PRIVATIZING INDIAN AIRPORTS - A SCRUTINIZED EVALUATION THROUGH VARIED CONTEMPLATIONS

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Abstract
This paper elucidates the changing ownership of Public owned airports to Privatisation. The analysis is envisioned towards the passengers’ interest in availing air transport which are likely to become more efficient. The improvisation of regional connectivity would yield more people to opt for air transport. A series of efforts were taken before making the questionnaires that were placed in the survey including the psychological aspects when deciding about the choice of airports which are getting privatized. The collected inputs from the passengers vary from seldom travelers to frequent travelers across the country are analyzed using the linear programming technique such as the DEA[1] which depicts the effective views of the travelers to go for Privatisation. The questionnaire was carefully framed such that all the aspects covering ergonomics level, including the ease of navigation, the reach of supporting staff.

The airports would get diversified with their services without the intervention of Government. In India, a total of 137 airports which include 23 International airports (3 Civil Enclaves), 10 Customs Airports (4 Civil Enclaves) having custom and immigration facilities for limited international operations and 104 Domestic airports (23 Civil Enclaves) are administered by the Airport Authority of India (AAI).[10] The USA has 14,549 Private airports (74%) within the total 19,636 airports. Many countries like the USA, Russia, China, U. K, France have a larger number of Privately-owned airports helping their countries in getting economically strengthened. IATA forecasts a growth of 6.8% per annum for India. The usage of No frill airports would reduce the cost of capital investment in making an airport to start functioning and help the nation to grow in the economy. In addition, Six AAI airports are operated, managed, and developed under Public-Private Partnership (PPP) namely, Guwahati, Jaipur, Ahmedabad, Mangalore, Thiruvananthapuram and Lucknow. At Mumbai, Delhi, Chennai, and Ahmedabad, Performance Based Navigation (PBN) arrival and departure procedures have been implemented and for Hyderabad airport, it is in progress and Space-based, Final Operational Phase (FOP) of (GAGAN), GPS Aided Geo Augmented Navigation[10] is under implementation which is not airport-based and will be available for use at all of the country's airports. Enhancing the prediction of outcomes through feature selection, the Data envelopment analysis (DEA) method is used for the analytics questionnaire. This is a function whose form is based on the efficiency of the scrutinized evaluations. It's an approach for measuring the performance efficiency of global public airports through varied contemplations of results of the survey.

This technique aims to measure how efficiently a DEA uses the resources available to generate a group of outputs along with feature section models that are then analyzed after that to evaluate the contributing factors for airport operation and privatization.

Index Terms - Indian Airports, Airport Authority of India, efficiency, Privatization, Data analysis, DEA, DMU, Linear Programming, International Air Transport Association (IATA), Performance Based Navigation (PBN), Public-Private Partnership (PPP)

Introduction
Privatization is the ownership getting transitioned from the Government establishments to the private sphere. It shall be purely a private owned or Public- Private shared. The Government owned properties and the firms and its operation including maintenance are shifted to non-Government organizations. There are number of factors for the Government to empower private operators to deal with the organizations and this has become as a portion of their policies. The principal reasons of this
tremendous vision can be congregated in many groups. The whys and wherefores vary as Accounts, Economics, Societal and Politics. Research show that the performances of the State-Owned Enterprises have been overpassed to a much greater extent by the Mixed Enterprises in increasing the efficiency both in Operational and functioning. In deciding about the future economy of any country and its growth, Air Transport plays vital role by facilitating major connectivity both within the country and internationally. The connectivity inside a nation and in international scale will help more in getting more employments and improving Tourism.[8][9]

Transfer of ownership In Other international locations
Many abroad countries have already shifted their ownership in Airport’s operation and handling to the private parties. Many airports are completely owned by private or partially shared the proprietorship. In United States of America 74% of the airports are owned by Private sectors, Brazil having a plan of making all the 54 airports privatized, Australia having a significant number of private owned airports, Osaka’s Kansai airport at Japan is getting expanded to double its capacity by the private owners and Kukuoka the fourth largest airport in Japan was heading for fully privatized in the year 2019, a few to mention.[8]

In India, the airports that are owned by the private administrations, categorized and unless authorized not open for public are,
1. Bokaro, Jharkhand
2. Birlagram, Nagda, Madhya Pradesh
3. TAAL Airfield, Hosur, Tamil Nadu
4. Burnpur, West Bengal
5. Baikunth, Chhattisgarh
6. Mithapur, Gujarat
7. Rourkela, Orissa
8. Raigarh(JSPL), Chhattisgarh
9. Mundra Port, Gujarat
10. Kankroli, Udaipur, Rajasthan
11. Angul, Orissa's Savitri Jindal Airstrip
12. Punjab's Beas
13. Ravva Heliport is located in Ravva, Andhra Pradesh.
14. Maharashtra's Shirpur
15. Puttaparthy, Andhra Pradesh's Sri Sathya Sai Airport
16. Rajasthan's Banasthali[10]

Recommendations of AAI
AAI had made the central government to approve in privatizing the airports at Ahmedabad, Guwahati, Jaipur, Lucknow, Mangaluru and Thiruvananthapuram in 2019 in administration and growth and development through Public Private Partnership (PPP)model. The government-owned statutory corporation has also recommended the Amritsar, Bhubaneswar, Indore, Raipur, Trichy and Varanasi to get denationalized but under PPP.[10]

National Policy on Civil Aviation recited
Both the Airport Infra structure and the Civil Aviation National Policy are to be virtually the same. The tenacities of the policies would be
- In a position to provide a drastic improvement to international trade and tourism and boost the image of a country in the international community
- to increase the degree of satisfaction in a greater level to the customers by providing better facilities in and around the airport.
- to Promote a way to lever out the possibilities of enhancing the dimensions of the of the airport and provide airport capacity ahead of mandate, which would reduce the traffic by sharing the large
percentage in that county  
  • To ensure the total safety related to the safety operations by introducing very new technology and activities related to security.  
  • By means of the introduction of private owners' abilities in both the capital and administration, the lack of resources shall be reduced and hence a increased effectiveness in the market orientation can be accomplished  
  • To pay special attention and give more importance in connection with the growth of infrastructure such that the geographical regions of the nation like Islands, Northeast Regions and mountainous zones  

**UDAN Scheme- Key features**  
UDAN-RCS Ude Desh ka Aam Naagrik- Regional Connectivity Scheme means letting the common citizen of the country to fly aiming at making the air travel as very much affordable widespread. This would strengthen the country's economy and enhance much of job opportunities throughout the country. The purpose of this scheme is to let the country to get connected up to the distance of 800 kms.[4]  
- UDAN Scheme is based on the National Civil Aviation Policy 2015 which got released on 15 June 2016  
- 43 cities planned to get mainstreamed in India’s flight connectivity grid  
- Alliance Air, Air India's subsidiary, became the first airline that started operating flights between Delhi and Shimla under the Regional Connectivity Scheme (RCS).  
- For development of the RCS airports, the state governments are anticipated to give the bare minimum of land at costless  
- This scheme offered 128 routes to airlines such as Alliance Air, SpiceJet, Turbo Megha, Air Odisha, and Air Deccan, after bidding process got over  
- For a 1-hour journey of approximately 500 kms the Airfare is kept at Rs.2500.[4]  

The National Policy on Civil Aviation and the Policy on Airport Infrastructure should always be read together.  
Airlines, investors, cargo, space industry, manufacturers, vendors, banking institutions, and skill development agencies all would get benefitted and the employment would get boosted up such that the young citizens who are the available resource in the country will be keen to work in aero industry.  

[A glimpse on Airports](#)  
1. The Hyderabad airport, with a total area of 5,496 acres, is India's largest in terms of size.  
2. The busiest air route in India is from  
- Delhi - Mumbai 71,98,506.  
- Delhi - Bangalore 43,95,726.  
- Mumbai - Bangalore 39,15,738.  

**India's Most Beautiful airports:**  
**India's cleanest airport**  
MANGALURU: Mangaluru International Airport (MIA) has been declared as being the country’s best airport and best-maintained airport under the 1.5 million to 5 million passenger handling airport categories.  
The airports ranked first in terms of passenger traffic  

<table>
<thead>
<tr>
<th>Rank</th>
<th>Busiest Airport - Passenger Traffic</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Indira Gandhi International Airport</td>
<td>Delhi</td>
</tr>
</tbody>
</table>
2. Chhatrapati Shivaji Maharaj International Airport, Maharashtra
3. Kempegowda International Airport, Karnataka
4. Chennai International Airport, Tamil Nadu
5. Netaji Subhas Chandra Bose International Airport, West Bengal
6. Rajiv Gandhi International Airport, Telangana
7. Sardar Vallabhbhai Patel International Airport, Gujarat
8. Cochin International Airport, Kerala
9. Pune Airport, Maharashtra
10. Goa International Airport, Goa

Remarkably the incline of top 10 performing airports does include 40% of the privately owned. The accomplishment of the airports was taken on the basis of the ranking with respect to the passenger traffic and also based on the aircraft movement which gives the total number of takeoff landing per annum.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Busiest Airport - Aircraft Movement</th>
<th>State/UT</th>
<th>Aircraft movement FY 2018-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Indira Gandhi International Airport</td>
<td>Delhi</td>
<td>460,429</td>
</tr>
<tr>
<td>2</td>
<td>Chhatrapati Shivaji International Airport</td>
<td>Maharashtra</td>
<td>321,263</td>
</tr>
<tr>
<td>3</td>
<td>Kempegowda International Airport</td>
<td>Karnataka</td>
<td>239,395</td>
</tr>
<tr>
<td>4</td>
<td>Rajiv Gandhi International Airport</td>
<td>Telangana</td>
<td>179,606</td>
</tr>
<tr>
<td>5</td>
<td>Chennai International Airport</td>
<td>Tamil Nadu</td>
<td>178,079</td>
</tr>
<tr>
<td>6</td>
<td>Netaji Subhas Chandra Bose International Airport</td>
<td>West Bengal</td>
<td>162,026</td>
</tr>
<tr>
<td>7</td>
<td>Sardar Vallabhbhai Patel International Airport</td>
<td>Gujarat</td>
<td>78,412</td>
</tr>
<tr>
<td>8</td>
<td>Cochin International Airport</td>
<td>Kerala</td>
<td>71,057</td>
</tr>
<tr>
<td>9</td>
<td>Pune International Airport</td>
<td>Maharashtra</td>
<td>59,888</td>
</tr>
<tr>
<td>10</td>
<td>Goa International Airport</td>
<td>Goa</td>
<td>56,946</td>
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</tbody>
</table>

The airports ranked top based on the aircraft movement[10]
Impending Proclivities

The traffic forecasts depict that there would be a vast improve in the air industry in the Country. The forecasts from DGCA revealed as the Indian aviation sector grew 18.6 per cent in the year 2018, IATA predicts as another 6.6% growth in air passengers in the upcoming years. After the United States, India will overtake the United Kingdom in 2024. Affirmative words from IATA, The International Air Transport Association says that the number of flight passengers might reach 8.2 billion in the year 2037. The Airport Council International (ACI) which is a non-profit organization representing the globe’s airports says that India would certainly at the third position following USA and China by the year 2040.

Interestingly The International Civil Aviation Organization (ICAO) predicts as there would be an increase of 100% in Global air travel by 2030 itself. International Civil Aviation Organization (ICAO), Federal Aviation Administration of USA (FAA), International Air Transport Association (IATA), Civil Air Navigation Services Organization (CANSO), Airports Council International (ACI) and Association of Asia Pacific Airlines (AAPA all are working positively for networking opportunities.

The keen study on this growth ratio the investors would think much for them to monitor and get intricate in the planning of owning an airport and do an entire revamp to attract more passengers. By providing the requirements in the means the passenger would like to have and by fascinating the airports the passengers would choose the air path for saving their time and energy. NCAP2015 urges the airlines to bring down the flying cost to around Rs.2500 for the distance of 500 kms.

<table>
<thead>
<tr>
<th>Population Size</th>
<th>Total No of Private Airports 16</th>
</tr>
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<tbody>
<tr>
<td>Sampling Plan</td>
<td>10 Airports with 100 Customers in each Airport Directors</td>
</tr>
<tr>
<td>Sampling Method</td>
<td>Random Sampling</td>
</tr>
<tr>
<td>Data Collection Method</td>
<td>Expert Interview</td>
</tr>
<tr>
<td>Secondary source</td>
<td>AAI Publications, MoCA Reports, DGCA Websites and Publications</td>
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The questionnaire was chosen on the basis of interest of the Indian Air Travelers and the main concerns that were put in ahead of them. Gender, Age, Income level (p.a), Marital status, Preferred class of travel, Ease of check in - Personal and Luggage, Ease of Navigation Access to Airport Parking facilities Medical/Shopping /Rest rooms/Entertainment / Lounge facilities Frequency of Travel Purpose of Travel, Availability of Food .Quality Price Variety Hospitality, Availability of Supporting staff, their attitude, Knowledge, Cleanliness of Airport, Kids/old age care, facilities accessible for the passengers during waiting time like laptop/mobile charging, Money Exchange facility, Immigration issues and the kind of affiliation they prefer. In total, nearly 1000 inputs were obtained and the analyzed which reveals the fact that half of the passenger population still wish to stick on with the existing public management rather than handing over the hold to private parties. The Finance involved in the travel is found to be as a big concern.

Conclusion
By incorporating the needed changes in the policy making the inculcation of the private owners in the aviation sector would pave more change in the economic part of the growing country. The primary study in which about half of the inputs got analyzed reveals that approximately 53% of the air travelers prefer the airfields to be handed over to private and the remaining all love to stick on to the existing pattern of this business. The extended facilities like making more user friendly, updating the aviation workers including the ground staff with additional knowledge and providing the perks would make them get more involved in the job and they would work as a passion with more efficiency. The analysis through DEA shall give a greater extent than before vision of why the people get their mind tossed in preferring the better away from Privatisation or keeping it with public. Civil aviation authorities around the country are analyzing all these factors and when the AAI gives hand in apportioning and distributing the airports that can be open to private individuals, the stakeholders would pay their attention and make the passengers feel flying high.

References
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9. https://www.aai.org/