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# Dynamics of Air Transport : There is more to it than just Flying

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Transport Sociology and Psychology

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The remarkable evolution and fast development of the air transport in the last century and integrations of the aviation with other facilities have impacted the choices of travel, perspective of people and resulted in the restoration and reshaping of society.

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## Introduction

When we look back 10 years from now, traveling by air was not considered as regular option compared to other modes of travel due to numerous reasons. It always remained the fantasy for many. It was new-fangled and expensive. Some considered it as an unsafe mode of travel. But now it is just another option of travel like other modes. What led this industry to reach to people and influence their decision of travel so much that annual passenger growth rate for air travel overshadowed the growth of other modes of travel. It has really been an amusing and fast transition. The main objective of this research paper is to find the answers to these questions.

As we reach the end of the first decade of the twenty-first century, business travel remains an important mode of production in firms with, amongst other things, travel being used to: attend firm meetings or training sessions; visit clients to close deals, pitch for business or provide product support; attend trade fairs/conferences; and visit sub-contractors and suppliers to monitor quality control or negotiate new business. For many workers, business travel is now a normal everyday reality of the working day or night, involving what can be best described as persistent or mundane travel, which can have many downsides like separation from the family, travel stress, health concerns (including jet lag) (Jonathan V. et al, 2010).

But for some, especially relatively younger corporate professionals, business travel remains a 'perk' or welcomed, persistent lifestyle choice which enhances personal career paths and brings much job satisfaction and variety to the working week (Jonathan V. et al, 2010).

It is perhaps not surprising, then, that 'mobility' has become a primary discourse in geographical and sociological debates, particularly in relation to globalization, because of the ever growing forms of hyper-mobility that define the lives of many workers.

Not only domestic but also the international travel has been evolved and contributed to substantial global flow and facilitated in generation of corporate networks. It is, therefore, surprising that to date relatively little time has been devoted to the study

of business travel, both as an economic practice and a facet of contemporary mobility. Amongst a broad array of work on mobility and travel, we find much of theoretical relevance that can help us explain the nature of business travel, but few empirical investigations that truly unpack the intricacies of this now daily and omnipresence practice (Jonathan V. et al, 2010).

Air mobility is now a part of personal mobility. Frandberg and Vilhelmson (2003, cited in Aharon Kellerman, 2006) went little further and called the international travel at large 'long-distance personal mobility'. The definition of the personal mobility has been changed from driving of the self by the self. Air transport is considered the form of public transport with restricted freedom as available in other modes of travel (Aharon Kellerman, 2006)

### **Air Passenger and Freight Growth**

The total international travel in 2003 was 700 million and the percentage of international air transport has been continuously growing from 34.8 percent in 1990 to 39.5 percent in 2000. The most of the international travel has been supposed to be generated by business travellers, the global elite, cosmopolitans and transnational business class (Aharon Kellerman, 2006). Moreover, there has been significant increase in the domestic air travel as well.

I worked in Indira Gandhi International Airport, New Delhi, India for 15 months at Terminal 3 and there were times when I had to interact with passengers seeking information about several things. In my personal opinion, most of the air travel in developing countries is due to official reasons and business, and then comes the tourism sector. "Travel and Tourism" is the largest industry in the world, accounting to 11.7 percent of World GDP, 8 per cent of world export earnings, and 8 percent of employment (Adhere, 2007). As London's Heathrow Airport employees 55,000 persons directly or indirectly, Delhi Airport also employees 40,000 persons, ranging from ground handlers, caterers, engineers, cleaners, security to air plane operators. All are engaged in improving the experience of the passengers.

Aviation industry has experienced global financial crisis in 2009. The number of International passengers fell with significant decrease in the freight traffic volumes. Despite of the low points reached in 2009, it was expected that the aviation market would suffer a loss of two to three years but, the recovery has been quite fast and more than expected (OECD, 2012).



**Figure 1: IATA total air freight and passenger volumes (seasonally adjusted): 2006 to 2011**

Source: IATA (International Air Transport Association) Nov-2011 Air Transportation Market Analysis, IATA

The figure clearly shows the drop in Revenue Passenger Kilometers (RPK) and a much greater drop in Freight Ton Kilometers (FTK) in 2009. The growth in international freight was 21.5 percent in 2010.

International air passengers are also increasing every year and are expected to be highest in the Middle East, Asia Pacific and African Regions. The European growth rates are expected to be 2.1 percent per annum to 2013, (OECD, 2012). The table shows the forecast 2007-2027.

**Table 1: Terminal air passenger forecasts, 2007-2027 (millions)**

	Total air passengers	Total air passengers	Total air passengers	Domestic air passengers	International air passengers	Total air passengers	Growth air passengers (%)
	2007	2008	2017	2027	2027	2027	2007-2027
Africa	138	146	245	135	261	401	295
Asia/ Pacific	1150	1200	2193	2629	1272	3916	340
Europe	1472	1517	2143	659	2200	2868	195
Latin America/ Caribbean	328	339	539	583	273	869	265
Middle East	158	167	264	67	315	387	245
North America	1552	1539	1935	2127	404	2536	163
World	4798	4907	7320	6200	4725	10976	229

Note: Estimates of total air passengers include scheduled and non-scheduled flights and include transit passengers.

Source: ACI (2009), *Global Traffic Forecast 2009*, ACI, Geneva cited in *Strategic Transport Infrastructure Needs to 2030*, OECD, 2012

'Strategic Transport Infrastructure Needs to 2030', OECD (2012) highlights the growth rates forecast by several other big industries. Airbus expects global air passenger RPKs to double in 15 years (2029) with growth of 4.8 percent per annum. Boeing expects the traffic between Europe and Asia-Pacific to increase three folds till 2029.

## **Growth of Aviation**

In 1903, the flying commenced with the Wright brothers invention and now the air travel from the small area in the sand dune of North Carolina to the gigantic global industry. Many believe that this is the biggest development of the twentieth century. This industry has a remarkable history, beginning by overcoming the two-dimensional constraints to present era allowing the movement of the people and things not only within the country but also around the world, thus resorting and reshaping the society. The flying machine, the term used by many show the significance of the aircraft in war fields too, capable of bombing from air and providing threat as well as security (Cwerner et al, 2009).

First commercial flight in 1914 from St Petersburg to Tampa Airboat Line in the US and first international flight in 1919 from Hounslow to near Heathrow marked the early stage of airfield with the prime aim of transporting goods and people from one place to another. Development of airports to transportation hubs with increasing interconnection between different modes like trains, metro, metro bus and cars defines the second period. Airports were no longer specialized structures with mono function purpose but a multimodal hub so that passengers are given a chance to choose different modes. Airports were not only confined to providing opportunity to travel but also to travel in a more efficient way. The third period shows the transition to the advent of commercial and tourist services for passengers, visitors and thousands of employees. All major airports have services like bars, café, restaurants, hotels, business centers, chapels, shops, massage centers, conference centers, art galleries, gyms and many more. (Cwerner et al, 2009). Airports are important cultural symbols are well showing the culture of the place.

## **Airports as Global Transport Centers**

‘Globalization lands on the runways of the international airport hubs-but it also takes off from them.’

(Kesselring 2009, pp. 41)

Airports have played an imperative role in the field of globalization and have influenced the pace in a very constructive way. Author has highlighted the prominence of runway and globalization in a very dynamic way. With every landing and take-off there is an impact to the globalization. Predominantly, the international airports act as hubs on the global scale. The various parameters of growth like, social, political and economic, they all expanse from airports and connect different regions and cities to each other and cultivating the sustainable value growth of that region and affecting the society at large. (Kesselring, 2009)

The commencement of the airport development was primarily as an infrastructure to realize the essentials of the air travel. Airport was assumed to act as an 'air train station' (Kesselring, 2009). With the passage of time, it inculcated in itself the traits of shopping center and business centers. Presently, in twentieth century it is a leisure, entrainment and recreation center as well.

Munich airport earns 70% of the revenue through non-aero activities compared to 30% revenue generation in New Delhi International Airport. Many airlines have also revealed in their annual reports that they also earn a lot in non-aviation sector. Voluminous venture capitalists look airports as the good place of marketing their new brand and launch their product or services at a Terminal but on a global scale. This transition from monomodal air traffic to global players have benefitted the travelers (with services like tour planning, car rental, VIP lounges, restaurants, meditation centers, spa & massage center, etc.), airport developers as well as the investors.

The configuration of the airport now has been changed from merely as transport operators to commercial airports which has global stakeholders and not only the state itself. This global development has also captured the interest of the global players, aviation companies and has provided a platform where anyone can show their offers and customers have enough opportunities to avail these offers.



## Airport as Social Nodes

Modern aeromobility is related to the construction of gigantic airports that are massive structures made of steel and glass and are supported through mega infrastructure projects of runways, highways, high speed trains that are the icons of the new global order (Lassen, 2009). Airports are the fundamental part of the modern aviation which provides various facilities to the travelers in order to make their journey more smooth and comfortable. The airports can be considered as a small city where people could socially interact with each other to do business and to expand their networks and connections. The modern day airports services are available for the assistance of the travelers that include hotel reservation centers, taxi reservation facilities, shopping centers, spa rooms and much more. The passenger can find everything of need at the airport ranging from food, drinks, gifts, clothes and much more. Airspaces are thus place of “meetingness”- ambivalent places, of multiple forms of transport, commerce, entertainment, experience, meetings and events (Lassen, 2009).

The airport is one of the central non-places in the corridors. It is the system of airports that is the key to many global processes, permitting travelers to encounter many people and places from around the world, face to face (Lassen, 2009). Airports are culturally diverse places, where people from various beliefs, countries, race and faith converge under a single roof to travel together. Airports can be seen as a place of social homogeneity where there people get to know different cultures by interacting with each other and gain rich experience.

The employees experience the airport as a break in their mobility, because it is also related to waiting time and slowness (Lassen, 2009). For example, at the airport there are various security checks, immigration counter, baggage reclaim that can cause unnecessary delays. Therefore, an airport can also be considered as a place of slowness and narrowing of high speed movement through the corridors. This delay can be hectic for some travelers especially for the employees because they have to be in time for any meeting or conference at the destination.

But the developers and the airport operators are very much involved in influencing the time the passenger spend at the airport by designing the terminal spaces with the merchandise and facilities which capture the attention of the passengers and enhance their airport experience in many ways. Every day at work dedicated design, marketing and commercial teams work together to improve ASQ (Airport Service Quality) rating. Thus, creating an airport as more of a social and a leisure place.

### **Aviation, Tourism and Communication**

'Travel by air has helped to integrate the world's population. This is perhaps good for peace and for feelings of solidarity around the globe'

-(Hägerstrand, 1992 cited in Kellerman, 2006, p. 161)

Post Second World War era introduced the fast air travel options and added another dimension. The evolution of substantial global airborne tourism of all kind evolved in 1950s with the advent of large carrier planes, chartered flights, competition leading to reduction of the travel fare, growing incomes and opening up of international borders and building up of new relations. The development in the internet technologies have also contributed significantly to globalization, allowing people to view the foreign places at the remote location, ease of finding competitive flight fares in addition to hotel reservation and getting the final confirmation via e-mail (Kellerman, 2006).

There is a mutual relation between the growth of international air travel and tourism. The growth of several private and state owned airline are transiting several thousand kilometers every day and the multinational companies like Coca Cola, Pepsi, Starbucks and others have also eased the travel of the passengers. The growth in electronic and communication has allowed the usage of phone internationally, ATM banking services, foreign exchange cards and credit cards. Kellerman (2006) also refers to the example of the air travel of Swedish in 1990, where half of the bookings were only for the vacations.

The growth of the international air travel and globalization gave rise to the standardization of the airlines and the safe air travel options. These standardization efforts were extensive and necessary owing to the importance of the air travel which is very different to the car or train travel which necessarily do not have to travel cross borders (Kellerman, 2006). Due to the need of these global standards and maintaining, universally marked the emergence of the international governing bodies like ICAO, IATA and many more. While working with GMR at Delhi International Airport in Civil engineering team, it was a great learning to know about most of the standards that have to be maintained at the airside. The standards and the nomenclature followed must be same all over the world. There by, enhancing the safety and efficiency of airline operations.

Telecommunication has become a vital part of the Air Traffic Control (ATC) and even allowed the zero visibility landing, means the aircrafts can land without actually seeing anything. Moreover it has provide customers with several facilities within the plane like 'Wi-Fi hot spots', allowing them to use internet while flying and stay connect to world throughout the journey. It is interesting to note that even though there has been momentous rise in the number of people booking tickets themselves, but no notable effect on the services of travel agencies (Kellerman, 2006).

### **Impact on the life of the Individual**

Elliot and Urry (2010) highlights a short span of a British academic Simone in the book 'Mobile Lives'. Simone travels a lot for her work; she often has to renegotiate her personal and professional commitments when it comes to travelling. The author explicates an interesting example of the trip to US for her conference. She was traveling not only to give an academic conference but also as a consultant for recruiting company in Middle East. From JFK airport she takes a taxi to the hotel which she booked a week before from Berlin while she was in another conference. She finds traveling exciting, liberating and the source of making new networks but on the other hand as new burden. She has traveled to many other destinations of the world. Her concern was the time

spent away from her husband and her little daughter. The life of Simone clearly shows the importance of the fast mode of travel that has been developed in the recent times.

With the growing need to travel and competition in the market, the two most populous developing countries are trying, in fact have developed the new business models of cheap air travel. Simone's life has shown that traveling with trains, cars, aircrafts, email, text, phoning is a vital part of the business and professionals. Simone's schedule of international travel indicated the trend of individualized mobility. Her personal life is in complex web of social cultural and economic networks. The different places of the conference and the ways she travels and the facilities the internet has provided for the fast movement shows that no place is distant, but is connected by small set of intermediaries. It's a common saying that the world is round and it's a small world, isn't it? Seems true.

### **Social Perspectives on Aero mobility**

The Modern Society has seen the building of new, majestic, architectural marvels in the form of airports. This framework of airports is supported by a co-framework that comprises of high speed trains, motorways and of course, the aero planes. This combination of framework has generated new patterns of identity but the social consequences as far as love, leisure, family and work are concerned are more or less overlooked upon in social sciences (Lassen, 2009).

Work related travel is an integral part of aero mobility. It creates new opportunities to network, combining work and pleasure, playing in the new fields and developing new cosmopolitan images. At the same time it could be seen as a disturbing factor in terms of dealing with the ambivalence in relation to coping with work, family, localities. Some find it difficult to cope up with the sense of belonging in between the local and the global (Lassen, 2009).

The international work related travel involves the functioning of the different frame works as described above. The movers are moving to next hotels next bars next

airports next shopping complexes, next motorway cafes. But these 'architectures of nudity' (Castell 1996, cited in Lassen, 2009, p.180) are non-relational and have no self-identity because all of these look the same. But thinking from a positive perspective, these 'non places' also offer space for social interactions and communications, to develop new networks, relations, professional skills etc. etc. (Lassen, 2009)

It is equally important to know the mentalities and perspectives of work related travellers. This, in turn, would answer what puts these people into the framework of aero mobility.

A face to face meeting is one of the most important aspects of managing the job. It offers the possibilities of establishing intimacy and trust. Such meetings offer something that cannot be gained through virtual communication e.g., eye contact, body language, etc. It offers employees the possibility of escaping their monotonous routines and experiences more of the colorful and attractive world. For example, a meeting in Lyon could be followed by wine tasting event. Employees occasionally extend their normal working trip by a day or two for tourist activity. This has a direct impact on the associated framework of tourism industry of which aero mobility is a part and parcel. Family activities for employees involve visiting and bringing family and friends. It might also involve a full-fledged international trip or holiday.

### **Future perspective: Planned Investments**

The prompt behavior with which people have accepted the aviation as the part of their life and the pace of the growth of this industry lead to planning of future investments in different countries. The table below includes the extensions and up gradations of existing airports and possible investment in new airports on Greenfield sites in 2010 (OCED, 2012).

**Table 2: Planned airports investments**

USD Billions				
	Planned major investments in existing airports	Possible greenfield airports (number by region)	Indicative expenditure for greenfield sites	Total planned investments existing and greenfield A/Ps
Africa	4	5	4	8
Asia/ Pacific	74	11	61	135
Europe	79	5	12	91
Latin America/ Caribbean	7	2	2	9
Middle East	42	6	20	662
North America	128	-	-	128
World	335	29	100	435

*Source: ACI (2010), Airport Economics Survey 2010, ACI, Geneva cited in Strategic Transport Infrastructure Needs to 2030, OECD, 2012*

Some of the investments are currently underway. Some of the investments have been postponed due to financial crisis but they are expected to start soon. The growth in the large developing countries –India, Brazil and Russian Federation is expected to be high in next 10 to 20 years. From 2020 to 2030 and beyond, for example, India’s expected economic growth can be likely to follow China with lag of couple of decades with rapid increase in air traffic demand and investment needs (OCED, 2012)

The author has estimated the need of investment in worldwide airport infrastructure, over a period of 2009-2030 are tabulated below (OCED, 2010).

**Table 3: Global airport Infrastructure investment needs, 2009-2030**

USD Billions					
Region	Average annual investment		Aggregate investment		
	2009-15	2015-30	2009-15	2015-30	2009-30
Worldwide	70	120	400	1800	2200
Aggregate expenditure					

*Source: ACI (2009), Airport Economics Survey 2008, ACI and 2009, Air Traffic Forecasts 2009, ACI cited in Strategic Transport Infrastructure Needs to 2030, OECD, 2012.*

There are many possible risks and uncertainties on the demand side and the projects could be affected by the future policy changes related to CO2 emissions or other environmental measure like noise pollution. The risks from supply side include inadequacy to meet future investment needs that can limit the capacity and increase the congestion. Both demand and supply risks could have significant adverse impact on the economic growth and quality of life in the concerned countries (OCED, 2012).

## Conclusion

With the first flight in 1903 by Wright Brothers to this gigantic global industry is believed to be the biggest development of the twentieth century. The significance of the aircrafts in wars was realized from the term that was coinciding during World War II era, 'flying machine'. Aero mobility has increased over a century and is now a part of personal mobility and involved in restoring and reshaping the society.

The way airports have influenced the life of individual and the pace of the growth of this industry is the cumulative effect of number of small transitions and the efforts of the airport developers. Transition from a monomodal 'air train station' to social transfer nodes have accumulated in itself the qualities from various other social and recreation centers; and making it a place whose primary aim was supposed to be travel to a shopping center, leisure place, great platform for marketing and publicity of the big international brands; providing passengers the numerous possibilities to explore and increasing mobility and comfort as a whole.

The main activator of profligate evolution was supposed to be the business and commercial sector, which was also statistically evident. These personals used the air travel the most; with improved safety and comfort and reduction of costs has increased the air traffic of normal public manifold. Business trips even tough tiring and cumbersome are now integrated with the two-three days' work trip extension pooled with tourism package is a motivating factor for employees and increasing aeromobility.

Each landing and take-off brings the globalization and social, political and economic growth. The airport is also considered the place where people of various beliefs, countries, race and faith converge under a single roof to interact and travel together to do business and to expand their network and connections.

Telecommunication has become the vital part of the Air Traffic Control and even allowed the zero visibility landing. This has also provided the framework to integrate trains, motorways, etc. Motility by air which was supposed to be an elite and individualized mode of travel now is any other mode of public transport and is contributing a lot to 'Time Space Compression'.



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