

Quest for Aviation Growth

J. P. Singh

Abstract

Based on a review of the Airlines Alliances in various parts of the world, the paper comments on the choices before India. It develops the basic contours of strategy for growth of Indian Aviation and notes the role of the government in this context. It suggests a step-wise approach starting with streamlining the domestic aviation scenario, enlarging the market size by treating air travel as an alternative mode rather than as something exclusive for the corporate sector. It also suggests need for adding capacity, creating openness and cooperation among the domestic players in dealing with the international competition. It further recommends creation of maintenance and transit hubs to carve a share of the international aviation business. Finally, it recommends a gradual step-wise offer of equity partnership to preferred partners in the aeroplane and aviation equipment manufacturing industry.

Quest for Aviation Growth **J. P. Singh¹**

Corporations and Industries find ways to overcome obstacles that come in the way of efficiency and profits. International Airlines found Alliances as the answer to a plethora of hurdles and flying regulations.

Starting as code-sharing, airlines alliances in the nascent form were first introduced in the late 1960s by Allegheny Airlines to overcome route requirements through what in today's management parlance would be known as 'Franchising' (Humphreys, 1994). Gradually this initial cooperation expanded to include additional aspects of business that blossomed into full-scale alliances. As more and more airlines formed alliances, they found additional benefits accruing both to themselves and their passengers.

A survey of 46 strategic airlines alliances (Oum, Park and Zhang 2000) identified eleven areas of joint or coordinated activities in the industry. These are:

- Coordination in ground handling;
- Joint use of ground facilities;
- Shared membership of Frequent Flyer programs (FFP);
- Flight code-sharing or joint operation;
- Block space sales (passenger and/or cargo);
- Coordination of flight schedules;
- Exchange of flight attendants;
- Joint development of systems or systems software;
- Joint advertising and promotion;
- Joint Maintenance; and
- Joint purchase of fuel, other supplies (and possibly aircraft).

As a result, presently alliances in the Airlines Industry are more a rule than an exception.

Unique Benefits

Corporate alliances are generally formed to get access to markets, resources, products or technologies with the hope of exploiting benefits of economies of scale. In case of International Travel Industry, alliances became inevitable as the industry has a unique characteristic. While it is the most international industry in its operations, nevertheless it has been and continues to be the most nationally controlled in ownership and regulation. Gradually and over time, airline organizations discovered at least three unique benefits of alliances in their industry:

- Providing seamless service
- Enabling traffic feed among partner airlines
- Exploiting benefits of CRS display system.

Thus what started as a response to environmental uncertainty became an economic necessity and got transformed into a government policy.

The Fifth Freedom

The growth of international aviation through alliances is rooted in the historical development of aviation based as it was, almost universally, in the exclusive domain of military control (The Development of the Airline Industry from 1978 to 1998, 2000). Thus international civil aviation had to go through negotiations among governments, airlines groups and individual airlines that stretched over decades and carefully defined each freedom bestowed upon the aircraft of another nation. Starting with the agreements to allow aircraft of one country to over-fly the airspace of another (the first freedom), to make a technical halt, say for refueling etc. (second freedom) and so on. Gradually bilateral and multilateral agreements brought international

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passenger aviation to the now dominant fifth freedom. This allows the carrier of Country A to carry revenue traffic between Country B and other countries such as C and D on service starting or ending in its home country A. Analysis shows that most alliances hover below or around the Fifth Freedom.

Real Profits

Obviously, the industry and the dominating nations did not want to stop at this limited freedom. Real profits were to be made by invading other markets' domestic routes since many nations had a cap of small population, which meant that even if everyone in the country was flying, it was still not enough for the passenger airlines industry. Others though with large populations were still not satisfied knowing that their control of technology and finance will enable them to dominate the international industry. Thus began the push for Cabotage.

Cabotage

The case of Cabotage is essentially to jump from Fifth Freedom to the Eighth without necessarily going through the stepwise rigours of sixth and seventh freedoms. The US has been aggressively promoting this approach as it stands to benefit the most. Thus it is no surprise that India is being persuaded to similarly sign on the dotted line.

To begin with, the open skies policy option for the US carriers was forced upon European Union. Within Europe, the open skies made sense, considering their small national markets and miniscule flying time to enter another nation's skies. So while European Aviation worked towards an open sky for air transport within much of Europe, its air services with other countries continued to be regulated by bilateral agreements. When the US initially approached the EU with such a proposal, it was rejected. This led the US to a change of tactics and it started signing bilateral agreement with individual European nations, eventually making it necessary for the EU to negotiate a comprehensive agreement.

Island Nations

The open-skies arrangement suits a dominant developed country with its control of the aviation technology, financial muscle and ability to create and enforce international rules of transaction and business. They also suit partners with equal technological and financial strength where the only competition is on managerial capabilities. Finally they also suit nations with very small markets like island nations.

Thus 24 out of 25 Caribbean basin nations are ready to sign a multilateral pact to liberalize aviation. These nations are the members of Association of Caribbean States (ACS) that consists of 12 independent island nations of Caribbean, plus Central American and the South American countries facing the Caribbean and Mexico. While Mexico chose not to sign the pact, even here the agreement gives only third and fourth freedom unlimited rights to the airlines which may now carry passengers between home country and those of other members. Additionally, a final compromise limits the rights of airlines in non-island states such as Colombia and Venezuela. They have free access to Caribbean and vice-versa but not to other ACS member states (Caribbean Open Skies Pact, 2004).

Since the Indian market condition is not equivalent to an Island nation, the issues will have to be examined in context of other experiences.

The Adventurers

Australia and Singapore have, "significantly liberalized" the new air services pact but the deal is not a full open skies agreement (Ionides, 2003). It gives the two countries unlimited flight frequencies between the two countries but does not allow unrestricted services beyond the two. While this liberalization is underway, Peru wants to leave the Asia-Pacific Economic Cooperation open skies accord (Peru Wants Out of OPEC, 2003). Chile's geography has always made open skies a tough proposition so it offered cabotage to Uruguay. A reciprocal cabotage to Chile was meaningless because Uruguay has only one major city and airport.

The deal worked because Chile can now benefit from Uruguay stopover for onward flights to Europe (Knibb, 2003). Thus obviously open skies option is not a simple one that nations must fall over each other to avail-off.

Nervous Partners

A recent press report (Update 2, 2004) indicates that the United States is "ready to sign" an open skies agreement with India that would remove all civil aviation restrictions, such as limits on destinations and government approval for price and service charges. Apparently released as an atmosphere building exercise to further US goals, the report also indicated that the current Indian Government restrictions "have made American airline operators nervous about entering the Indian market". As per this report, there is no non-stop service between India and the United States, and more than 60 percent of passengers flying between the two nations use airlines of other countries. ... Further U.S. airlines have rights under the current agreement to fly to more Indian cities, but are wary. "What intimidates American businesses is this perception that India is a highly regulated place; it's very difficult to do business here," he said.

What the US government Assistant Secretary did not elaborate was as to how come the carriers of other nations were both willing and able to do business in India. This, when the US business is supposedly more risk friendly and much more efficient than even its cousins in Europe and the rest of the world.

Protecting Flanks

While the US may wish to aggressively promote its business interests, it is for the other nations to protect their economies and their business. As it is, even Europe will find competing with the US airlines very difficult. Button (2002) points out that EU airlines, for example, have higher costs and productive inefficiencies than U.S. airlines. While the EU carriers may be reducing these, union power and tradition slow down progress. A study by the United Kingdom's Civil Aviation authority estimated that the costs of European airlines were double those of U.S. domestic trunk airlines and the European labour costs are higher; across the 12 EU airlines.

Other reason includes significant disadvantage in terms of feeder networks. Given U.S. airlines' domination of many major American hubs, EU carriers are unlikely to make any dent into the American domestic market. Size is also against European airlines.

India cannot afford to forget that in any open-skies deal, its airlines will face all the disadvantages of European airlines plus more.

Alliances, bilateral and multilateral, thus still seem to be the way forward, not that alliances are a simple matter. KLM took 15 years of maneuvering to be able to reach the decision point to link with either Oneworld or SkyTeam Alliance (Wijk, 2003).

The Government Role

Generally, all international airline alliances are subject to government approval. Initially, when Air Florida and British Island formed their codeshare alliance in 1986, none of the governments involved required any formal approval provided the carriers had underlying route authority to the cities involved (Oum, Park & Zhang, 2000). However the US Dept of Transportation changed this position in 1987 for the proposed BA-UA codeshare in the Chicago-Seattle segment. The Department declared that no international alliance would be approved unless it was covered by a bilateral agreement or brought benefits to the US and unless the foreign country also gave US airlines codesharing rights in their markets. Originally the US DOT was liberal in granting antitrust immunity though lately both the US DOT and the Dept of Justice are hardening their position on this issue.

European Union, having same anti-competitive aspects of codesharing agreements adopted a very cautious approach but was alarmed when US succeeded in concluding open skies

agreements with numerous individual small EU countries, often using the open skies agreement as a pre-requisite. EU even launched legal proceedings against member countries for failure to fulfill their obligations as EU members. Later, however, European Commission began to take a proactive stance with regard to codeshare alliances following the conclusion of the BA-AA alliance. Presently, European Commission has acquired a much larger role on behalf of the member countries in its negotiations with U.S. The Secretary General Ulrich Schulte–Strathans has now asked for harmonized airline-airport policies on both sides of the Atlantic (Baker, 2004).

Going a step further, a recent European Transport Leaders' Conference in London (European Airlines see no quick solution to Open Skies, 2002) felt that it could take years to define and create a "Transatlantic Common Aviation Area" between the old world and new world. They also felt that labour groups in the U.S. "are unlikely to support components of the EU's proposals."

Thus it is obvious that the regulatory authorities of various national governments and regional multilateral government bodies have direct economic and political stakes and need to closely scrutinize all global alliances.

Hopefully, the Government of India and its agencies will play an equally protective role for its home carriers.

Legal Issues

Success of Alliances does not necessarily mean that there are no problems. Strength of these alliances has been severely tested particularly as one of the members of Star Alliance tethers on the brink of bankruptcy. More significantly, research by Cap Gemini Earnst & Young and Airline Business magazine showed that almost two thirds of the major airlines were dissatisfied with their alliances (Airlines Alliances: Legal Differences Abound, 2002). Yet there is no going back over the alliances and more carriers are joining and forming new alliances.

Trends & Alternatives

In 1998, approximately 500 alliances existed between airline companies. Some of these alliances were to the point of a merger (Market Share of World Airlines Traffic, 2003). The scene today is dominated by a few multilateral alliances. Top three, Star, Skyteam and Oneworld together account for over 60% of the total International traffic. See Fig.1 below.

Oneworld
American Airlines, British Airways, Aer Lingus, Cathay Pacific, Finnair, Iberia, LanChile, Quantas
Star
United Airlines, Lufthansa, Air Canada, Air New Zealand, ANA, Asiana, Austrian, bmi british midland, LOT Polish Airlines, Mexicana, SAS, Singapore, Spanair, Thai Airways, Varig, US Airways, TAM
SkyTeam
Air France, Delta Airlines, Aeromexico, Alitalia, CSA Czech Airlines, Korean Air, Northwest, Continental, KLM

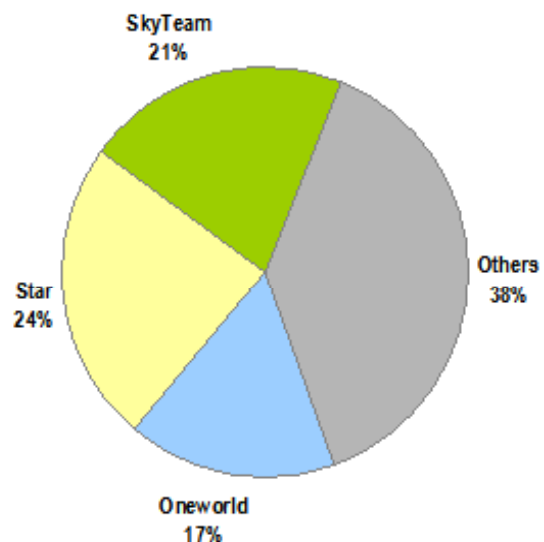


Fig.1: Market Share of World Airline Traffic, 2003

As per reports Star Alliance has added new connections into South America and Africa by bringing in TAP-Air Portugal and South African Airways and Finland's Blue-1 as full members (Star Alliance Adds 3 New Members, 2004). This gives Star approximately 29% of the International Revenue Passenger miles and makes it the largest of the airlines groups. Star is also seeking new members in China, Russia, India, Africa and Western Europe, all of which are deemed to be high growth areas in terms of traffic.

Reports (Air France's alliance with KLM reveals a new industry pattern, 2003) also suggest a tightening of the web of alliances as seen with the KLM-Air France deal that involved three American Airlines namely, Delta, Continental and Northwest.

This leaves China, Russia and India as blank spots on the world map of airlines alliances (Mecham and Mathews, 2004). In all three cases, the leading carrier is a government owned / aligned entity which makes decision making a complex politico-economic process.

Cautious Weighing

In another development, "European low-fare airlines are examining the pros and cons of forming an alliance. At least two multilateral alliances are already in the negotiation stage and could form the basis for an agreement between the low-fare carriers, similar in many ways to that of the sector's big network players" (Flottau, 2004). Although this may indicate a trend towards consolidation of the low-fare carriers, the two biggest European low-fare players, Ryanair and Easyjet are not involved in the current action. For the other start up low fare operators, striving to improve market presence is difficult without a pan-European route option. Thus many are increasingly involved in tour charters. In any case low fare operators are trying to avoid the complexity of global airline alliances. So they do not offer codesharing or through check-in though through-fares have not been ruled out.

Since international traffic rights are tied to designated domestically owned carriers under bilateral government agreements, cross airline border mergers are difficult to accomplish. Nevertheless, loose tie-ups as contemplated between Air France and KLM are certainly underway (Economist 2003). Twice earlier, a similar tie-up was discussed for forming a jointly-owned company between KLM and British Airways in 1991 and in 2000, but broke down on both occasions due to British Airways's refusal to pay KLM's asking, even though non-controlling stake. Overall, one can say that a trend towards consolidation in the international airlines is on in some form or the other. Doganis (2001) opines that any move towards more open skies will have to address the issue of ownership of airlines.

Types

Alliances have been classified into three categories (Tretheway and Oum 1992), namely simple route-by-route alliance (Type I), broad commercial alliance (Type II) and equity alliance (Type III). The last type is essentially a Joint Venture. Significantly, while the scope and coverage of alliances has increased over time, various types of alliances have grown differently. Statistics show that while alliances without equity have grown by over 100% in the previous decade, the percentage of Equity alliances (Type III) have actually decreased (Airlines Business 1994-99). Alliances have also been categorized broadly as Commercial and Strategic (Doganis, 2001).

An early study (Dresner, Flicop & Windle, 1995) analyzing the outcome of three alliances noted that only in one of the three agreements did the carriers increase their Trans-Atlantic traffic volume and increased their load factors after realigning their route systems to take advantage of the alliance. In the second alliance, the carriers did not appear to have realigned their networks while in the third route changes appeared to have resulted in traffic gains. Recent studies show that Alliance Carriers with anti-trust immunity are able to reap substantially higher benefits (Oum, Park and Zhang, 2000).

While so far India has stayed out of these alliances, relying primarily on bilateral agreements, it is merely a matter of time before Indian airlines are drawn in this web and the three blank

spots, Russia, China and India are filled in by the International Alliances. As it is, Nippon, Asiana, Thai and Singapore Airlines are all working to develop an extensive network in China.

In any case India will sooner or later have to review even its bilateral agreements, as currently they are more advantageous to the partners than to India. While bilaterals are supposed to be on equal basis, partners are utilizing almost 75% of seat share while India uses, prima facie for lack of capacity, only 25% of seats. Obviously, this cannot be a permanent solution to the capacity issue, dependent though India is on other nations and their manufacturers for an increase in capacity.

Nevertheless, before taking the leap it will be worthwhile to learn from the experience of others, those who are satisfied and those who are not with their present alliances. As it is, apart from the survey referred above, some industry pundits are even questioning the previously unquestioned cost cutting and revenue boosting benefits of alliances. As Robyn (2003) put it, there are three key concerns about potential impact of liberalizing international aviation, namely National security, labour and airlines safety. All these concerns, in addition to the economic and political, need to be addressed and a quick review and adopting a long-term strategy are a must. Otherwise, if Indian aviation policy continues in its current slow growth trajectory, it will be left on the sidelines missing the bus and fated to be a small feeder airlines' nation.

The Fleet

A look at the global and Indian aviation scenario will be in order before proposing some contours of future strategy.

An AirlinesGate Report (Fleet Dynamics and Long Term Outlook, 2002) indicates that 41% world fleet is located in North America followed by Europe with 25%, Asia/Pacific with 20%, and rest of the world closing the remaining 14%. Table 1 below gives further details.

Table 1: World Airlines and Aircrafts

Region	Number of airlines	Number of aircrafts
North America	37	4 122
Europe	90	2 445
Asia/Pacific	44	1 475
Latin America	41	657
P.R. China	20	425
Africa	28	318
Middle East	11	235

Apart from the large number of airlines, the United States has the world's four largest airlines (American, United, Delta, and Northwest) in terms of passengers carried, and another two – Continental and US Air – are in the top 10. In comparison, British Airways and Lufthansa are the only European airlines in the top 10.

As a contrast, though small, Asia/Pacific is leading in the wide-body fleet and is the only region where wide-body fleet is larger (in number of aircraft) than narrow-body fleet. It had more than 1100 wide-body airplanes at end 2000 (37% of world's wide-body fleet) vs. 1050 narrow body aircraft (13% of world's narrow-body fleet).

On the opposite side, North American fleet is largely dominated by narrow-body airplanes as they represents 83% of the region's fleet, i.e. 47% of the world's narrow-body fleet. This means a huge and fragmented domestic market in term of destinations and frequency. Europe and the rest of the world have a more balanced mix of fleet, closer to the world average which is 73% narrow-body aircraft and 27% wide-body airplanes". The look at the composition of a fleet is important, as Airlines generally do not publicize their passenger seat capacity. It is also important as indicates the nature of the market that is being serviced. Considering the fragmented nature of Indian Aviation Market, at the national level India will require a mixed

fleet of wide-bodied, narrow-bodied and small aircraft to be able to service various market segments. Individual airlines, however, may choose a homogeneous fleet to limit their maintenance costs.

The Indian Scenario

As per information available from Directorate General of Civil Aviation (<http://www.dgca.nic.in/>), India has seven Scheduled Operator's Permit Holders. Of these, one is a cargo handling permit holder while three are government owned. Table 2 below gives information about these six passengers carrying scheduled operators as available from public sources.

Table 2: Passenger Carrying Scheduled Operators in India

Airlines	Air India Ltd.	Indian Airlines Ltd.	Airline Allied Services Ltd.	Jet Airways	Sahara Airlines Ltd.	Deccan Air Services Pvt. Ltd.	Source
» Board of Directors and Key Management Personnel							
List of Members of BoD	Available as on March 2003.	Available as on March 2003.	Available as on March 2003.	Available as on March 2003.	NA	Available as on March 2003.	Prowess, CMIE database
No. of Board Members	7	6	12	10	NA	2	Prowess, CMIE database
» financials							
Last P&L A/c.	Available as on March 2003.	Available as on March 2003.	Available as on March 2003.	NA	Available as on March 2001.	NA	Prowess, CMIE database
Last Balance Sheet	Available as on March 2003.	Available as on March 2003.	Available as on March 2003.	Available as on March 2003.	Available as on March 2001.	Available as on March 2003.	Prowess, CMIE database
Paid-up capital (Rs. Crore)	153.84	107.14	2.25	141.92	36.12	0.25	Prowess, CMIE database
Net worth (Rs. Crore)	153.51	-446.94	-197.05	688.72	80.77	0.26	Prowess, CMIE database
Ownership Pattern	* Central Govt. Commercial Enterprises	* Central Govt. - Commercial Enterprises	** Wholly Owned Subsidiary of Indian Airlines	*** Foreign Holding 99.9%. Estimated from the Pie-Chart	Not Available	Not Available	* Prowess, CMIE database *** First Source, CMIE database
** http://pib.nic.in/archieve/factsheet/fs2000/civilaviation.html							
» Fleet Size							
Total Airplanes	33	62	14	41	19	5	DGCA report as updated on 26th April 2004.
Total Seats	9847	35000	1382	5128	2066	240	Calculated as per DGCA report as updated on 26th April 2004.
Destinations Served	37	75	Not Specified	42	22	Not Specified	Co.'s Website

As can be seen from the table very limited information has been provided by the airlines, be that financial, ownership pattern or managerial. While most information about the Indian Carriers, other than the Government owned, is not in public domain, the available information does not tell us much. The Promoters and Key Management persons are not listed nor is their equity ownership pattern provided. Jet Airways' ownership is apparently fully foreign giving rise to the phrase: India based airlines in place of home country airlines. There is a large variation in the financial base of these airlines. While Jet Airways has an equity base of 141.92 Crores Deccan Airways, equity base is a mere 25 lakhs.

Fleet-wise also Indian carriers are quite small. Air India has a total fleet size of 33 aircraft, Indian Airlines is somewhat larger, being the size of Singapore Airlines with 62 aircraft. Alliance Air, a wholly owned subsidiary of Indian Airlines has 14 aircraft. Among the private airlines Jet Airways has 41 aircraft, Sahara 19 and Deccan Air 5.

Compare this with the American Airlines, one of the world's largest airlines with almost 1000 aircraft and carrying over 80 000 000 passengers and 650 000 Tonnes of freight a year. Even Singapore Airlines, a small Nation airline that operates only internationally, has almost twice the number of aircraft than its parallel Air India. This when India is lulled with the images of being a part of the "BRICKS" economy, the so-called economies of the future.

This makes Indian carriers a small player in the passenger aviation world in general and International travels in particular.

Contours of Strategy

What shape will the alliance of Indian carriers take in the international aviation will in all likelihood be a political decision rather than an independent corporate business decision. That will not be unusual considering that all such issues are as much political as economic. EU-US deal for open skies, for example, is still elusive (Field, 2004), as there is no agreement on ownership limits. Europe has a 49.9% limit on foreign ownership as compared to 25% limit in the US at present. EU has been able to achieve this position after completing a single market of its own over the past two decades, a significant achievement given multiplicity of countries in the region.

The Potential Market

While formulating the national strategy one must remember a few aspects of Indian Passenger Aviation Market.

- a. Potentially, India is a very large corporate and luxury travel market.
- b. Potentially, it is also a very large low-fare market.
- c. India also has largely blocked but significant markets in the north in China.
- d. India, unlike other major travel hubs in the region, is an original market both for originating and turnaround traffic.
- e. India is also a potential transit hub in more than one direction.

In Aviation circles India has become Asia's hot growth market and in the words of SIA CEO it is, along with China, one of the two "locomotives" for growth in the continent.

Thus to enter in to an open skies agreement when India has nothing more to offer than land for airports and the so called cheap blue and white collar labour will tantamount to accepting a second class economic citizenship in the comity of nations. Were the world becoming a one nation, accepting open sky policy as advocated by the U.S. would make sense. Instead, we are moving towards a world that stamps a person by the place of birth and makes him/her an increasingly more a prisoner of that environment, unable to move except at the mutual pleasure of two or more nations. In such a situation the growth and development of a nation and its people is and will continue to remain a responsibility of its leaders. In a way that is what the US government wishes to do supposedly for its people but also largely for its Citizen Corporations.

Segments

One also needs to remember that there are distinct segments of air travel in Indian aviation, the Domestic, Regional and the Long haul Global. Further, in each segment there are categories of the Busy, Not-so-Busy and infrequently travelled routes. The airlines offerings of number of seats, size and type of aircraft, price of air-ticket etc. in the categories of Low-fare and the Premier Corporate/ Luxury traveler will therefore need to be examined in this context. Unless the lead carriers, Air India and Indian Airlines can quickly pull themselves by their bootstraps, the other carriers are likely to steal the thunder.

As it is, the dominant partners, as a matter of strategy, generally prefer the 2nd, 3rd or even 4th best entity as a partner than the 1st in size or operations. This makes the second largest carrier; particularly if it is privately owned, like Jet Airways in India, a prime target for wooing. As per reports, Jet Airways is not interested in aligning with anybody, at least for the next 2-3 years." (Mecham & Mathews, 2004). It perhaps should be read as "not yet permitted" by the government.

Enlarging the Pie

Theoretically, the only advantage air travel has over other modes of transport is time. Given time, even a well padded, well appointed bullock-cart ride can be a leisurely pleasure.

Unfortunately, aided and abetted by the government, airlines have tended to perform hara-kiri by eating into this very advantage by building layers of security checks and slowing down passenger movement. At Delhi for example, after alighting from the aircraft, one is stopped four times before one can be on road to destination, incidentally, not even learning from a more efficient system in Mumbai. This is without minimizing the role of the central aviation safety and security organizations or of the overall responsibility of the state, particularly in the macro arena. Even here perhaps more needs to be done, particularly with regard to adherence to standards considering the reports of safety standards violations by scheduled (Khanna, 2004) and non-scheduled operators, as happened during the 2004 general elections (Cause of Saturday's crash still remains a mystery, 2004). Or earlier when nation lost some political stars.

Airbus Industries Research shows that there is a cut-off point beyond which the preferred mode of travel changes (Markillie, 1993). Thus small distance journeys are convenient by road while longer journeys are preferred by rail and air. The data should actually be viewed in terms of time involved rather than the distance since technological development in any field can impact the time taken for same travel. As has already happened in Europe, high speed trains have reduced the need for short haul services while the multi-lane smooth highways have similarly increased the distance up to which one can comfortably travel by road.

While data for similar preference change in the mode of travel is not available for India, some assumptions are possible. It can, for example, be safely assumed that in the current Indian context bus journeys of say up to 4-5 hours duration are quite easeful even though often stretched up to 10 hours and sometimes even overnight due to non-availability and/or inadequacy of train services.

To a business traveler, overnight journeys by train are quite comfortable although given the economic situation even 24 hour journeys are quite acceptable. Beyond that, given the distances within the country any one would prefer to hop on a flight provided it is offered as an alternate travel service and not something only for the corporate world. For this to succeed, the low cost travel will have to be both with predictable pricing and longevity of offer beyond the gimmickry of attention getting news. This is the only way to enlarge the pie and aim at strata beneath the upper crust.

Low Calorie Diet

Despite reports (Low-fare Airlines, 2004) of low budget airlines losing their momentum due largely to the incumbent firms' crushing the competition with even lower fares whenever a low-

cost upstart invaded its market, low-fare will always remain the basic market. This is amply proven by the success of Southwest in the US and Ryanair and Easyjet in Europe. While many examples are given to prove that low-fare airlines cannot exist, this is to belie the very nature of the consumer.

To any buyer of service or goods, price and quality are always two key considerations. No doubt there is a class of air passengers who will only look at the bonuses, be that in the form of Frequent Flyer Miles during peak season or extra cushioning of the seat. These are generally the corporate travellers where someone else is footing the bill. There is also an occasional traveller who, being in distress, will not look at the price during emergency. While the corporate travellers are a distinct segment and will be serviced fully, obviously civil aviation will have to look beyond them if it hopes to expand the market. In the US, the low fare airlines have almost a 30% share of the entire passenger aviation and in the recent past Southwest, the leading Low-fare US airlines has outperformed even the largest US airlines in passenger kilometers (Smallen, 2003).

Latest news reports indicate that the low cost airlines are the price leaders now. Recently, Southwest Airlines initiated a round of fare cuts and the bigger airlines had to respond. This is not an easy task considering that "According to Kasper's report, United's operating cost per mile was just over a dime in the first quarter. The comparable number for Southwest was 7.8 cents: for JetBlue, 6.08 cents." (Stein, 2004). If aviation in India has to grow it will have to willy-nilly address the issue of the price of air-travel.

Affordability

The issue of affordability of domestic air travel has been well addressed in the Naresh Chandra Committee Report on Aviation (Ministry of Civil Aviation, Government of India, 2003). While the goal of affordability is absolutely well placed, the assumption that the lowering of tariffs, taxes and charges alone; for fuel, landing or travel, is the only answer needs careful examination. Even if these charges constitute a significant part of the fare, they need to be evaluated in the context of competition and monopoly. At home, considering road and rail as the competition, the charges for fuel should be viewed as a similar cost composition for all modes of travel. To reduce fuel charges for any one sector while enhancing or retaining them at the same level for the others will distort the field. This, particularly when airlines have, and can have, the freedom of picking up fuel from other competing nations. Fuel charges at home, therefore, should be viewed as a part of the overall petroleum pricing policy. This is important since petroleum, as fuel is common to many industry groups apart from being a raw material for some. Incidentally, how much of what product is extracted from the available crude is as much a matter of choice as is it a matter of the quality of crude.

Landing charges and taxes should similarly be seen not just in comparison with the other neighbouring countries but in light of the availability of facilities, location, density of traffic and the strategic intent. Thus one could differentiate between locations and the related traffic. To give a simple yes or no answer, particularly in the absence of information regarding costs, margins, costing methods and efficiencies for various airlines would be a bit unfair. An integrated view based on quick estimates and considering distance, terrain, density of population, availability and need for alternatives modes in light of the desired future etc. would be necessary in formulating guidelines for tariffs and charges.

Removing Cobwebs

Media reports suggest that synergising even small steps between the two government owned airlines, Air India and Indian Airlines, is difficult. As per reports the two airlines are unable to resolve issues relating to the frequent flyer points and that "Civil Aviation Ministry has to now step in to arbitrate on fights between the two national carriers" (Samanta, 2004).

It is regrettable that such minor issues, which should not even have to come to the respective Managing Directors of the two carriers, have to be dealt with by the Ministry. Ideally, even coordinating schedules should not go past beyond the two MDs. But then in India perhaps we like to do things differently. Perhaps such issues are a vehicle to give the Ministry a sense of

importance as also provide an opportunity to the top management to be "visible" to their masters. Worse, such behaviour is perhaps even encouraged to be able to sweeten ones own wishes. In any other similar situation in the corporate world, even a one-line guideline to the two partner carriers to cooperate and be mutually supportive in enhancing their revenue and passenger satisfaction would not be necessary. The current conflict is perhaps indicative of the prevailing pattern of reporting relationship between the Government and its undertakings. Obviously, this has to change.

A quick resolution of these issues is the essential first step if Indian Aviation is going to have a wing-flap in the global scenario. Fortunately, there is still time as the world is not becoming an open sky overnight just as it is not becoming one global nation by tomorrow.

Building Muscle

In the short run, additional capacity acquisition is the obvious need given that India's utilization of bilaterals fall far short of its partners. Such acquisition is neither going to be cheap nor immediate. Yet the price of dependence has to be paid at least in the short run. In the long run, entering the technology development race and being in the front row is the only answer.

Obviously beyond dangling carrots of selling high technology, the developed world has no reason to offer technology to a country of India's market size with considerable scientific/intellectual capacity. Nor is it likely to agree for a joint development of future technology since technology is the key to domination of the world. However, if such an offer is forthcoming from any quarter with a large stake in Aviation, it should be welcome. Until then, own development will be the only way to progress.

Unfortunately, this is where India has failed so far. Excessive centralization in almost all areas has led to a situation where its intellectual capacities can be easily lured away while internal R&D makes appropriate noises. And yet India has no choice but to develop its own technology. Occasionally, one hears of defense research initiatives but its output has not yet made any mark on even national aviation.

Critics argue that any such program needs huge capital, which is not available. The trick, though known but not implemented, is to focus on one key component that is somewhere central to aviation world and race to the front ranks. Just as Japan focussed only on RAM rather than on the computer as a whole to withstand IBM aggression, so does India need to focus on at least one key aspect of aviation be it the blue, yellow or black Box, a Wing or a Tyre.

Candor

Given the current state of openness of the India based airlines, it will be necessary to bring them in to the public domain before any more free lunches can be offered by the State.

The non-availability of information about "India-based carriers" is a sad commentary on the nation's company laws, which allow major organizations to remain hidden from the public scrutiny. Nor do the political priorities seem right considering that a recent Finance Minister had proposed that all Non-Government Organizations should publish their accounts in the newspapers. That political parties were not under his gaze is understandable, but not to ask major organizations to make their accounts and management operations public is, to say the least, somewhat puzzling.

Beyond information sharing and becoming public, it will be necessary to ensure compliance with the prevailing equity norms for FDI. The CMIE database shows a pie chart for Jet Air indicating entire equity to be foreign held with a single dark line of unspecified percentage signifying domestic investment. While one can argue about the norms for the cut-off up to which one can be a proprietary, partnership, private limited or a deemed public limited company, openness, including financial openness, is essential in a democracy. This is also the only route to build confidence for Investments.

Consanguinity

Even in the fiercest competition like in a war, there is room for cooperation. Thus there is a place for humanitarian agencies to operate in the midst of unabated warfare. Therefore, it is also possible to think of competing at home but cooperating abroad as a policy for India's International Alliances. This will enable India based Airlines to present a stronger base for an alliance with the potential International partners.

The Kernel

With increasing globalization and time collapse of distance, "over the next 20 years more flights would involve ferrying passengers across continents without the need to stop at airports in-between. As a result, some of the current regional aviation hubs such as Japan's Narita and Singapore's Changi airports can expect to diminish in passenger traffic and importance as the era of long-range aircraft dawns on Asia". ("Open Skies" and Aviation Hubs: the Future for Asia, 2004). Simultaneously, new hubs are likely to emerge as is evident from the fact that Kuala Lumpur and Hong Kong have already opened high-tech airports. Seoul will open its new aviation hub within two years.

The question is, will India be in the race to encash transit traffic spillover and build a Kernel of a new dimension of aviation business. India can be a natural hub for long haul traffic in multiple directions. Additionally, given the large engineering pool available in the country, India can also be a maintenance hub for the aviation world. Also, with increasing globalization, the movement of cargo is going to move only in one direction - upwards, literally and figuratively. Together, these decisions will determine whether India will be among the leaders in aviation Nation or be just an also ran nation.

Fertilizer for Growth

In the 1980's India and China were the largest buyers of two popular fertilizers, urea and di-ammonium phosphate. Their purchases had considerable influence over the nutrient prices in the world market. As and when both the countries entered the market simultaneously, the prices would invariably shoot up. To break this trend MMTC initiated a move to reach an understanding with China (Minerals and Metal Trading Corporation – Bigger, better, bolder, 1986). As per report, this Indo-Chinese cooperation shook up the market considerably and fertilizer prices were brought to a 14-year low simply by breaking up the producers' cartel.

The basics of negotiations, be it for opening up of the markets, purchase of equipment or setting terms for FDI limits, have not changed. If India can coordinate with China, Indonesia and Russia, three countries with similar, potentially large but fragmented aviation markets in the neighbourhood, it should be possible to drive a better bargain in dealing with entrenched airlines, suppliers and their governments. One could even take an additional step and coordinate policies with other potentially large and fragmented markets like Argentina, Brazil and Nigeria. This will ensure a stronger negotiating position and hopefully, will also yield a better outcome.

Some Free Air

While as a nation we race down the irreversible path of FDI in aviation, it will help to simultaneously encourage local enterprise in whatever size it can come. This, despite the understandable opposition (Private airlines seek entry barriers, 2004). Examined dispassionately, analysis of US airline industry suggests that smaller scales of operation seem to flourish (Wang, 2004). This is in line with the traditional business wisdom that testing waters gradually through small operations generally ensures business success and lowers risks. Thus, to begin with we could encourage states, cities and towns to build, maintain and run their own helipads, airstrips and small airports. We could even transfer some of the existing, infrequently used, airports to the states and cities. Services with seating capacities of 7-20-30 could be tried in various locations inviting private enterprises with even one or two helicopters or aeroplanes.

Considering that commercial aviation began with a small tariff joy ride in Florida to Key West and going by the number of tourists currently visiting, one can assume that a helicopter service between Manali and Rohtang will not only be feasible but may actually extend the tourist season. One can further experiment with a no-frills helicopter travel service to Keylong and Sarchu to substitute for the arduous bus journey particularly during the winter months when the passes are closed. Such a service is also likely to attract the adventurous souls in and outside the state. Similar services linking key towns such as Aizawl, Agarthala, Imphal, Kohima, Shillong, Dispur and Itanagar within the northeastern states and extending further to Bhutan, Sikkim and Siliguri would be welcome since they substitute long fatiguing journeys that practically last full day.

The assumption that only foreign enterprises, State and the Banks have the funds and the spirit of enterprise to enter aviation sector may not be entirely true. In any case, if Deccan Air can be built to its present size with the current equity capital of a mere US\$ 55 thousand, obviously, funds for entry in the aviation sector are not a barrier. As per a recent Market Survey of NCAER (Jain, 2004) cities like Nagpur, and Ahmedabad are teeming with Crorepatis. Sparing a few lakhs for such enterprises is likely to be a small play for these families.

DDI

Beyond the policy pronouncements of numbers, the Government's case for FDI has never been clearly stated as it has been built primarily on the wings of media headlines. That these pronouncements tend to vary with changing seats occupied by the concerned actors in the parliament further indicates that very limited analysis might have gone into these policy declarations. This is all the more reason that careful thought must be given before taking a final decision about FDI in aviation. Knowing that the rush for a headlong plunge for FDI is on in various sectors, the following hypotheses have been formulated for one last check:

H1.1: India does not need Direct Domestic Investment (DDI).
Even if true, any government will be loath to accept such a proposition.

H1.2: India needs DDI but domestic investors have no funds.
If so, the survey above is a figment of NCAER imagination.

H1.3: Domestic Investors have funds but have exhausted faith in the Indian Capital Market.
If so, it is a severe indictment of the recent governments, their "progressive" policies, and their administrative and regulatory agencies.

H1.4: Domestic funds are not the issue, India needs to hand over control to foreign agencies, as it does not have managerial skills.
Although a clear indictment of the national human resource pool, nevertheless we need to check if the malaise is much wider and encompasses governance as a whole.

H1.5: Domestic Funds are insufficient.
Then let us first, at least initially, tap the DDI's and seek FDI's only later and in stages.

H1.6: Though funds are available, we do not have the technology and thus have to pay the price by way of permanent sale of domestic market in name of equity participation. This is understandable.

Limited Choices

If so, let us deal directly with the aircraft and airport equipment and other key technology suppliers, as partners both in aviation and research with a mandate to jointly develop and share future technology.

A stepwise share in equity for such preferred partners will be quite in order. On the obverse side, seeking equity share for opening up own market, particularly to those who have no

market to offer in return, as in case of Singapore, or have a saturated home market, like the US, will also be in order.

Alternatively, let us learn to live with the low technology until we can develop the one that we own.

Or at least one key component, like 'Intel Inside' or a key software to monopolize the IT domain.

Or at least reserve one sector where we have the potential to be a business leader and sell only that that has to be sold. And only in graduated steps.

Perhaps the Planners, Economists, Financial Pundits, the Technology Wizards and the Government Spokespersons can provide insights to further develop these hypotheses.

Growth through Knowledge

There is an Aviation Research Centre in India which, apparently is a security agency. There is also the National Institute for Aviation Management and Research (NIAMAR) which, as the name implies can be the centre to keep abreast of civil aviation developments across the globe. Presently, however, its activities are focussed primarily on training in select areas. Further, as the Institute is a part of the Airport Authority of India, it limits itself only to the aspects of Airports and Airport Management. Resultantly, other aspects of aviation, be they aircraft, maintenance or airlines management etc. remain unaddressed. There are other agencies involved in aviation training such as the Rajiv Gandhi Udan Academy, none of which, individually or collectively, address the full gamut of aviation research.

Addressing aviation research in toto will require looking at all fields, including technical and managerial. Ideally, such a centre would be a place not only for gathering information but also for knowledge generation, dissemination and implementation. In short a place that focuses on future of aviation and aviation in India.

This is the missing dimension in our quest for growth. Fortunately, it is also the one that can be easily rectified even if the results will take some time to fructify. But at least a start would have been made.

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