act 2002



Likelihood that the combination would result in the parties to the combination being able to significantly increase prices and profit margins.

- Strong likelihood of price rise and price collusion.
- Mergers likely to lead to greater scale economies resulting in higher profits through higher efficiency levels.
- Replacement of Deccan with Kingfisher flights on Delhi-Chennai route-price implications.

Relevance of India's Competition Act 2002



Extent of Effective Competition likely to sustain on the market

- Three major players.
- Market is oligopolistic-no indication of monopolistic trends.
- Route wise variation in terms of extent of competition and number of players.

Relevance of India's Competition Act 2002

Market Share in the relevant market, of the person or enterprise in a combination, individually and as a combination.

❖ **Analysis indicates that:**

-Market shares of Jet and Kingfisher have been strengthened considerably, post merger.

-The national carrier is steadily losing its share to the above two private airlines.

Relevance of India's Competition Act 2002



Likelihood that the combination would result in the removal of a vigorous and effective competitor/s in the market.

- Jet and Sahara were vigorous competitors.
- On Delhi -Mumbai route, Jet had 27% while Sahara had 9.5% of market share pre merger. Post merger, Jet now owns 28% of the slots, including those of Jet lite(earlier Air Sahara)
- Post merger, Jet now owns all the slots of Sahara.
- Clear instance of removal of a vigorous competitor from the market.

Relevance of India's Competition Act 2002



Possibility of a failing business

Due to vigorous price competition, rising price of fuel etc, most of the airlines have been making losses. Possibility of a failing business looms very large.

Relevance of India's Competition Act 2002



Relative Advantage by way of contribution to the economic development by any combination having or likely to have appreciable adverse effects on competition

- Mergers will lead to scale economies, higher efficiency and improvement of productivity levels in the industry.
- Passengers will benefit from rationalisation of flight timings and better service quality.
- Overall better utilisation of resources.

Relevance of India's Competition Act 2002



Whether the benefits of the combination outweigh the adverse impact of the combination, if any

- Case of Indian Airlines-Air India merger.
- Indian Airlines experiencing losses and inefficiencies due to to a combination of factors.
- Resultant scale economies as a result of merger may lead to better performance and better resource utilisation.

TOR 5




- **The study is expected to examine public barriers to entry in terms of policy regulations as well as private barriers to entry in the context of the three areas in the Competition Act**

Regulatory Barriers: Domestic Air Transport Policy

- Route Dispersal Guidelines creates barriers to entry for new entrants.
- Minimum equity and fleet requirements-barriers?
- Foreign equity requirements-no entry for foreign airlines.
- Requirement of domestic flying for five years and a minimum fleet for flying internationally-favours existing incumbents-discrimination against smaller players.
- Usage of airport infrastructure consequent to mergers-slot allocation policy is a major barrier to new entrants.
- In case of mergers, slot allocation policy is encouraging abuse of dominance.

...Private barriers to entry in the context of the three areas in the Competition Act



- High capital costs.
- Scale economies particularly in post merger scenario
- Availability of slots and existing practice of 'grandfathering'.

TOR 6 & 7

- Evaluate the intensity with which most airlines carriers operate between city-pairs. Analyze and discuss from the stand-point of competition among the carriers.
- Evaluate operations at various airports and the role played by previously allotted slots in creating competitive advantage, recognizing that the previously allotted slots mechanism itself creates a superior position.

Slot Analysis – Data, Methodology



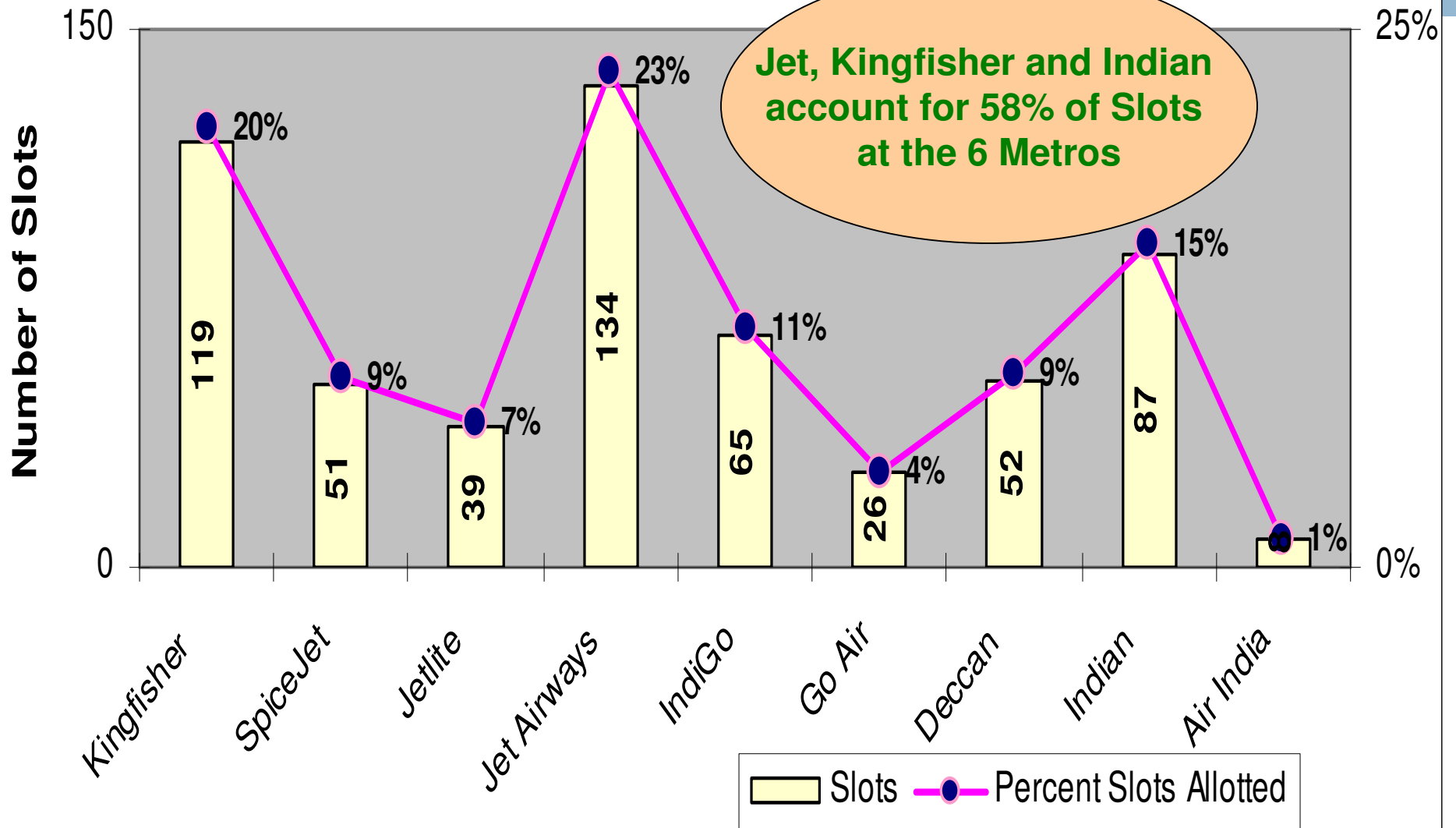
- 6 Metros were analyzed:
 - New Delhi, Mumbai, Kolkata, Bangalore, Chennai, Hyderabad
- 9 Air Carriers
 - Indian, Jet Airways, Kingfisher, Jetlite, Spice Jet, Deccan, IndiGo, Go Air, Air India
- April 2006 to March 2007 Passenger Data
- Slots / Flight Departures between the 30 City-Pair Combinations were studied
- Time slot, by the hour of day, was studied

Slot Analysis

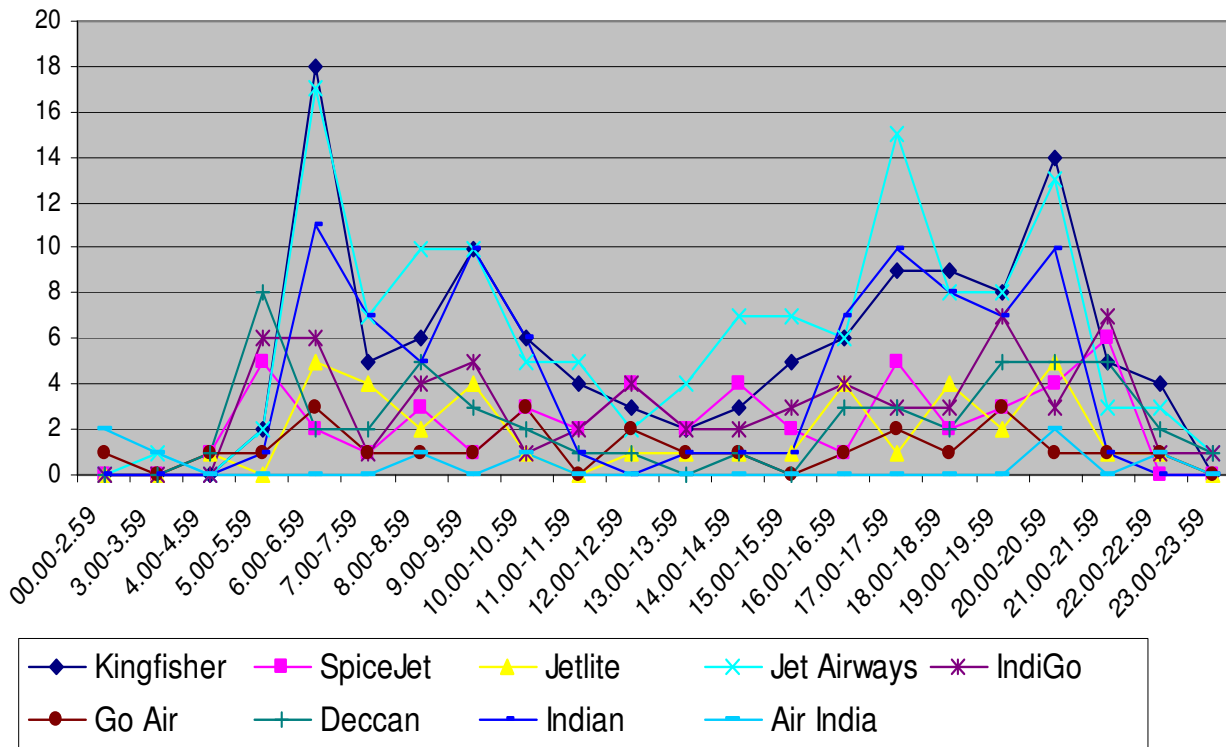


- 581 Slots at the 6 Airports
 - Mumbai : 141
 - New Delhi : 128
 - Bangalore : 104
 - Hyderabad : 82
 - Kolkata : 74
 - Chennai : 52
- Slot Segmentation Analysis:
 - All 6 Metros collective
 - By each Airport individually

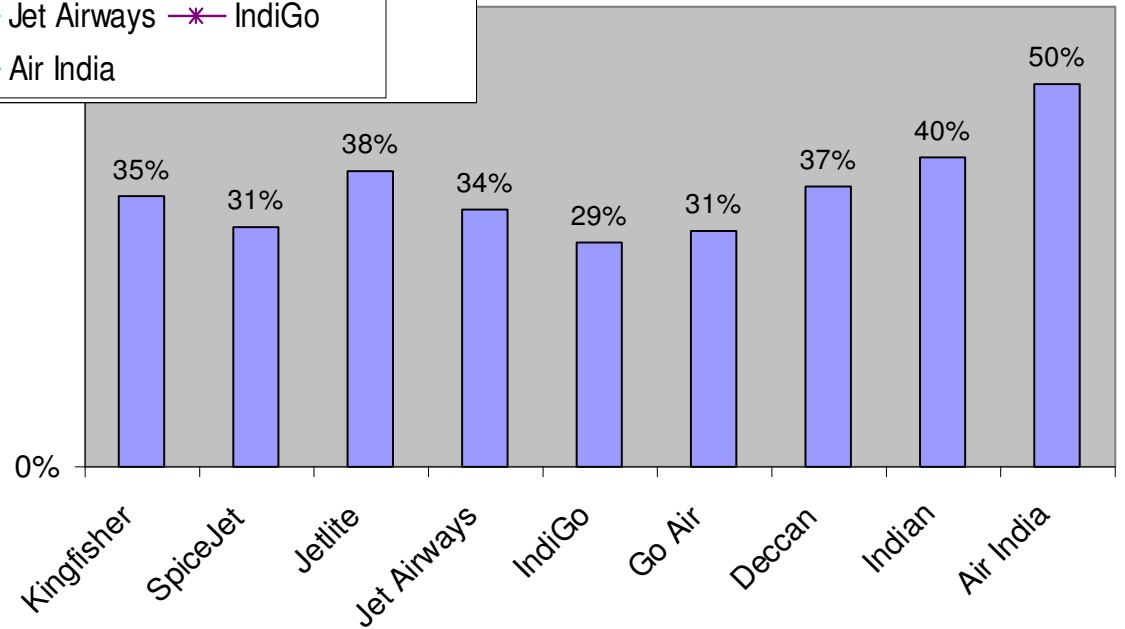
Slot Allocation by Air Carrier - 6 Metro Airports



Slot Allocation by Air Carrier and Time of Day



Percent Slots During Peak 4 Hours of the Day

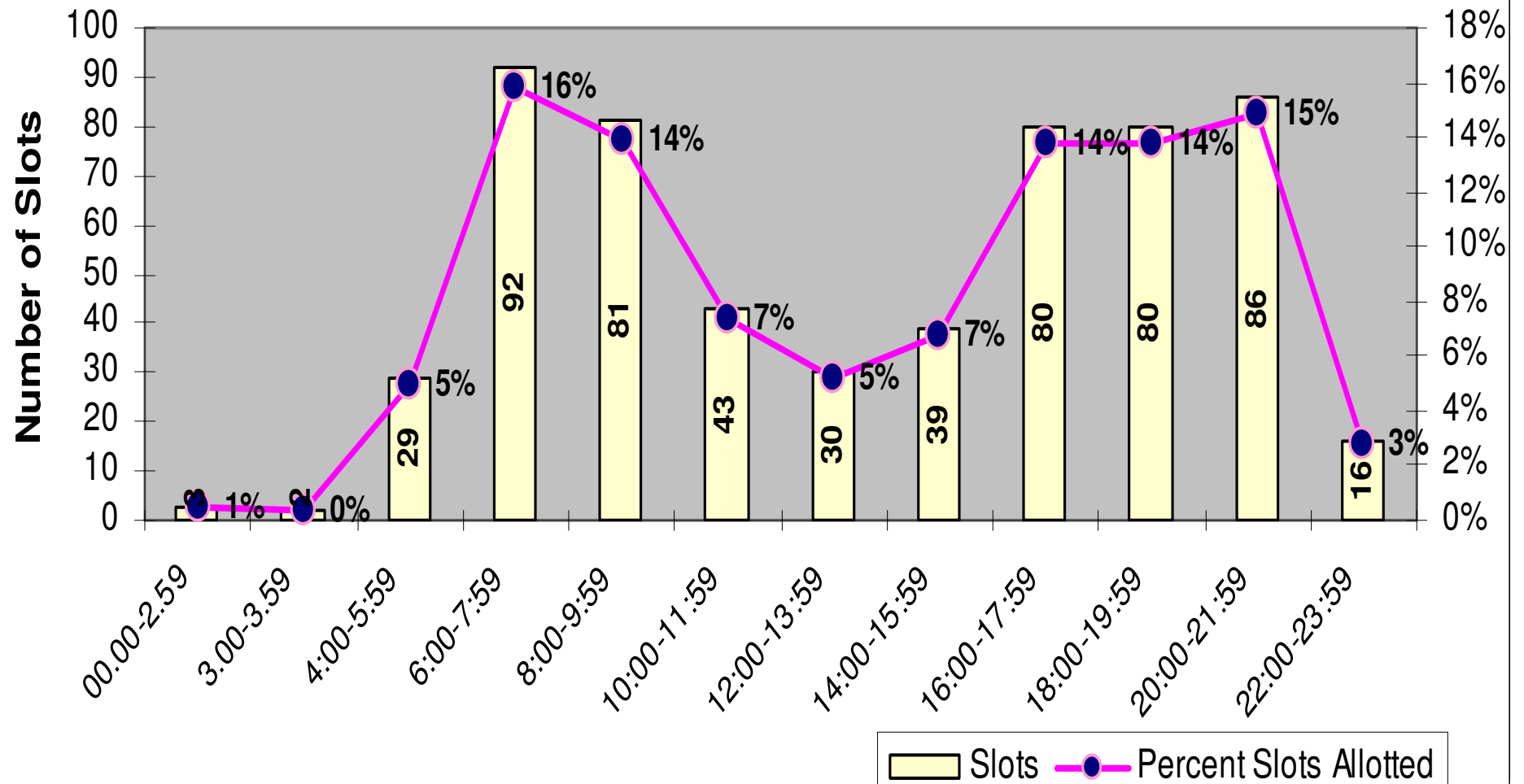


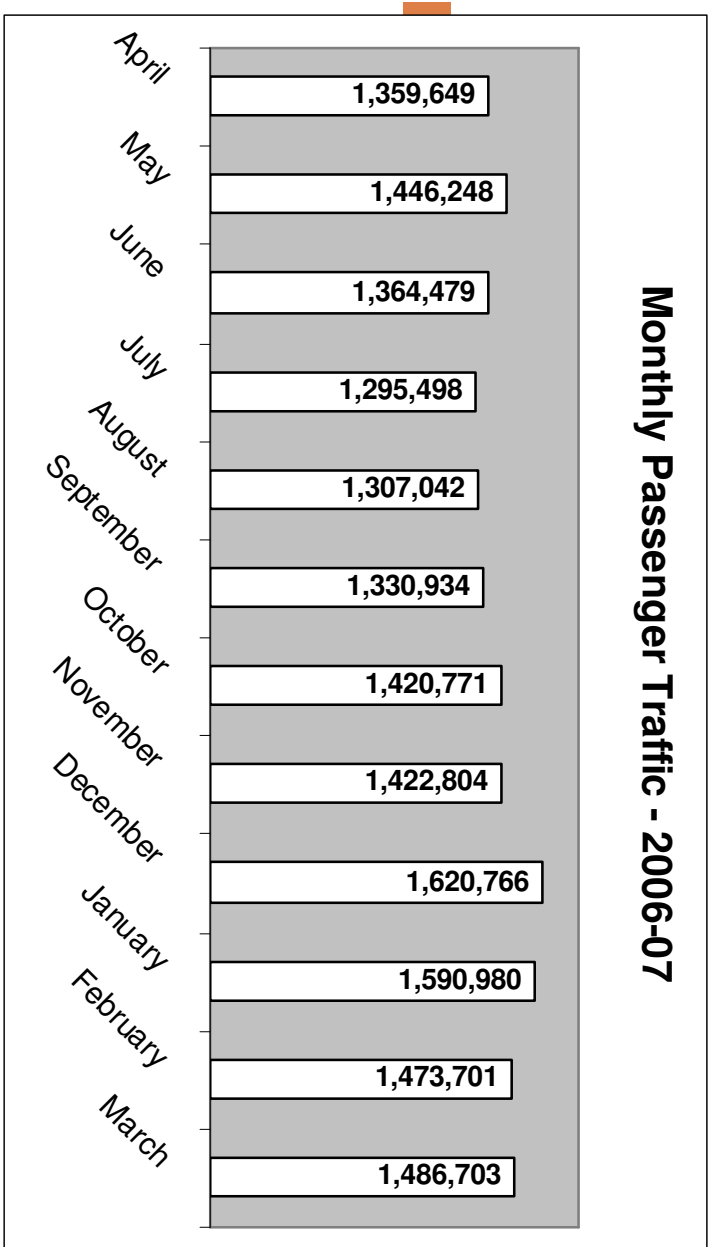
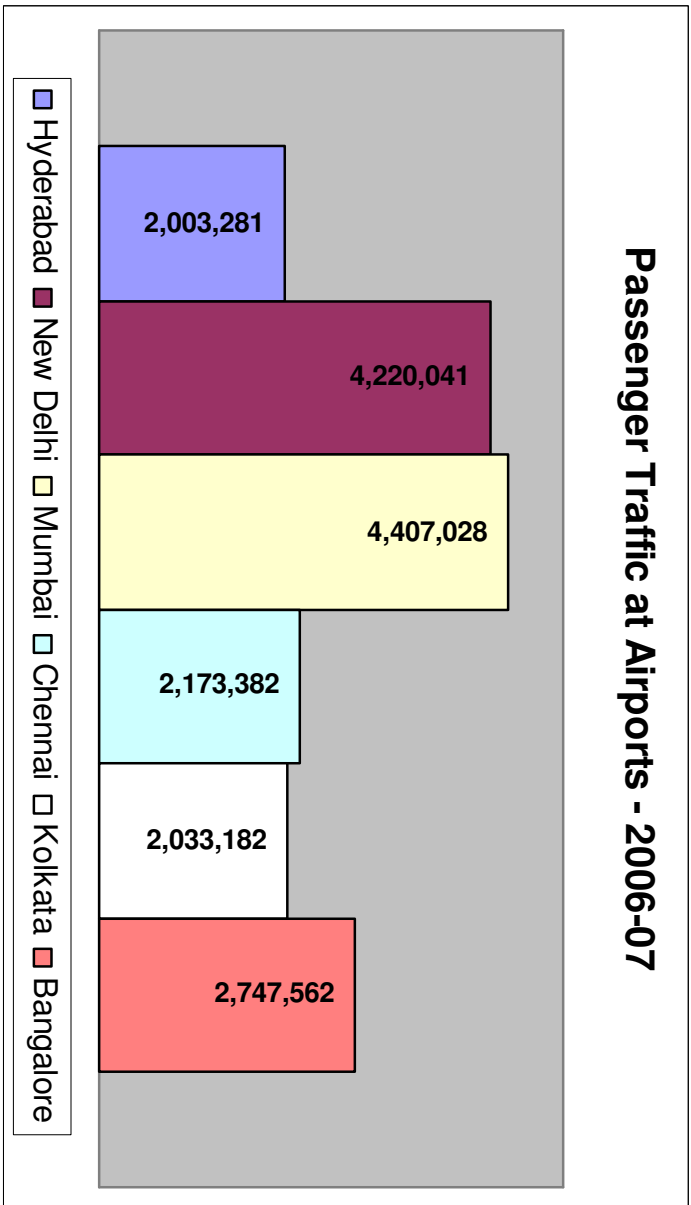
Max Slots and Peak Periods

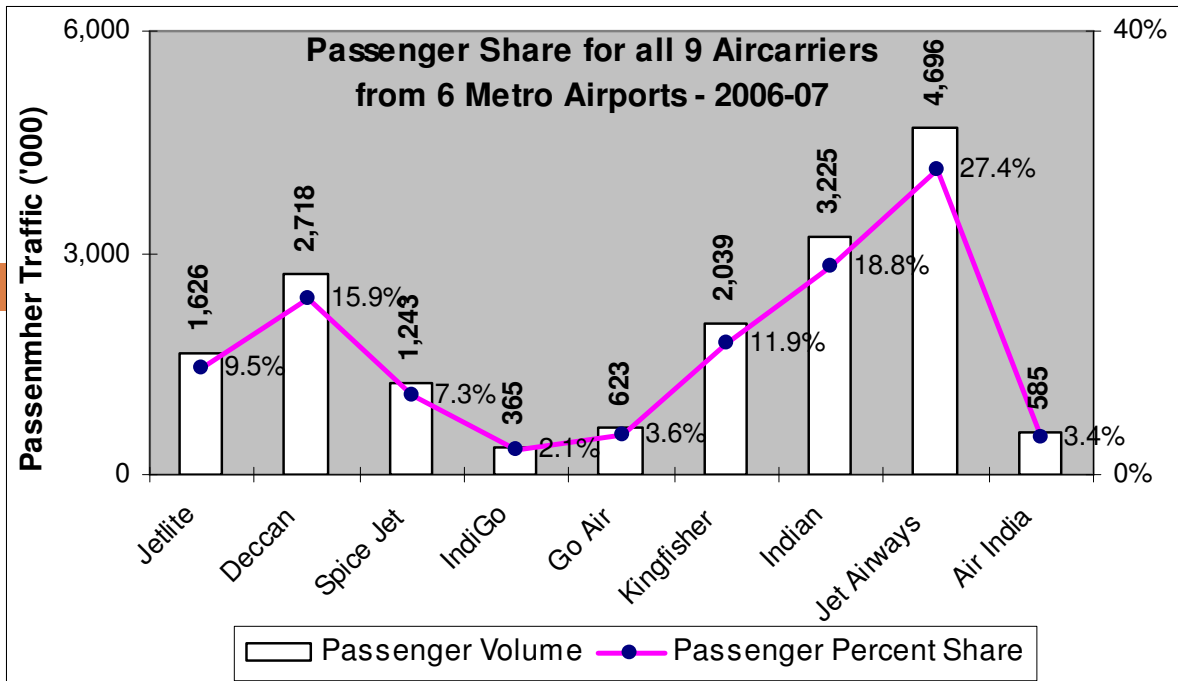


- Kingfisher was allotted the maximum number of slots during both the morning and evening peak hours
- Most Carriers were allotted between 1 and 5 slots during the day.
- Kingfisher, Jet Airways and Indian hold max slots and most during peak periods.
- Carriers prefer max slots during peaks – 1/3rd of all slots during 4 peak hours of day

Slot Allocation by TIME - 6 Metros

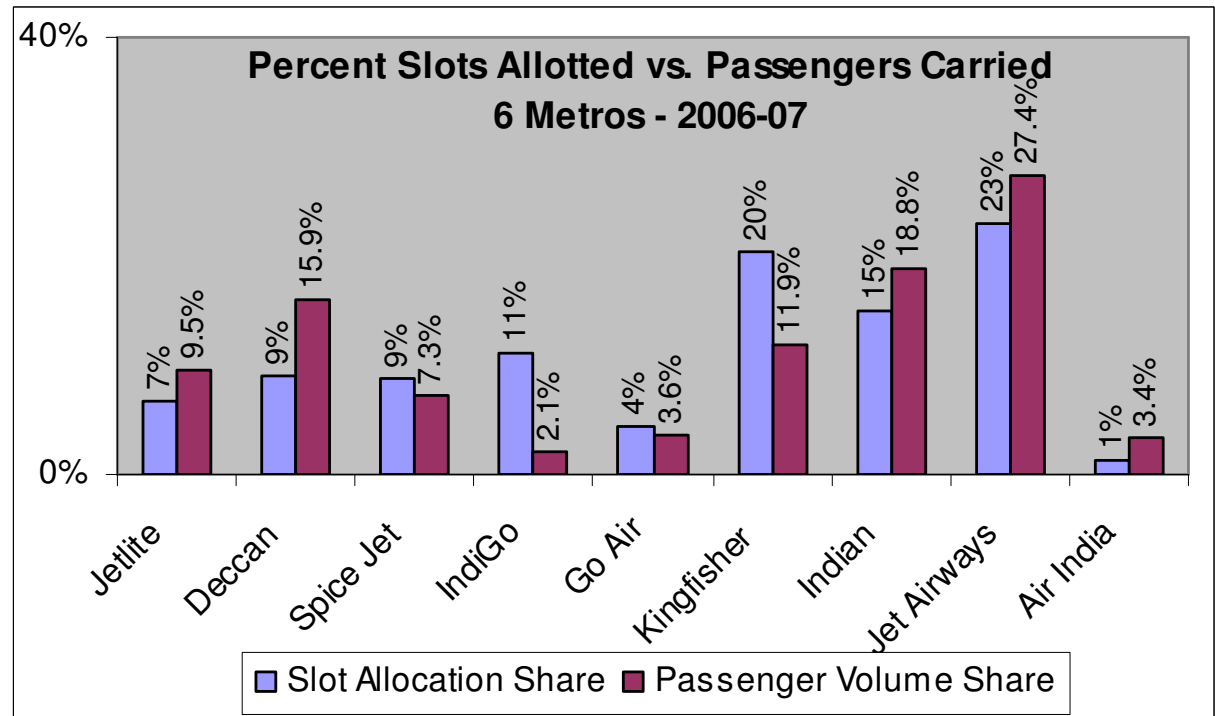


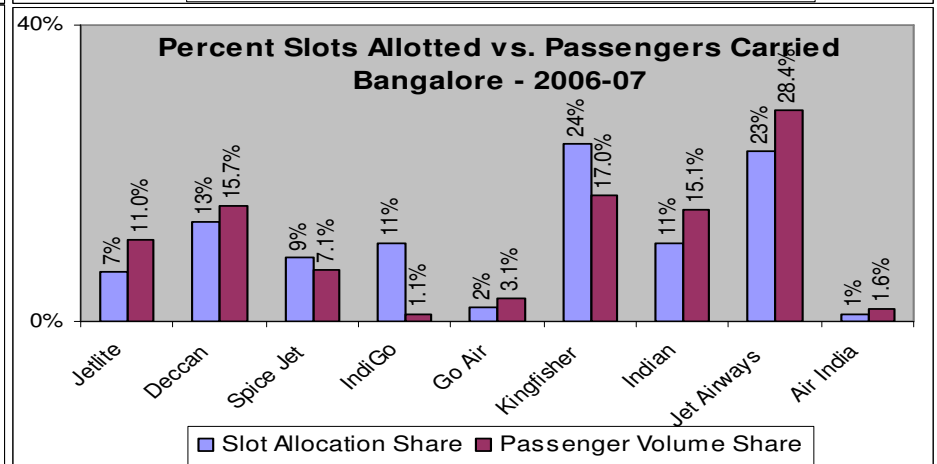
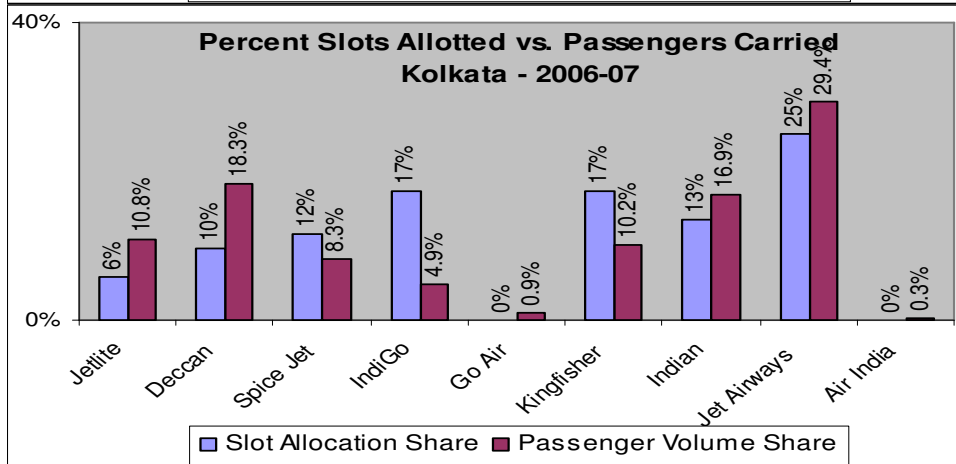
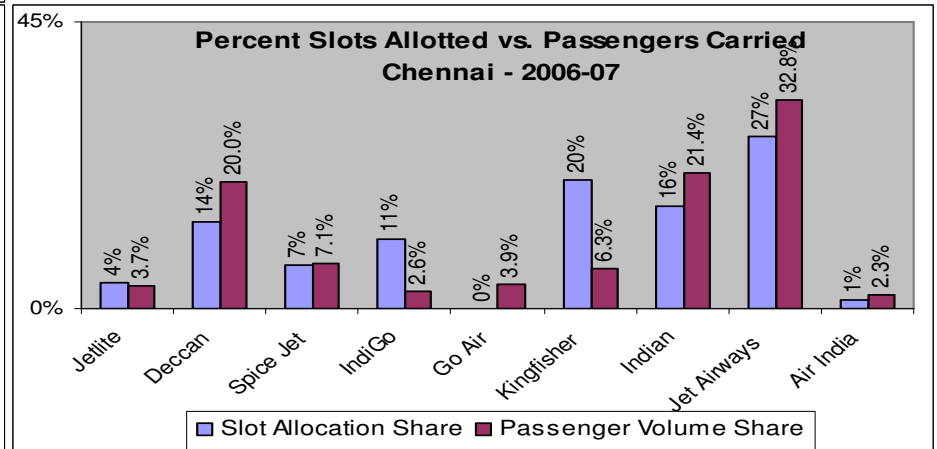
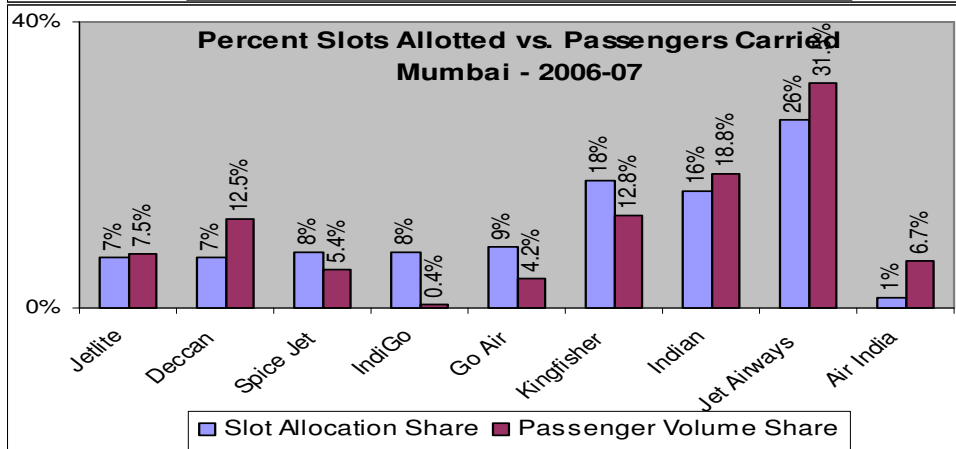
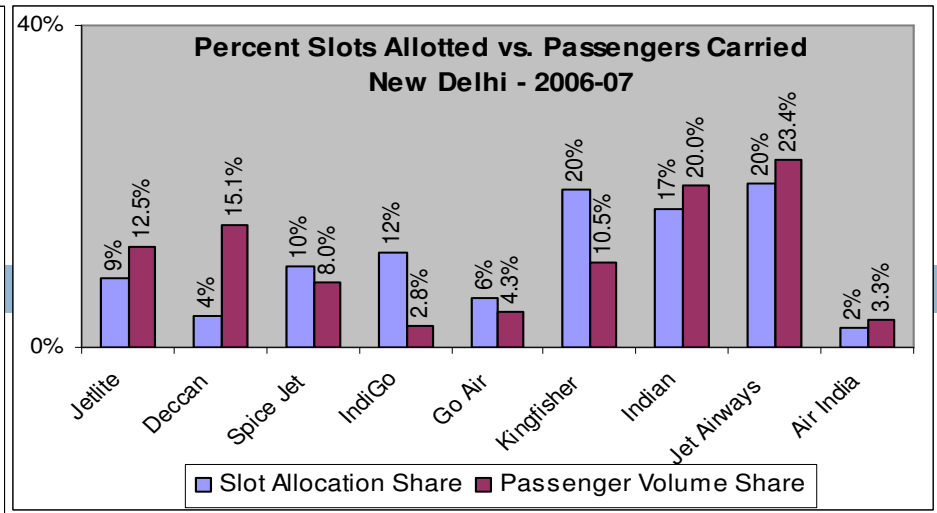
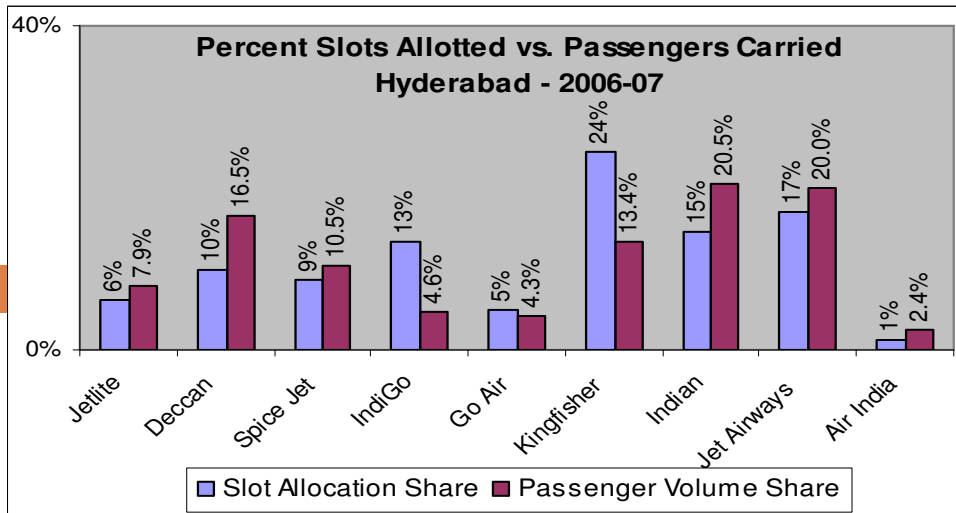


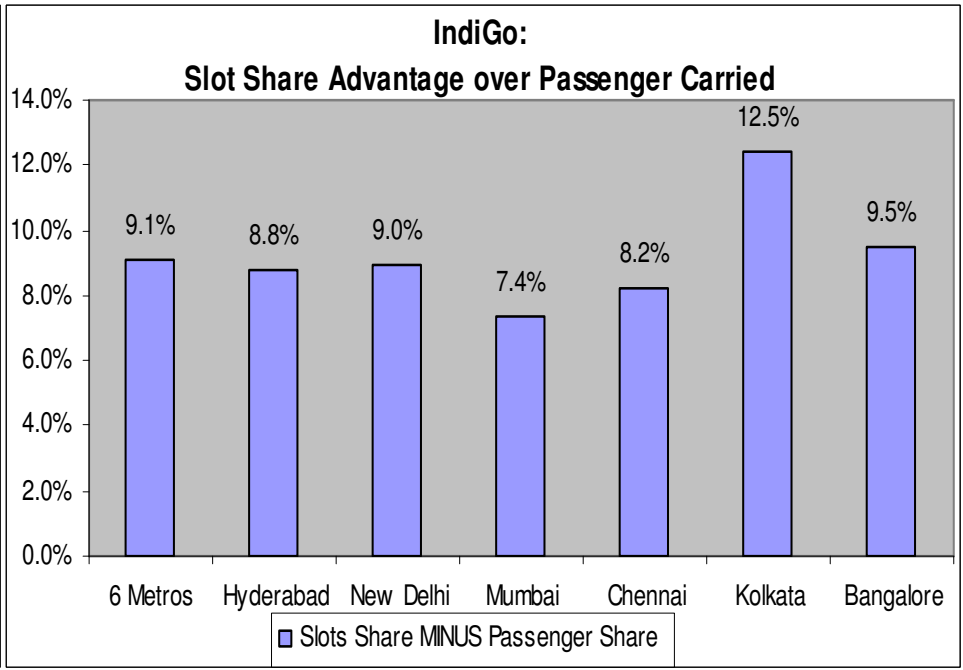
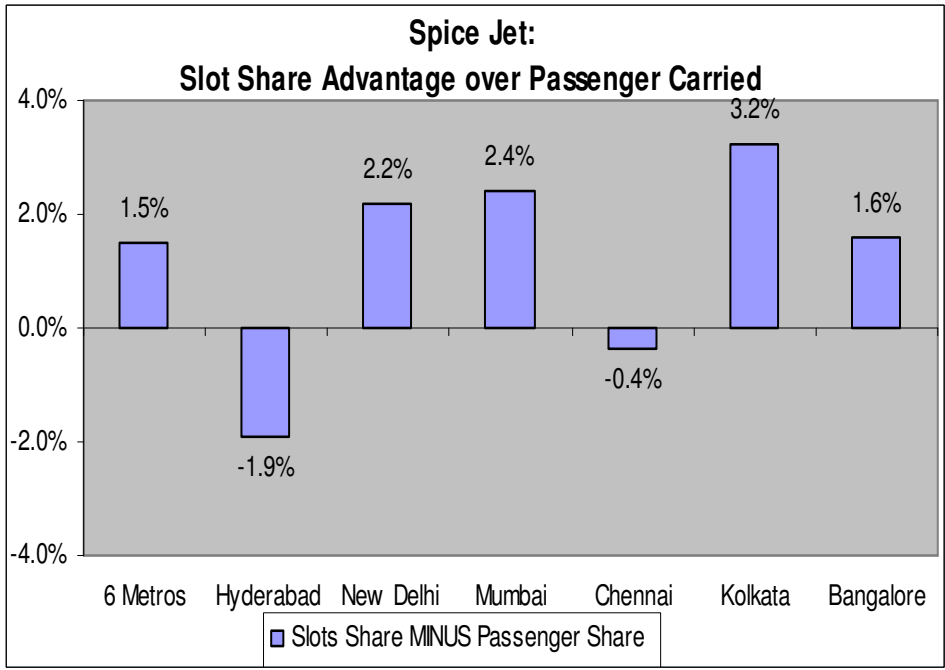
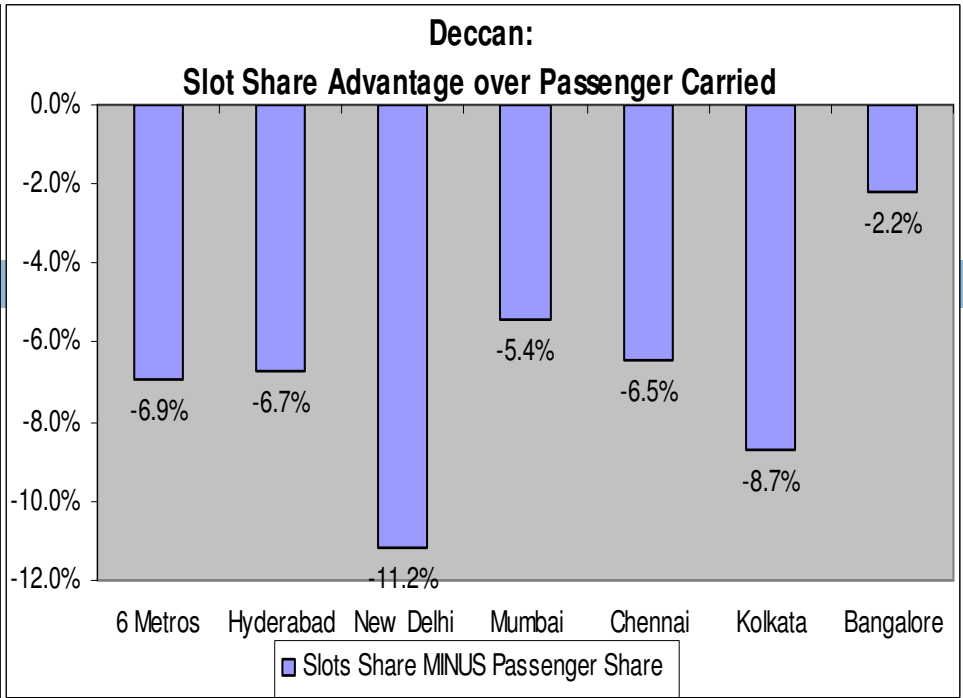
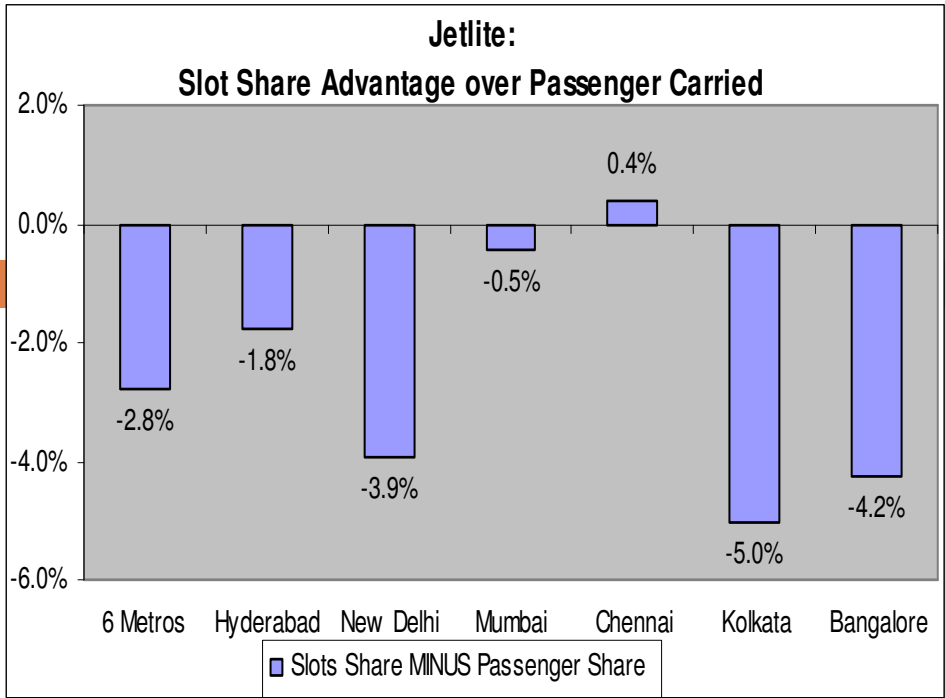


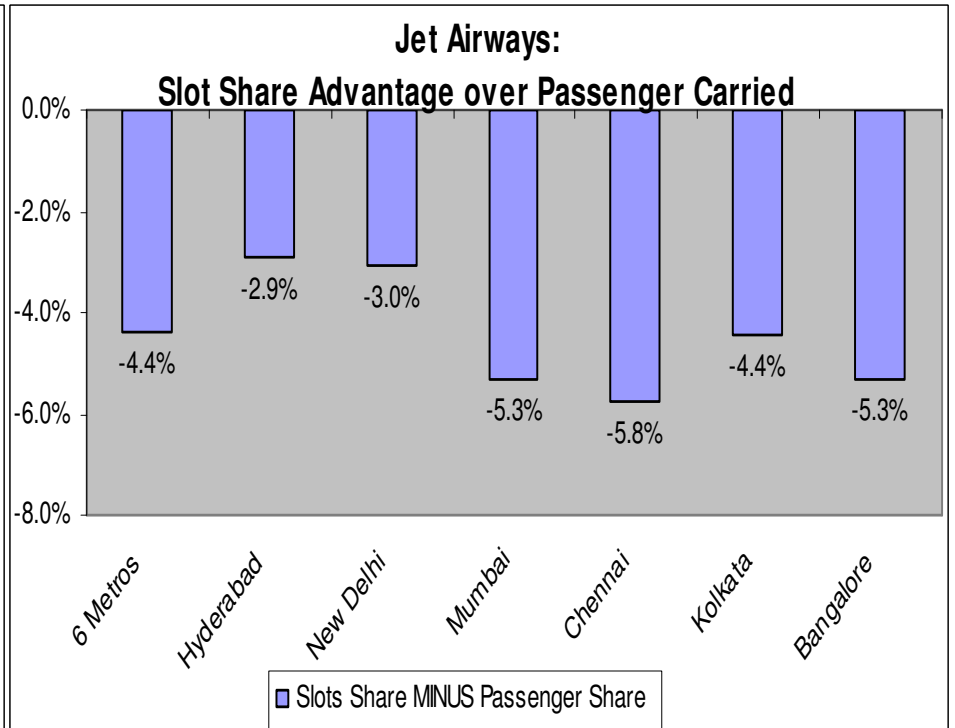
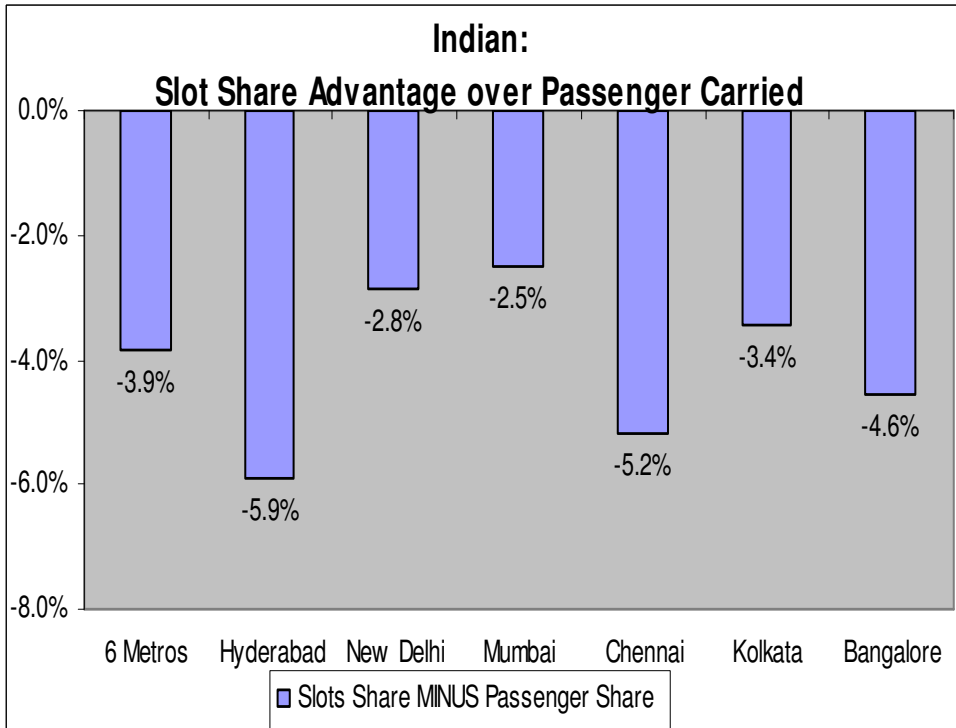
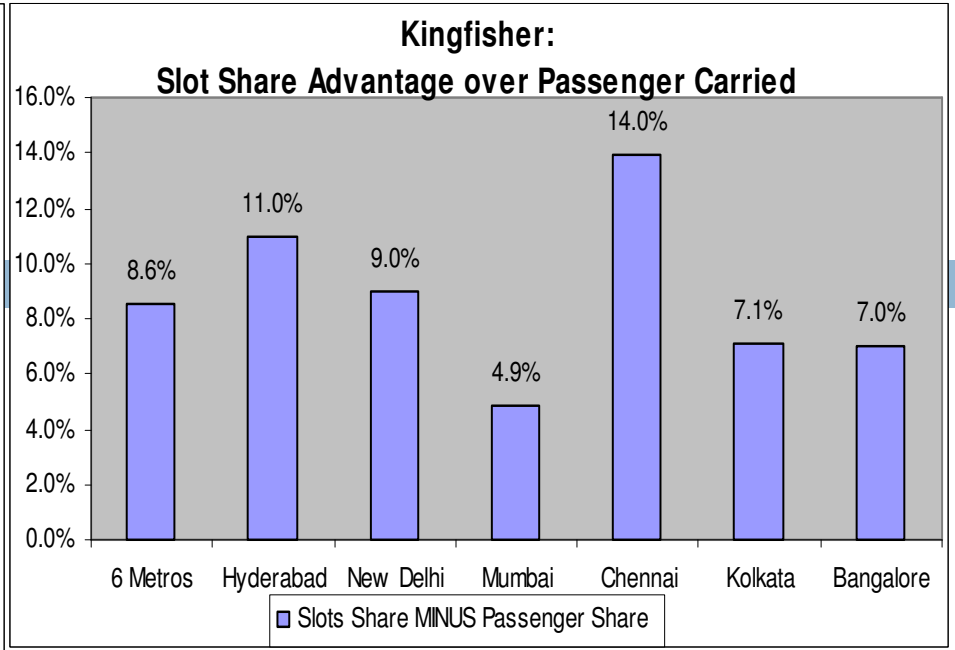
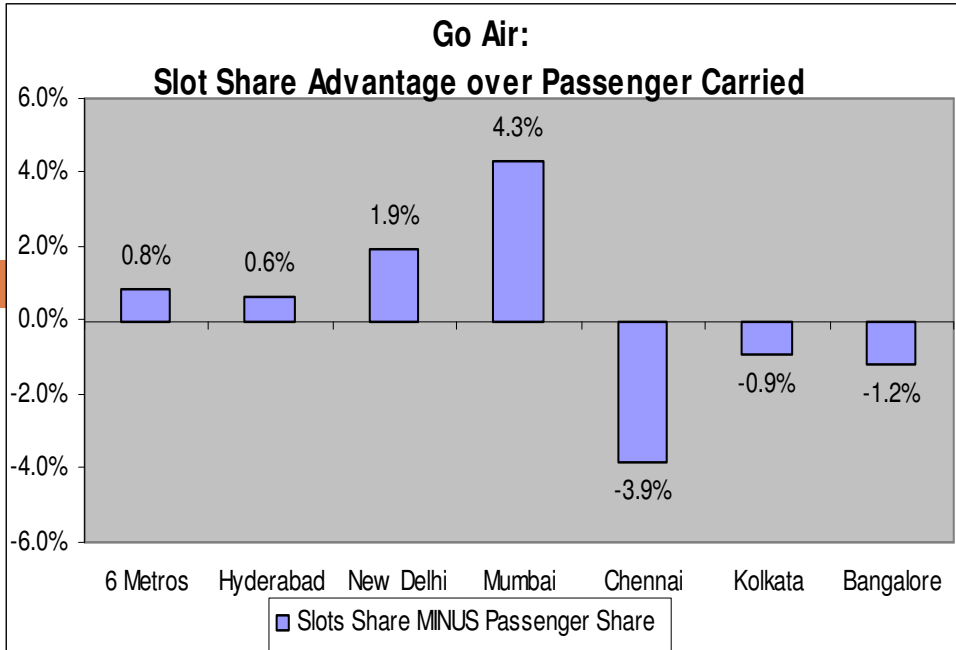
Jet, Kingfisher and Indian account for 58% of Passenger Share at the 6 Metros; Deccan: 16%

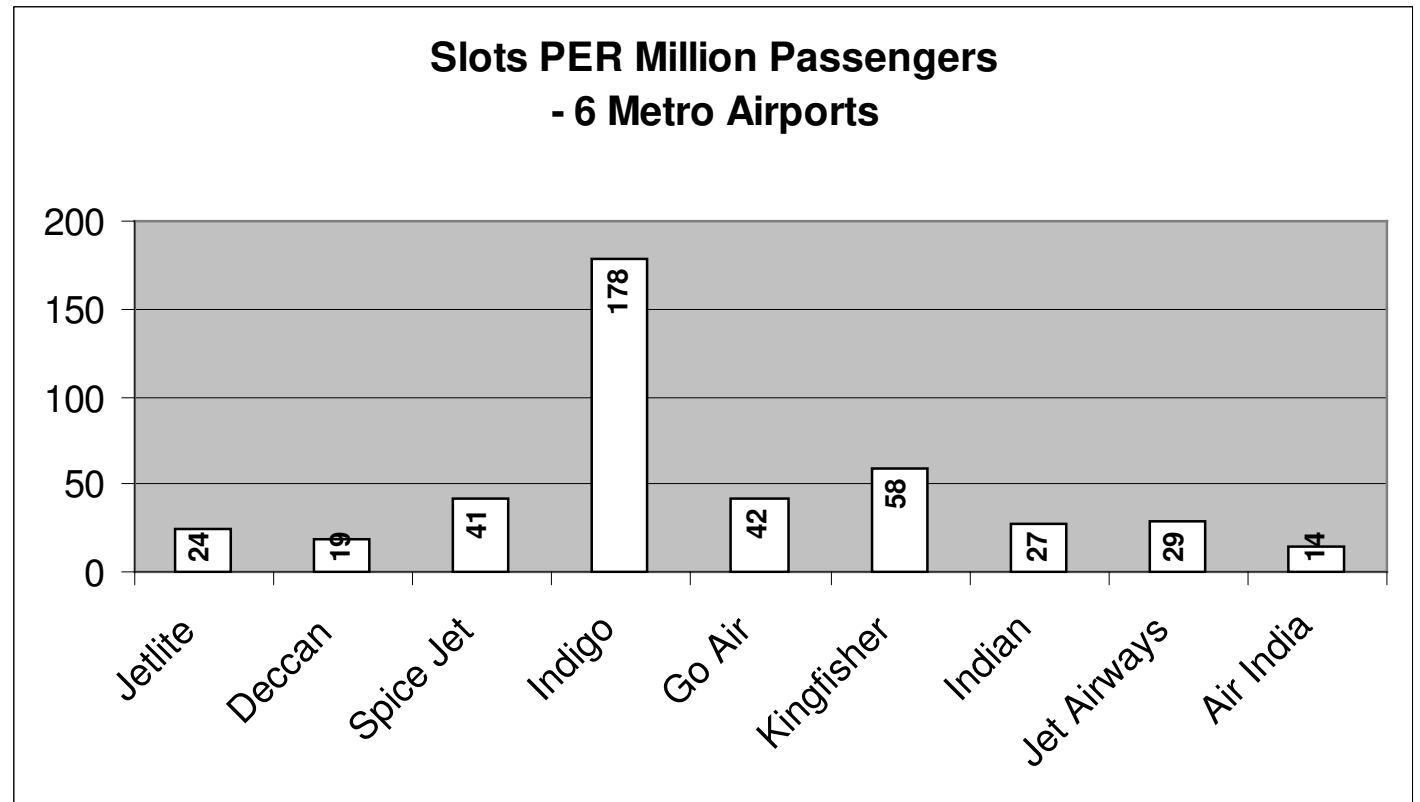
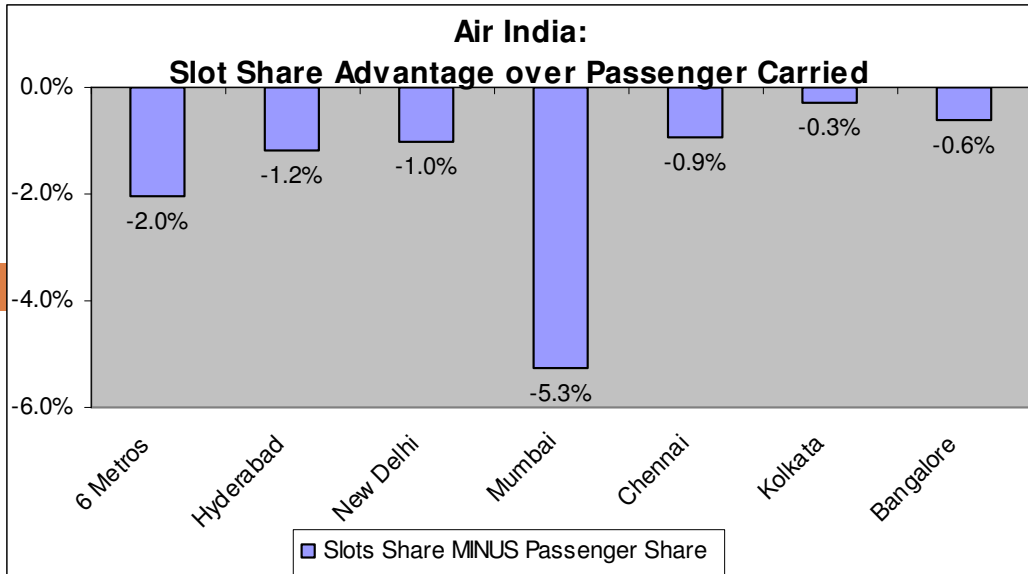
Kingfisher, IndiGo, Spice Jet, Go Air had more slots allotted than passengers carried (as a percent share)











Conclusions



- Slot allocation at the 6 metros combined showed that Jet, Kingfisher and Indian were allotted 58% of all the slots.
- Kingfisher and Jet were the dominant operators during the morning and evening peak periods with about 12 to 18 slots followed by Indian with about 8 to 10 slots.
- Statistical analysis showed a correlation of 0.88 indicating that a strong and positive relationship exists between the slots and passenger share.
- It is understandable as to why air carriers make use of any and all slots while trying to obtain more.
- Kingfisher, IndiGo, Go Air, and Spice Jet had more slots allotted than passengers carried while Indian, Jet, and Deccan were at a disadvantage in this regard.

TOR 8



- Study issues relating to cartels. In this context, cases of cartels in countries like US and the UK will be studied


Cartelization ?



- **Theoretically, markets with the following characteristics are more likely to support the successful operation of a cartel.**
 - **Fewer Firms and Higher Market Concentration**
 - **Barriers to Entry**
 - **Homogeneous Goods**
 - **Firms with Similar Cost Structures or Operating Efficiencies and Market Shares**
 - **Market Transparency**
 - **Depressed Conditions or Low Innovation Rate**

Does the Indian Market show evidence?

- The airline industry in India, which had 12 scheduled operators, after the mergers has only 9 operators. This implies that cartelization in fact has become easier.
- Major barriers to entry
 - ▣ High capital requirements
 - ▣ Slots
- Two dominant players in the market – Jet and Kingfisher – both have a stake in low cost airline also. Therefore, the homogeneity of ownership may make collusion easier.

- 
- **Literature suggests that the firms in this industry operate with similar cost structures and efficiencies.**
 - **All players in the market can monitor the price of the ticket on offer**
 - **Increasing prices of ATF – increasing losses**
 - **Federation of Indian Airlines**

Sl. No.	Airlines	Net Profit / Loss (2005-06) (in million)
1	Air India	26.0
2	Indian Airlines	57.2
4	Jet Airways	4520.4
5	Sahara	-1380.5
6	Air Deccan	-3405.5
7	Paramount	-194.5
8	Spicejet	-575.48
9	Kingfisher	-2395.9
10	Go Air	-583.8

Price Parallelism



- Data

Case Studies on cartels:



- **Brazil: The Rio de Janeiro – São Paulo Airline Case**

TOR 9



- To Study the issue of Competition in Airports

- 
- Complementarity of inputs between airlines and airports

Relevant Product and Geographic market

- Demand for airport services is a derived demand—it is derived from the demand for air craft (flight) services.
 - Directly
 - Indirectly

the relevant service or the geographic market is airport itself.

Extent to which capacity constraint limits competition

- How is the capacity of airport defined?
 - ▣ Capacity of an airport is defined as the minimum of the parameters such as terminal capacity, runway, baggage belts, etc.
- Depending on Capacity Slots are allocated
- Slots and their impact on competition

Indian policy on slot allocation



- **airport runway slots are allocated twice a year**
- **'Grandfather Rights'**
- **Why Grandfathering?**
- **Issues:**
 - **Market for slots**



- **Second Airport**

- **Delhi / Noida**

- Right of first Refusal**

Expand the existing airport/ Build a new green field airport – concession or lease agreements

The main competition issues raised by concessions are:

- a) The allocation and agreement of a concession contract.
- b) competition during the term of the concession.
- Case Study- Concession agreement at HIA and BIAL


a) Slots

b) Exclusivity

TOR 10




- **Analyse the implications of this study for Competition Policy and Law. Appropriate recommendations to be provided**

- 
- Analysis of regulation in relation to competition.
 - Issue to be discussed is whether existing regulations result in creation of barriers to new entrants on the market.
 - The above has already been discussed in detail.
 - We refer to Sections 19(3) , 19(4) and 20(4) of the Competition Act .
 - Majority of factors referred to in the above sections,that may have an adverse effect on competition are present on this market.
 - These factors also have a direct relevance to the Domestic Air Transport Policy.
 - Need to modify policy to take note of emerging market scenario.

TOR 11



- **Examine issues relating to advocacy for CCI . Provide suggestions and recommendations**




- **In accordance with section 49(1) of the Competition Act, following suggestions may be given to the Government :**

- Route Dispersal guidelines, while they are meant to ensure equity, may create entry barriers.

- Equity requirements, requirements for flying internationally are entry barriers and favour incumbent players.

- Slot allotment policy requires examination. In the post merger scenario, this has assumed special importance.



❖ In accordance with Article 49(3), CCI is expected to take suitable measures for promotion of competition advocacy, creating awareness and imparting training about competition issues.

❖ CCI can create awareness among consumers through workshops on issues relating to pricing structures among different airlines.

❖ Training Programmes may be conducted for potential investors concentrating upon entry requirements, state of the market, government regulations, etc.

❖ To promote general public awareness about this sector, specific training programmes can be designed on the state of the market. number of players. routes being served. pricing. post



Major Conclusions



- Concentration as shown by the HHI is increasing on relevant markets, post merger.
- In terms of slots, post merger, Jet and Kingfisher are controlling a major share.
- Indian is losing out to these two players.
- Large number of airlines flying on selected routes. However, there is an obvious control of major slots, especially in the peak period, by Jet and Kingfisher.
- Consumer therefore has limited choice in the peak period.
- High degree of price parallelism –especially between Jet and Kingfisher –may lead to price collusion given the dominance of these two airlines on selected routes. May also lead to overpricing.

Major Conclusions

•On the basis of a comprehensive analysis with regard to slots allotted to 9 air carriers at 6 metropolitan airports, the following are noted:

-Slot allocation at airports showed that Jet airways, Kingfisher and Indian were allotted 58% of all slots allocated.

-Kingfisher, Jet Airways and Indian were also the predominant carriers that operate from Hyderabad, Mumbai, New Delhi, Chennai and Kolkata

During peak periods also, Jet Airways and Kingfisher were the dominant operators in terms of slots, followed by Indian.

-a correlation analysis conducted showed that there is a strong and positive relationship between number of available slots and passengers carried. This shows the link between slots and market share.



Recommendations

Factors to be taken note of by the CCI in accordance with Section 20(4) of the Competition Act

- Post merger, concentration is evidently increasing on all three selected routes.
- The market is oligopolistic. Large number players exist – however, three players control a major share. Issue of concentration, post merger, may be taken note of by CCI.
- Some evidence of price parallelism. May not be termed as price collusion. However CCI may monitor pricing of dominant airlines, in particular.
- Share of Jet and Kingfisher in the number of slots are increasing post merger. Indian is losing share to these two.

Recommendations



- Mergers show indication of removal of a vigorous competitor from the market, e.g. Jet and Sahara on Delhi-Mumbai and Delhi- Chennai routes. Critical factor in limiting competition.
- Possibility of a failing business looms large due to rising fuel prices and intense price competition. CCI may like to monitor this.
- Some mergers have benefits in terms of increased efficiency, scale economies etc. Particularly relevant in case of the public sector owned airlines.

Recommendations

In the context of advocacy, following recommendations may be made to CCI:

Opinion to the Government:

➤ In the context of the Domestic Air Transport Policy, as already discussed earlier, CCI may point out issues relating to the route dispersal guidelines, equity and fleet requirements, entry into international routes and slot allocation policy and mergers.

Measures for promoting competition advocacy etc:

- conducting workshops on pricing for consumers.
- Training programmes for potential investors
- Training programmes for promoting public awareness about the sector.

